

## An exploration of street drinking in Drumchapel, Scotland

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### Abstract

This paper describes the results of a survey undertaken to contribute to a health needs assessment of persistent street drinkers in Drumchapel, Greater Glasgow. Street drinkers, members of the public and local service providers [including agency professionals (community workers; health workers; social workers) and others (e.g. shopkeepers)] were interviewed. Street drinkers were generally male, single, unemployed and living in their own (rented) accommodation. Not being homeless, they gave volitional reasons for drinking in the street, centred on social aspects and the cost of drinking in traditional establishments/public houses. Half the group said they did not do all their drinking on the street, suggesting alternatives may be possible. Uptake of food offered to respondents being interviewed was low, and self-reported diet was poor in vitamins and unvaried. Awareness of services was low in the street drinking group, with friends/family remaining the most common source of support. Public concern was mainly with the visibility of the group and the negative impact this was perceived to have on the community; however, service providers focused on health risks associated with street drinking. Consensus on the need for some accommodation/centre for

drinkers with access to services was established across all groups.

### Introduction

Heavy and/or frequent alcohol consumption in public places—street drinking—raises a number of issues for street drinkers and local communities alike. Estimates of numbers of street drinkers in the UK, who tend to be predominantly male, vary widely (from 5000 to 20 000 in 1994) and, contrary to public perceptions, it is estimated that a minority of around one-fifth sleep rough (Mental Health Foundation, 1996).

Street drinking is associated with problems relating to mental and physical health, substance use, housing, safety and crime (Lamb, 1995; Mental Health Foundation, 1996; Alcohol Concern, 2001). Despite this, the extent to which street drinking appears on the health research agenda is variable (Herring, 1996). Simultaneously, the manner in which street drinking is addressed has been subject to debate and controversy. For example, in some parts of the UK interventions for persistent street drinking involve ‘Wet’ Day Centres, about which opinions vary (Community Care, 2001). Specifically, the idea that these might sell discounted alcohol (to attract users who may then be close to accessible services) remains controversial.

With this in mind, this research sought to examine health needs, attributions for drinking and suggestions from drinkers and salient others regarding possible strategies for tackling problems associated with street drinking in Drumchapel. The area is a housing estate in Glasgow with high

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unemployment and social deprivation, recognized by its inclusion as one of the seven area-based Social Inclusion Partnerships (SIPs) in Glasgow which aim to tackle community regeneration (Drumchapel Social Inclusion Partnership, 2003).

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## Methodology

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### Aims

The main aim of this study was to contribute to a health and safety needs assessment of street drinkers in Drumchapel. In addition, perceived threats to general community safety were of interest and the researchers set out to gather information on a range of street drinking experiences. Finally, public attitudes and views of local service providers were of interest, specifically in relation to suggested ways to address any problems associated with street drinking in Drumchapel.

### Research design

A small survey administered directly by a fieldworker was considered most appropriate given that this allows for the collection of information from a relatively large number of individuals in the target groups, whilst allowing for some flexibility in time, location and response. The survey fieldwork was completed between mid-August and the end of October 2003.

The survey was administered to street drinkers, ( $n = 20$ ), members of the public ( $n = 60$ ) and service providers ( $n = 46$ ). This third group covered a broad range of professions and levels of contacts with the street drinking group, ranging from addiction/social workers with professional contact to shop workers coming into contact with the group. Shop workers were included with the agency workers rather than as members of the public because they stated that they offered an 'unofficial' support service to the street drinkers.

The number of participants in the street drinking group was less than those in other groups in absolute terms, but reflects attempts to access a substantial proportion of street drinkers in the area at the time of the fieldwork. Similarly, people from all local

agencies known to the fieldworker were surveyed. The public group was not purposively sampled in this way and was somewhat larger, with final numbers being determined by the scope of the research.

With the research aims in mind, a questionnaire was designed. Questions consisted of open-ended and forced-choice questions including categorical scales (e.g. yes/no) and rating scales (e.g. agree strongly to disagree strongly). Areas addressed included: aspects of street drinking; perceived problems associated with street drinking; perceptions around drug use in the group; ways forward.

### Procedures

Fieldwork was conducted by a fieldworker chosen by Drumchapel Alcohol Support Services (DASS). This ensured the individual was aware of the potential sensitivity of this area of research in the Drumchapel community and the possibility of reticence, both because of the topic area and because of community disaffection about the usefulness of participating in research.

In the interest of personal safety, fieldwork was conducted during the day and in public places. Further, interviews with members of the public and shopkeepers were conducted early in the day before large street drinking groups gathered because it was felt that access to the street drinking group would be compromised if they perceived that others were being questioned about their behaviour.

Street drinker interviews were conducted in local cafes where participants were offered breakfast or lunch. Members of the public were approached in the shopping centre, local community cafes, health centres and other places in Drumchapel, and interviews took place immediately where consent was forthcoming. Service providers were approached through their agencies/places of employment and interview times were arranged in advance for most of this group.

Potential participants were verbally informed of the aims of the research, promised confidentiality and told they could withdraw from the research interview at any point without giving a reason. Following this, participants were given the opportunity to ask

questions concerning the study. Individual interviews lasted between 10 and 60 min. The mean interview duration was 19.8 min (SD = 6.3). 91 interviews (72%) took place between 9 a.m. and 12 p.m.

Responses to open-ended questions were written down by the fieldworker. Three of the interviews (one in each group) were tape-recorded (with permission) and fully transcribed so that responses could be checked against written forms. As this type of analysis is thematic rather than quantitative, common practice is to make repeated comparisons (reliability trials) between the 'coding' of different analysts (Thorndike, 1951). Inter-rater consensus (Davies *et al.*, 2003) was obtained by repeated discussions between coders until the classificatory choices or 'themes' could be used to discriminate reliably between features of the data [see (Ross *et al.*, 2004)].

## Results

### Age and gender

Table I shows the age and gender of the sample. As Table 1 indicates, all but one of the street drinkers interviewed were male, reflecting the demographic make-up of this group at this time. However, both other groups were predominantly female, with 80% of members of the public being female. It is probable that this bias is a reflection of who uses the shopping centre at these times. However, this raises the possibility of bias, as public perception of a (mainly male) street drinking group may show some variance in terms of gender. There were no

**Table I.** The age and gender distribution of the sample (n = 126)

Group	Gender		Mean age (years) (SD)	
	Male	Female	Male	Female
Street drinkers (n = 20)	19 (95%)	1 (5%)	44 (6.9)	46 (0)
Public (n = 60)	12 (20%)	48 (80%)	40.8 (12)	39.1 (12.8)
Service providers (n = 46)	15 (33%)	31 (67%)	42.7 (5.2)	40.8 (9.3)

significant age differences in any of the sample groups (range  $P = 0.139$ – $0.809$ ).

### Street drinkers

Fourteen (70%) of street drinkers described themselves as single, with four married/living with partner and two reporting being 'separated'. All 20 were unemployed, with 19 (95%) receiving some form of benefit [all 19 received housing benefit and 11 (58%) were on incapacity benefit].

Sixteen (80%) reported that they currently drink alcohol. When drinking, 17 (85%) said they drank every day, two more than twice a week and one once every 2 weeks or less. Types of alcohol drunk included cider, lager, vodka and wine/fortified wine. When normal (average) drinking quantities in a drinking day were converted into units (taking into account type of alcohol), the mean self-reported number of units per week was 229 (SD = 130). [Whilst self-reported levels of consumption of drugs or alcohol can be subject to interviewer effects and functional reporting, e.g. (Davies and Baker, 1987), the levels reported would appear injurious to health]. Fourteen (70% of the street drinkers reported being unhappy with their current drinking levels, with nine wanting to drink less and five wanting to stop all together. The remaining six (30%) were happy to continue drinking at their current level.

One aspect not covered in the original interview schedule which emerged during fieldwork was diet. As stated in the Methodology, provision was made to offer a meal to participants as reimbursement for taking part in the research. However, the take-up of this offer was very small (10–15%). The group reported not eating very much, especially in the mornings. When prompted further, many (70%) reported a diet consisting solely of soup or 'ready meals', purchased at five for £5.

All 20 street drinkers reported that they lived in Drumchapel. Nineteen reported that they usually stayed in their own home, with one saying they usually stayed with friends/family. Thus, none classed themselves as homeless. All said their accommodation was rented. When asked what proportion of their drinking took place in the street,

answers were given as follows: 50% said they always drank on the street; 25% said they drank mostly on the street; 10% said they drank inside and on the street in equal measure; 15% said they drank mostly inside. Twelve (60%) respondents were happy with the amount of their drinking time spent on the street, with five wishing to drink less on the street (or stop altogether).

### Members of the public

Fourteen (23%) of the members of the public interviewed were unemployed. Fifty-four (90%) reported living locally. Of the six non-Drumchapel residents, two reported visiting the area every day and four reported visiting the area more than twice a week. Reasons given for visiting included work and contact with friends/family. One individual visited to buy illegal drugs. All members of the public who responded said they were aware of street drinking in Drumchapel.

### Service providers

Forty-six people working in Drumchapel were interviewed [31 females (67%) and 15 males (33%)]. Mean age was 41.4 (SD = 8.3). A range of services were represented including DASS, Caring Over People's Emotions, Citizens Advice Bureau, 3D Drumchapel, local Primary Care Trusts, community police, job centre and social work/addiction teams. Table II shows the breakdown by type of organization.

It can be seen from Table II that most of this group were working in the health/community work field, with representation from police and addiction/social work and employment agencies (Table II). Four local retail/shop staff were also interviewed, as it was known they had regular contact with the street drinking group as part of their working day. On average, people had been working in Drumchapel for over 6 years, although the range was

large, from 3 months to 22 years. Forty-four (96%) worked in Drumchapel most days or every day, with the other two reporting working in the area more than once a week.

### Attitudes to street drinking

The modal response from street drinkers on being asked to give reasons for drinking in the street was to cite social reasons (mentioned by more than half the group). More than half the group considered other street drinkers as friends. Being in the fresh air and helping others (e.g. being available to lift pensioners shopping to their car or a bus) was also considered a positive aspect.

Negative aspects to street drinking could be coded under the following headings: personal safety (getting into fights, possible harm from falling over); stigma and vulnerability (abuse, being treated badly, hassle from younger group at bookmakers); criminality (conflict with police, being locked up); other problems (with partners, drinking in front of kids, weather). The 'illegality' of drinking on the street was seen as affecting consumption, with drinkers saying they now drink faster to avoid having alcohol confiscated by the police.

In general, members of the public did not cite positive aspects to street drinking, although a few noted the drinkers 'kept themselves to themselves'. Negative aspects to the drinking/drinkers were perceived mostly in terms of their impact upon the wider community and could also be grouped into general themes or categories: bad example/reflection on Drumchapel (eyesore, disgrace, adds to stigma, bad influence on children, bad language, brings place down, filthy); nuisance (abusive, begging, noisy); violence (intimidation, fighting). A few people mentioned negative effects on the drinkers themselves (vulnerable, misunderstood, youths pick on them).

**Table II.** Type of organization of service providers (n = 46)

Type of organization	Police	Addiction/social work	Community group	Health agency	Shop/retail	Employment agency	Other
Frequency	2	5	15	12	4	4	4

Thirty-one service providers (67%) thought street drinking in Drumchapel was very much a problem, with six (13%) saying it was a bit of a problem and seven (15%) not sure. Two (4%) thought it was not much of a problem and no-one said it was not a problem at all. Thirty-five service providers (76%) said they would like to see street drinking stopped altogether, with six (13%) saying they would like to see it reduced and four (9%) saying they were happy with current levels. Thirty-five (76%) thought the group were involved with drugs.

People who had professional contact with the street drinkers tended to concentrate on the problems facing the street drinkers, which came under the broad themes of health (mental and physical); crime (risk of violence, harassed by police); social exclusion (stigma, lack of respect or support, not treated as human beings). These results can be contrasted with those from the public sample who concentrated on problems 'caused' by street drinkers.

The weather was mentioned as contributing to health problems. All respondents felt it was difficult for drinkers to leave the peer group. Where service providers noted achievements of their organization regarding street drinkers, these were commonly described in terms of 'general support'. Specific help with benefits, debt and housing problems was mentioned, as was encouraging the group to eat properly, giving general support via conversations with them and helping them to 'move on' if they wished. Perceived limitations facing organizations in this regard included: engagement (lack of outreach, contact and continuity); resources (for premises, space, facilities); legal (law too lenient,

too much paperwork); the need to ban them from premises if intoxicated (leading to exclusion).

### Levels of concern

A short attitudinal scale was presented to all groups. Scores were computed from matched items to measure how much people agreed that: local people are bothered by street drinking, the police think street drinking is a problem and local shopkeepers are bothered by street drinking. This was done to assess whether street drinkers perceptions about others' attitudes towards street drinking would match perceptions of the wider community as to how much concern exists.

In addition, all groups were asked whether younger street drinkers, in particular, present a problem. The responses are shown in Table III, with mean answers for each pair of matched questions (giving a score out of 20) identified for each group.

Table III indicates that perceptions of the members of the public and service providers were broadly similar. The only significant difference was in the perception of whether younger drinkers were a problem, which was stronger in the public sample ( $P = 0.000$ ).

The public and service providers estimated concern about street drinking amongst local people to be higher than street drinkers themselves did ( $P = 0.14$ ). A similar pattern emerged for whether local shopkeepers were bothered by street drinking, with street drinkers agreeing with this less than the other two groups ( $P = 0.001$ ). The reverse was true for perceptions as to whether the police viewed street drinking as a problem, with the street drinkers themselves agreeing with this more than the service

**Table III.** Mean scores (SD) for attitudinal items for each group

Group	Public are bothered by street drinking	Police think street drinking is a problem	Local shopkeepers are bothered by street drinking	Young street drinkers are a problem
Street drinkers	11.3 (6.6) <sup>b</sup>	14.7 (5.8) <sup>c</sup>	11.1 (7.2) <sup>d</sup>	18.4 (3.8)
Members of the public	17 (8)	11.5 (5.5)	16.4 (4.8)	19.1 (2.2)
Service providers	15.3 (7.1)	12.4 (5.5)	15.2 (4.4)	15.9 (4.5) <sup>a</sup>

<sup>a</sup> $P = 0.000$ ; <sup>b</sup> $P = 0.014$ ; <sup>c</sup> $P = 0.001$ ; <sup>d</sup> $P = 0.000$ .

providers and the public ( $P = 0.000$ ). There were no significant gender differences for the attitudinal items shown in Table III (range  $P = 0.228$ – $0.688$ ).

There was a perception amongst all groups that the group was becoming younger. Perceptions relating to some form of drug use amongst the younger street drinkers were fairly common. The proportion of each group of participants who thought the group was taking various types of drug is shown in Table IV.

All three groups rated cannabis followed by heroin and amphetamines as the three most common drugs (Table IV). No members of the public reported awareness of (crack) cocaine use amongst street drinkers. In general, public attitudes towards the ‘street drinkers’ tended to be coloured by perceptions of drug consumption (rather than drinking alcohol).

### Threats and assaults

All respondents were asked if they had ever felt threatened or been physically assaulted by someone drinking in the street in Drumchapel. Six (30%) of the street drinking group reported being physically assaulted and one (5%) feeling threatened. This can be contrasted with respective percentages of four assaulted (7%) and eight threatened (13%) for the members of the public, and one assaulted (2%) and six threatened (13%) for service providers. It appears to be the case that street drinkers are many times more likely to be assaulted.

### Knowledge of and access to services

All three groups were asked whether they were aware of people who were trying to help street drinkers, without being prompted for specific agen-

cies. Awareness of helping agencies was proportionately lower in the public sample (10% being aware as opposed to 43% of service providers).

Seven street drinkers (35%) were aware of agencies attempting to assist drinkers, with a range mentioned, including church, hospital/GPs, DASS and social work/alcohol services in general. However, most said they would initially approach friends/family for a future problem and a lesser number would approach health/social work services. They would not, in general, see the police or housing services as a port of call.

### Suggestions actions

An important part of the survey was to gather perceptions as to what would be helpful for the street drinking group and the wider community in the future. Some form of supported shelter/accommodation for street drinkers was mentioned by a number of people. Positive aspects to this were seen to be physical protection and removal of conflict with the police and vulnerability to abuse/other types of threat. Most of the members of the public thought that the police were not doing enough to target drinkers who, in their view, should be removed from the local shopping centre. To reiterate, perceptions of the drinking group were quite different in this regard, with police activity/contact being perceived as a common (negative) aspect of their experience.

## Conclusions and discussion

Prior to discussing the results in more detail it is important to note the limitations of this survey. Whilst the perception is of a shift towards younger

**Table IV.** Perception of drug use: percentage of each group who reported awareness of each drug being used amongst street drinkers

Group	Cannabis	Solvents	Amphetamine	Ecstasy	Cocaine/crack cocaine	Heroin	Prescription drugs
Street drinkers ( $n = 20$ )	65	15	25	5	10	40	20
Members of the public ( $n = 60$ )	73	25	55	12	0	60	17
Service providers ( $n = 46$ )	65	15	37	15	13	35	20

street drinkers, mean age for those interviewed in this study was 44 for males and 46 for females. Range of ages was from 32 to 59. This group is self-selecting to the extent that they agreed to take part and fieldwork reports show a certain amount of hostility towards the fieldworker from younger drinkers. It may be necessary to specifically target younger drinkers (in and around their 20s) for inclusion in any further discussions about service provision.

In addition, the group surveyed was predominantly (95%) male. Whilst it has been previously reported that female street drinkers are relatively rare, females may be younger and particularly vulnerable (Alcohol Concern, 2003). Future studies might attempt to address the relative inaccessibility of this group to learn from their experiences.

Finally, 80% of members of the public interviewed were female. Whilst no significant differences in attitudes between male and female members of the public could be identified here, further exploration of male perceptions about street drinking in the area might be beneficial.

Street drinking has increasingly become a matter of public concern, but is often framed within the context of impact on others (e.g. young people drinking to excess as part of the pub or club culture of towns and cities) and addressed by means of such tools as Antisocial Behaviour Orders [e.g. (Campbell 2002)].

Where there have been initiatives designed to assess or address the health needs of street drinkers themselves, these have tended to be framed within the issue of homelessness. For example, Kershaw *et al.* (Kershaw *et al.*, 2000) surveyed 225 homeless people in Glasgow and found 54% reported hazardous drinking (63% of those over 55 years old) based on the Alcohol Use Disorders Identification Test. It may be noted that many of those surveyed had long-standing health problems primarily associated with alcohol use rather than homelessness *per se*.

Health promotion with respect to alcohol continues to focus on adolescents [e.g. (Komro *et al.*, 2001; Werch *et al.*, 2003)]. This is probably due to a general perception that alcohol misuse declines with age (Institute for Alcohol Studies, 1999), al-

though the peak age range for deaths from alcohol misuse is 45–60 (Office for National Statistics, 2000).

An important aspect of the present study is that the focus has been on a group of persistent street drinkers who are neither particularly young (mean age 44 years, youngest 32 years) and who appear to have permanent accommodation. The group may face some of the same issues that make homeless drinkers vulnerable (long-term health risks, threats of assault, police action), but lack some of the support. For example, the Scottish Executive earmarked £127 million from 2003 to 2005 to address the key recommendations of the Homelessness Task Force, but this investment is not intended to have an impact on street drinking *per se*. A clear strategy to address street drinking which is not related to young people, antisocial disorder and/or homelessness appears to be required.

The resistance of the group to police efforts to break it up by confiscating alcohol in the context of the Criminal Justice and Police Act (2001) has been noted. Importantly, the evidence is that the group evolves in membership but remains fairly stable in overall numbers, suggesting the behaviour may not be best explained in terms of individualistic health behaviour change models [e.g. (Prochaska and DiClemente, 1983)]. A social ecological or 'dynamic' model which takes into account societal/cultural norms would seem to be necessary (Bauer *et al.*, 2003).

### Needs and perceptions

The group was at some risk of physical assault/threatening behaviour; however, they described unwanted attention from the police as the main negative aspect of their street drinking. Risk of assault and arrest has been reported elsewhere (Mental Health Foundation 1996) and Shenker (Shenker, 1998) reports that by-laws on street drinking can criminalize an already vulnerable group which adds to their social exclusion.

A low variety diet and a tendency not to eat very much, especially in the mornings, emerged informally as part of the fieldwork with the street drinking group. Diet is noted by Alcohol Concern

(Alcohol Concern, 2001) as one of the health needs of street drinkers for which appropriate, accessible services are required.

Whilst, in general, the drinking group felt the bad aspects were abuse/'hassle' from other groups, including younger drinkers and the police, the public group disagreed that the police did enough and thought the nuisance/visibility of the drinkers was the worst aspect. Reports of actual assaults or threats on members of the public were low. Resentment of street drinking groups, without evidence to substantiate a real threat to public safety, has been reported in previous studies (Shimwell, 1999).

The service provider group was more concerned with the health of the drinking group, identifying access to/linking in with this group as limiting the success of health interventions.

### **Suggested actions**

It has been reported that, in general, the drinkers view the police as their main source of conflict, whilst the public place them more in conflict with the wider community and feel the police are 'soft on them'. However, there was some consensus across all groups around the idea of a supported shelter/drinking venue for the group.

This suggestion, by far the most common one in this study, matches the strategy proposed by the Government's Rough Sleepers Unit in 1999, who recommended a 'day centre', i.e. an indoor facility where people can drink.

There is some evidence that such an approach can be beneficial to all and that drinking levels within such a centre can be reduced from previous street levels (Community Care, 2001). Specific needs (of drinkers and others) identified as part of the current study might be best addressed in this manner. Structured accommodation for communal drinking might allow, for example, monitoring of calorific/vitamin intake in light of evidence on poor diet, whilst reducing risk of assault and increasing access to services. This would also be compatible with the finding that social aspects to street drinking were a major reported motivation [this confirms previous studies, e.g. (Lamb, 1995)].

The fact that some of the drinking group in this study were generally happy with their 'public' drinking behaviour (apart from being targeted by other groups) raises the serious issue of the responsibility of the statutory services to people who may not wish to change their behaviour [see also (Lamb, 1995)], in the absence of serious harm to the wider community being identified. However, there was a clear concern from the public on the impact on Drumchapel itself of the visible levels of street drinking (and drug use) around the shopping centre in particular. Thus, the provision of accommodation for drinking may have to be combined with enforcement by the police so that public support for this type of approach could be sustained, which would be vital.

The issue of drugs (associated in the main with a younger drinking group) needs to be addressed. Respondents tended to agree on a problem associated with younger street drinkers in conjunction with drug use. A clear differential in exactly which group of street drinkers is being referred to is necessary for measuring public opinion. This general distinction in terms of drinking groups means any proposed accommodation would have to address the mix of the drinking group(s) and how to protect the more vulnerable drinkers without widespread exclusion of others which would defeat the main purpose of the shelter.

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## References

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- Alcohol Concern (2003) *Street Drinking*. Alcohol Concern Factsheet 19. Available: [http://www.alcoholconcern.org.uk/files/20030807\\_171256\\_Street%20Drinking.pdf](http://www.alcoholconcern.org.uk/files/20030807_171256_Street%20Drinking.pdf).
- Bauer, G., Davies, J.K., Pelikan, J., Noack, H., Broesskamp, U. and Hill, C. (2003) Advancing a theoretical model for public health and health promotion indicator development. *European Journal of Public Health*, **13**, 107–113.
- Campbell, S. (2002) *A Review of Antisocial Behaviour Orders*. Home Office Research Study 236. Home Office, London.
- Community Care (2001) Don't look now. *Community Care*, 8 November. Available: <http://www.communitycare.co.uk/articles/>.
- Davies, J.B. and Baker, R. (1987) The impact of self-presentation and interviewer bias effects on self-reported heroin use. *British Journal of Addiction*, **82**, 907–912.
- Davies, J.B., Ross, A.J., Wallace, B. and Wright, L. (2003) *Safety Management: A Qualitative Systems Approach*. Taylor & Francis, London.
- Drumchapel Social Inclusion Partnership (2003) *Annual Report*. Available: [http://www.drumchapelpartnership.org/downloads/2002\\_2003\\_DSIP\\_Annual.pdf](http://www.drumchapelpartnership.org/downloads/2002_2003_DSIP_Annual.pdf).
- Herring, R. (1996) Persistent street drinker: back on the agenda? *Drugs: Education, Prevention and Policy*, **4**, 187–193.
- Institute of Alcohol Studies (1999) *Alcohol and the Elderly*. IAS, St Ives.
- Kershaw, A., Singleton, N. and Meltzer, H. (2000) *Survey of the Health and Well-being of Homeless People in Glasgow*. National Statistics Office, London.
- Komro, K.A., Perry, C.L., Williams, C.L., Stigler, M.H., Farbaksh, K. and Veblen-Mortenson, S. (2001). How did Project Northland reduce alcohol use among young adolescents? Analysis of mediating variables. *Health Education Research*, **16**, 59–70.
- Lamb, D. (1995) *Services for Street Drinkers: An Initial Overview*. National Street Drinking Network, London.
- Mental Health Foundation (1996) *Too Many for the Road: Report of the MHF Working Group on Persistent Street Drinkers*. Mental Health Foundation, London.
- Prochaska, J.O. and DiClemente, C.C. (1983) Stages and processes of self-change of smoking: toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, **51**, 390–395.
- Office for National Statistics (2000) *Mortality Statistics (Cause) 1999*. The Stationery Office, London.
- Ross, A.J., Wallace, B. and Davies, J.B. (2004) Measurement issues in taxonomic reliability. *Safety Science*, **42**, 771–778.
- Rough Sleepers Unit (1999) *Coming in from the Cold: The Government's Strategy on Rough Sleeping*. Department of the Environment, Transport and the Regions, London.
- Shenker, D. (1998) *Community Safety and Street Drinking: Recommendations for Local Strategies on Local Drinking Issues*. Street Drinking Network, London.
- Shimwell, K. (1999) *Street Substance Use and Homelessness in Rotherham 1999*. Community Alcohol Service, Rotherham.
- Thorndike, R.L. (1951) Reliability. In Lindquist, E.F. (ed.), *Educational Measurement*. ACE, Washington DC, pp. 560–620.
- Werch, C.E., Owen, D.M., Carlson, J.M., DiClemente, C.C., Edgemon, I.P. and Moore, M. (2003) One-year follow-up results of the STARS for Families alcohol prevention program *Health Education Research*, **18**, 74–87.

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