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Liverpool's Drink Less Enjoy More: Alcohol test purchase monitoring 2019

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Executive summary

Introduction

UK night-time environments (NTEs) are important settings for employment, economic investment, cultural events and affording people opportunities to socialise and relax, however, such settings are also often characterised by high levels of intoxication and drunkenness [1, 2]. Contributing to the issue of drunkenness and high levels of alcohol consumption in nightlife environments is the propensity of bar servers to sell alcohol to intoxicated patrons.

Over recent years, partners across Liverpool have started working towards addressing the service of alcohol to drunk patrons. Drink Less Enjoy More¹ is a multicomponent intervention which aims to change nightlife cultures of excessive intoxication through addressing the sale of alcohol to intoxicated patrons [3]. The intervention has been implemented and evaluated (at several time points) in Liverpool's nightlife since 2014 [4, 5, 6]. To date, the intervention has been associated with significant increases in nightlife user knowledge of the law around the sale of alcohol to and the purchase of alcohol for drunks [4, 7]. Crucially, compared to the pre-intervention phase (2013), the intervention has been associated with a sustained significant reduction in the service of alcohol to drunks. Monitoring of the service of alcohol to pseudo-intoxicated actors, has to date, been conducted at the same time each year when intervention activity is generally increased (November/December). Thus, to investigate whether the sustained reduction in over-service of alcohol is maintained at times of the year with less intensive activity, the current study implemented pseudo-intoxicated actor alcohol test purchases in February 2019.

Methods

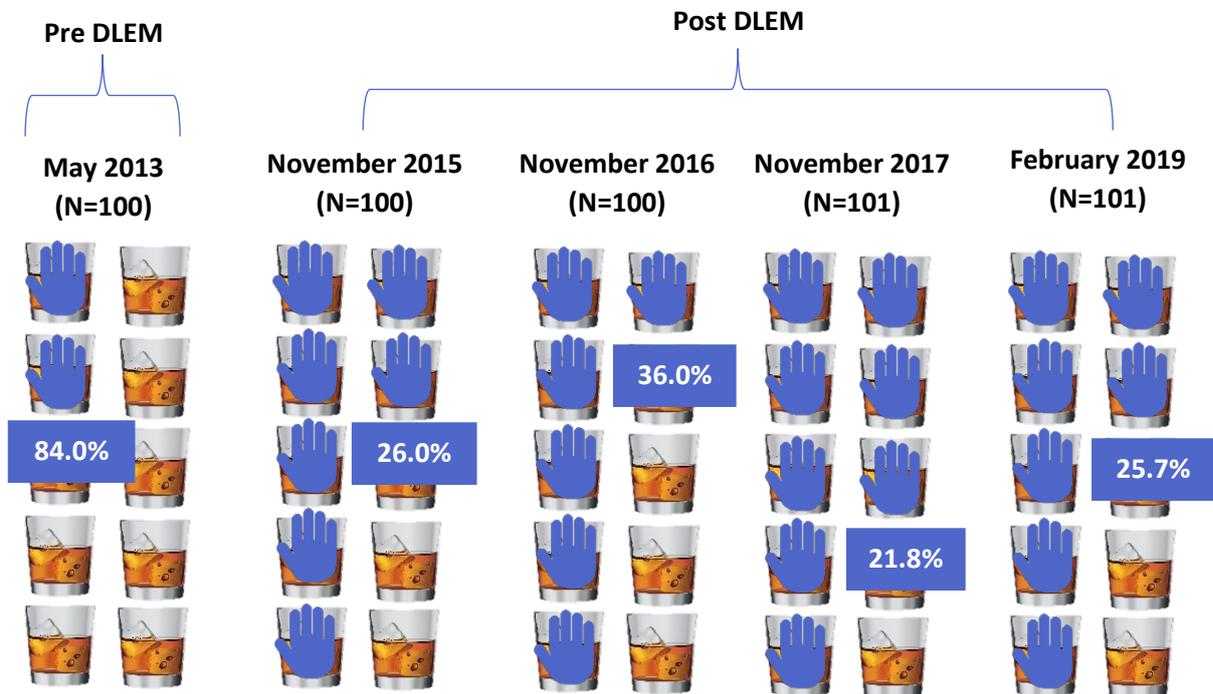
Alcohol test purchases were made by pseudo-intoxicated actors across five nights (Wednesday - Sunday) in 101 on licensed premises in Liverpool City Centre's main nightlife area.

Key findings

- There was a significantly different rate of service of alcohol to pseudo-intoxicated actors across the five years test purchases were conducted, with the highest proportion of successful attempts during the pre-intervention test purchases (May 2013) and the lowest proportion of serves during the 2017 post-intervention test purchases (November 2017) (Figure A).
- Service rates have remained significantly lower in the most recent test purchase attempts (25.7%, February 2019) compared with pre-intervention test purchases (84.0%, May 2013; $p < 0.001$). Further, whilst the service rate in February 2019 (was higher than that in 2017, this difference was non-significant).

¹ Branded Say No To Drunks in the pilot stage.

Figure A: Bar server propensity to serve alcohol to pseudo-intoxicated actors; pre DLEM 2013, and DLEM post 2015, 2016, 2017 and 2019



Conclusion

The Drink Less Enjoy More (DLEM) intervention, which was first developed and implemented in 2014 via a multi-agency partnership led by Liverpool City Council, has now been running on an ongoing basis for the past five years. Over the years, evaluation studies have demonstrated significant increases in nightlife user knowledge of the law around the sale of alcohol to and purchase of alcohol for intoxicated patrons; a key aim of the intervention. Crucially, since the implementation of the DLEM intervention, there has been a significant and sustained reduction in sales of alcohol to pseudo-intoxicated actors over each of the post-intervention test purchase waves (DLEM 2015, 26.0%; DLEM 2016, 36.0%; DLEM 2017, 21.8%; DLEM 2019, 25.7%) compared to the pre-intervention test purchase wave (84.0%).

The current wave of evaluation demonstrated that the most recent service rate (February 2019) has remained significantly lower than the pre-intervention phase ($p < 0.001$). Further, whilst the service rate in February 2019 was slightly higher than that in November 2017, this difference was non-significant, demonstrating that the impact of the intervention is sustained at other times of the year, when there are lower levels of intervention activity. Sustained bar staff propensity to refuse alcohol to intoxicated represents the achievement of a crucial intermediate aim of DLEM. Further, it strengthens the case to continue implementing DLEM over the long-term, and working to achieve the interventions overall aims of changing community level alcohol and nightlife cultures, reducing the extent, tolerance and expectations of nightlife drunkenness, and promoting a diverse, inclusive and healthy nightlife setting.

Drink Less Enjoy More (DLEM) evaluation: Liverpool City Centre

INTERVENTION

Liverpool's DLEM¹ is a community based multi-component intervention comprised of three core components; community mobilisation, responsible bar staff training, and strengthened law enforcement, that has been implemented in Liverpool's nightlife since 2014.

The intervention aims to reduce excessive drunkenness and alcohol-related harms amongst nightlife users through: 1) increasing awareness of, and adherence to, UK legislation, which prohibits the sale of alcohol to, and purchasing of alcohol for, drunks; and, 2) discouraging preloading of alcohol and reducing the acceptability of nightlife drunkenness.

WHAT WE DID

Nightlife user survey



Short anonymous survey conducted opportunistically with nightlife patrons aged 18+ in Liverpool City Centre's nightlife.
(Friday and Saturday nights 2014, 2015, 2016, 2017)

Alcohol test purchase attempts



Alcohol test purchases in pubs/bars/nightclubs by pseudo-drunk actors across Liverpool City Centre's nightlife.
(Wednesday-Sunday nights 2013, 2015, 2016, 2017, 2019)

WHAT WE FOUND NIGHTLIFE USER SURVEY (2017)

Nightlife user survey - alcohol consumption patterns and cultures of drunkenness (2017)

		Proportion	Units
	Drinkers ² who preloaded before entering the nightlife area	47.2%	4.2
	Drinkers ² who en-route loaded before entering the nightlife area	16.9%	2.0
	Expected ³ total units consumed over course of the night out	N/A	18.0

Males, those aged 22-29 years, non-students, non-Liverpool residents and preloaders expected to consume more alcohol over the course of the full night out than their counterparts.



52.8% agreed⁴ that the authorities do not tolerate drunken behaviour
(Significantly higher than pre-intervention [36.8%] p<0.001)

Experience of alcohol-related harms in Liverpool's nightlife (2017 past three months)

 Vomiting 35.1%	 Serious verbal argument 25.4%	 Injury 15.7%
 Physical assault 13.4%	 Too drunk to walk 30.6%	 Sexual violence 14.2%

1 Branded Say No To Drunks [SNTD] during the initial pilot phase.

2 90.0% of survey participants had consumed alcohol prior to survey participation; these were referred to as drinkers.

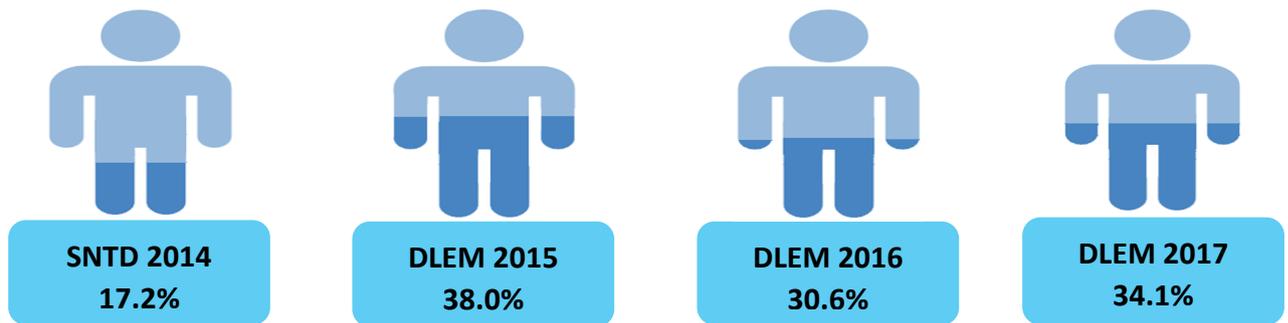
3 Including reported and, or expected alcohol consumption post survey.

4 Including strongly agree and agree.

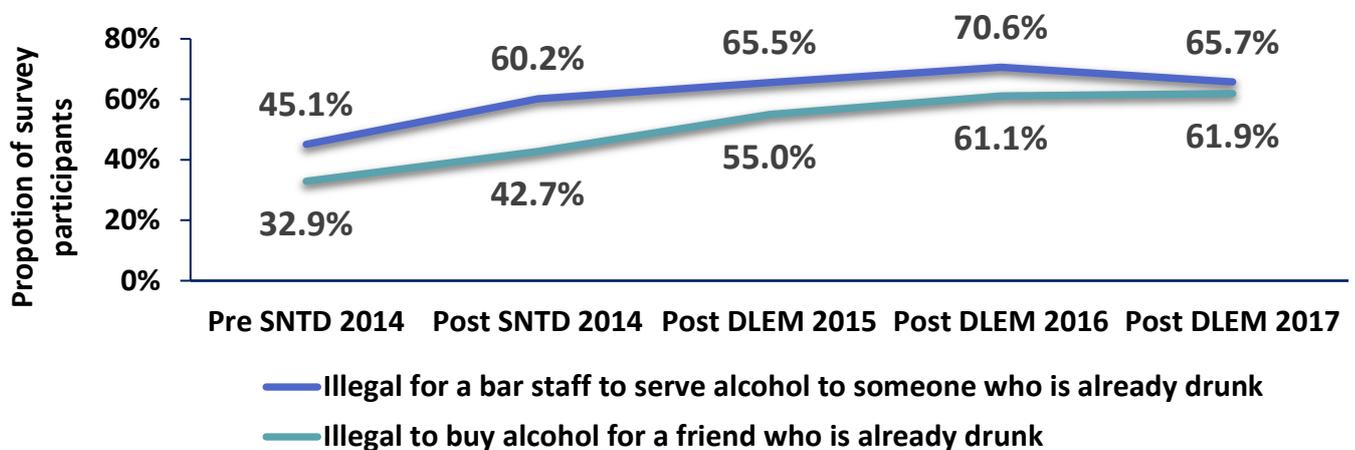
Comparison of key outcome measures

Pre (2013/2014) and post-intervention (2014-2019)

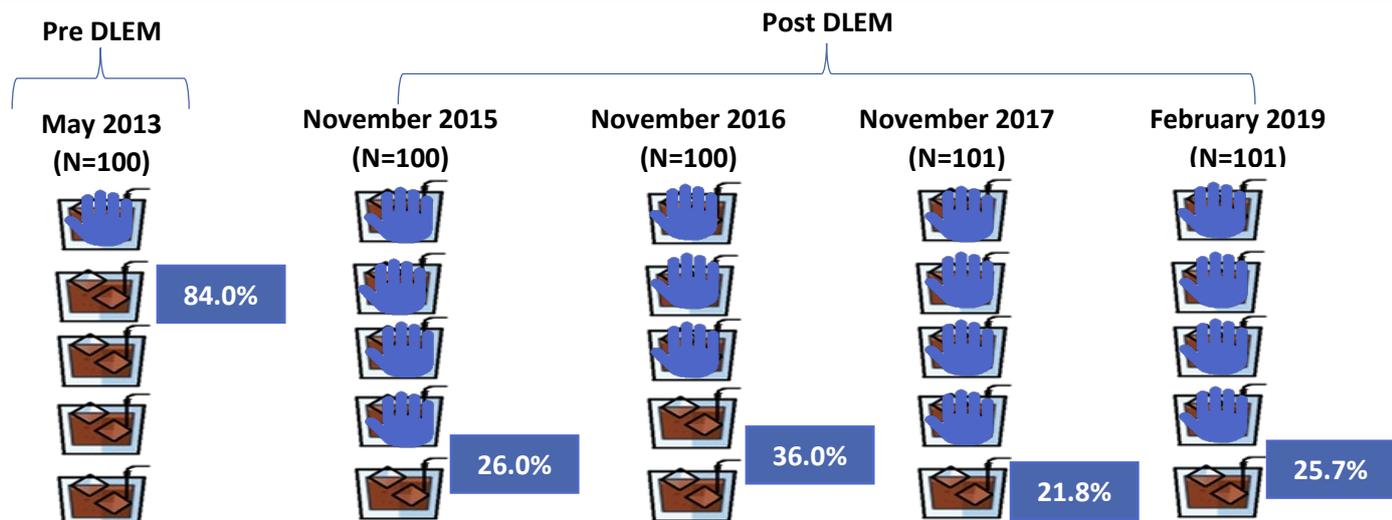
Nightlife user survey - intervention awareness



Nightlife user survey - awareness of the UK legislation



Bar staff propensity to serve alcohol to pseudo-drunk actor



Bar staff survey 2015 (N=207)



93%
Reported feeling confident in refusing the service of alcohol to a drunk person

95%
Correctly reported that it is illegal for a bar server to sell alcohol to someone who is already drunk

86%
Correctly reported that it is illegal for a person to buy alcohol for someone who is already drunk

Reports presenting the full methodology and results are available at www.ljmu.ac.uk/phi

Most recent report: Butler, N., Bates, R., Quigg, Z. (2019). Liverpool's Drink Less Enjoy More: Alcohol test purchase monitoring 2019. Public Health Institute, Liverpool John Moores University.

1. Introduction

UK night-time environments (NTEs) are important settings for employment, economic investment, cultural events and affording people opportunities to socialise and relax [1]. Despite the potential positive benefits of NTEs, such settings are often characterised by high levels of intoxication [2]. High levels of alcohol consumption and drunkenness can result in alcohol related harms in and around licensed premises, and contribute to a substantial drain on police, and community and health sectors, who must manage nightlife drunkenness and associated problems such as anti-social behaviour, violence and alcohol related injuries [7, 8, 9]. Various studies suggest that drunkenness in UK NTEs is culturally accepted and expected [2, 10, 11]. Further, research suggests that many nightlife users arrive in nightlife environments already intoxicated, having consumed a substantial amount of alcohol at home for example preloading or on-route loading before entering the night time economy [5, 6, 12].

Contributing to the issue of drunkenness and high levels of alcohol consumption in nightlife environments is the propensity of bar servers to sell alcohol to intoxicated patrons. UK legislation prohibits bar servers from selling alcohol to, or patrons purchasing alcohol for, someone who is already intoxicated [13]. However, until recently, studies in the UK have shown public awareness, bar staff compliance, and police enforcement of this legislation to be low [14, 15, 16]. Baseline studies across several UK cities have shown that the denial of service to intoxicated patrons was typically low, ranging from 16-51% [3, 15, 17], suggesting that it is common practice for bar staff to serve alcohol to drunk customers. In 2013, a study examining bar server propensity to sell alcohol to drunks in Liverpool City Centre, found that 84% of alcohol purchase attempts by pseudo-intoxicated actors were successful [15].

Since then, efforts to address cultures of drunkenness by increasing public awareness of the law around the service of alcohol to drunks and supporting bar staff compliance with legislation have been made by local partners in Liverpool. This work programme began with the pilot Say No To Drunks (SNTD) campaign which was developed and implemented in 2014 by Liverpool City Council. The aim of the campaign was to change nightlife cultures of excessive intoxication through addressing the sale of alcohol to intoxicated patrons, following a community-based multi-component approach [5]. In 2015 the campaign was further refined and rebranded and developed into the Drink Less Enjoy More (DLEM; see Box 1) intervention and made a core activity of local partners' work to address nightlife drunkenness. The intervention ran on an ongoing basis, but with intensified activity around key periods (e.g. Christmas and University Freshers week). The intervention has now been implemented and evaluated in Liverpool's nightlife at several time points over the past five years, evidencing effectiveness of the intervention over the long-term. Specifically, each post-intervention wave of evaluation showed significant increases in nightlife user knowledge of the law around the sale of alcohol to (post SNTD 2014, 60.2%; post DLEM 2015, 65.5%; post DLEM 2016, 70.6%), and the purchase of alcohol for (post SNTD 2014, 42.7%; post DLEM 2015, 55.0%; post DLEM 2016, 61.1%) drunks compared to pre-intervention (2014 sale, 45.1%; purchase, 32.9%) [4].

Crucially, since the implementation of the DLEM intervention, there has been a significant and sustained reduction in sales of alcohol over each of the post-intervention test purchase waves (DLEM 2015, 26% of attempts resulted in the sale of alcohol; DLEM 2016, 36%; DLEM 2017, 21.8%) compared to the pre-intervention test purchase wave (84%) [4]. To date evaluation of DLEM has taken place at the same time each year, around the time of intensified enforcement and social media activity during key periods for high levels of alcohol consumption. The ongoing monitoring of alcohol sales to pseudo-intoxicated actors now forms part of the preventative and intervention activity, with licensed premises receiving feedback of their test purchase results, along with offers of further support and training (where appropriate). Thus, licensed premises are aware that around key periods monitoring of sales of alcohol to drunks is conducted and this may increase the vigilance against such behaviour. The current study aimed to determine whether the low service rate, which has been observed since the intervention was implemented, would be sustained if the test purchases took place at a different time of year when licensed premises were not expecting the same level of monitoring and enforcement activity. Thus the current study aimed to:

- Assess the impact of the DLEM intervention on bar server propensity to serve alcohol to intoxicated patrons (i.e. pseudo-intoxicated actors);
- Determine if the service rate differed significantly from previous test purchase results undertaken at a different time of the year; and,
- Identify the environmental, server and patron characteristics associated with over-service of alcohol.

Box 1: The Drink Less Enjoy More (DLEM) intervention

The intervention involved the collective implementation of three core components:

- **Community mobilisation and awareness raising:** creation of a multi-agency intervention steering group and implementation of a range of awareness raising activities (i.e. on alcohol legislation) targeted towards different audiences, particularly the local alcohol trade and public.
- **Responsible bar server training:** free provision of 30 minute face-to-face training programme for bar staff on preventing sales of alcohol to drunks, including information on: alcohol legislation and implications of flouting the legislation, and service refusal and conflict management techniques.
- **Strengthened law enforcement:** intensified engagement and enforcement activity by police and other partners focusing on sales of alcohol to drunks.

Implemented in Liverpool City Centre nightlife over two phases:

- **Pilot Say No to Drunks:** 5 weeks (2014) across ~38 on-licensed premises in one area of Liverpool's nightlife.
- **Drink Less Enjoy More:** ongoing since 2015 across ~250 on-licensed premises across the full nightlife environment.

2. Methodology

2.1 Alcohol test purchase attempts

101 alcohol test purchase attempts were conducted in February 2019, over a period of five nights (Wednesday-Sunday). Test purchases were attempted covertly; the owners, managers nor staff of selected establishments were informed of the study prior to the test purchase.

Six actors (male=2; female=4) were recruited from Liverpool Screen School, LJMU, to take the roles of pseudo-intoxicated patrons. A standardised act was used to ensure a high level of intoxication was portrayed, using key indicators (e.g. unstable walking, staggered gait, fumbling with money, slurred speech, inappropriate laughter, forgetfulness). Alcohol test purchases were made by one actor and observed by one researcher, or in a group of three (two actors, one researcher). All other elements of the test purchases followed a similar protocol to previous pseudo-intoxicated actor test purchase studies [4, 6, 14, 18].

2.2 Data analyses

All data was entered, cleaned and analysed in SPSS v25. Analyses used descriptive statistics and chi-squared for independence (with Yates continuity correction).

2.3 Ethics

Ethical approval for the study was granted by Liverpool John Moores University Research Ethics Committee (REC no. 15/EH/073).

3. Findings

3.1 Findings from pseudo-intoxicated actor alcohol test purchase attempts 2019

In February 2019, 101 alcohol test purchase attempts were conducted over a period of five nights (Wednesday 15; Thursday 22; Friday 28; Saturday 25; Sunday 11); eight alcohol test purchases were attempted by pseudo intoxicated actors in problematic premises² suggested by Merseyside police and 93 randomly selected licensed premises in Liverpool City Centre. Test purchase attempts were conducted between the hours of 8pm-1.40am.

Approximately one quarter (25.7%, n=26) of purchase attempts resulted in the sale of alcohol to the pseudo-intoxicated actor. Two of the eight premises selected as they had served the actor repeatedly in previous attempts, also served the actor in this purchase attempt.

There was no significant difference in service rates by week night; 46.7% of services attempts on Wednesday resulted in the sale of alcohol, 22.7% on Thursday, 28.6% on Friday, 16.0% on Saturday and 18.2% on Sunday. There was also no significant difference in service outcome between purchase attempts made before (26.7%) or after midnight (25.6%). Pseudo-intoxicated actors were offered a double measure of vodka by the bar server instead of the single requested in over half (56.0%) of all successful test purchase attempts. Of all successful

² Premises which had served several times in past test purchase evaluation waves.

test purchase attempts actors were asked to show ID at the bar in one sixth of them (15.4%).

Where actors were refused service, the majority (64.0%) of attempts involved the server directly refusing the sale of alcohol. Other tactics were also used to avoid the alcohol sale, these included offering a non-alcoholic drink (25.3%), using caring statements (12.0%), seeking the help of other staff (16.0%), and ignoring the patron (i.e. passive refusal; 12.0%) (see Box 2 for examples of such tactics used in exchanges with actors).

Box 2: Example extracts from actors' notes on exchanges with bar servers

Test purchases resulting in alcohol service:

- Waited for over 15 minutes until the bar was clear and then bartender served me, offering me a double.
- [The server] was insistent on serving me a double, saying it was only 50p more, then asking again before final purchase of a single.
- Drink was served but he asked the sober friend to look after me and asked "should I really have the drink".
- [The server] served me despite clear reservations, asking colleagues etc.
- [The server] asked if I was ok. I asked the price and she said do you want some water and I asked could I have [an alcoholic drink] and she said yes but just a single.
- I was served but given a glass of water with my drink.

Test purchases resulting in refusal of alcohol service:

- Entered, stood for ages then caught eye contact with female bartender, then she shook her head and mouthed no.
- Direct refusal "sorry you're too drunk".
- Asked how much, given price, then [the server] said I can get you a water, come back later for a vodka and asked if I was ok.
- Ask for my ID, then told me the price [the server] went away and then refused me.
- Asked me questions like "are you drunk" and "how many drinks have you had" before refusing.
- [The server] spoke to a colleague before saying I was too intoxicated, offered water.
- Was refused straight away. [The server] used very caring statements such as "get her home safe" and "the only drink I could give you is water".

Ten established markers of poorly managed and problematic (PMP)³ bars were drawn from the observational data using an established tool by Graham et al. [19] and used in the previous DLEM evaluations [6, 18]. There was no significant association between the total number of PMP markers, however there was an association between low seating ($p < 0.01$)

³ PMP, poorly managed and problematic bars: low seating, <50% venue floor area with seating; young bar staff, >50% appear <age 25; young customers, most appear <age 25; drinks promotions, general and cheap drinks promotions; noisy bar, crowded bar, poor lighting, dirty bar, rowdy bar, drunk customers, ratings of five or over on scales of 0 to 9 grading the presence of the marker (e.g. noisy bar; 0=very quiet/easy to talk, 9=hurt ears/cannot talk).

and the sale of alcohol to pseudo-intoxicated actors (Table 3).

Table 3: Service rates to pseudo-intoxicated actors in venues with and without markers of poorly managed and problematic (PMP) bars

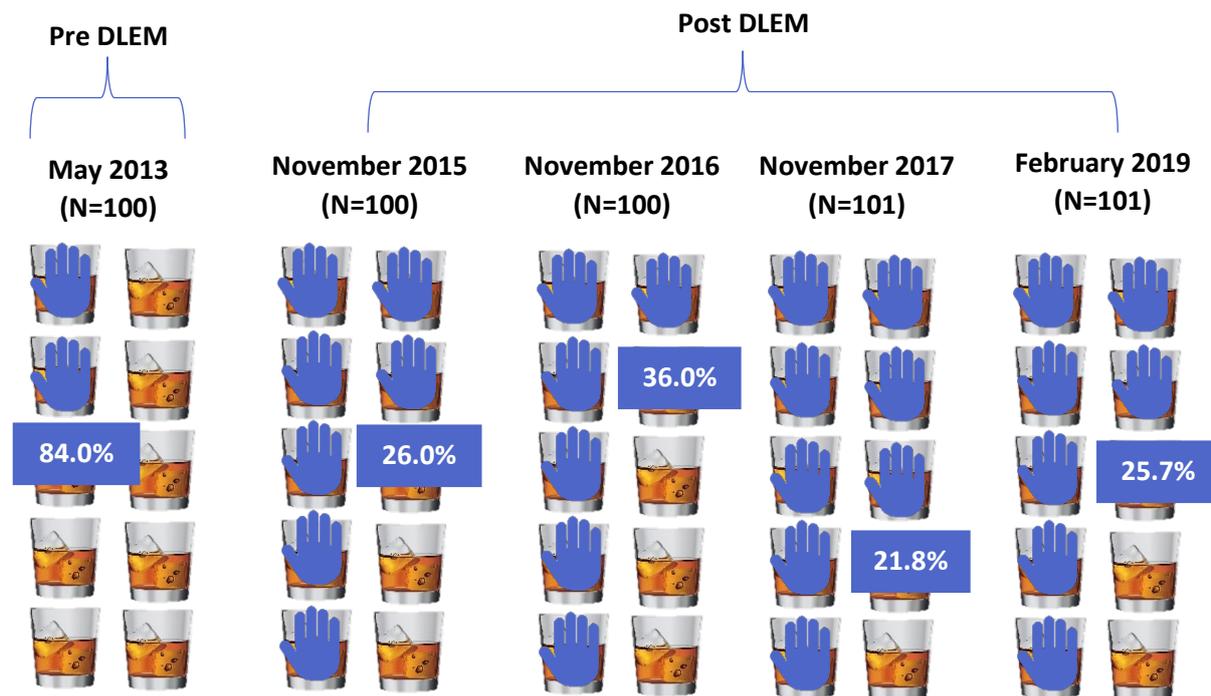
PMP markers		n	% served	χ^2	p
Low seating	No	68	16.2	8.490	<0.01
	Yes	33	45.5		
Drink promotions	No	34	26.5	0.000	1.000
	Yes	67	25.4		
Young bar staff	No	60	20.0	1.863	0.172
	Yes	41	34.1		
Young customers	No	84	22.6	1.669	0.196
	Yes	17	41.2		
Noisy bar	No	73	21.9	1.358	0.244
	Yes	28	35.7		
Crowded bar	No	75	24.0	0.176	0.674
	Yes	26	30.8		
Poor lighting	No	78	24.4	0.099	0.753
	Yes	23	30.4		
Rowdy bar	No	85	23.5	0.741	0.389
	Yes	16	37.5		
Dirty bar	No	88	23.9	0.614	0.433
	Yes	13	38.5		
Drunk customers	No	83	24.1	0.265	0.606
	Yes	18	33.3		
Number of PMP markers	None	13	7.7	5.904	0.206
	1 or 2	46	26.1		
	3 or 4	22	27.3		
	5-7	13	23.1		
	8-10	7	57.1		

3.2 Pseudo-intoxicated actor alcohol test purchase yearly comparisons (pre DLEM 2013, post DLEM 2015, 2016, 2017, 2019)

In May 2013, 73 alcohol test purchases were made by pseudo-intoxicated actors across five nights (Wednesday - Sunday) in randomly selected venues in Liverpool City Centre. These test purchases were repeated following the implementation of the rebranded DLEM intervention in November 2015, November 2016, November 2017 and February 2019.

Across the four years of post-intervention test purchases, the rate of service to pseudo-intoxicated actors was significantly lower than in the pre-intervention period, with the highest proportion of successful attempts during the pre-intervention test purchases (May 2013) and the lowest proportion of serves during the November 2017 post-intervention test purchases ($p < 0.001$; Figure 2). Service rates have remained significantly lower in the most recent test purchase attempts (February 2019) compared with pre-intervention test purchases ($p < 0.001$). Further, whilst the service rate in February 2019 was higher than that in 2017, this difference was non-significant.

Figure 2: Bar server propensity to serve alcohol to pseudo-intoxicated actors; pre DLEM 2013, and post DLEM 2015, 2016, 2017 and 2019.



4. Conclusion

The Drink Less Enjoy More (DLEM) intervention, which was first developed and implemented in 2014 via a multi-agency partnership led by Liverpool City Council, has now been running on an ongoing basis for the past five years. Over the years, evaluation studies have demonstrated significant increases in nightlife user knowledge of the law around the sale of alcohol to and purchase of alcohol for intoxicated patrons; a key aim of the intervention [4, 7]. Crucially, since the implementation of the DLEM intervention, there has been a significant and sustained reduction in sales of alcohol to pseudo-intoxicated actors over each of the post-intervention test purchase waves (DLEM 2015, 26.0%; DLEM 2016, 36.0%; DLEM 2017, 21.8%; DLEM 2019, 25.7%) compared to the pre-intervention test purchase wave (84.0%) [4].

The current wave of evaluation demonstrated that the most recent service rate (February 2019) has remained significantly lower than the pre-intervention phase. Further, whilst the service rate in February 2019 was higher than that in 2017, this difference was non-significant.

To date evaluation of DLEM has taken place at the same time each year, around the time of intensified enforcement and social media activity during key periods for high levels of alcohol consumption (November/December). Since 2015, alcohol test purchase results, which were conducted as part of the evaluation, were also fed back to licensed premises, along with offers of further support where appropriate as part of intervention activities. Thus, licensed premises may be aware that during that specific period, monitoring of sales of alcohol to drunks is conducted and thus may increase their vigilance against such behaviour. The current study's finding that the February 2019 service rate is not only significantly lower than the pre-intervention rate, but is also approximately the same or lower than previous test purchases conducted during the November period demonstrates that the impact of the intervention is sustained at other times of the year and during periods of lower intervention activity. Sustained bar staff propensity to refuse alcohol to pseudo-intoxicated patrons represents the achievement of a crucial intermediate aim of DLEM – reducing alcohol access to drunk customer in nightlife venues. Further, it strengthens the case to continue implementing DLEM over the long-term, and working to achieve the interventions overall aims of changing community level alcohol and nightlife cultures, reducing the extent, tolerance and expectations of nightlife drunkenness, and promoting a diverse, inclusive and healthy nightlife setting.

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