

Evaluating alcohol intoxication management services: the EDARA mixed-methods study

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Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

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Scientific summary

The EDARA mixed-methods study

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Scientific summary

Background

Acute alcohol intoxication in night-time city centre environments places significant demand on front-line emergency services and is greatest when licensed premises are open and at their busiest. Bespoke alcohol intoxication management services have been implemented in some cities in the UK and internationally. The rationale for alcohol intoxication management services is to provide a safe space in which those experiencing acute alcohol intoxication can recover and to alleviate pressure on front-line services, including emergency departments and ambulance services. The impact of alcohol intoxication management services on the management of acute alcohol intoxication in terms of emergency service key performance indicators, the impact of alcohol intoxication management services on the emergency department clinical environment and the acceptability of alcohol intoxication management services to staff and patients has not yet been evaluated.

Methods

The study was a controlled mixed-methods longitudinal observational study with parallel ethnographic evaluation. An ethnographic study was undertaken in two cities with alcohol intoxication management services and one city without. The ethnographic study drew on ecological theories of the division of labour, cultural historical activity theory and translational mobilisation theory, and involved documentary analysis, observation and interviews with front-line staff as they engaged in their routine activities. Telephone interviews were undertaken with alcohol intoxication management services users ($n = 19$), recruited from four alcohol intoxication management services, to inform the design of a bespoke survey. The bespoke survey of alcohol intoxication management services users was used to determine the acceptability of alcohol intoxication management services to users ($n = 208$) in six alcohol intoxication management services. A survey of emergency department patients, based on the existing Care Quality Commission national survey of emergency department patients (Trout A, Magnusson AR, Hedges JR. Patient satisfaction investigations and the emergency department: what does the literature say? *Acad Emerg Med* 2000;7:695–709), was used to determine whether or not the implementation of an alcohol intoxication management service locally resulted in improvements to perceived quality of care in emergency departments, and was conducted across the six intervention sites ($n = 340$) and six control sites ($n = 492$). The effect of alcohol intoxication management services on key performance indicators was determined by comparing routine data from six cities with local alcohol intoxication management services and six cities without local alcohol intoxication management services. The primary outcome was the number of emergency department attendances when alcohol intoxication management services were open. Secondary analyses focused on the ambulance services' proportion of urgent calls responded to within prescribed limits and the proportion of emergency department patients who were seen, treated and discharged within 4 hours. The component costs of alcohol intoxication management services were compared with usual care, presented from an NHS and social care perspective. Alcohol intoxication management services set-up and running costs were examined using a standardised costing exercise that included staffing levels, training, consumables and overheads (e.g. building rental, heating and lighting) and was informed by commissioning documents.

Results

Alcohol intoxication management services varied considerably, ranging from volunteer-led first aid to nurse-practitioner-led clinical care that was closely aligned with the local emergency department.

This variation in design, coupled with the low per-session alcohol intoxication management services attendance (mean 7.3, minimum 0, maximum 40) compared with emergency department attendances per alcohol intoxication management services session (mean 78.8) undermined opportunities to evaluate alcohol intoxication management services as a clearly defined homogenous service. The number of diversions away from emergency department per session required for alcohol intoxication management services to be cost-neutral (8.7, falling to 3.5 when ambulance costs were included) exceeded average alcohol intoxication management services attendances. The ethnographic study found that alcohol intoxication management services were acceptable to front-line staff, suggesting that innovations in this area would be regarded positively and that the services are operated as hubs that consolidated partnership working. Further evidence that alcohol intoxication management services had a positive impact on managing risk in night-time environments was reported, with practitioners in cities without alcohol intoxication management services avoiding referral to emergency departments despite not having the competence to do so. The acceptability of new health services to users is an important element of evaluation and alcohol intoxication management services were acceptable to, preferred by and popular with users. There was no demonstrable benefit to emergency department patients of having an alcohol intoxication management service implemented locally, and free-text responses to the emergency department surveys indicated that patients exhibiting acute alcohol intoxication were apparent to and viewed negatively by emergency department survey participants. The routine data used to determine effect demonstrated considerable variance and, coupled with variation in design, the opportunity to make a general statement on effectiveness and cost-effectiveness was limited. The service led by nurse practitioners and closely aligned with the local emergency department is the most likely to yield an effective and cost-effective outcome.

Conclusions

Alcohol intoxication management services are often multipartner endeavours, highlighting the distributed nature of health care across services in night-time environments. Alcohol intoxication management services serve as a hub that facilitates partnership working in night-time environments and are likely to capture needs previously unmet by ambulances and emergency departments. There are no agreed national standards for alcohol intoxication management services, meaning that the care provided varies considerably. Alcohol intoxication management services are popular with front-line staff across police, ambulance and health-care services, who perceive benefits, as well as the patients who use them. However, the true cost of acute alcohol intoxication in night-time environments is not evidenced in routine data. These costs are likely to include not only the costs to statutory services but also the costs to the community, for example delayed ambulance responding, and risks to individuals who become vulnerable because of their alcohol use but who do not necessarily require emergency department treatment, for example those isolated from friends and vulnerable to sexual assault. Such work should be undertaken nationally because of the rarity of some high-value costs. Legislation on drunkenness places acute alcohol intoxication within the remit of the criminal justice system but it is mostly managed in partnerships spanning police and ambulance services and the emergency care system, with health care often taking the lead. This, coupled with data systems that fail to identify the impact of acute alcohol intoxication on ambulance, police and health-care resources, precludes opportunities for appropriate nationally agreed resourcing strategies and agreed standards on the management of acute alcohol intoxication. Instead, innovation has occurred non-uniformly at the local level, resulting in a diversification of strategy, precluding opportunities for evaluation, standard setting and appropriate governance. There is potential for alcohol intoxication management services to contribute to health care in night-time environments; however, the variability in the design of alcohol intoxication management services impedes opportunities for a general statement on their effectiveness. A model led by a nurse practitioner and that is closely aligned with the local emergency department, but which incurs a greater cost than other alcohol intoxication management services, is more likely to successfully divert patients away from the emergency health-care system and have appropriate clinical governance in place. The generalisability of this model to other cities should be assessed.

Trial registration

This trial is registered as ISRCTN63096364.

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