# Blood Borne Virus and Drug Stabilisation Treatment

# Long Term Impacts for Individuals Experiencing Homelessness

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## Abstract

Homelessness is a growing human rights issue in Ireland. The route to homelessness often involves numerous societal and personal factors. The prevalence of multiple issues faced by homeless individuals is increasing, complicating their return to wider society.

Substance addictions, blood borne viruses, and mental health issues are all independently over-represented within the homeless community. Blood borne viruses are transmitted when body fluids pass from an infected to a non-infected person. In Ireland, people who inject drugs are some of the most at-risk populations for these viruses through needle-sharing. Mental ill-health is becoming increasingly recognised as a significant contributor to, and consequence of, substance addictions.

Those experiencing homelessness, addiction, or mental health difficulties struggle to adhere to medication regimens, which becomes more pronounced with co-morbidity of these issues. For BBV treatments, however, adherence is of paramount importance, as HIV can be suppressed to un-transmittable levels, and hepatitis C can be cured entirely.

Dublin Simon Community's Blood Borne Virus and Drug Stabilisation Unit was established to support those experiencing homelessness and BBV treatment adherence difficulties to re-engage with their regimens. The programme further aims to address substance addiction, mental health, accommodation, civic, social, and physical health issues.

This study investigated the impact of unit admission on these compounding issues. Mixed-methodologies were used with a gender-balanced sample of 13 participants across four time-points from pre-admission to six months post-discharge. Key results include: BBV treatment adherence, improved physical health, the impact of loneliness and mental health service availability for mental health, improved accommodation, post-discharge substance use regression, better outcomes for alcohol- than cocaine-dependent clients, and a correlation of self-belief with outcomes. Implications are discussed and recommendations offered.

# Introduction

Homelessness is a growing human rights and societal issue in Ireland. In 2011, 3,808 individuals were either accessing homeless accommodation, or sleeping rough on the streets (Central Statistics Office (CSO), 2012). By 2016, this number had risen to 6,906 (CSO, 2017). Although alarming, these figures may under-represent the actual homeless population, as combined 2017 homeless services figures suggest up to 13,000 individuals accessed these services that year (Dublin Simon Community, 2017; Focus Ireland, 2017). Thus, there may be as many vulnerably-housed as there are homeless individuals in Ireland.

The route to homelessness is complex, often involving an interplay of multiple structural and personal factors (Pleace, 2016). Key pathways include housing and financial crises, institutional discharge, family breakdown (including domestic violence), substance abuse, mental health issues, and the transition from youth to adulthood for young people in care (O'Sullivan, 2020). Meta-analysis of studies using similar methodologies to assess the health of the Irish homeless population between 1997 and 2013 revealed the increasing prevalence of many issues often present in individuals experiencing homelessness (Glynn, 2016; Holohan, 1997; Keogh et al., 2015; O'Carroll & O'Reilly, 2008; O'Reilly et al., 2015). In these studies, the number of participants reporting at least one physical or mental health diagnosis increased from 68% to 90%. Those who had more than one A&E admission in the last six months rose from approximately 20% to 44%, while those reporting a diagnosis of depression rose from 32% to 52%. Entering homelessness primarily due to drug and/or alcohol addiction rose from 24% to 38%, while homelessness as a result of family problems rose from 32% to 48%. When considering these figures, it is evident that co-morbidity of multiple significant health and social issues within the homeless community is also increasing. Thus, the need for individuals experiencing homelessness to simultaneously address multiple issues before they can live independently is also growing (O'Sullivan, 2012).

Substance Use Disorders (SUDs) are globally recognised as a leading personal cause of homelessness (Casey, 2017; Chamberlain & Johnson, 2013; Lee, Tyler, Wright, 2010; Pleace, 2016). Within the general Irish population SUDs are an increasing concern, with around 8,500 people accessing addiction treatment services in 2017 (European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), 2019). However, despite the high numbers of individuals accessing addiction treatment, at greater than 40 per million, Irish adult drug-

induced mortality rates are among the highest in Europe. Ireland also has one of the highest rates of high-risk opioid use in Europe, at 6.2 per 1000 of the general population in 2014, and opioids (mainly heroin) remain the most common primary drugs of those entering addiction treatment services. Although heroin use appears to be decreasing in Ireland, the use of cocaine, cannabis, benzodiazepines, and poly-drug use is increasing (EMCDDA, 2019; Health Protection Surveillance Centre (HPSC), 2018).

SUDs are over-represented within the homeless community. Alcohol is the most frequently abused substance, with a 2005 report finding 51% of the homeless sample scoring as problematic drinkers (Lawless & Corr, 2005). A recent study further reported SUDs in over half of participants, with current or previous illicit and problematic drug use found in 76% (O' Reilly et al., 2015). The percentage of people on the Central Methadone Treatment List with no fixed abode is increasing rapidly, rising from 2% to 7% between 2011 and 2014 (Glynn, 2016).

Blood Borne Viruses (BBVs) are transmitted when blood, semen, vaginal fluid, or breast milk pass from an infected person to a non-infected person. This most frequently occurs during unprotected sexual intercourse, breastfeeding, or needle sharing among people who inject drugs (PWID). The effects of these viruses are vast and varied, ranging from little or no symptoms to severe, chronic, and sometimes fatal illnesses such as pneumonia and liver cancer (European Centre for Disease Prevention and Control (ECDPC) & EMCDDA, 2018). In Ireland, PWID are one of the most at-risk populations for contracting BBVs, comprising 18.6% of total HIV notifications between 1985 and 2017, and 80% of Hepatitis C notifications between 2007 and 2017 (HPSC, 2018). Furthermore, of the PWID who contracted HIV in 2015, 74.4% of cases (and 93.8% of female cases) had been registered with homeless services in the last two years (Health Research Board, 2016). BBV prevalence remains high within this population, with studies suggesting rates as high as 19% for HIV (Long, Lynn, & Keating, 2006; Murtagh et al., 2018), and "ever-infected" rates of 76% for hepatitis C (Carew et al., 2017). Surveys of over 500 participants experiencing homelessness in 2013 found that 3.6% were HIV positive, and 28.5% had a diagnosis of hepatitis C (Glynn, 2016).

The importance of mental health in the onset and treatment of SUDs is becoming increasingly recognised, with mental ill-health initiating, or contributing to, SUDs, and vice-versa (Butler, Indig, Allnutt, Mamoon, 2011; Kessler, 2004; Drake & Wallach, 2000; Drake & Meuser, 2000; Padwa, Larkins, Crevecoeur-MacPhail, Grella, 2013). Reports from individual

homeless services in Ireland found that 70% of clients had received a psychiatric diagnosis, with 22% receiving a psychosis-related diagnosis (Murphy, Mitchell & McDaid, 2017). Cross-sectional data across two Irish cities found over half of all individuals experiencing homelessness reported a mental health difficulty that impaired their daily functioning (O'Reilly et al., 2015). Those experiencing homelessness have also been overrepresented in suicidal deaths 10-fold, and are 22 times more likely to present in emergency departments for self-harm than domiciled individuals (Arensman, Mhuircheartaigh & Corcoran, 2014; Sinyor, Kozloff, Reis, & Schaffer, 2017). Approximately one-third of homeless individuals have attempted suicide or self-harmed (O'Reilly et al., 2015).

People experiencing homelessness, people who are addicted to psychoactive substances, and people experiencing mental health difficulties struggle to adhere to medical regimens. This risk increases with co-morbidity and is more pronounced for regimens treating BBVs (Coe et al., 2015; Hunter et al.,2015; Kidder, Wolitski, Campsmith, Nakamura, 2007; Palepu, Milloy, Kerr, Zhang, Wood, 2011; Rintamaki, Davis, Skripkauskas, Bennett, & Wolf, 2006; Tucker, Burnam, Shelbourne, Kung, & Gifford, 2003). Adherence to these regimens is of paramount importance, considering current HIV treatment can suppress viral loads to levels at which they are un-transmittable to others, and hepatitis C can be cured within 6-12 weeks.

In 2012, Dublin Simon Community (DSC) established their Respite/Stabilisation and Blood Borne Virus Unit (BBVU) to support individuals experiencing homelessness and BBV treatment adherence difficulties to re-engage with their regimens, suppressing symptoms and transmission. To accomplish and sustain this goal, the unit further aims to address substance addiction, mental health, accommodation, civic, social, and physical health issues.

The BBVU provides 24-hour nursing care, weekly drop-in counselling sessions, daily GP visits, and daily social care staff. The programme is approximately five weeks duration, depending on individual client care plans. These medical and social plans are established by clients during admission procedures in collaboration with BBVU staff and updated regularly throughout admission. Consent forms, confirming acceptance of unit terms and conditions (namely reduction of recreational substance use and respectful treatment of other clients, staff, and facilities), are also signed at this stage. Additionally, these forms establish agreement to discharge following five Terms & Conditions breaches, with the exception of those posing significant threat to any clients or staff warranting immediate discharge. Clients may also self-discharge at any stage throughout admission. During admission, clients engage in a

rehabilitative programme comprising educational classes addressing BBV healthcare, general healthcare, and techniques to reduce recreational substance use, alongside art classes, meditation, social outings, and daily gym access.

To date, no scientific research has investigated the efficacy of the BBVU in achieving physical health, mental health, accommodation, and social engagement improvement following unit discharge. Neither has a study into BBVU client pre-, during- and post-admission experience been conducted. This forms the rationale for this project's aims: to assess the longitudinal health and social care trajectories of BBVU clients, alongside their perceptions of these.

# Methods

## Participants

Participants were clients admitted to the BBVU. Study inclusion criteria included BBVU admission of seven days or longer, minimum completion of three study assessments including admission assessment, and sobriety for all assessments. Minimum length of stay was specified to ensure sufficient health and sobriety of participants for research assessment. Assessment completion was defined to ensure sufficient data for pre/post admission comparison. Sobriety was prescribed to ensure ethical data collection and data validity.

Every client admitted to the BBVU for seven days or longer (N = 94; Male = 60, Female = 34) was offered to participate. Clients were informed that their choice would not impact their treatment during admission. Thirteen clients completed three discrete assessments, including admission assessments (Male = 6, Female = 7). Of these, six completed all assessments (Male = 1, Female = 5), two omitted discharge assessments (Male = 2, Female = 0), two omitted three months post-discharge assessments (Male = 2, Female = 0), and three omitted six months post-discharge assessments (Male = 1, Female = 2). Mean participant age was 45.9 years (Male = 49.1; Female = 43.1).

Although not included in analyses or results, we will note that a further 14 clients completed two study assessments, 19 completed one, and 54 did not participate in this study.

## Design

This study utilised a convergent mixed-methods design, comprising question booklets of quantitative assessments, and qualitative semi-structured interviews (Creswell et al., 2011). This approach was used to enable detailed exploration of client trends, presumed to be more complex than the parameters of quantitative methodologies, as well as objective reinforcement of purported client experiences. Although quantitative and qualitative measures investigated client trajectories across all BBVU intervention targets, quantitative analyses focused more prominently on physical and mental health trends, while interviews focused on unit experience,

accommodation, and substance use trajectories. Participant demographics pertaining to gender, age, and behavioural warnings accrued, were obtained from unit files.

## Materials

Question booklets comprised four established scales, namely; the Berlin Social Support Scales (BSSS; Schwarzer & Schulz, 2000), the General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995), the abbreviated World Health Organization Quality of Life assessment (Whoqol Group, 1998), the Positive and Negative Affect Schedule (Magyar-Moe, 2009).

Semi-structured interviews were designed by the research team to include questions deemed conducive to detailed explanation of the client's experience.

## Procedure

Assessments at admission and discharge were conducted in the BBVU counselling room, monitored via CCTV for client and staff safety during private sessions.

For the data protection of clients admitted to the BBVU, discharged clients may not enter the unit. Thus, for clients who resided in private residences, or hostels that could not provide a meeting room, post-discharge assessments were conducted in public spaces, usually a café near the participant's residence. When this occurred, best efforts were made to sit beyond the earshot of other customers to promote data confidentiality and authenticity. Four post-discharge assessments were conducted in cafés, one in a hostel meeting room, one in a DSC Hub meeting room, seven in the BBVU or SUSD counselling rooms for clients re-admitted to these units within their participation time-frame, and seven over the phone during the first Irish Covid-19 lockdown period.

All participants underwent standardised informed consent procedures prior to assessment. Interviews were recorded on a password-protected mobile phone accessible only to the researcher. To overcome literacy-based exclusion, participants were offered to complete question booklets themselves, or answer questions read to them by the researcher. During the debriefing participants were provided with contact information for DSC's counselling service, to avail of, if they experienced any stress resulting from their participation.

## Ethics

This project received ethical approval from Dublin Simon Community's Research Department, in consultation with their Quality team for matters of potential GDPR concern.

## Data Analysis

Qualitative interviews were transcribed and coded manually to aid data familiarisation. To allow deductive and inductive qualitative analyses, reflexive thematic analysis was implemented (Braun & Clarke, 2006). Quantitative analyses were conducted using IBM SPSS Statistics 27 software. A triangulation protocol (Farmer, Robinson, Elliott, & Eyles, 2006) was then implemented to assist longitudinal interpretation of data according to key intervention outcomes, namely: goals, physical health, mental health, accommodation, substance use, and unit experience.

# Results

Results of integrated mixed-methods analyses are presented according to key analytic theme.

## Goals

The BBVU is a complex treatment centre addressing a variety of health needs. Qualitative interviews asked participants to indicate their primary goal(s) for, and following, unit admission. Table 1 presents goal frequencies at each assessment time-point. Of note, participants often identified multiple goals at individual time-points.

**Table 1.**

| | *f* | | | |
|---|---|---|---|---|
| Goal | Admission | Discharge | 3 Month | 6 Month |
| Clients Assessed | 13 | 11 | 11 | 10 |
| Physical Health (BBV) | 2 | 1 | 2 | 1 |
| Physical Health (Other) | 2 | 1 | | 2 |
| Mental Health | 2 | | 1 | 2 |
| Drug Stability | 7 | 2 | 3 | 3 |
| Alcohol Stability | 6 | 2 | 2 | 2 |
| Break from Life | 4 | | | |
| Clear Court Charges | 1 | 1 | | |
| Cultivation of Sober Relationships | | 1 | 2 | |
| Education Course | | 3 | 2 | |
| Keep Busy | | 1 | | |
| Further Treatment | | 1 | 2 | 2 |
| Exercise | | 1 | | |
| Accommodation Improvement | | | 5 | 1 |
| Independence | | | 1 | |
| Smoking Cessation | | | 1 | |
| AA Meetings | | | 1 | |
| BBVU Re-Admission | | | 1 | 1 |
| Counselling | | | 1 | |
| Meditation | | | 1 | |
| Save Money | | | 1 | |
| No Goals | | | | 1 |
| Total Goals (per participant) | 24 (1.85) | 14 (1.27) | 26 (2.36) | 15 (1.5) |

Illicit drug stabilisation was the most common cause for BBVU admission, followed by alcohol stabilisation.

*A bit of time to stabilise.*

*To better meself, to get off drugs.*

*To get off drink, and then methadone.*

*The drink really… Even getting up in the mornin's like, Jesus… Me brain was tellin' me "It's time ta stop, ya can't manage no more. You are gonna die doin' this."*

To take *"a break from everything"* or *"get me head together"* was the next most common cause, referring to drug use, living in unsafe environments, isolation, and responsibilities. Most participants wished to address more than one issue upon admission.

*I just want me life to change basically… 'Cause I'm sick of all of it, yeno?*

*I was having a breakdown, I was crying all the time, and… Just everything going through me head, like me past.*

*To slow the head down… I could see the train comin' up the tracks ta hit me… I knew where I was at… Where it was goin' ta end… I knew I would'a been back in the mad house.*

*My place is boarded up, 'cause me so-called sister-in-law was bringin' all sorts there... People I didn't even know, and they were smoking crack.*

*Me partner was bein' taken outta the house… In an ambulance… I'd constantly have to ring an ambulance for him, every couple of weeks... He's in his last stages of emphysema, so they don't know how long he has left.*

Prior to discharge, goals qualitatively shifted towards less-urgent personal development, such as education, exercise, further treatment, and cultivating relationships with non-drug using individuals. Drug and alcohol stability remained a high priority. No participants reported aiming to address mental health or get a break from life during this assessment. Less than one third of participants had more than one goal at this time-point.

*To stay alcohol free and exercise.*

*It's just the drink, and you know it's not even botherin' me, since I've been in here.*

*To stay in the mode of keeping this detox going, and, if I get into recovery, it'd be good, door-to-door to treatment. I wasn't going to, but now everything has changed.*

*Get a community course or something, to keep meself busy.*

*I'd love ta go back to RADE.*

*Meet up with me keyworker... Meet up with a friend…what's not takin anything... Just someone you can sit and have a coffee and a yap.*

Three months post-discharge, goal-frequency peaks, with some participants reporting three or four. At this stage, a divergence of trajectories becomes apparent; some clients report striving to achieve further sobriety, engage in education or community projects, or furnish new apartments, while others express desire for BBVU readmission due to relapse and medication disengagement.

*If I save some money each week or, if I buy a certain thing I wanted to get in like you know that I had saved for… something for the flat.*

*Just to get me place sorted and move in.*

*A load of working on the flat.*

*I started doing a course now as well… It's photography and cooking.*

*I'm doin a actin' course… I've been told I'm a natural actor, but I'm going to be able to do a few different things, yeno, plays and things like that.*

*To quit smoking… Get me own flat.*

*To go to recovery.*

*To get clean, or stay clean I should say… Ta get me own place… I want ta start attendin' some AA meetin's as well.*

*Well, the main goal I really have, and it's why I'm doin' the rest of it, is to get back in contact with me kids.*

*I want ta keep, jus', getting me meds every day, keep not usin' drugs, so I can look after meself, yeno, and meet me ma, and me two little boys, and me friend that's not using.*

By six months post-discharge, goals once again closely resemble those at admission, with the addition of interest in BBVU re-admission. Discrete goal progression is further detailed in subsequent study theme sections.

*That's what I really want, just to get me life back in order again, and be able ta see me little boy... I only have phone access to him now.*

*My goals are to stay clean, stay clean, and stay clean.*

*To stop takin drugs – 100%*

*I've a lot of health goals at the moment, regardin', the bone thing, and exercises I've ta do.*

*Would there be any chance there'd be any beds goin'?*

Physical Health

*BBV*

The primary function of the BBVU is to help people experiencing homelessness and addiction issues to re-engage with BBV treatment regimes. Figures 1 and 2 display self-reported yes/no engagement with BBV clinics and treatment regimes in the month prior to each assessment.

**Figure 1**

*Self-reported BBV clinic appointment attendance in the past month*

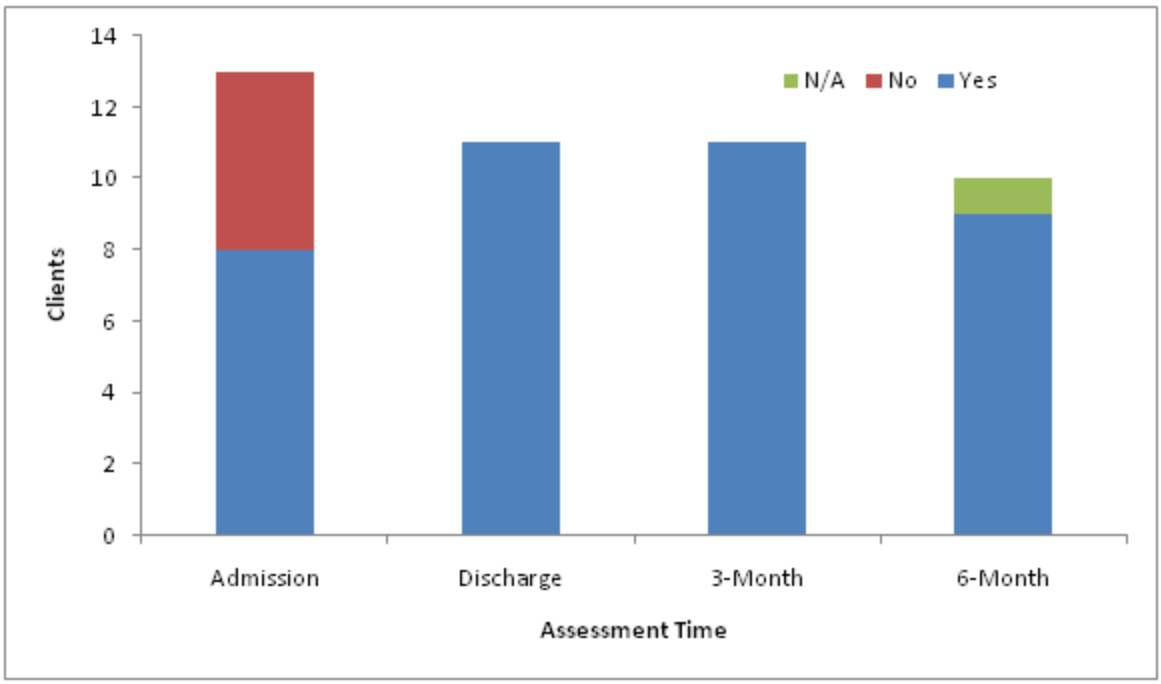
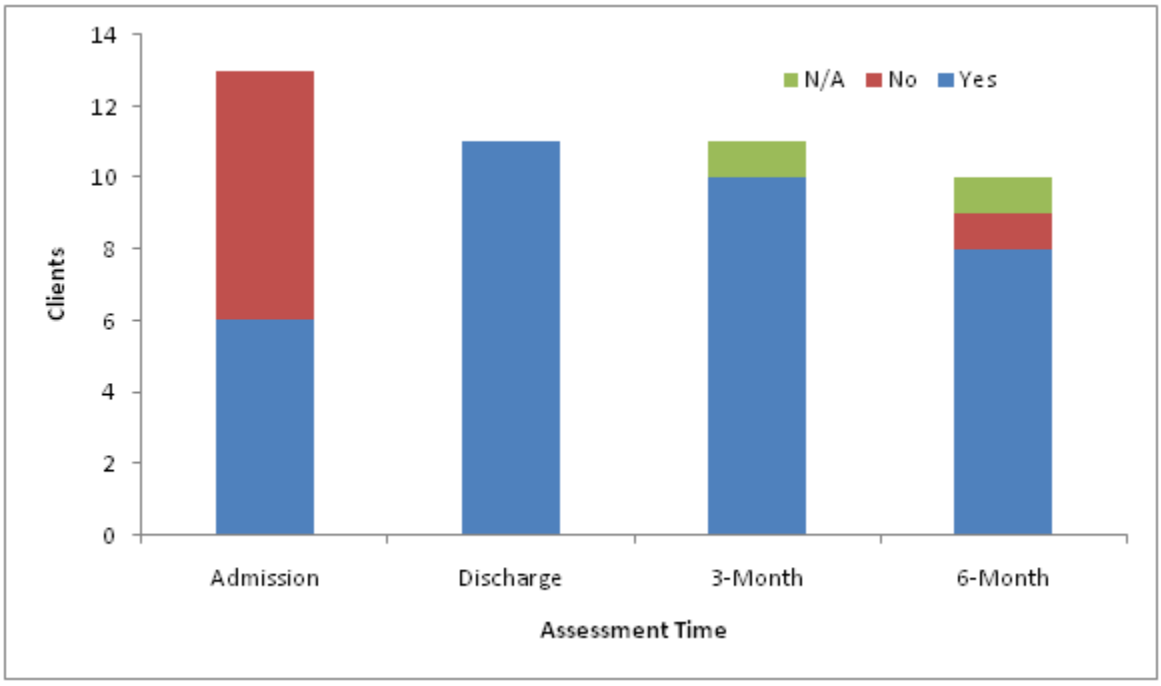



**Figure 2**

*Self-reported adherence to BBV treatment regimes in the past month*



Notable improvements to BBV clinic attendance and treatment adherence were reported by participants across study assessments. BBV clinic attendance rose from 61% prior to admission, to 100% during admission, a figure which sustained to 3 months post-discharge, and reduced at six months post-discharge only through treatment completion/ BBV eradication. Similarly, while 46% of participants reported pre-admission BBV treatment adherence, 100% reported adherence during admission. All participants who engaged in the three month follow-up assessment and still required BBV treatment were engaged with their regimes. At six months post-discharge one participant (10%) had disengaged.

However, it is important to note at this stage that three participants were readmitted to the BBVU by the time of their three month post-discharge assessment and two were readmitted six months post-discharge. One of these was re-admitted for both post-discharge assessments but was consistently disengaged from treatment regimens between admissions. Of the other three month re-admissions, one disengaged between admissions (see below), and one maintained adherence. The other six month readmission was partially engaged, but only due to the considerable amount of time spent in hospital during this period.

> *Before I was in James' hospital, I was sleepin' on the street… 'Cause James' like was askin' how I was missin' me meds n'all that, 'cause I was missin' 'em for three and four days, you know? Missin' the medication was bleedin' down ta me abusin', like crack, and not goin' home at the right time, you know? Me mother is the type that, if she says a time, she means it.*

Qualitative interviews uncovered that all hepatitis C participants (N=4) reported infection cure resulting from treatment commenced during BBVU admission. All HIV positive participants (N=11) reported reduced, with N=2 reporting undetectable, viral counts at discharge assessments. However, the viral count of one of these participants was detectable again at the time of their three month follow-up assessment, during which they were re-admitted to the BBVU.

> *"The last time I was in here I was undetectable, but, well after I left, I really went off the rails, and I wasn't takin me meds, and missin' me methadone and everything… And I went back to the doctor and she said "you're not takin'*

*your meds, […] "you're detectable again." And well I was in shock, so I started takin' 'em again, I still missed 'em the odd time, but I went there yesterday, and she said I was undetectable again, so she was delighted with me."*

Despite the ability of current medication to reduce HIV load to undetectable, un-transmittable levels, participants reported high levels of secrecy surrounding their positive status.

*"I just said I was in hospital; I didn't say I was in Respite."*

They also reported low understanding of this chronic illness, even in cases where they have been living with it for decades.

*"If you were with someone hadn't got it, and you knew yours was undetectable, would they get it?"*

*Hospital Admissions*

The health concerns of BBVU clients are complex. The combined impact of their BBV status and drug addiction issues render them susceptible to a myriad of further (predominantly circulatory, respiratory, neurological, and accident-related) health issues. A repeated measures ANOVA using Greenhouse Geiser corrections, run for participants with complete study participation (N=6, Male=1, Female=5), found a significant main effect of BBVU admission on hospital admissions ($F(1.189, 5.947)=7.857$, $p<.05$). Post-hoc analyses with Bonferroni adjustment revealed no significant pairwise effects of hospital admissions between assessment times, but the effect most closely approaching significance occurred between assessments exploring time prior to and during BBVU admission ($p=.165$).

It is important to note that BBVU clients are a reputably difficult-to-engage population, and that clients engaged in this study were typically more engaged in their healthcare than the general BBVU client population. To illustrate this point, one participant, excluded from statistical analyses due to non-participation three months post-discharge, reported four hospital admissions prior to BBVU admission, zero during admission, 13 between discharge and three

months post-discharge, and six between three and six months post-discharge. Further, this pattern of hospital admission was qualitatively attributed to substantially increased drug use pre- and post- BBVU admission.

> *"But I know what it is, to be honest… And I told the doctor – it's when I take crack, is when I get chest infections… But when I don't, I'm grand."*

While this participant is an outlier within the studied sample, they are not an anomaly within the overall BBVU population. Thus, it is imperative that all analyses revealed here and throughout this report are interpreted as conservative health trajectory indications from a more highly functioning sub-sample of the overall BBVU client population.

Supplementary to the number of hospital admissions, participants were asked to provide reasons for these admissions. Total admissions and admission causes from all participants are chronologically presented in Table 2. Notably, while some were admitted multiple times within a certain time-frame for the same cause, participants were not asked to ascribe number of admissions per cause. Consequently, frequencies presented in Table 2 represent the number of participants hospitalised per health issue, not the number of hospitalisations caused by that issue.

**Table 2.**

*Self-Reported Hospital Admission Frequencies, Means, and Causes*

| | Admission | Discharge | 3 Month | 6 Month |
|---|---|---|---|---|
| Participants | 13 | 11 | 11 | 10 |
| Total Admissions | 18 | 0 | 17 | 8 |
| Mean Admissions | 1.4 | 0 | 1.4 | 0.8 |
| Stroke | 1 | - | - | - |
| Seizure | 1 | - | - | - |
| Chest Pain | 1 | - | - | - |
| Panic Attack | 1 | - | - | - |
| Motor Incident | 2 | - | - | - |
| UTI | 1 | - | - | - |
| Blood Clot | 1 | - | 1 | - |
| Pneumonia | 1 | - | 1 | - |
| COPD | 2 | - | 1 | 1 |
| Respiratory Failure | - | - | - | 1 |
| Irregular Heartbeat | - | - | - | 1 |
| Broken Bone(s) | - | - | - | 2 |
| Stab Wound | - | - | - | 1 |

Although hospital admissions per participant appear similar immediately pre-admission and post-discharge, the 18 pre-admission cases were spread more evenly across seven participants, while the 17 post-discharge admissions are predominantly attributable to one participant who was admitted 13 times within these three months. This participant also contributed largely to the eight six month post-discharge admissions, being admitted to hospital six times within eight weeks, prior to being admitted to DSC's Step-up Step-Down unit for one month, and transferred to the BBVU, both of which did not require hospital care assistance. Thus, for the rest of this sample, hospital admissions appear to substantially reduce post-discharge.

*Physical Health Changes*

Post-discharge interviews asked participants to describe changes to their physical health. Positive changes included engagement with BBV treatment regimens, improved sobriety, and exercise. Negative changes included weight gain, blood glucose instability, fractures, and respiratory failure.

One participant, who progressed from the BBVU to a further recovery unit, reported successful efforts reducing tobacco consumption and a continued daily gym routine. Another reported significant reduction in substance use and increased exercise following transfer to a higher threshold short-term accommodation (STA). Two participants who were clinically obese during BBVU admission had lost weight following discharge, while two with low normal-range BMI's gained weight.

In the three month period following sobriety from alcohol use, one participant reported unhealthy weight increase while another reported blood glucose instability. These reports comprised 40% of all participants with addiction to alcohol only. One polysubstance-using participant reported substantial sleep and eat routine disruptions following post-discharge relapse.

Two participants developed chronic illnesses, COPD and bowel cancer, between three and six months post-discharge. The participant who contracted cancer also progressed to the next stage of emphysema during this period. One participant reported an alarming number of hospital admissions over the six months following unit discharge due to crack cocaine-induced COPD progression, chest infections, and respiratory failure (described in 'Hospital Admissions', above).

Two participants reported considerable injuries; one fell down steps while sober, fracturing their leg in several places, while another received a stab to their eyebrow from another resident of their low-threshold homeless hostel. One participant, expressing extreme concern surrounding a lump on their knee reported avoiding medical attention resulting from a fear of serious diagnosis.

> *"I'm afraid as well they'll tell me it's cancer and have to take off me leg or something."*

Mental Health

Participants were asked to identify any mental health concerns they experienced in the month prior to admission, during admission, and in the three months leading up to each post-discharge assessment. They were also asked to describe changes to these concerns since their previous assessment, and their mental health or psychiatric service engagement. Table 3 shows the frequencies of participants reporting mental health concerns, mental health service engagement, and mental health improvement/ decline. Table 4 breaks down specific identified concerns at each time-point.

**Table 3.**

*Frequency and Percentage with Mental Health Concerns, Engaged with Services, and with Improved and Dis-improved Mental Health*

| | Admission | Discharge | 3 Month | 6 Month | Total |
|---|---|---|---|---|---|
| Participants | 13 | 11 | 11 | 10 | 45 |
| Mental Health Concern | 4 (31%) | 4 (36%) | 3 (27%) | 2 (20%) | 13 |
| Mental Health Service Engagement | 4 (31%) | 6 (55%) | 3 (27%) | 3 (30%) | 16 |
| Mental Health Improvement | NA | 2 (18%) | 3 (27%) | 1 (10%) | 6 |
| Mental Health Dis-improvement | NA | 1 (9%) | 2 (18%) | 1 (10%) | 4 |

*Note.* N=5 participants reported no significant mental health issues throughout this study.

**Table 4.**

*Total Identified Mental Health Concerns, and Frequency of Specific Concerns*

| | Admission | Discharge | 3 Month | 6 Month | Total |
|---|---|---|---|---|---|
| Identified Concerns | 12 | 6 | 5 | 6 | 29 |
| Depression | 2 | 1 | 2 | 2 | 7 |
| Low | 1 | | 1 | 3 | 5 |
| Bipolar | 2 | 1 | | | 3 |
| Suicidal Ideation | 1 | 1 | 1 | | 3 |
| Paranoid Schizophrenia | 1 | 1 | | | 2 |
| Emotionally Unstable Personality Disorder | 1 | 1 | | | 2 |
| Post-Traumatic Stress Disorder | 1 | 1 | | | 2 |
| Self-Harm | 1 | | | | 1 |
| Auditory Hallucinations | 1 | | | | 1 |
| Apathy | 1 | | | | 1 |
| Lonely | | | 1 | | 1 |
| Guilt | | | | 1 | 1 |

Almost one-third of participants (31%) reported a mental health concern prior to BBVU admission. Although this increased to 36% during admission, this resulted from the early discharge of two participants who did not report mental health concerns throughout the duration of this study, and so did not complete an assessment pertaining to their time within the BBVU. Concern frequency dropped to 27% three months post-discharge, and 20% six months post-discharge. However, it is important to note that this reduction mostly resulted from the combined effect of temporary participant disengagement alongside improvements made by one participant with high co-morbidity of numerous personality and mood disorders, rather than symptom alleviation of many participants.

Service engagement rose from 31-55% during admission; 100% and 150% of those reporting concern, respectively. A similar pattern was observed post discharge, with engagement rising from 27% three months, to 30% six months post-discharge, 100%, and 150% of those reporting concern at these time points. The fact that less participants reported mental health concern than engagement in services at discharge and six month post-discharge assessments resulted from the more literal interpretation of ‘concern’ to mean ‘worry

surrounding', rather than 'presence of', mental health issue, highlighting the importance of appropriate language when studying this population. Thus, service engagement rather than concern, may better represent mental health issue prevalence for this population.

However, results also indicate that service engagement resulted considerably from service availability. Two participants who were not engaged in mental health/psychiatric services outside the BBVU attended the drop-in counsellor while admitted. While one of these reported significant depression and social anxiety, to the point of leaving their house just once a day to buy alcohol, and the other reported depressive symptoms, neither were motivated to independently attend mental health or psychiatric treatment. Of note, the first of these also reported avoiding seeking medical attention for a lump on his knee, from fear of serious diagnosis (see 'Physical Health: Other'). Increased service attendance six months post-discharge resulted from two participants; one, re-admitted to the BBVU, attending counselling for the first time, and another whose hostel had introduced a similar drop-in counsellor. Such patterns indicate this population frequently does not address, or even acknowledge, mental health and other concerns, when services are not readily accessible.

More participants reported mental health improvement (N=6) than decline (N=4) throughout their participation. Improvements related to the cessation of psychiatric treatment regimes (N=2), settled thoughts (N=2), and beginning to talk about emotional and mental health (N=2). Declines pertained to familial death (N=1), loss of counselling therapy interest (N=1), re-introduction of psychiatric medication regimen (N=1), and feeling low (N=1).

The number of distinct concerns identified halved following admission. This resulted from qualitatively reported increased mood following admission, alleviating previously reported symptoms, or interestingly, concerns regarding these symptoms, which participants felt were being addressed. Importantly, significant contribution to this reduction was also made by the substantial mental health improvements of one participant, described above.

Depression-related symptoms were the most consistently reported mental health concerns. Two participants reported depression at each assessment beyond unit admission. One of these reported post-discharge use of coping skills which were learned from the drop-in counsellor. The other reported total relief, alongside sobriety from alcohol, during BBVU admission, but regressed on both outcomes, albeit to a lesser degree, following discharge.

*When I was in there with yous I was grand like, you know?*

Notably, a similar trend of within-unit total mental health relief and alcohol-sobriety was observed in the participant reporting suicidal ideation, who reportedly consumed less than half as much alcohol per day post-discharge, but concurrently regressed into suicidal planning.

Feeling low, loneliness, and guilt were more frequently reported following BBVU discharge (combined N=6). Interviews illustrated these findings; N=6 expressed feelings of loneliness and/or isolation which were relieved during BBVU admission.

*I liked the whole break, and the company – the whole lot, 'cause when I'm at home I'm totally kind of… On me own, basically.*

These feelings were most prominently ascribed to independent living (N=3 single males), so prominent for one, that he continued to access homeless accommodation multiple nights per week.

*Hostel and house […] depends on how I was feelin'.*

Social anxiety was the second most prominent cause (N=2), attributed to a fear of strangers' inner judgement, or verbal abuse, in response to these participants' substance addictions, preventing them from leaving their accommodations.

*I was very self-conscious, I didn't want to go outside, I didn't want people to see me, […] 'cause I know they'd say, "Awh, there's the old junkie."*

*And then I started taking anxiety you know? When I went out, and I didn't want to go out… I'd leave the house and I'd just get anxiety and I'd go back.*

One participant's isolation stemmed from an abusive and controlling relationship which inhibited interactions with her family and friends.

*I wasn't allowed to have phones, and I wasn't allowed to buy me own phone, he had to give me a phone… Where there'd be an argument, and he'd be "Gimme that back", so I couldn't get in contact with me family.*

Further analysis of these data revealed that, while 83% of participants reporting loneliness or isolation also reported clinical levels of mental ill-health, only 43% of participants who did not discuss loneliness reported similar issues. This high comorbidity of loneliness and mental ill-health indicates a relationship between these variables. The prevalence of isolation and loneliness within this sample may also underlie the substantial influence prominent others exert on their behaviours (see 'Microsystemic Influence').

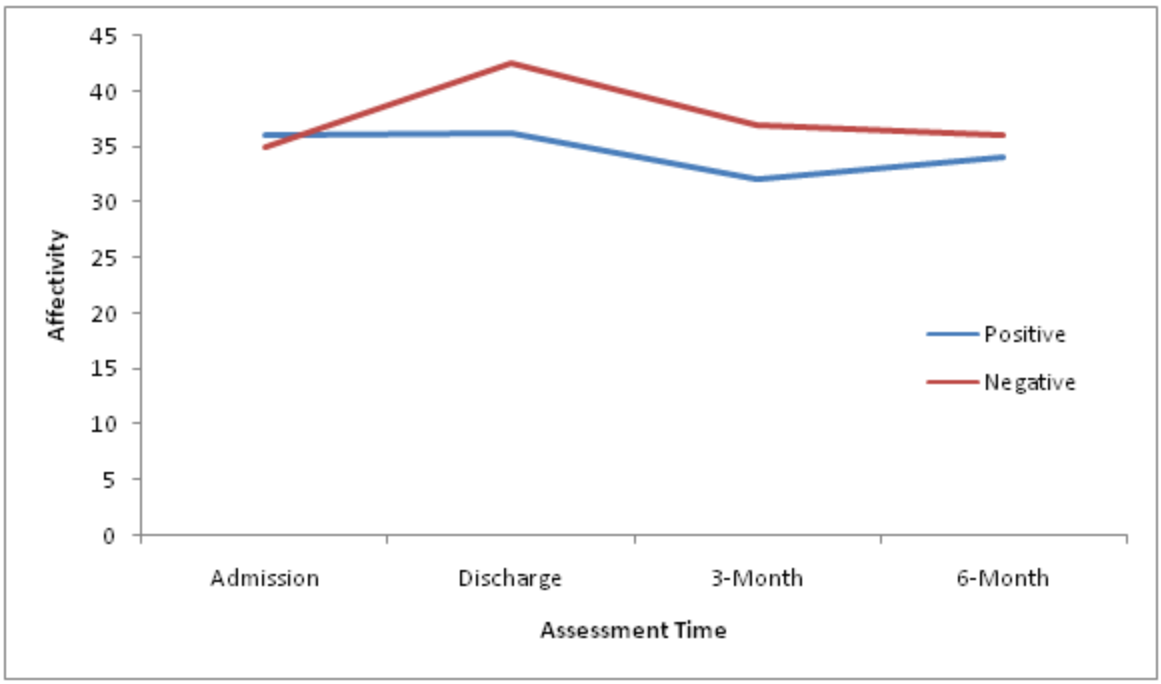
Two participants referenced mental health as their primary cause for admission (see 'Goals'). Importantly, these participants reported significant improvement during admission, which was attributed to emotional and practical support from individuals not addicted to substances (staff), and a break from the chaos of heavy substance use. For one, this rate of improvement continued post-discharge to the extent that their psychiatric medication regime was substantially reduced, further mitigating their mental ill-health. For the other, this improvement regressed to an appreciably similar level post-discharge. Thus, it appears that for clients whose primary concern is mental health, BBVU admission may at least temporarily relieve this.

Positive and Negative Feelings

Participant affectivity was assessed using the Positive and Negative Affect Schedule (Magyar-Moe, 2009). Two one-way repeated measures ANOVAs were conducted to assess the effect of BBVU admission on positive and negative affectivity. BBVU admission was not found to have a significant effect on positive or negative affectivity ($p>.05$). However, estimated marginal means presented in Figure 3 indicate that participants' positive and negative feelings follow a similar trend, such that overall affectivity increases during BBVU admission and falls again post-discharge.

**Figure 3.**

*Estimated Marginal Means of Positive and Negative Affectivity*




Life Satisfaction

Perceived quality of life was assessed using items from the brief version of the World Health Organisation's Quality of Life instrument (WHOQOL-BREF; Whoqol Group, 1998), designed for the assessment of changes to perceived quality of life over the course of interventions. This instrument explores quality of life across four domains, with separate items to investigate overall perception of quality of life and health. Repeated measures ANOVAs were conducted to analyse participant WHOQOL-BREF scores for perceived overall quality of life, overall health, physical health, and quality of environment.

*Overall Quality of Life*

Overall quality of life scores across study time were found to meet the assumptions of normality and sphericity. While one outlier, with a low score of one in the six month post-discharge set, was discovered, this case was determined to be a result of small sample size and

representative of the general BBVU population. It was thus retained to increase ecological validity.

Analysis of BBVU treatment on perceived quality of life did not reveal a significant effect ($p>.05$). However, it is possible that this result was influenced by small sample size, as entering participant data into this data set twice produced a significant main effect with Greenhouse-Geiser corrections ($p=.012$), and significant pairwise comparisons between admission and discharge ($p=.00$), admission and three months post-discharge ($p=.032$), and admission and six months post-discharge ($p=.049$). These results indicate that BBVU admission has a lasting impact on perceived quality of life.

*Overall Health*

Preliminary analyses of BBVU treatment on the perception of overall health revealed that this data met all recommended repeated measures ANOVA assumptions. The subsequent repeated measures ANOVA found BBV treatment produced a significant main effect on participants' perception of overall health across study time ($F(3,15) = 4.846$, $p=.015$). Post-hoc analyses with Bonferroni adjustment did not reveal significant pairwise effects between assessment times. However, the effect most closely approaching significance was found between admission and discharge assessments ($p=.062$).

*Physical Health*

Perception of physical health was not found to change significantly with admission to the BBVU. This data met all repeated measures ANOVA assumptions and sample size was not found to influence results.

*Environment*

Participants' rating of their environment did not significantly change during, or following, BBVU admission. This data met all repeated measures ANOVA assumptions and did not reach significance when data entries were doubled, suggesting this effect is not the

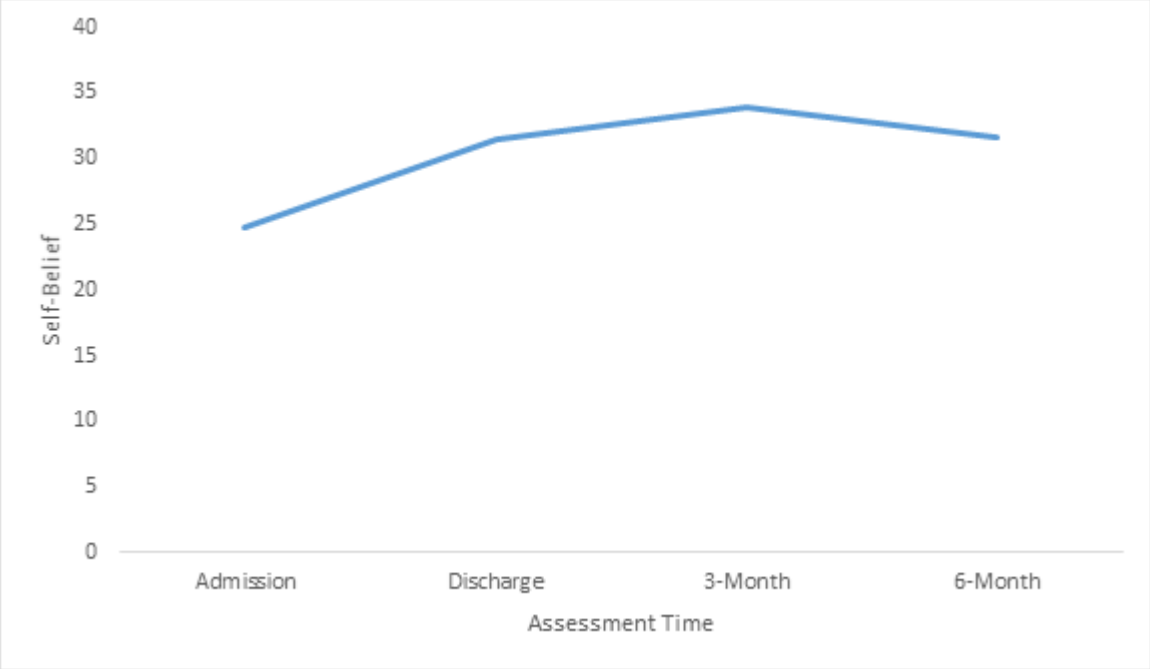
result of small sample size. This result is in line with the finding that participants' overall quality of life ratings also did not show significant changes.

## Self-Belief

Participant self-belief was assessed at each distinct time-point using the General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995). To analyse the differences between mean participant GSE scores prior to, during, and following BBVU admission, a repeated measures ANOVA was run with scores from participants who completed every study assessment. Preliminary analyses found this data to meet assumptions of normality and sphericity. One outlier with a high score of 35 was revealed in the admission data set; however, deemed a consequence of small sample size and representative of the normal distribution of self-belief levels within the general BBVU population, this score was retained for subsequent analyses. Self-belief was not found to significantly change between assessment time-points ($p = .079$). However, this could be the result of small sample size, as subsequent analyses with participant data entered twice to produce a sample size of N=12, revealed a significant main effect of assessment time on self-belief ($p=.002$), with significant pairwise comparisons between admission and discharge ($p=.031$), and admission and three months post-discharge ($p=.004$). Overall, analyses suggest that participant self-belief is lowest prior to BBVU admission ($M=25.17$), and increases throughout admission ($M=31.33$) until three months post-discharge when it peaks ($M=33.83$) before returning to a score similar to that of during admission ($M=31.5$). Figure 4 depicts the estimated marginal means of assessment test time on participant GSE scores.

**Figure 4.**

*Line Graph Depicting the Estimated Marginal Means of Participant Self-Belief From Pre-BBVU Admission to Six Months Post-Discharge*




Support Seeking

Admission to the BBVU was not found to produce a significant main effect on participants' support-seeking behaviours. However, scores were found to increase across assessment time-points, and one outlier with a low score of 22 presented in the six month post-discharge set. Thus, while not significant, it may be tentatively inferred that BBVU clients are more likely to seek support from others following their admission to the unit.

Microsystemic Influence

'Microsystemic Influence' (Bronfenbrenner, 1992) emerged as the most prominent theme in this investigation's semi-structured interviews, including those predetermined. This theme was comprised mostly from sub-themes 'Homeless Service Staff', 'Family and Friends', and 'Homeless Service Clients'.

*Homeless Service Staff*

Participants frequently referred to the considerable influence homeless service staff exert on their lives; most notably, their substantial dependence on these individuals to attain basic needs. Beyond this, the significance of quality staff interactions on their treatment outcomes, and gratitude for continued research engagement post-discharge, were expressed.

> *I just need help sometimes, you know? When I get too far into it, the crack, and the gear. And that's why this place is great – I'd be six feet under only for this place.*

> *I'm number 22 on the housing list, and I need someone to look into it for me.*

> *She's going to get me a hotel, or some kind of accommodation.*

> *Me keyworker, and yous, told me there's options to me. And I'm like "Oh, my God." These are very powerful things.*

> *"You want to go to your Mam's, I can see it in you," he said "you can do it!" I said "you're lucky it's your first night, I swear to God!" That was it!*

> *Me keyworker went in and left the papers and all from the hospital, the clinic and me doctor.*

> *They talk to me, like. And that was great, 'cause you do need someone to talk to, that's not on anything, that's a clear head.*

> *It's great to hear your voice.*

> *It's nice to see that you care.*

*That was a great chat. I'm happy you called, that made my day.*

*Family and Friends:*

Participants frequently referred to the contribution of family and friends to their lives. Family was most frequently described as exerting positive influences through accommodation provision, sobriety motivation, and healthcare assistance. Friends were described as imparting both positive and negative influences on these measures.

*"Da, are you goin' ta be drinkin' today?" And I says "No, Son." And I went upstairs, and I started roarin' cryin' to meself. Like, why – no child should have to worry, you know what I mean? So, I come back down, and I says to him "Son I'm goin' to have to go and get help."*

*I don't want me kids growin' up, and some kids sayin' to them "Your Da's sellin' drugs."*

*But me kids is me lifeline so – I'm doin' it for meself, but mostly for me children*

*If I could get 10 years outta me, I'd be happy. And I keep sayin' to meself "Just for the children."*

*Patrick saved me. When I was going out the door to buy drugs, he blocked the door. He said, "No. You have to get through me first."*

*Just to be able to live in that, and have me kids come up and see me, and me grandchildren, you know? That's all, nothing else.*

*Smoking crack nearly every day cause I was goin' ta me friends place and they all smoke it.*

*I just want outta there. There's people knocking up, tryin ta use me, trying ta get into me home, and I'm not even there.. And there's people getting drunk in me home.*

*Homeless Service Clients:*

Participants made substantial reference to the influence BBVU and other homeless service clients exert on their sobriety, well-being, and choices pertaining to these.

*She's on the same landin' as me, but she's mad into the crack so I do give her a wide birch.*

*I've been moved rooms yesterday, and I'm not sure how that's going to go, 'cause one of the girls is smoking crack…*

*I have been finding it tough, watching some people under the influence.*

*It's a big, big, effect on me, ya know what I'm sayin'? I really need to get out of Pearse Street.*

*If someone is goin' "Ah, here's a tablet… You can, you know…"*

Accommodation

Participants described their accommodation status at each assessment. Table 5 presents frequencies of the various accommodation types in which participants resided during each assessment time-frame. Accommodation information for participants who did not take part at particular time-points was obtained from the *Pathways Accommodation & Support System* (PASS), an online system providing accommodation and case-management histories of clients accessing homeless services for staff working in these services. Participants residing in two accommodation types within a specific time-frame are entered as 0.5 values into each category.

**Table 5.**

*Table Presenting Frequencies of Participants Residing in Various Accommodation Types at each Study Time-Point*

| Accommodation Type | Admission[a] | Discharge[b] | 3 Month[b] | 6 Month[c] |
|---|---|---|---|---|
| Rough Sleeping | .5 | X | x | x |
| Sofa Surfing | 3 | X | .5[d] | .5 |
| Renting room from family | 1 | X | 1 | 1 |
| Short-Term Accommodation | 2.5 | 1 | 2.5[e] | 2 |
| Long-Term Accommodation | 3 | 1 | 2 | 2 |
| Own Council Apartment | 2 | X | 2.5 | 2.5*(+~2)* [g] |
| Inherited Family Home | 1 | X | 1 | 1 |
| BBVU | X | 11 | 2 | 1 |
| SUSD | x | x | x | 1 |
| Further Recovery | X | x | 1[f] | x |
| Hospital | x | x | .5 | x |

[a]N=3 participants resided between accommodations from multiple categories pre-admission (Own Council Apartment/STA = 1, Rough Sleeping/Sofa Surfing = 1, Own Council Apartment/Sofa Surfing = 1)

[b]Accommodation information for N=2 participants who did not complete assessments was found via the *Pathways Accommodation & Support System* (PASS; online system providing accommodation and case management histories of clients accessing homeless services to staff working in these services)

[c]Accommodation information for N=1 participant who did not participate in the six month post-discharge interview was found via the PASS. Accommodation information for N=2 participants who resided in their own residences during previous assessments was not available from the PASS and, thus no such information is presented for these participants.

[d]This case resided with her mother during Covid-19 lockdown for companionship but had her own apartment.

[e]One of these cases was very brief while the participant moved from sofa-surfing with an abusive partner to independent living.

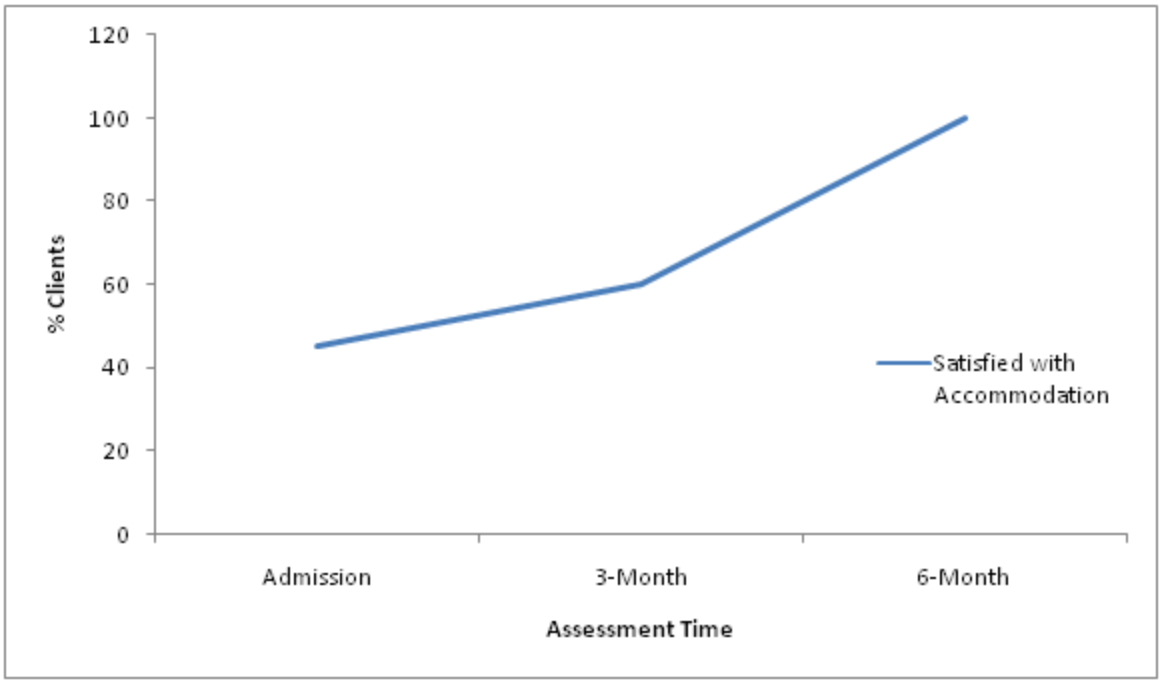
[f]This participant resided in a Long-Term Accommodation (LTA) prior to BBVU admission

[g]N=1 no longer resided part-time in Short-Term Accommodation (STA) due to Covid-19 risk. N=1 participant had own apartment, but stayed with family for company during Covid-19 lockdown. N=2 participants who did not complete six month post-discharge assessments did not have information pertaining to their accommodation on the PASS. As these participants had resided in their own apartments during prior assessments, this indicates that they still resided in these apartments six months post-discharge. However, there is no solid record/evidence of this, and this figure was included only to indicate the likely residence of unaccounted cases.

Participants also provided a yes/no indication of their accommodation satisfaction, and explanation of this response. The percentage of participants satisfied with their accommodation at each assessment time-point is presented in Figure 5 below.

**Figure 5.**

*Line Chart Depicting the Percentage of Participants at Each Assessment Time-Point Satisfied with their Accommodation*




Accommodation satisfaction rose from 45% prior to admission to 100% six months following discharge. This is a remarkable improvement, indicating 100% success rate of BBVU admission for this key outcome variable. Of note, 100% of participants residing in private apartments provided by Dublin County Council, and LTAs (except for one participant, whose partner died suddenly in the accommodation) reported accommodation satisfaction. Reasons for this pertained mostly to matters of privacy and independence.

*I'm happy that we have our own privacy.*

*Because I can be independent, do what I want to do.*

Conversely, participants street-sleeping or sofa-surfing with no alternative option reported accommodation dissatisfaction 100% of the time.

*No at all! […] Cause me meds were in the house […] Missin' the medication was bleedin' down to me abusin', like crack, and not goin home at the right time, you know? Me mother is the type that, if she says a time, she means it, you know that way?*

It is thus highly significant that three participants sofa-surfing prior to BBVU admission procured unsupported apartments post-discharge.

*I spend hours cleaning my flat, decorating it, and I've yet to put my own stamp on it.*

*I have me place now, so I'm delighted… I'm so pleased.*

One participant transitioned from short-term to long-term homeless accommodation post-discharge. This participant reported improved quality of life, substance use, and mental health, attributed to the more stable client base and increased privacy.

*You don't see any drugs, or hear of it… There's none of this crap talk about crack or tablets or anything like that. And even if there was you could just go straight up into your room, and put on the telly and lie down. And you have your own key for your room, so you don't have to worry about anything getting stolen or anythin' like that.*

One participant's accommodation status and satisfaction progressed from dissatisfaction with a rented couple's room in their brother-in-law's house, to satisfaction with a converted outside shed rented from the same relation.

*He roots in our stuff. So he breaks our privacy in that way.*

*It's better than what most people have, and we're together, and so that's all you need.*

Another participant lived with their wheelchair-bound and substance-addicted sibling in a family home in-probate throughout this study. This participant was heavily involved in the care of their sibling, not involved in the probate legal proceedings, and had no accommodation plans in place for after this process. Consistent accommodation dissatisfaction was reported by this participant.

> *I got a citizen's letter, saying that the house is being sold, but I don't know.*

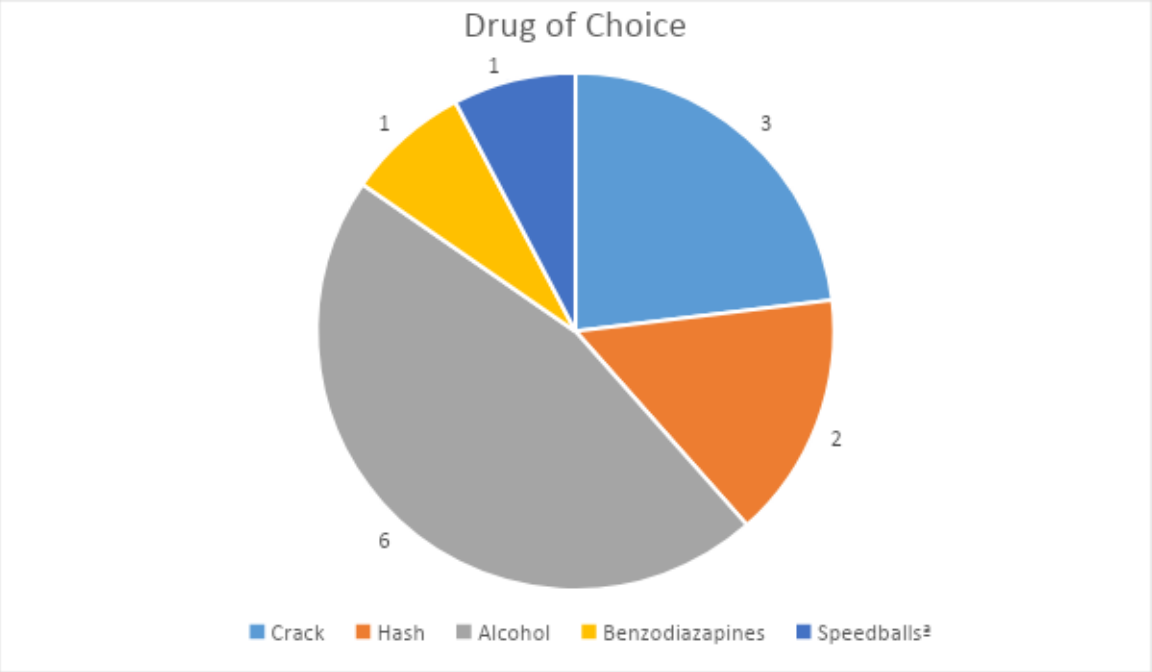
> *[They] just go around stoned all the time, and fall outta the chair and then I have ta pick [them] back up ta get [them] back inta it, but like, [they] fall in the middle of the night too when [they] go toilet.*

Substance Use

Self-report substance use data was obtained at each assessment. Discharge self-reports were further interpreted in conjunction with admission client-file data (i.e., within-unit nursing, social care, & GP notes). Participant primary drug of choice (DOC) is depicted in Figure 6 below. Of note, participants with two primary DOCs were entered as .5 values to both categories. This occurred for N=3 participants, where N=1 reported equivalent levels of problematic alcohol and benzodiazepine use, alcohol and crack-cocaine use, and crack-cocaine and benzodiazepine use, each. Further, one participant reported speedballs (a crack-cocaine/ heroin mixture) as primary DOC, which was entered separately due to its distinctly simultaneous injection.

**Figure 6**

*Primary Drug of Choice of Participants*




*Note.* N=3 participants reporting equivalent addiction to two substances were entered as 0.5 for each category.

[a]Speedball refers to combined heroin and crack-cocaine.

Substance use reduction was achieved by all participants who admitted to the BBVU for this purpose (N=12). However, of the N=6 participants reporting desire for total sobriety, only one, with an admission length of seven days, achieved this. Moreover, no participants maintained their within-unit sobriety post-discharge. One participant did not admit to the BBVU for stabilisation purposes; this participant described attaining deeper insight into her relationship with substances through the discovery that her pre-admission stability partly resulted from her isolated lifestyle.

> *That's it, being honest with yourself you know, how could you cure it.*

> *Watching some people under the influence, I really find it tough, and em… I had a slip meself, you know? And I haven't had one in six months.*

A one-way ANOVA was run to quantitatively assess differences in BBVU behavioural warnings contracted by participants with different primary DOCs. BBVU warnings are given to participants presenting reasonable evidence of engagement in drug-related activities or other anti-social behaviours. N=9 participants reporting one primary DOC, were included. A significant difference in warnings accrued was found between participants reporting problematic use of alcohol, hash, or crack cocaine ($F(2,6) = 6.67$, $p=.03$). Tukey post hoc analysis revealed this difference lay between those reporting alcohol and crack as their DOC, where alcohol users received significantly less warnings than users of crack ($p=.025$). Further investigation revealed 100% of these warnings were received for substance use for all groups. Moreover, qualitative analyses indicate clients whose primary DOC is alcohol or hash use other substances less than clients reporting crack, heroin, or benzodiazepine DOC.

Reduced substance use was reported by seven out of nine participants completing three month post-discharge assessments. Greatest reductions, ranging from sobriety to three-quarters pre-admission use, were noted by participants with problematic alcohol use. Crack-cocaine users reported smaller reductions, with one attributing all reduction to significant hospital admissions rather than personal will. Notably, all participants reporting increased post- versus pre-admission substance use (N=2) re-admitted to the BBVU by their three month follow-up assessment.

Six month post-discharge analyses revealed reduced alcohol use for all alcohol users, similar patterns of pre-admission use for crack cocaine users, and increased use and sobriety motivation for the speedball DOC participant. These analyses also reiterated the reported ease of substance use reduction for participants while admitted to the BBVU or hospital.

Civic and Social Issues

Prior to BBVU admission, considerable civic and social issues were reported by N=9 participants. Most issues (N=7) related to strained relationships within the home. Two female participants co-habited with abusive partners, on whom they were partially reliant for accommodation, prior to BBVU admission. Neither had spoken about their relationship abuse prior to study interviews.

*I've realised I've just been tortured by who I've lived with, if I'm bein' honest, and nobody knows what I'm after bein' goin' through.*

One moved from her boyfriend's apartment to her own apartment following discharge, while the other was actively working on moving to a supported single apartment throughout the study.

*I can be independent, do what I want to do, make a mess without being afraid I'm going to get roared at or –*

One participant lived in an inherited family home which was going into probate throughout study participation. As previously described, this participant was not involved in the proceedings, which were being handled by his siblings, and had no plans for accommodation after his house was sold. This did not change throughout study participation. Of note, this participant also reported lack of proactivity surrounding significant mental health, physical health, and substance use concerns beyond BBVU admission, which starkly contrasted his absence of mental health concerns and sobriety whilst admitted.

One participant was sofa-surfing with her mother prior to admission following anti-social behaviour in her home. Shortly after her three month follow-up interview, this participant received a home transfer, and had moved into her new apartment.

*I just want outta there, 'cause I'm depressed ta bits, in the place... And there's people knocking up, tryin' ta use me, trying ta get into me home… And I'm not even there, and there's people getting drunk in me home.*

One participant was staying in homeless hostels approximately three nights a week, to relieve his loneliness in private accommodation. This stopped by his six month post-discharge interview, but only due to fears of increased Covid-19 risk in hostels.

Two participants were substantially involved in legal proceedings prior to admission. This was the primary admission cause for one, for whom drug stabilisation was judicially

ordered to abate legal charges for minor offences. This participant had dealt with most of these by study completion. Further, she was taking precautions to prevent future crime engagement, including not shopping alone.

> *I don't go into town, if I need something like that I make sure me sister's with me, that way I won't.*

The proceedings of the other participant pertained to a motor incident, which made minimal progress by six months post-discharge.

By three months post-discharge, three participants were engaged in prosocial activities. One was taking courses in cooking and photography; notably, this participant was also engaged in further residential recovery. One participant was enrolled to become a peer-mentor for newly diagnosed HIV patients, while another was engaged with an arts and drama education addiction recovery group.

By six months post-discharge, N=2 participants were reporting issues relating to homeless hostel residence. One had been asked to move room in the last week due to theft accusations. The other had moved hostel in the last two weeks due to being stabbed in his previous hostel.

> *One of the girls in the room across from me's money went missin' and she blamed me for it.*

> *One of the young fella's, he was on crack, tried ta stab me in the face… Like, he cut me over the eye – cut me in the eyebrow basically.*

Unit Experience

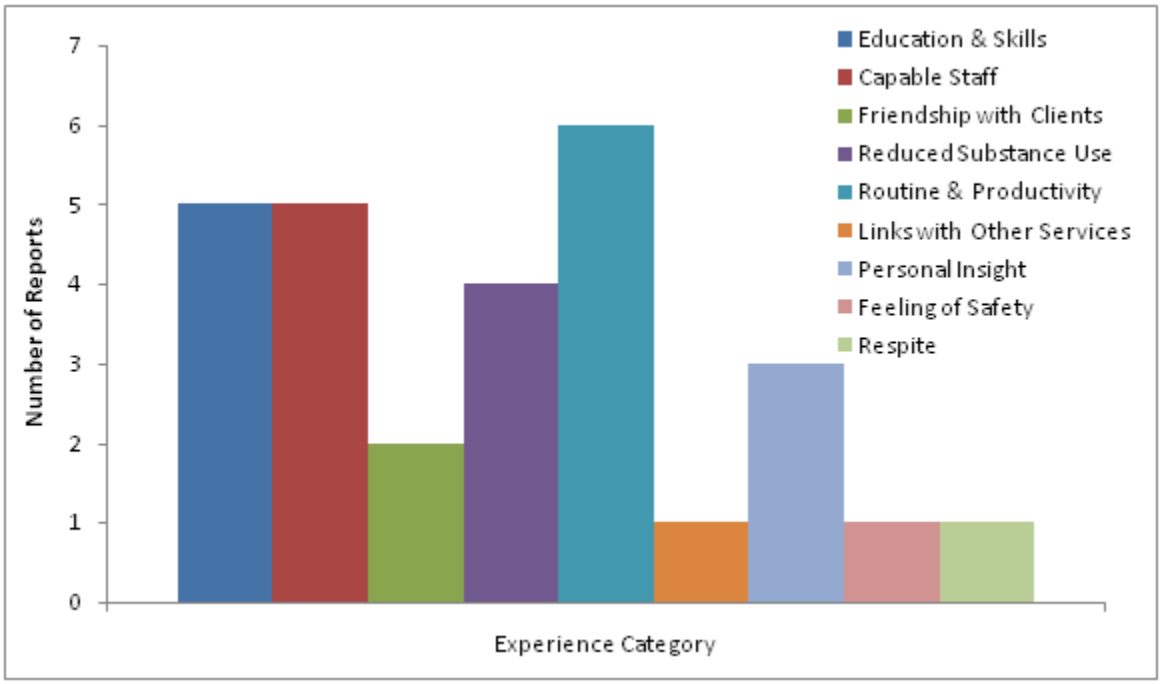
Participants were asked five questions about their BBVU experience during discharge assessments (N=11), to: describe their positive experiences, describe their negative experiences, provide suggestions for service improvement, advice for clients entering for the first time, and identify that which most helped them.

*Positive Experiences*

Experiences described as particularly positive are outlined in Figure 7. Every participant offered at least one experience, with N=8 offering more than one.

**Figure 7.**

*Positive BBVU Experiences of Participants*




*Note.* N=8 described more than one positive experience.

Twenty-eight positive experiences were described in total (M=3.5). The most highly referenced positive experiences of BBVU admission pertained to the educational groups and activities provided on this unit (N=7). They were described as positive due to the knowledge

and skills learned from them (N=5), the sense of productivity and routine they created (N=6), and the personal substance use insight they inspired (N=1).

*I love doin the groups you know? It just brings it all back… You know, the awareness, and learnin', and the copin mechanisms, and things like that.*

*You know the learning, the mindfulness, the colourin'… The colourin' was brilliant, I actually got really into that`.*

*I'm getting stronger at sayin no ta people, which is something I always struggled ta do.*

*I'm not in the humour doin nothing, I had an hour and a half's sleep, and you're goin asking me to do this? But I got up, and I done it.*

*And now eight o' clock I'm up every morning, and getting me work in, ya know?*

*Looking at you, for yourself, you know what I mean? Being honest with yourself you know, how could you cure it, what could you do to stop triggers…*

The next most frequently cited positive experiences were; BBVU staff, reducing substance use, personal insight, and friendships with other clients, followed equally by connection to further treatment opportunities, feeling safe, and respite from chaotic lifestyle. BBVU staff were described as fun, understanding, approachable, reliable, supportive, and encouraging.

*Staff are great.*

*It's been fun with the staff.*

*It's well-observed here.*

*Staff, having a bit of a laugh.*

*More to do with the staff, they talk to me like, and that was great.*

Substance use reduction was described as beneficial to mental health, self-esteem, mood, and productivity.

*The drink makes you depressed, you know? But when I was off it for a week or two, I was grand then.*

*I feel great, you know what I mean? I feel really like, "Jaysus, I'm back"! I'm delighted the stuff is outta me now and I know it's completely outta me, once and for all!*

*I've energy to burn!*

Personal insight related to abstinence strength, viewing one's addiction from the theoretical lens provided by the BBVU's 'Reduce the Use' programme, integrity, and realising the extent of one's addiction.

*I kept meself to meself.*

*Lookin' at ourselves from a different perspective - from the outside lookin' in.*

*I said "I just can't look at this, this is horrible, it's disgustin'"*

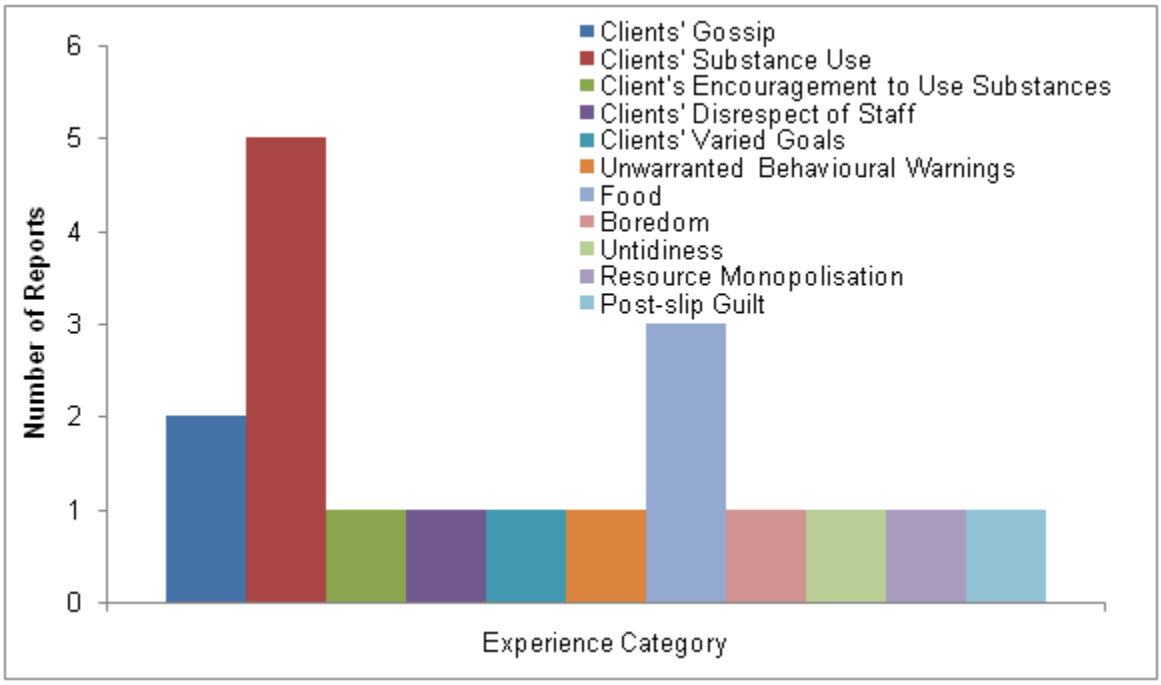
*They're disgusted in theirselves, and it's really hurtin' me… And it's like, oh my God – that's the people around me!*

*Negative Experiences*

Every participant offered at least one negative experience, as outlined in Figure 8. Of note, N=6 described multiple experiences.

**Figure 8.**

*Negative BBVU Experiences of Participants*




*Note.* N=6 described multiple negative experiences.

In total, 19 negative experiences were described by participats (M=3.16). The most frequently cited experience was substance use by other clients (N=5), described as triggering to participants' own stabilisation process.

> *It'd put your good thinkin' – it's sendin' ya back… Where you're tryin' ta focus on the right road.*

Related to this is encouragement from clients to use substances (N=1), and varied goals of clients (N=1), both of which are somewhat related to the complex BBVU remit.

> *Stoned and, tryin' ta reel ya in.*

*You're getting all these people, that, "This is it, I'm stopping it now, tomorrow I'm gonna get -", and I'm like, "oh my God, not fuckin' again."*

Beyond substance use, other behaviours of clients were described as negative experiences for participants, such as gossiping (N=2), disrespecting staff (N=1), untidiness (N=1), resource monopolisation (N=1).

*Then you hear all this back-biting talking, and I'm not into that – I hate it.*

*I just don't like bitchin*

*I didn't like the way people were like screamin' at staff, or nurses, and abusing 'em and things like that… Didn't sit with me.*

*People not cleanin' up after themselves, that really pisses me off.*

*You're living in a house you have to make allowances.*

*Some people don't, they just eat, eat, eat, and forget about – I'm just eatin' for meself.*

BBVU operations were referenced, including; food provided (N=3), receiving unwarranted behavioural warnings (N=1), and daily allowance of two unsupervised off-unit hours (N=1).

*For the drug use end of it, I think that two hour rule should be scrapped.*

Lastly, negative emotions, such as post-slip guilt (N=1), and boredom (N=1), were mentioned.

*I had a slip, and that wrecks my head… I wanted ta hurt meself after that… I won't be slipping again.*

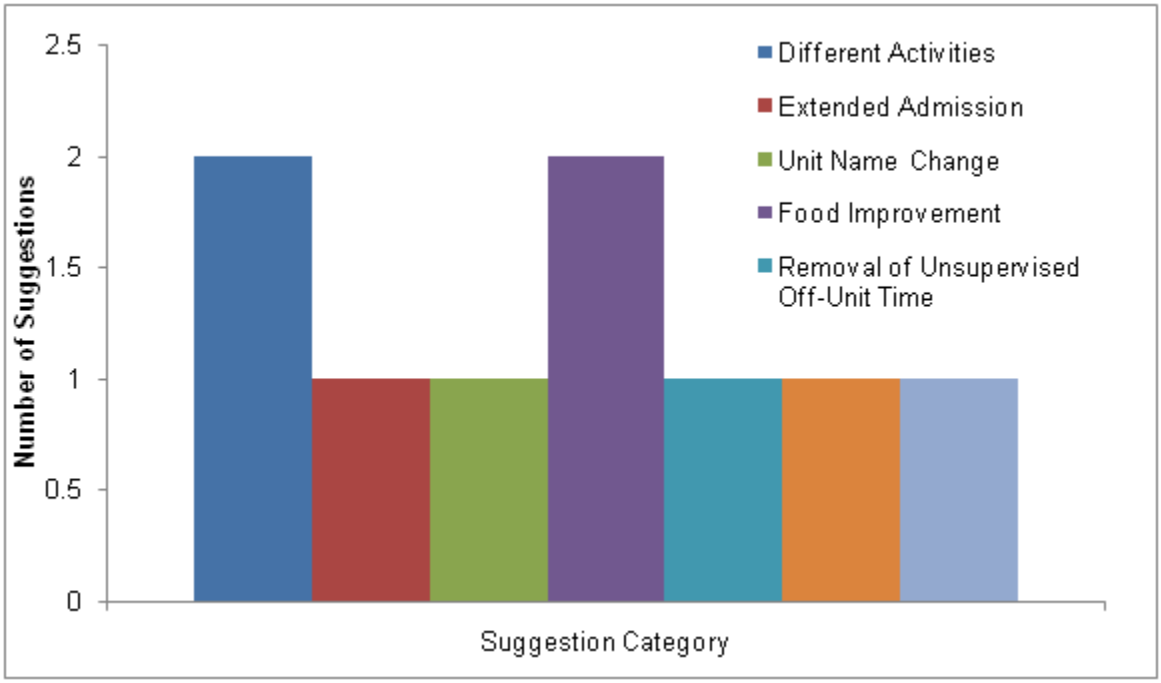
*The day is just too long… And that's where the boredom kicks in…*
*And that's where people start takin drugs.*

*Service Improvement Suggestions*

Service improvement suggestions were offered by N=9 participants, of whom N=7 provided one, and N=2 provided two. These are depicted in Figure 9.

**Figure 9.**

*Bar Chart Depicting Participants' Service Improvement Suggestions*




*Note.* N=7 participants provided one suggestion and N=2 provided two suggestions.

Changes to activities and food currently provided were most frequently cited (N=2 each). Longer admission length, unit name change, removal of unsupervised off-unit time, segregation of respite and stabilisation services, and structure sustainment were proposed by N=1 each.

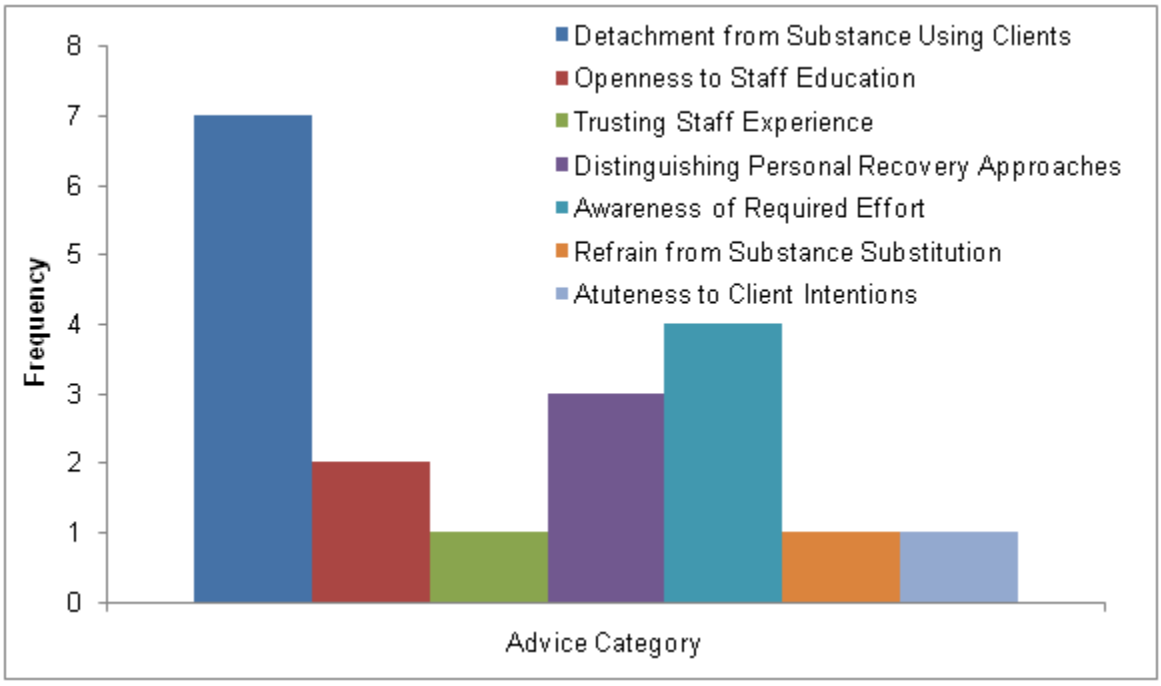
*It's good when it's structured, you know, and you know you're getting up, and you do a group n'all… Sometimes you mightn't feel like, it, but then when you get in, you often feel better.*

*Advice for New Admissions*

Advice participants would offer to new BBVU admissions is summarised in Figure 10. While most participants (N=7) offered advice spanning two of the broad themes outlined in Figure 10, N=4 offered advice pertaining to just one theme.

**Figure 10.**

*Bar Chart Representing Advice Participants Would Offer New BBVU Admissions*




*Note.* N=7 gave advice spanning two broad categories, N=4 offered advice pertaining to one category.

Over half (N=7) of participants offered advice pertaining to detachment from substance using clients.

*Stick to yourself, and do your own thing.*

*When I first came in, I said to everyone "I don't want to be offered drugs, I don't want to hear about drugs, I don't want to come into your gossip."*

*Keep to yourself and, don't do anything for anybody.*

*Don't get too attached to people.*

*Get on with the other clients cause you have to, but don't get involved with the drug end of it... 'Cause you see who's there, taking the drugs, and who isn't.*

The next most frequently referenced themes pertained to the importance of consistent awareness of the significant effort required to stabilise heavy substance use (N=4), distinguishing techniques most suitable to personal recovery (N=3), and openness to education from staff (N=2). Trusting staff expertise, refraining from substance substitution, and astuteness to the intentions of other clients were each advised by N=1 participants.

*It challenges your brain… It pushes you places you don't want to go, and it pushes you to places you want to go, and at the end of the day, it's your choice.*

*To be open minded, and take from it what works for them… Because not everything is for you.*

*Be open to the staff's education*

*The staff are great, the staff are good.*

*Don't take tablets. 'Cause you're comin in with one habit and goin' out with another.*

*Be aware of what people are wantin' to be friends with ya for.*

*Most Beneficial to Personal Achievement*

Factors most constructive to participants' achievement of personal goals during BBVU admission were identified by N=4 participants. N=3 alluded to interactions with BBVU staff, and N=1 described peer support.

> *…Helped me through one or two tough days I was havin' like only for her… She was all for me, but the talkin' – we had good, positive talkin', no negative.*

Productivity

The second most frequently emergent theme of this investigation encompasses the benefits participants experience from past or present productivity, and repercussions of boredom. Participants spoke proudly when describing personal productivity, demonstrating consequently boosted esteem and efficacy.

> *Now eight o' clock I'm up every morning and getting me work in.*

> *There's a group of us here what are sober, and we garden every day, and we exercise… One of the girls is a personal trainer so we do workouts just before lunch.*

> *I'm not in the humour doin' nothing, I had an hour and a half's sleep, and you're goin' asking me to do this? But I got up, and, I done it.*

Idleness and boredom were regularly cited substance use precursors.

> *I'd love a partner like, you know? Someone ta spend me days with, I think I'd be clean if I had a partner, 'cause I wouldn't be as bored.*

*The day is just too long, and that's where the boredom kicks in, and that's where people start takin drugs.*

# Discussion

This study successfully achieved its aims to investigate BBVU client health, accommodation, and well-being trajectories pre-, during-, and post-unit admission. Further, it uncovered novel themes of seemingly high significance to this population. However, to accurately interpret results, study limitations must first be addressed.

One hundred clients admitted to the BBVU during data collection; of these, 54 did not participate, 19 completed only an admission assessment, 14 completed admission and discharge assessments, and just 13 completed the required minimum of three study assessments. Participation was most prominently influenced by study inclusion criteria mandating sobriety and admission-length. The resulting studied sample thus represents a small, more highly-functioning BBVU client population subsample, more likely to maintain post-discharge sobriety (Kumi, 2017), and unrepresentative of the actual population. However, ethical and validity concerns, surrounding informed consent of studying individuals under the influence of substances, or not long enough engaged with the BBVU programme to effectively benefit from, and comment on engagement, respectively, alongside the conceived advantages of investigating these clients' treatment trajectories, outweigh this limitation, permitting investigation of the described subsample. Moreover, researching more engaged clients holds innate value with respect to the potential discovery of processes underlying successful BBVU engagement.

It is possible that participants were not entirely truthful in this study's self-report measures, as assessments were conducted by either a member of BBVU staff, or external researcher with known DSC ties. Although data confidentiality was stated explicitly prior to all assessments, innate distrust of institutions displayed by this, and similar populations (Henry, Dosani, Huynh, Amirault, 2017; McGeogh, Walsh & Clyne, 2020; Sarango, de Groot, Hirschi, Umeh, Rajabiun, 2017), may have instigated participant doubt of estrangement between data provided as part of this study and consequent BBVU care. However, this population is characteristically difficult-to-engage (Milloy, Marshal, Montaner, & Wood, 2012; Rumptz et al., 2007), evidenced by this study's data collection process; this lasted 18 months, within which the external investigator obtained five within-unit assessments in five months (M=1), and the staff member obtained 50 assessments in 13 months (M=3.85). Further, participation accelerated when covid-19 restrictions necessitated over-the-phone post-discharge

assessments; while five in-person assessments were conducted by the BBVU staff member across four months (M = 1.25), nine phone assessments were conducted across two (M = 4.5). Both increased participation rates (external/ internal interviewer; in-person/ over-the-phone interviews) resulted from decreased need for future appointment scheduling, which proved unreliable due to the unpredictable sobriety, mental, and physical health, of this population. Further, the staff member could use professional knowledge of participants from frequent interactions over the course of their admission to more accurately discern and interpret their data. Thus, pragmatic time, financial, and data validity benefits of a staff-led study considerably outweighs potential validity limitations. Notwithstanding, it is imperative that experimenter and sample limitations are considered when interpreting the forthcoming discussion.

Results of participant goal analyses are arguably most telling for clients' overall well-being trajectories. Pre-admission and six months post-discharge, goals were qualitatively most urgent. The lowest number of goals, which were also the least urgent of any time-point, were reported during admission. Goals were most numerous and varied three months post-discharge. These findings indicate that client well-being is low pre-admission, motivating admission. This appears to improve during-admission, seemingly due to satisfaction with personal development following achievement of pre-admission goals. This seems either sustained or diminished immediately following discharge, qualitatively attributed in interviews to sobriety maintenance or relapse. Three participants reporting increasingly improved well-being did not participate six months post-discharge, potentially due to diminished perceived benefit of continued engagement with BBVU staff due to sustained stability, or shame surrounding relapse. It is thus uncertain whether the ubiquitously urgent reported goals at this stage indicate substantial regression for all, or most, participants.

BBVU admission appears to address participants' primary admission goals, particularly those related to mental health, during admission. However, two participants who discharged early from the BBVU did not complete discharge assessments; both re-admitted to the unit by their three month follow-up assessment, reporting lower health and well-being following their early discharge than pre-admission, attributed to low-threshold homeless accommodation or cravings during drug stability. This indicates goal progression may only be achieved by clients who complete the BBVU programme. Nonetheless, the prevalence of re-admitted participants, and participants wishing to re-admit, at each post-discharge time frame indicates even regressing clients appreciate some BBVU-admission benefit.

The BBVU's primary function is BBV treatment re-engagement. BBV clinic attendance and medication adherence increased from approximately half to all of participants while admitted. All hepatitis C positive participants cured their infection within this study's timeframe. HIV positive participants reduced their viral loads, sometimes to undetectable levels. Post-discharge treatment engagement was not maintained by four participants (31%): one of whom re-admitted by three and six month post-discharge assessments, one who re-admitted by three month and maintained adherence to six month, and one who partially engaged until six month BBVU re-admission, but only due to considerable amounts of time in hospital.

Stigma surrounding BBV's appears to prevail; participants regularly euphemised their positive status using terms including "my condition", "the virus", and telling others they were in hospital rather than a BBVU. This substantiates previous research (Baugher et al., 2017), and, due to its negative consequences (Crockett, Kalichman, Kalichman, Cruess, & Katner, 2019; Holzemer et al., 2009; Kang, Rapkin, DeAlmeida, 2006; Mawar, Sahay, Pandit, Mahajan, 2005), highlights the onus on BBV service staff and the public to reduce this stigma by taking sensitive caution when addressing individuals' positive statuses in professional and personal spaces.

BBVU clients often have numerous serious health concerns inducing frequent hospital presentations. No participants admitted to hospital during BBVU admission: significantly lower than all other timepoints. This is considerable considering over half admitted in the month prior to admission. Further, with the exclusion of one participant, mean admissions per participant was significantly less post- than pre-admission. This is of even higher significance considering the three-month intervals encapsulated by post-discharge measures compared with the one-month covered pre-admission. Thus, BBVU care produces substantial effects on hospital treatment demand, which may further be representative of its impact on urgent medical needs.

Beyond BBV health and hospital admissions, considerable physical health changes were reported post-discharge. Positive changes included improved gym routines and weight normalisation. Negative changes included high prevalence of unhealthy weight gain and glucose instability for participants following alcohol stabilisation. Chronic illnesses were contracted or progressed by some participants, and serious injuries sustained by others. Thus, the need for aftercare medical support for clients following substance stabilisation appears

imperative. Nutritional guidance further appears important for individuals reducing alcohol consumption.

The number of participants reporting mental health concern did not significantly reduce throughout this study; however, the number of concerns halved between admission and discharge assessments, a prevalence which prevailed to study completion. Further, while clinical diagnoses, such as PTSD, EUPD, hallucinations, bipolar, and schizophrenia, decreased, subclinical concerns, including feeling low, guilty, or lonely, increased. Moreover, confusion surrounding the meaning of the word 'concern', with participants interpreting this to mean 'worried about', rather than 'existence of', mental health issues arose. Thus, it appears that while BBVU admission does not eradicate mental health issues, it dissolves most critical issues for clients with high comorbidity and assures clients that mental health issues are being addressed. This may partially result from the increased mental health service engagement observed during participant's admission, underscoring the importance of service accessibility for this population. The discrepant experimenter/ participant interpretation of the word concern emphasises the exigence of consideration for population colloquialisms in future investigations.

BBVU admission appears to temporarily alleviate the two most highly referenced mental health concerns throughout this study, depression and loneliness; however, these improvements were not sustained for any participants post-discharge. The interesting observed relationship between loneliness and mental health concern is supported in the literature (Beutel et al., 2017; Losada et al., 2012; Richardson, Elliott, Roberts, 2017; Santini et al., 2016), and implicates this feeling as a potentially important target for future aftercare support interventions.

Perception of overall health rose significantly during admission and continued to rise until three months post-discharge; however, perception of physical health changes was not significant, implicating alternative health changes in this overall improvement of health perception. As subjective self-belief rose significantly during admission and three months post-discharge when the sample was doubled, similar to related substance use and mental health trends, these appear most probable. This inference is underscored when considering mental health and substance use were the most prominent admission goals. As such it appears BBVU clients' overall health perception is most significantly impacted by mental health issues and low esteem rendered by severe substance use. This is in line with previous research indicating

stronger influence of substance use and mental health than physical health in perceived health (Allgulander, 1989; Cloitre, Cohne, Edelman, & Han, 2001; Schneider et al., 2004). Combined, these findings powerfully illustrate the impact of substance use and mental health on this population's existence; capable of superseding their oftentimes critical physical health.

While changes to perceived overall quality of life were not significant, they were positive and lasting; their non-significance also appeared to result at least partially from the small full participation of six participants. The fact that participants' satisfaction with their environment via facilities, services, and social surroundings, displayed a similar sub-significant increase indicates these factors play a pivotal role in their quality-of-life perception. Conceptually related, it seems probable that both results stem from the ubiquitous accommodation satisfaction participants' reported from discharge assessments onwards; more than double that of pre-admission. Considering the homeless status of this population, this result is exceptional. It was rendered by post-discharge accommodation quality sustainment or improving for all participants, highlighting the efficacy of BBVU admission on accommodation quality. However, its partial influence on quality of life and environment suggest other factors influence these variables.

Quantitative support seeking increased throughout assessments, though not significantly. This is meaningful, considering microsystemic influence (that of close others) emerged the most prominent qualitative overall theme. Combined, these findings indicate that although BBVU clients highly value the approval of close others in their social environment, they do not make themselves vulnerable to them. It is possible that this also contributes to the pervasive feelings of loneliness and isolation described above, highlighting the marginalisation and vulnerability of this population. The incremental support seeking increase favours BBVU admission in protecting against these emotions post-discharge, however, as the effect is not significant further work in increasing such behaviours is recommended, with particular consideration for the observed link between loneliness and mental health.

Participants self-reported substance use mostly abated while admitted to the BBVU and was diminished for most post-discharge. However, this improvement was significantly most pronounced for alcohol users, who, despite comprising almost half this study's sample, are uncharacteristic of the general BBVU population, and who's prevalence was likely also the result of sobriety-related inclusion criteria. Further, no participants reported post-discharge sobriety, despite multiple expressing such desire upon admission.

Crack-cocaine users appear to experience significantly more difficulties reducing substance use within the BBVU. Moreover, of the eight participants indicating post-admission relapse approaching pre-admission levels, four predominantly used crack-cocaine. However, considering four participants re-admitted to the BBVU during participation, with one re-admitting twice, it seems admission is appreciated to be beneficial by even relapsing clients.

Civic and social engagement appeared to improve for most participants, with evidence for improved women's relationship health, domestic anti-social behaviour, legal engagement, criminal offending, and education. Homelessness de-institutionalisation was reported by one participant, who did not access homeless accommodations post-discharge; however, as this was qualitatively attributed to Covid-19 cautions, this may not have been BBVU-mediated. Disengagement was described by one across civic, social, and health measures, and two participants reported sizable shared homeless accommodation issues. Interestingly, only one male participant reported social progression, while just one female reported regression. As regressions did not surpass pre-admission engagement, and were reported by a minority of participants, it appears BBVU admission either maintains or improves civic and social engagement, particularly for female clients.

Both positive and negative affectivity rose during admission but fell again following discharge, illustrating clearly the increased emotionality innate to substance stabilisation. However, positive affectivity was consistently higher, indicating overall optimism. Accordingly, when asked to describe positive and negative BBVU experiences, participants identified more positive than negative. Positive experiences mostly related to the BBVU programme, approach of staff, substance use reduction, stable client environment, and overarchingly, the improved mental well-being mediated by these. Conversely, negative experiences mostly pertained to other clients' behaviours and substance use, some of which may classify as normal house-sharing conflicts, others which result from this unit's diverse remit. Suggestions for unit improvement mostly related to more individualised experiences and the desire for further reduced substance use. All advice offered by participants to a hypothetical new BBVU client regarded substance use reduction strategies, and all factors deemed most beneficial to personal achievement regarded social support. Taken together, these data indicate that participants perceived BBVU admission as a difficult but worthwhile process. As previously described, stabilisation appears the primary concern, apparently due to its value for well-being, attainment difficulty, or a combination of both. The social environment appears

critical to this, with other clients deemed most significant obstacles, and staff most significant supports.

## Conclusion and Recommendations

Combined, results outline the diverse needs of BBVU clients, efficacy of the current programme, and potential client attributes for consideration in future research and treatment design. Considering quality of life and perceived physical health did not significantly change throughout this study while perceived overall health did, participants' prioritised mental health and substance use over their profoundly poor physical health, and research engagement appeared to correlate with these measures, the exigence of substance use and mental health issues for BBUV clients was evident. This appears particularly relevant for clients whose drug of choice is crack cocaine, as these clients seem to experience significantly greater difficulties achieving abstinence. Future research should investigate processes underlying this apparent difficulty, with the view to informing future substance addiction treatment approach.

BBVU admission appears to address clients' most urgent concerns, and achieve its primary aim of BBV treatment re-engagement, at least temporarily. However, as participants generally represented the unit's most engaged clients, and most of even these participants regressed on various health issues post-discharge, further investigation of factors which may promote or hinder post-discharge health is critical.

Observing participants' greatest experiences, unit suggestions, and advice, to most prevalently relate to goal achievement, and the emergence of productivity as a theme, BBVU clients evidenced considerable goal-orientation. This trait is further emphasised by participants' attribution of productivity and boredom as precursors to their most prominent admission goals, substance use and mental health. However, the fact that goals are most effectively achieved during unit admission is significant, and points to the benefit of social care for this population.

The correlation of goal achievement with substance use, self-belief, mental health, and physical health, all increasing during unit admission is striking. However, the tests run as part of this analysis do not distinguish whether any of these traits are caused by others. Thus, future research should investigate whether self-belief may mediate unit outcomes, to establish whether this trait may be a worthwhile target for future intervention approaches.

Loneliness also emerged as a prevalent cause of substance use, and was significantly correlated with mental health, both of which improved considerably during admission. It is highly possible that this loneliness may underscore the purported substantial influence of close

others on their life outcomes. Therefore, participants' lack of support-seeking improvement may contribute to their post-discharge loneliness and mental health regressions, by reducing their connection to others. Further, as most investigated within-unit improvements are likely facilitated by BBVU staff, staff were the second-most highly-referenced positive unit experience, and many participants expressed gratitude for continued post-discharge engagement, implementing post-discharge client support targeting clients' initiative to seek support may prove beneficial to continued health maintenance or improvement.

Thus, the findings of this study implicate the potential for notable benefit from an aftercare service for clients of the BBVU. This service should provide one-to-one social support for clients, which aims to foster their propensity to seek social support. This service should also assist clients in setting and achieving goals, and objectively assess their mental health, physical health, substance use, and accommodation needs, to link them with appropriate services and sustain improvements made in the BBVU for longer durations. The importance of this service is emphasised when considering the significant impact BBVU admission exerts on clients' accommodation quality and satisfaction.

It is further recommended that this aftercare service incorporates data collection practices surrounding causal factors to key improvements and dis-improvements, so that trends may be identified and targeted, in subsequent post-discharge care strategies. In light of the assessment trends of the current study, hiring a staff member specifically for this role, and providing the option of phone consultations is recommended.

Considering the difficulties achieving sobriety during BBVU admission exhibited and described by participants, and the fact that currently BBVU staff do not systematically attend addiction treatment training, including such training for all BBVU staff may prove beneficial to achieving unit stabilisation goals. Moreover, it seems important that this training should include knowledge and strategies for treating clients addicted to cocaine, as these clients experience most difficulties achieving sobriety during BBVU admission.

Participants recommended removing the daily off-unit time-allowance, due to the increased risk of substance use outside the BBVU. Their endorsement of the BBVU group programme, and the benefits it provides in terms of structure, education, and skills development, indicates mandating group attendance may prove beneficial for outcomes. Further, as the food currently provided by the unit was regularly disparaged, and a number of

participants struggled with weight and dietary issues, nutritional education for clients also seems appropriate.

Thus, this study contributes to current understanding of observable BBVU client trends from pre-admission to post-discharge, and potential underlying causes. It also strongly informs future treatment approaches most likely to improve the care provided to these individuals. Lastly, it highlights the benefit of research with marginalised populations, giving an objective voice to their complex needs.

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