Supplement 3. Kelly et al, Alcohol and older people: a systematic review of barriers, facilitators and context of drinking in older people and implications for intervention design.

## Further characteristics of included studies

| Study | Study design | Country | $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Population and setting | Study objective | Overall summary of study quality $\pm$ (for qualitative components) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Qualitative studies |  |  |  |  |  |  |
| Burrus 2015 | In-depth interviews ( $\mathrm{n}=11$ ) <br> (part of a mixed methods study) | US | Mean: <br> 81.5 (7.5); <br> Range 68- <br> 90 | $\mathrm{N}=11$ older adults living independently in a congregate retirement community, who were regular drinkers. The setting included onsite pubs and retail shops offering alcohol <br> Gender: $45.5 \%$ male; $54.5 \%$ female <br> SES: Not reported <br> Ethnicity: 100\% Caucasian <br> Alcohol consumption: Regular drinkers only included (drank on at least 6 of 8 days assessed). Participants drank on $92 \%$ of days in the last 8 days; with mean of 1.88 drinks on days people drank | Understanding older adults attitudes and beliefs about drinking: perspectives of residents in congregate living | + |
| Dare 2014 | Qualitative study (indepth interviews) | Australia | $65-74$ <br> (Mean: $69.7 \text { (SD }$ 3.3)) | $\mathrm{N}=20$ men and $\mathrm{N}=22$ women who were living in either private residences or (secular, resident-funded) retirement villages <br> Gender: $47.6 \%$ male; $52.4 \%$ female <br> SES: Participants from areas classified as having higher levels of socioeconomic advantage and $>50 \%$ had a post-school qualification. <br> Ethnicity: not reported | To identify relationships between social engagement, setting and alcohol use | ++ |

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| Study | Study design | Country | $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Population and setting | Study objective | Overall summary of study quality $\pm$ (for qualitative components) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Alcohol consumption: Over 75\% drinking alcohol more than 4 days/wk. Average daily consumption of alcohol based on quantity/frequency (standard drinks): Private home; men 1.89 (1.4); women 1.21 (0.8); Retirement village: men 3.13 (4.4); women 1.68 (1.1) <br> The majority of men and women were drinking at low risk classification levels based on WHO at-risk drinking classification (based on 2000 criteria) |  |  |
| Haarni 2010 <br> (Too Much is Always Too Much - Alcohol and Ageing project) | Qualitative (interviews) | Finland | 60-75 | $\mathrm{N}=31$ Urban older adults <br> Gender: $48.4 \%$ male; $51.6 \%$ female <br> SES: 14 had passed the matriculation examination, eight the middle school, and eight had at least the equivalent of elementary school studies. 28 were retired, 1 unemployed, 2 still working; 'Prior to retirement...had worked in a variety of blue and white collar professions in occupations ranging from managing director to auxiliary nurse' <br> Ethnicity: not reported <br> Alcohol consumption: Current or ex-consumers of alcohol were included. People who had abstained from alcohol all their life were excluded. Reports 'the study included many kinds of alcohol consumers' - | Life experience and alcohol: 60-75 year olds relationship to alcohol | - |

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| Study | Study design | Country | $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Population and setting | Study objective | Overall summary of study quality $\pm$ (for qualitative components) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | included range of drinkers, including large, average and small amounts and frequencies |  |  |
| Haighton 2016 <br> (same sample as Wilson 2013) | Qualitative (Interviews ( $\mathrm{N}=24$ ) and focus groups ( $\mathrm{N}=27$ people) | UK (North East England) | 50+ Range: $50-95$ | $\mathrm{N}=24$ (qualitative interviews) and $\mathrm{N}=27$ (focus groups) older adults recruited through Age UK and regional services for alcohol problems who had experience of drinking alcohol at any level of consumption <br> Gender: 50\% male; 50\% female (interviews); $22.2 \%$ male; $77.8 \%$ female <br> SES: Not reported <br> Ethnicity: not reported <br> Alcohol consumption: Those recruited had a range of patterns of consumption including occasional minimal drinkers, moderate and heavy drinkers, previously dependent drinkers (including those now abstinent and those currently drinking at sensible levels) and 2 currently dependent drinkers | Experiences of and attitudes towards services providing support for alcohol related health issues in people aged 50 and over | ++ |
| Johannessen 2015 | Qualitative (interviews) | Norway | $\begin{aligned} & 65+ \\ & \text { (range } 65 \\ & \text { to } 92 ; \\ & \text { mean: } 81 \text { ) } \end{aligned}$ | $\mathrm{N}=16$ older people that received in-home nursing service or home-help services ( $\mathrm{N}=14$ were widows or widowers) <br> Gender: $37.5 \%$ male; $62.5 \%$ female <br> SES: Not reported <br> Ethnicity: not reported <br> Alcohol consumption: 15 (of 16) had used alcohol. | Older peoples' experience with and reflections on use and misuse of alcohol and psychotropic drugs | ++ |

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| Study | Study design | Country | $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Population and setting | Study objective | Overall summary of study quality $\pm$ (for qualitative components) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Joseph 2012 | Qualitative (in-depth formal interviews, observation, casual conversation, informal interviews) | Canada | 44 to 74 <br> (Mean: <br> 61) | Older male cricket players of Afro-Caribbean origin (friendly, non-league) and spectators (male and female). $\mathrm{N}=27$ formal interviews plus data collected by observation, casual conversation. <br> Gender: Predominantly male <br> SES: Not reported <br> Ethnicity: Afro-Caribbean <br> Alcohol consumption: Most of the participants appeared to drink heavily but not specifically reported | Alcohol and older Caribbean-Canadian men | + |
| Kim 2009 | Qualitative (focus group) | Canada | $\begin{aligned} & \hline 60+ \\ & \\ & 62 \text { to } 83 \\ & \text { (range); } \\ & \text { mean age } \\ & 72 \text { (SD } \\ & 5.94 \text { ) } \end{aligned}$ | $\mathrm{N}=19$ elderly Korean immigrants residing in Canada ( 14 men, 5 women) <br> Gender: $26.3 \%$ male; $73.7 \%$ female <br> SES: Not reported <br> Ethnicity: Korean <br> Alcohol consumption: Drinking alcohol was a criterion for recruitment. $63.2 \%$ drank more than once a week | To explore drinking culture, alcohol and alcohol use in older Korean immigrants in Canada | + |
| Millard 2008 | Qualitative | UK | 65+ | $\mathrm{N}=90$ staff and managers providing home, day, and | Alcohol and service | - |

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| Study | Study design | Country | $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Population and setting | Study objective | Overall summary of study quality $\pm$ (for qualitative components) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (focus groups) | (Scotland) |  | residential care to elderly clients. <br> Gender: Not reported for staff/managers or elderly clients <br> SES: Not reported for staff/managers or elderly clients <br> Ethnicity: not reported <br> Alcohol consumption: Not reported for staff/managers or elderly clients | gaps in homecare for older people: including how client's alcohol problems were identified, role of home care provider, barriers to seeking help |  |
| Reczek 2016 | In-depth interviews ( $\mathrm{n}=88$ ); interviews conducted between 2003 and 2009 | US | $\begin{aligned} & \text { 1) Mean: } \\ & \text { 63.5; } \\ & \text { Range 40- } \\ & 87 \\ & \text { 2) Mean } \\ & \text { 59; Range } \\ & 40-89 \end{aligned}$ | 1) Participants were both spouses in 21 long-term ( $>7$ years) heterosexual marriages ( $\mathrm{n}=42$ ); average marital duration was 32 years; 2 of the 21 currently married women were previously widowed, 5 were previously married; 2 of the 21 currently married men were previously widowed, 4 had been previously married <br> 2) A second sample ( $n=46$ ) included men and women in their first marriages, those who had remarried, currently divorced, never married or widowed participants <br> Gender: 1) and 2) $50 \%$ male, $50 \%$ female <br> Ethnicity: 1) $88 \%$ white, $12 \%$ African American; 2) <br> 50\% white, 50\% African American <br> SES: 1) Mean income \$ 60,000; Range (\$ 40,000 to <br> $\$ 120,000$ ): (based on 2003 to 2006 data); 2) Mean | Relationships between marital history and alcohol use in older adults | + |

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| Study | Study design | Country | $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Population and setting | Study objective | Overall summary of study quality $\pm$ (for qualitative components) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | \$52,200; Range \$0-120,000 (based on 2008-2009 data) <br> Alcohol consumption: 1) and 2) Not reported |  |  |
| Tolvanen 2005 Vitality 90+ project | Qualitative (interviews) | Finland | 90+ | $\mathrm{N}=181$ participants who mainly lived in their own homes though some were in service housing or in nursing homes <br> Gender: 33.5\% male; $76.5 \%$ female (of interviews that discussed alcohol) <br> SES: Not reported <br> Ethnicity: not reported <br> Alcohol consumption: $63 \%$ of men and $34 \%$ of women currently used alcohol; $23 \%$ of men and $6 \%$ of women had previously used alcohol earlier but no longer drank; and $13 \%$ of men and $24 \%$ of women did not drink at all (based on those who reported consumption in interviews) | Alcohol in life story interviews with Finnish people aged 90 or over | + |
| Ward 2011 | Qualitative ( $\mathrm{N}=21$ <br> interviews <br> and $\mathrm{N}=3$ <br> focus groups with older people) | UK | Range: mid 50s to late 80s. | $\mathrm{N}=21$ individual interviews and $\mathrm{N}=3$ focus groups. Aimed to include a diverse range of older people. Included people living in their own homes, in sheltered housing and in hostels <br> Gender: $61.9 \%$ male, $29.1 \%$ female (interviews) <br> SES: not reported | Older people's perspectives on alcohol use in later life | + |

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| Study | Study design | Country | $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Population and setting | Study objective | Overall summary of study quality $\pm$ (for qualitative components) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Ethnicity: $100 \%$ white for interviews but one focus group conducted with black people (explored general views only) <br> Alcohol consumption: Not specifically reported but all participants appeared to consume alcohol. 'Aim was to recruit people who regularly drink alcohol for whom it may or may not be a problem' |  |  |
| Wilson 2013 <br> (same sample as <br> Haighton 2016) | Qualitative <br> Interviews ( $\mathrm{N}=24$ ) and 3 focus groups ( $\mathrm{N}=27$ people) | UK (North East England) | $\begin{aligned} & \text { 50+ } \\ & \text { Range: } \\ & 50-95 \end{aligned}$ | $\mathrm{N}=24$ (qualitative interviews) and $\mathrm{N}=27$ (focus groups) older adults recruited through Age UK and regional services for alcohol problems who had experience of drinking alcohol at any level of consumption <br> Gender: 50\% male; 50\% female (interviews); 22.2\% male; $77.8 \%$ female. <br> SES: Not reported <br> Ethnicity: not reported <br> Alcohol consumption: Those recruited had a range of patterns of consumption including occasional minimal drinkers, moderate and heavy drinkers, previously dependent drinkers (including those now abstinent and those currently drinking at sensible levels) and 2 currently dependent drinkers | To understand older people's reasoning about drinking in later life and how this interacted with health concerns | ++ |

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| Study | Study design | Country | $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Population and setting | Study objective | Overall summary of study quality $\pm$ (for qualitative components) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Studies with a limited qualitative component |  |  |  |  |  |  |
| Aira 2008 <br> (Part of the Geriatric Multidisciplinary Strategy for Good Care of the Elderly Study;GeMS) | Qualitative (interviews) and quantitative assessment of alcohol use using AUDITquestionnaire | Finland | $\begin{aligned} & 75+ \\ & \\ & (83.4 \% \\ & \text { aged } 75- \\ & 84 ; 16.6 \% \\ & \text { aged } 85+\text { ) } \end{aligned}$ | $\mathrm{N}=699$ home-dwelling elderly living in the community <br> Gender: $30.5 \%$ male; $69.5 \%$ female. <br> SES: $18.0 \%$ had $>9$ years education; $52.0 \%$ had 4-9 years education; $17.4 \%<4$ years education <br> Ethnicity: not reported <br> Alcohol consumption: 48.5\% had used alcohol in past year; $51.5 \%$ had abstained in past year. $19.7 \%$ had used alcohol for medicinal purposes ( $63 \%$ of these reported abstaining). Similar in males and females | To describe alcohol use as self-medication by people aged over 75 years | - |
| Borok 2013 | Telephone interviews | US | Mean: 68.7 SD 6.6 | $\mathrm{N}=399$ older 'at-risk' drinkers (identified by screening) who had taken part in an RCT to reduce drinking <br> Gender: $69 \%$ male, $31 \%$ female. <br> SES: $49 \%$ had college degree or more; $29 \%$ had some college; $22 \%$ high school or less <br> Ethnicity: $88 \%$ white, $8 \%$ Hispanic/Latino, 3\% other | To understand why older at-risk drinkers decide to increase, decrease or maintain alcohol consumption after participation in an RCT aimed at reducing drinking | - |

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| Study | Study design | Country | Age <br> (years) | Population and setting <br> summary of <br> study quality $\pm$ <br> (for qualitative <br> components) |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
|  |  |  |  | Alcohol consumption: Only at-risk users included: <br> identified by screening with CARET |  |  |

$\pm$ Overall summary of study quality using the methodology and detailed assessment of the domains shown in S4.

