

Employment and Long-Acting Injectable Buprenorphine for Opioid Use Disorder: Findings from Longitudinal Qualitative Interviews Conducted with Patients Recruited from Drug Treatment Services

Joanne Neale¹⁻³, Sarah Cosgrove¹, James Cassidy¹, John Strang^{1,3}

¹Addictions Department, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, SE5 8BB, UK; ²Centre for Social Research in Health, University of New South Wales Sydney, Sydney, NSW, 2052, Australia; ³South London & Maudsley (Slam) NHS Foundation Trust, Maudsley Hospital, London, SE5 8AZ, UK

Correspondence: Sarah Cosgrove, Addictions Department, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, SE5 8BB, UK, Email sarah.cosgrove@kcl.ac.uk

Introduction: Associations between substance use and unemployment are well established but complex. People dependent on opioids often want to work but encounter barriers, including requirements to attend services and/or pharmacies frequently. Long-acting injectable buprenorphine (LAIB) is a new pharmacological treatment for opioid use disorder, which reduces such attendance requirements. Studies indicate positive associations between LAIB treatment and employment, but there has been no detailed analysis of this topic.

Methods: Longitudinal qualitative interviews were conducted with 26 people (18 males; 8 females) initiating LAIB in English and Welsh drug treatment services. Participants were interviewed by telephone up to six times over a year (125 interviews in total). Interview data were used to produce narrative accounts of each participant's work-related experiences. These accounts were then combined and analysed via Iterative Categorization.

Results: Participants reported mixed education and employment histories. At first interview, three had full-time jobs, three were students, one worked occasionally, and nineteen were not working. Participants who remained on, or completed, their LAIB treatment reported ongoing work and education or new work-seeking activities, temporary/part-time work, or volunteering. Participants who discontinued LAIB did not start any new education, training or work during their time in the study. Most participants wanted to work but identified barriers to employment and little help with job-seeking. Participants confirmed that LAIB facilitated employment because they did not have to attend pharmacies so often and felt physically and psychologically more able to work. Nonetheless, they sometimes felt unwell after initiating LAIB, which interrupted work and study and made them reluctant to reduce their LAIB treatment later.

Conclusion: LAIB may help drug treatment patients who are interested in securing employment or achieving broader employment-related outcomes, such as education, training and volunteering. However, patients receiving LAIB may also need personalized employment support to assist them with wider barriers to working.

Keywords: employment, long-acting injectable buprenorphine, LAIB, opioids, substance use disorder, treatment outcomes, qualitative

Introduction

There are well established, but complicated, associations between substance use disorder and unemployment. For example, international studies have repeatedly found that people reporting substance use disorder have lower rates of employment compared to people who do not report substance use disorder.¹⁻⁴ Meanwhile, people with substance use

disorder who are in work, or who secure work during drug treatment, are more likely to complete treatment, are less likely to relapse, and generally experience better quality of life than other patients.^{3,5,6}

The direction of these associations is, however, variable. People who cannot secure work may be attracted to substances because they mitigate boredom and offer connection to other people;^{7,8} yet substance use can negatively affect work performance and result in absenteeism leading to job loss.^{1,3,4,9} Equally, employment can provide people who use substances with daily structure, new social relationships, increased self-esteem, and improved physical and mental health.^{8,10–12} Nonetheless, work-related stresses and some work settings (such as bars, pharmacies or veterinary practices where substances are readily available) can increase substance use.^{4,13}

People with opioid use disorder also often encounter barriers to employment. These can include having no or few qualifications, interrupted employment histories, criminal records, insecure housing circumstances, and ill-health.^{4,5,8,14} Structural barriers can include stigma, limited local job opportunities, poor public transportation, lack of childcare provision, and concerns about losing welfare benefits.^{4,5,8,15} Furthermore, receiving support with opioid use disorder can itself be an obstacle to work since patients are commonly required to attend appointments at drug treatment services during working hours and/or visit pharmacies daily or multiple times a week for supervised consumption. Medications for opioid use disorder can additionally have side effects that make people feel too unwell to work.^{4,7,16,17}

Despite these barriers, people dependent on opioids often want to work^{5,8} and, in recent years, efforts have been made to enable this through policy and practice. For example, successive drug strategies for England, Scotland and Wales^{18–20} have pledged to support people moving into work. Indeed, the most recent UK 10-year drugs strategy promised to improve employment opportunities with more employment support through a range of joined-up services, including Individual Placement and Support (IPS).¹⁹ IPS provides intensive, individually tailored assistance to help people in treatment find the right job and offers in-work support (to both employers and employees) to ensure that work is sustained. IPS and other employment programmes have been trialled internationally with promising results.^{5,21,22}

Separately, a new pharmacological treatment for opioid use disorder – long-acting injectable buprenorphine (or LAIB) – has been available within many countries since 2017. LAIB offers an alternative to more traditional short-acting medications for opioid use disorder, such as methadone and oral buprenorphine, by providing a sustained concentration of medication that lasts for either a week or a month depending on the product. Currently, there are three LAIB products: Sublocade[®] and Monthly Buvidal[®] (which are administered monthly) and Weekly Buvidal[®] (which is administered weekly). LAIB is given subcutaneously by a clinician and its longer duration of action obviates the need for daily attendance at services or pharmacies for dosing.^{23–25}

Studies have already found that LAIB can reduce opioid withdrawal symptoms and cravings, improve treatment adherence, and increase abstinence from non-prescribed opioids.^{26–29} In addition, there is evidence that LAIB can reduce the stigma of receiving medication for opioid use disorder³⁰ and help patients in other areas of their daily lives.^{27,31} In this regard, quantitative research has demonstrated increased employment rates as secondary outcomes amongst patients initiating LAIB^{27,32,33} and qualitative research has shown how LAIB releases patients from strict medication regimens and thereby provides them with more time to engage in activities such as work.^{30,31}

To date, however, there has been no detailed analysis of the effects of LAIB on employment. If LAIB can increase employment rates amongst people dependent on opioids, it may be appropriate for treatment providers to recommend LAIB because of its employment benefits. Our own analyses of patients' treatment journeys, conducted as part of a longitudinal qualitative study of 26 people initiating LAIB, explored the experiences of 11 people who remained on LAIB for one year.³⁴ We found that 4/11 participants were in work at recruitment, and one was studying. Participants reported time off work because of withdrawal symptoms (potentially caused by insufficient dosing or buprenorphine side effects) during the first month of LAIB. Meanwhile, they expressed greater interest in and ability to work, improved work performance, and increased proximity to the labour market at later interviews. In the current paper, we return to our full dataset (now including the 15 participants who did not remain on LAIB for 12 months or who were lost from the study prior to one year) to provide a more comprehensive analysis.

Methods

Ethical approval for the research was received from King's College London Psychiatry, Nursing and Midwifery Research Ethics Subcommittee (reference: MOD-20/21-15027) and all participants provided informed consent in accordance with the Declaration of Helsinki. As the study design has been reported previously,^{34–39} it is only summarized briefly here. Six drug treatment services, which provided a range of pharmacological and psychosocial interventions and were located in rural and urban areas of England and Wales, acted as recruitment sites. Recruitment occurred between June 2021 and March 2022, which was shortly after the first LAIB products (Weekly and Monthly Bupival) had been licensed for use in the United Kingdom. Staff within each participating treatment service provided new LAIB patients with information about the study and then forwarded individuals' contact details to the research team if patients expressed interest in learning more.

The 26 patients who agreed to participate were all invited to six semi-structured telephone interviews. These were scheduled to occur: within 72 hours of treatment initiation (T1); at one week post treatment initiation (T2); at one month post treatment initiation (T3); at three months post treatment initiation (T4); at six months post treatment initiation (T5); and at twelve months post treatment initiation (T6). Interviews were guided by topic guides that covered the participant's background; substance use; prior treatment experiences; decision-making in relation to LAIB; experiences of LAIB; expectations about LAIB; and changes in treatment, substance use, and life generally between interviews. Although there was no specific section of the topic guide dedicated to employment, participants were encouraged to discuss any education, training, or work, including how this related to their substance use and treatment, at all stages.

In total, 125 interviews were conducted (26 at T1, 24 at T2, 20 at T3, 20 at T4, 17 at T5, and 18 at T6). Each lasted approximately an hour and was audio-recorded and transcribed verbatim. Participants were given the choice of £20 (cash or voucher) to thank them after each interview. For the current analyses, two researchers conducted close readings of all 125 transcriptions and produced narrative accounts in Microsoft Word of each participant's work-related experiences throughout their respective periods of involvement in the study. These accounts ($n = 26$; one for each participant) were then combined into one Word document and analysed via Iterative Categorization.^{40,41} This involved summarizing all the data into bullet points (annotated with the relevant participant's interview number, so it was clear which participant had made which point). Bullet points were then grouped and regrouped in an iterative process until a logical ordering emerged. The entire process was undertaken in Word without a specialist qualitative software programme.

Participants

Key participant characteristics at recruitment (T1) are shown in Table 1. Eighteen identified as male and 8 identified as female. They had a mean age of 42 years (range: 30–62 years); most ($n = 20$) reported their ethnicity as White British, English, or Welsh; and many reported physical ($n = 10$) and/or mental ($n = 13$) health problems. Nearly all ($n = 24$) said that they were receiving LAIB to treat their heroin use (one was being treated for codeine and tramadol and another for methadone). In the week before their first LAIB injection, sixteen participants stated that they were receiving prescribed buprenorphine (Subutex[®] or Espranor[®]), four were receiving prescribed methadone (all 30mg daily), and six were receiving no prescribed medication.

The number of participants still receiving LAIB at each follow-up interview was: 23/24 participants (T2); 18/20 participants (T3); 16/20 participants (T4); 12/17 participants (T5); and 11/18 participants (T6). Eight of the 26 participants completed one or more interviews after discontinuing LAIB. Of these, six had transferred to methadone or oral buprenorphine (tablet or dispersible wafer), one had returned to non-prescribed opioids without medical treatment, and one had become abstinent from both prescribed and non-prescribed opioids.³⁴

Results

Education and Work Histories

Twenty participants discussed their education and qualifications at T1. Nearly half ($n = 9$) had no formal qualifications, five had attained school level qualifications, five had vocational qualifications (including construction, sports coaching, mechanics, welding, plumbing and engineering), and one had a degree. Three of the 26 participants had full-time paid

Table 1 Participant Characteristics (Self-Reported) at Study Recruitment

Characteristic	N=26
Sex	
Male	18
Female	8
Age (years)	
Mean (range)	42 (30–62)
Ethnicity	
White British, English or Welsh	20
White Other	2
African Caribbean	1
Asian Indian Black	1
British Caribbean	1
Mixed Heritage	1
Current physical health problem	10
Current mental health problem	13
Type of opioid being treated	
Heroin	24
Codeine & Tramadol	1
Methadone	1
Opioid Replacement Therapy prescribed in the previous week	
Buprenorphine (Subutex [®] or Espranor [®])	16
Methadone	4
None	6

jobs at their first interview – in a bakery, within a housing agency, and as a car salesman. In addition, one did occasional work for an agency (in the fashion industry), and three were students (two at college and one at university). Nineteen participants described themselves as not working and receiving benefits at T1, including several who were receiving sick pay and one who described herself as retired. As the latter participant was still of working age (62 years at recruitment), she was retained in the analyses. Details of each participant’s employment status at their first interview are summarized in [Table 2](#).

Nearly all participants said that they had worked at some point in their lives, and many reported having multiple different jobs. These were often manual or service sector jobs (such as waitress, bartender, salesperson, warehouse worker, labourer, porter, refuse collector or delivery driver), but some had crafts or trades (such as carpenter, joiner, barber, mechanic, model, or plumber). Most, however, said that they had not worked recently, and many had not worked for several years. A few, such as Participant 14, clarified that they had last worked over ten years previously:

I’ve done gardening, I’ve done labouring, refuse collecting, just like manual handling really... Last time I worked would have been... a few years ago... I think it was 2011. (Participant 14, male, T1)

Each participant’s employment status at the last interview they completed is also shown in [Table 2](#). The three participants who had full-time work at T1 all continued to work throughout the study. One remained on LAIB but temporarily moved jobs and then returned to his old job in a bakery after accepting a pay rise; the second secured a promotion to housing project worker, which gave her more regular working hours; and the third secured a new job but was taken off LAIB by his doctor at T4 because he did not attend for his injection. Following this, he was prescribed methadone and, after an initial period of using heroin, was not using any non-prescribed substances additional to his methadone at T6. The participant who did some work for an agency remained on LAIB throughout the study and continued to work

Table 2 Participants' Demographic Characteristics, Employment Status and Long-Acting Injectable Buprenorphine (LAIB) Status

Participant Number	Sex	Age (years) at Recruitment	Last Interview Completed	Employment Status at First Interview	LAIB Status at Last Interview Completed	Employment Status at Last Interview Completed
01	Male	38	T6 ^f	Working full-time	Discontinued	Working full-time
02	Male	33	T6	Not working	Discontinued	Not working
03	Male	51	T3 ^c	Not working	Continued	Not working
04	Male	48	T6	Not working	Continued	Some paid work
05	Male	44	T6	Not working	Discontinued	Not working
06	Male	38	T6	Not working	Continued	Some paid work
07	Female	46	T6	Not working	Discontinued	Not working
08	Male	30	T6	Working full-time	Continued	Working full-time
09	Male	34	T6	Not working	Continued	Not working
10	Male	37	T4 ^d	Not working	Continued	Not working
11	Male	43	T6	Not working	Continued	Some paid work
12	Male	51	T1 ^a	Student	Continued	Student
13	Male	47	T4	Not working	Continued	Not working
14	Male	34	T2 ^b	Not working	Continued	Work seeking activities
15	Female	62	T6	Not working/Retired	Continued	Work seeking activities
16	Male	30	T1	Student	Continued	Student
17	Male	56	T6	Not working	Discontinued	Not working
18	Female	30	T6	Working full-time	Continued	Working full-time
19	Male	44	T6	Not working	Continued	Not working
20	Male	33	T6	Not working	Treatment completed	Volunteering
21	Male	55	T6	Some paid work	Continued	Some paid work
22	Female	37	T2	Not working	Continued	Work seeking activities
23	Female	46	T6	Student	Continued	Student
24	Female	46	T6	Not working	Discontinued	Not working
25	Female	41	T5 ^e	Not working	Discontinued	Not working
26	Female	35	T6	Not working	Continued	Not working

Notes: ^aWithin 72 hours of initiating LAIB; ^bOne week after initiating LAIB; ^cOne month after initiating LAIB; ^dThree months after initiating LAIB; ^eSix months after initiating LAIB; ^fTwelve months after initiating LAIB.

occasionally but had signed up for a computing course by T6. Meanwhile, the three participants who were students at T1 continued with their studies as well as with their LAIB at all the interviews they completed.

A further three participants who were not working at T1 but who remained on LAIB during all their interviews reported some paid (temporary or part-time) work later in the study. Three other participants, who also remained on LAIB, described work-seeking activities, which included engaging with the job centre, speaking to a work coach, and attending a job interview (although none secured paid work whilst they were involved in the study). No participant who

discontinued their LAIB described any new work or imminent plans to start a job at any of their interviews, except for Participant 20 who had successfully concluded his LAIB treatment in consultation with his treatment provider and was abstinent from all drugs by T6. This participant wanted to become a substance use recovery worker, had completed his training, and was volunteering four days a week by his last interview:

I think we spoke last time about... me wanting to get into recovery work once all my treatment was over. And I'm on that path now. I've done my peer mentor training and I'm actually volunteering with... my prescribing organization... I do four days a week with them, volunteering doing different things. (Participant 20, male, T6)

Generally, participants spoke positively about any previous jobs they had had (noting how work had given them a sense of enjoyment and purpose, had helped them with their mental health, or had kept them out of the criminal justice system or away from substances). Nonetheless, one participant explained how he had used drugs to manage work-related stress, and another said that he now wanted to move away from his trade (joinery) as there was a strong drinking culture that undermined his recovery. Participants also often described how their substance use and/or having to attend treatment appointments had contributed to them losing jobs and was a key reason why they were not currently in work. Despite this, a small number of participants felt that their drug use had at times enabled them to keep working:

It's [using heroin] what got me through. If I didn't then, obviously, I wouldn't have been able to work, I wouldn't have been able to do things I used to do... It was to get me up ready to go to work. Because without that I wouldn't have been going to work or anything... I didn't do it to zone out in the house and sit there all day. I done it, I'd get up, I'd get on with my day. (Participant 08, male, T1)

Desire to Work

Only three participants reported that they were not looking for work or had no intention of working at any point during the study. In contrast, most stated that they wanted to work immediately or within the next year (for example, once their LAIB treatment had 'settled down', or after they had completed their studies, recovered from physical health issues, or gained relevant experience from volunteering). This included the participant who identified as being retired at T1. By T6, she was engaging with the job centre and editing her CV with a view to working again. According to other participants, "getting back into work" was a "long-term plan". Many said that they were happy to return to the type of jobs they had done previously, although some indicated that they were also open to trying new roles or would do "any work". Only one participant said she had not considered what type of work she would do.

Collectively, participants identified many reasons for, and benefits from, securing a job in the future. Only two referred to a desire for more money. More often, participants stated that they enjoyed working and/or appreciated that work would provide them with something to do, offer a sense of purpose, help them to meet people, or give them satisfaction. Some also emphasized that they wanted to pursue a career where they could help others and feel that they were "making a difference". Participant 20 added that volunteering and having a plan for securing a job in the drug treatment sector had made him feel proud, given him a sense of direction, and provided him with things to talk about socially. Meanwhile, Participant 18 explained how working in a hostel was helping her own mental health:

My mental health, I struggle, I do struggle with. But... I'm more... I'm dealing with it better since I got this job that I wanted. (Participant 18, female, T1)

Despite their evident desire to work, participants collectively identified many factors that hindered this. These included physical and mental health problems (for example, long-term disabilities and conditions requiring medical procedures), being "too old", not having a strong track record of working, lack of qualifications, having a criminal record, or needing to prioritize other life issues, such as securing stable housing or seeing children. Two participants were also concerned that their appearance (lack of front teeth and some facial cuts respectively) would deter employers and so they needed to address these before applying for work. One participant highlighted the lack of local job opportunities, and a few, such as Participant 26, said that they were concerned that they would be worse off financially if they worked or volunteered because their benefits (welfare payments) might be withdrawn:

[I] don't wanna be on sick [sickness benefit] forever either... [but] I'm kind of trapped in poverty. Because to be better off, I'd need to be bringing in about four, five hundred quid a week... [You] feel like you're better off on benefits, even though it's not enough to live off... Tricky one. (Participant 26, female, T6)

Participants had generally not received any help with job-seeking at any of their interviews. A few said that treatment services were encouraging them to take courses, one woman had been to the job centre and said that her support worker was helping her with her CV, and one man had booked an appointment with his work coach at T2 (although the outcome of this was unknown as this participant did not complete any further interviews).

Associations Between LAIB and Work

Participants' employment and LAIB treatment status at their last interviews are juxtaposed in Table 2. Analyses of the qualitative data revealed that the links between LAIB and work were bi-directional and complex. For example, Participant 18 reported that work benefitted her treatment by providing a distraction from the withdrawal symptoms she experienced on initiating LAIB. Additionally, not wanting to be identified as a person who used opioids at work was incentivising her to reduce and come off LAIB. Conversely, several participants (including Participant 18) explained how being treated with LAIB had increased their ability to work by improving their physical and/or mental health:

[I'm feeling] stronger. I wouldn't be cut out for work otherwise. (Participant 06, male, T5)

I'm starting to see things a bit clearer now... Starting to realize that I need to get out my room, looking for a job, start trying to get my life back in order. (Participant 14, male, T2)

Regardless of their employment status, participants frequently argued that LAIB was more compatible with working and studying than other medications for opioid use disorder. The main reason participants gave for this was that there was no need to travel to the pharmacy daily to collect or consume medication. Some participants added that fear of missing a day's medication because they had failed to attend the pharmacy had historically made them too anxious to work. According to others, daily visits to pharmacies were difficult or impossible when they had to work long hours or travel for a job. The benefits of weekly or monthly (over daily) dosing were, meanwhile, enhanced if clinical services were flexible about arranging appointments for LAIB injections. Participant 08 acknowledged how helpful his treatment provider had been in this regard:

So, with work and stuff like that, I can always drop her [drug worker] a text, say 'I can't make it. Can I do tomorrow?' And they're brilliant. They've always sorted it out for me. (Participant 08, male, T6)

Some participants commented on how LAIB had had a positive impact on their performance at work by increasing their physical stamina or by helping them to focus more, whilst Participant 23 reported that LAIB had benefitted her studies because it had removed her cravings for heroin, improved her concentration, and made her feel more "motivated", "energized" and "alert". This participant also said that LAIB had increased the time she had to study because she no longer had to collect her medication daily. Anticipating similar benefits, a few participants said that one reason they had initiated LAIB was because they believed that the treatment would improve their employment prospects. This was the case for Participant 22 who, inspired to try LAIB after hearing about another patient who now had a job, was optimistic that LAIB could help her in the same way:

When I've been on it [LAIB] a bit longer and that... Like I could be a drug worker if I wanted to. (Participant 22, female, T2)

More negatively, two of the three participants who were in full-time work when they had initiated LAIB explained how they had had to have some time off work after their first injection because they had felt unwell which they attributed to withdrawal symptoms. However, this had passed during the initial weeks and, in one case, after their dose had been increased. Participant 20 similarly reported withdrawal symptoms after starting LAIB but said that he felt better and was able to explore new volunteering opportunities after his dose had been increased at T3. Meanwhile, Participant 18 explained how concerns about withdrawal symptoms had made her reluctant to reduce her LAIB at T6; Participant 23 did not want to risk destabilizing her treatment by reducing her LAIB medication until she had completed her course and

qualifications; and Participant 08 was worried about reducing his LAIB in the future in case it made him unwell and affected his work:

Because I can't stay on it [LAIB] forever. So, it is gonna become a point where I'm gonna have to start dropping down [reducing LAIB dose]. They [treatment service] might bring it up, but I wouldn't bring it up until I know I'm ready to do it. Because obviously if I start dropping down, it could start affecting my work. (Participant 08, male, T6)

Discussion

The findings presented are consistent with, and extend, previous research, which has concluded that LAIB is associated with increased employment amongst people seeking treatment for opioid use disorder.^{27,32,33} Participants who remained on LAIB or who completed their LAIB treatment reported ongoing work and education or new work-seeking activities, temporary/part-time work, or volunteering. In contrast, participants who discontinued LAIB did not start any new education, training or work during their time in the study. Participants confirmed that LAIB facilitated work because they had more time now that they no longer had to attend the pharmacy daily to collect or consume their medication^{30,31} and they felt physically and psychologically more able to work. Moreover, some described feeling more energized and alert and noted that LAIB had improved their work performance.³⁴

Despite these positive outcomes, the relationship between treatment with LAIB and employment (as between substance use and employment) was complex.^{2,8} Participants commented on how employment was personally beneficial, work could be a helpful distraction from LAIB-related withdrawal symptoms, and wanting to progress at work could be an incentive to both initiate and complete LAIB treatment. Nonetheless, initiating LAIB could interrupt work if patients felt unwell. Additionally, concerns about the potential negative impact of withdrawal symptoms (as dosing is reduced or as medication dissipates towards the end of a dose) on work performance could be a disincentive to reduce LAIB. One participant also highlighted how some jobs can be stressful, and some work environments undermine recovery.^{4,13} Drug treatment providers need to be mindful of these complexities and willing to discuss them with patients receiving or considering LAIB so that they are prepared.

Historically, UK Government employment policies and programmes have tended to be underpinned by an assumption that people who use substances do not want to work and cost taxpayers too much money by being unemployed. Accordingly, it is assumed that people must be coerced into jobs with welfare payments withdrawn if they do not comply.⁸ For example, the 2008 Drug Strategy stated: "In return for benefit payments, claimants will have a responsibility to move successfully through treatment into employment".¹⁸ Our findings show that people in treatment generally want to work and need support rather than benefit conditionality.^{8,42,43} However, not everyone will be ready for, or able to participate in, paid employment and working should not be a prerequisite to continued drug treatment or being considered a valued member of society.^{44,45}

Importantly, participants in our study seemed neither especially motivated by money nor by the financial benefits of employment. Instead, they tended to be interested in working because they enjoyed it and recognized that having a job is good for physical and mental health, offers a distraction from substances, provides a way of meeting new people, and can allow them to help others. Nonetheless, our analyses revealed how people receiving LAIB, like other people dependent on opioids, often encounter personal and structural barriers to working.^{4,5,8,14} Those being treated with LAIB may want to work but will likely soon feel disillusioned and let down if they are unable to secure employment and if there is nobody to help them with job-seeking. Participants in our study appeared to receive almost no work-related support, which seems to have been a significant missed opportunity.

Whilst addressing the structural barriers to employment will be beyond the scope of clinical services, our data point to various strategies that could be adopted by drug treatment providers to help people receiving LAIB achieve their employment goals. These might include reinforcing the non-financial advantages of working, particularly the benefits to general health and well-being, but also working with patients to identify any personal concerns or barriers they are facing. This might highlight a role for pre-work education, training or volunteering; point to unmet physical or mental health needs; or indicate that other life circumstances need to be prioritized for the moment. Extra support (pharmacological or psychosocial) may be required during the first month of LAIB treatment as patients adjust to the medication, as well as when they are tapering off LAIB.³⁸ Equally, flexibility when arranging drug treatment appointments may help patients who have difficulty negotiating time off work or who do not want their employers to know about their opioid use.

Limitations

Caution should be taken before generalizing the findings presented to other settings where patterns of opioid use, LAIB availability, and employment contexts are different. Our analyses derive from a small sample of 26 patients who each received either Weekly or Monthly Buprenorphine. We have no data on people who received Sublocade (which is not available in the UK), we did not interview participants beyond a year, and some participants were lost from the study prior to this time point. In addition, our data collection occurred just before a significant investment in Individual Placement and Support (IPS) for alcohol and drug dependence by the UK government.²¹ IPS workers provide personalized employment-related support both to patients of treatment services and to employers. Over time, this should increase employers' knowledge and understanding of opioid use and so potentially counter some of the stigma and prejudice that people who use substances encounter in the workplace. Moreover, if IPS becomes a standard feature of drug and alcohol treatment services, the lack of employment-related support we found may not apply to LAIB patients in England and Wales in the future.

Conclusions

Our data suggest that LAIB may help drug treatment patients who are interested in securing employment. Nonetheless, no medication can on its own overcome the barriers to paid work that people receiving treatment for opioid use disorder often face. Patients on LAIB who wish to work may need access to personalized employment support, including an employment advisor who can advocate for them at times when they may be feeling unwell because of their treatment and support them with broader life problems. LAIB recipients will not always want or be able to undertake a permanent full-time paid job, but it is important to remember that meaningful employment can be defined more broadly than this. Education, training, volunteering, sheltered work, therapeutic work, and part-time and temporary employment are all forms of employment that can enhance the well-being and employability of people dependent on opioids.^{8,21} Our findings indicate that LAIB can also assist patients who prefer to focus on these broader employment-related outcomes.

Abbreviations

IPS, Independent Placement and Support; LAIB, Long-acting injectable buprenorphine; T1, interview conducted within 72 hours of treatment initiation; T2, interview conducted at one week post treatment initiation; T3, interview conducted at one month post treatment initiation; T4, interview conducted at three months post treatment initiation; T5, interview conducted at six months post treatment initiation; T6, interview conducted at twelve months post treatment initiation.

Data Sharing Statement

The qualitative dataset generated and analyzed is not publicly available due to small sample size, sensitive data, and potential identification of organizations and individuals contra confidentiality agreements. Please contact the corresponding author for further information.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically

reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

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