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**PROVIDING RECOMMENDATIONS FOR A WORKPLACE-INITIATED
INTERVENTION TO REDUCE ALCOHOL USE IN RETIREMENT: VIEWS OF
OLDER DRINKERS AND OCCUPATIONAL HEALTH PROFESSIONALS**

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**A thesis submitted in partial fulfilment of the requirements of the
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Abstract

Introduction and Aims

The frequency and consumption of alcohol by older people is an increasing public health concern and literature suggests that retirement may influence this. The aims of this thesis were to explore alcohol use across retirement and to determine if and how an intervention could be implemented upon retiring to reduce the frequency of alcohol consumption.

Design and Methods

The thesis comprised three studies in order to fully answer my research questions. Study 1 was a systematic review of interventions to reduce alcohol use in later life. Study 1 informed the interview guides for Studies 2 and 3, which used semi-structured interviews with 17 individuals who were five years pre/post retirement (Study 2) and 10 individuals working in human Resources/Occupational Health (Study 3) to gain perspectives of alcohol use in retirement and recommendations for an intervention. Data were analysed using a Framework approach, with emergent themes being established throughout analysis.

Results

Study 1 consisted of a review of seven papers, examining the success of interventions aimed at older adults and found that there was varying success, and that interventions often lacked detail to establish exactly what worked and for whom. Results from Study 2 suggested that an intervention would be

acceptable and should focus holistically on retirement; not solely on alcohol. Individuals also felt that delivering an intervention by smartphone or a computer application would be appropriate, providing there was some face-to-face support. Human Resources interviewees in Study 3 were open to an intervention and felt that incorporating more support for employees was their responsibility, but not their obligation.

Conclusions

This thesis presents novel findings related to alcohol use in retirement and has the potential to inform a future intervention that could be implemented in the workplace prior to retirement.

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Abbreviations

AUDIT – Alcohol Use Disorder Identification Tool

BA – Brief Advice

BI – Brief Intervention

BCT – Behaviour Change Theory/Theories

BCW – Behaviour Change Wheel

CARET - Comorbidity Alcohol Risk Evaluation Tool

CARPS - Computerised Alcohol Related Problems Survey

CASP – Critical Appraisal Skills Programme

DALYs – Disability Adjusted Life Years

GDS - Geriatric Depression Scale

HBM – Health Belief Model

HR – Human Resources

HRQL - Health Related Quality of Life

HSS - Health Screening Survey

IM – Intervention Mapping

MCS - Mental Component Scores

ME – Motivational Enhancement

MUP – Minimum Unit Pricing

NHS – National Health Service

PCS - Physical Component Scores

PICO - Population, Intervention, Comparison and Outcome

PRISMA - Preferred Reporting Items for Systematic Reviews and Meta-Analyses

SHARE - Senior Health and Alcohol Risk Education

TIDieR – Template for Intervention Description and Replication

TLFB - Time Line Follow Back

TTM – Transtheoretical Model of Behaviour Change

CHAPTER 1 – BACKGROUND AND LITERATURE REVIEW

This thesis aimed to further explore whether an intervention to reduce alcohol consumption across retirement would be appropriate and acceptable to individuals who were five years pre/post retirement and the potential for delivery within the workplace from the view of individuals who work in Occupational Health/Human Resources. The aim of this introductory chapter is to orient the reader to the concepts that were explored when answering my research questions. This introduction chapter begins by providing a general introduction to alcohol use in older individuals and then providing epidemiological evidence for investigating alcohol use in the older population. Following this general introduction, the relevant literature on alcohol use in retirement is introduced; in order to provide a rationale for further investigation within this field. Finally, I provide a background into behaviour change theory and digital interventions, as these were relevant to this study and form Step 1 (needs assessment) as the preliminary step in applying an Intervention Mapping protocol.

1.1 Definitions of age groups and rationale

This PhD aimed to provide recommendations for an intervention that can be used by retirement aged individuals to reduce their frequency of alcohol consumption. Throughout the literature, retirement is broadly defined as the time when an individual leaves work. However, within this thesis; my definition of “older” and “retirement-aged drinkers” only consisted of individuals who were over the age of 55. There is presently no statutory retirement age in the UK (Age UK, 2019), however I chose 55 as a parameter as this is presently the

earliest age that individuals can access a workplace pension in the UK (Department for Work and Pensions, 2012).

In terms of thinking ahead and offering recommendations for delivering an intervention; research suggests that substance use services designed specifically for older individuals are more acceptable to older people than when they are delivered to mixed age groups (Wadd, Lapworth, Sullivan, Forrester, & Galvani, 2011) and that they also have better outcomes than when provided to people of different ages (Kuerbis & Sacco, 2013; Slaymaker & Owen, 2008). Therefore, this thesis aimed to provide recommendations to assist the development of an intervention aimed at retirement aged individuals.

1.2 Alcohol Use

Alcohol is a major risk factor globally, and is the seventh leading risk factor for both deaths and disability adjusted life years (DALYs) (GBD 2016 Alcohol Collaborators, 2018). Alcohol use has also been shown to increase the risk of cancers; including cancer of the liver, larynx, oesophagus and female breast with accumulating evidence suggesting that alcohol could also be associated with pancreatic and prostate cancer (Bagnardi et al., 2015). Despite these findings, the evidence on alcohol risk can be complex, and conflicting evidence exists suggesting that alcohol may offer protective factors against certain diseases (Shield, Parry, & Rehm, 2013).

Alcohol may have protective factors against certain diseases and lifestyle problems and consuming alcohol has been suggested to play a beneficial role in improving neurocognitive functioning (Mukamal, Cushman, Mittleman, Tracy, & Siscovick, 2004), heart disease and diabetes (Di Castelnuovo et al., 2006; Howard, Arnsten, & Gourevitch, 2004; Ronksley, Brien, Turner, Mukamal, & Ghali, 2011), and reducing the likelihood of ischemic stroke (Palomäki & Kaste, 1993). There is also evidence that would suggest that alcohol can be play a protective role in aiding socialisation in older people (Wilkinson & Dare, 2014). These factors may lead individuals to over consume alcohol, believing they are protecting themselves from such problems.

There are suggestions however that these mooted protective factors are evident due to a poor interpretation (by academics and subsequent media publications) of the “J shaped-curve” (Shaper & Wannamethee, 1998); a relationship cited when exploring risk factors such as alcohol use, body mass index and serum total cholesterol and their links to a specific disease, or all-cause mortality. Literal interpretation of the curve without assessing extraneous factors would suggest that the optimum level of alcohol to protect against disease is “light to moderate” and that non-drinkers are at increased risk, due to their intake being “sub-optimum” (Shaper & Wannamethee, 1998). A reason for this may be the use of non-drinkers as a baseline in studies may include individuals who abstain from alcohol for health reasons, however studies do not consider the damage already caused across the lifespan which would in turn increase the average risk of the non-drinker groups and result in the appearance of a protective effect in light drinking (Connor, 2006). Poor

interpretation of this curve can be damaging and may lead individuals to drink more due to the belief that there is a protective nature of “low level” alcohol consumption; a term which is not consistently defined across the literature.

Further critique suggests that regular-light drinkers have particular characteristics (socioeconomic, behavioural and physical) that are advantageous to health, such as higher social positions, lower levels of obesity and higher levels of physical activity (Fillmore et al., 1998) which may further exaggerate this benefit of light drinking compared to non-drinking. If occasional drinkers are used as the baseline, the benefit of light/moderate drinking is diminished (Shaper & Wannamethee, 1998).

Despite these inconsistencies across the literature; there remains much evidence within the current literature that alcohol use is damaging and adds to the global burden of disease (Bauer, Briss, Goodman, & Bowman, 2014; Benziger, Roth, & Moran, 2016; Mathurin & Bataller, 2015; Rehm, Samokhvalov, & Shield, 2013) and the Global Burden of Disease report explicitly states that the optimum level of alcohol consumption for good health is zero (GBD 2016 Alcohol Collaborators, 2018).

Alcohol consumption and associated negative impacts are a significant problem to public health. Projections from the World Health Organization (WHO) indicate that by 2025, alcohol consumption is expected to increase in almost half of the member states. This increase is something that will only be reversible with the implementation of “effective policy responses” (World Health

Organization, 2014, p.42). Even light use (less than 7 units per week) of alcohol can have detrimental effects on health and there are currently around 20% of men and 14% of women drinking above recommended UK limits (Topiwala et al., 2017). UK weekly limits advise that individuals drink no more than 14 units per week (Drinkaware, 2018).

1.3 Socioeconomic impact of alcohol use

A report from Public Health England (Public Health England, 2016) breaks down the economic impact of alcohol use in the UK into three categories. These are the *direct* costs of alcohol consumption such as costs to health and social care, the police and welfare systems, the *indirect* costs of alcohol consumption such as lost productivity in the workplace and reduced earning potential and the *intangible* costs of alcohol consumption such as poorer quality of life and costs assigned to pain and suffering, totalling a cost of £22billion to society in the UK, annually (House of Commons Health Committee, 2012) with these figures predicted to continue rising (Institute of Alcohol Studies, 2019). Worldwide costs were estimated to be between \$210billion - \$665 billion in 2002 (Baumberg, 2006).

Despite these large estimates of worldwide economic burden; the true figures may be higher. However, the worldwide findings have been described as “less than rigorous” (p.17 Public Health England, 2016) and Public Health England go on to suggest in their report on the costs of alcohol that evaluating or quantifying the true economic cost of alcohol burden is uncertain and that current evaluations will potentially only capture a fraction of this amount. The

methodology of the UK findings, originally produced by the government in their 2012 alcohol strategy (House of Commons Health Committee, 2012) has also been disputed, with suggestions that the estimates within this report rely on “questionable assumptions and methodological judgements” which may lead the actual socio-economic impact of alcohol to be higher, or indeed lower when a more holistic approach is taken (p.559 Bhattacharya, 2017). Further, the Royal College of Psychiatrists suggest that further evidence ought to be gathered to attribute costs to specific subsets of the population, such as that of older individuals (Royal College of Psychiatrists, 2018).

1.4 Alcohol Use in Older People

The evidence regarding the reasons for, and frequency of alcohol use in older people is mixed. Data taken from the Health and Retirement study (1992-2006) suggests that overall, individuals aged 51-61 showed a decline in alcohol use, however there are substantial differences in these trajectories with little exploration as to why such differences exist (Platt, Sloan, & Costanzo, 2010). The Office for National Statistics (2017a) suggest that older people drink more frequently than any other age group and that in both men and women, the highest prevalence of people drinking above the low risk guidance (14 units per week in the United Kingdom) was in 55 to 64 year olds with almost a third (30%) of individuals in this age group drinking more than 14 units per week (NHS Digital, 2016). Further findings from the Office of National Statistics (Office for National Statistics, 2017a) suggest that individuals aged over 65 were more likely than in any other age group to have drunk alcohol on 5 or more days in

the previous week, (21% of men and 13% of women). With predictions that by 2050, 22% of the world population will be aged 60 and over (Wadd & Galvani, 2014), such statistics indicate an area of unmet need within public health.

Consumption of more than 14 units per week can lead to an increased likelihood of injuries and illness including an increased risk of diabetes, cancers and stroke (NHS Choices, 2016) and cognitive impairment. Cognitive impairment can lead to an increased likelihood of falls (Mukamal et al., 2004) and because older people often have weaker bones, this can lead to hip fractures, which are one of the highest causes of death in the older population (Merrick et al., 2008). These factors combined could ultimately contribute to higher levels of all causes of mortality in the older population, it is only with further understanding of the mechanisms behind alcohol use in this age group that the scientific evidence base can be developed and can begin to provide solutions or strategies to reduce the frequency of alcohol use.

Alcohol-related diseases are responsible for 3 million deaths per year worldwide (World Health Organisation, 2018) with suggestions that alcohol has more profound negative outcomes when consumed by older individuals. When an individual ages; lean body mass and total amount of body water decreases, leading to higher amounts of alcohol content in the blood and therefore a decrease in tolerance. These findings have led to suggestions that the “safe limits” for alcohol use should be lowered for older people (Crome, Li, Rao, & Wu, 2012). If alcohol limits were lowered for older people to age-specific guidelines presented by the Royal College of Psychiatrists (Crome, Brown, Dar,

Harris, & Janikiewicz, 2011) it is estimated that around 1.2 million individuals aged 65 and over would be classified as hazardous drinkers (Knott, Scholes, & Shelton, 2013).

Mental health problems in older people can also be affected by elevated levels of alcohol consumption (Royal College of Psychiatrists, 2019). Drinking more than five standard drinks per week and having a history of an alcohol problem in men over the age of 50 was found to quadruple the risk of developing psychiatric problems including depression and memory loss (Perreira & Sloan, 2002; Stevenson, 2005) and can also contribute to an increased risk of dementia (American Psychiatric Association, 2013), however a systematic review of studies investigating this link suggests that there may be uncertainty and lack of consensus as to whether there is indeed a link between these factors and that further investigation is required to substantiate such claims (Ilomaki, Jokanovic, Tan, & Lonroos, 2015).

Despite the evidence presented that older individuals respond differently to alcohol use and that current guidelines are inadequate; the limits of alcohol remain unchanged and are at present applied across the whole population. Crome et al. (2012) suggest that further developing the scientific basis for modifying these limits should take priority and the current thesis aimed to contribute to the field, by exploring reasons for alcohol use in the older population and potential risk factors within this demographic.

Cancerous diseases are disproportionately affecting older people and a large proportion of these cancers are directly attributable to alcohol (GBD 2016 Alcohol Collaborators, 2018). The authors of the Global Burden of Disease and alcohol study attribute the large proportion of alcohol related cancers to the lack of alcohol-related policies, this is particularly relevant for the current study, as we know that older people are often overlooked within policy change and find that educational messages are often confusing (Haighton et al., 2016; Holley-Moore & Beach, 2016) and not catered to the older population. The exploratory approach taken within this thesis allowed individuals to express how they feel future interventions and changes in policy could better reach this audience.

The Department of Health's (2016) recent guidelines are also consistent with the message that there is no "safe" level of alcohol consumption across all age groups. As discussed earlier in this chapter, the conflicting messages regarding alcohol and potential to increase risk of disease/protect social life and reduce risk of disease can be confusing and need to be clearly defined across all public health domains, with individuals in later life (aged 50 and over) especially finding the public health messages regarding alcohol confusing (Haighton et al., 2016).

Older people can be resistant to public health messages, feeling that they should know how much they should be drinking at their age based on their personal experience (NHS Scotland, 2006) and older substance users have reported they feel that they are a "lost cause" and could therefore ignore messages (Matheson & Liddle, 2017). Further investigation on the feelings of

individuals within the retirement transition regarding public health messages is therefore required, to investigate further what they believe they may need to help moderate their alcohol use in retirement.

Qualitative research has shown that some individuals feel that current public health guidelines are confusing and of no relevance to them (Holley-Moore, Beach, & Brancati, 2016), and such messages are more likely to add support to personal views that their own individual levels of drinking were acceptable, regardless of these levels (Ling et al., 2012). Ling et al.'s sample of white-collar workers reported that guidelines were not easily translated into consumed drinks and were often confusing. Focus groups participants described those most at need of alcohol-related support to be young people, or those for whom it was "too late" were identified as being the target audience for such messages. This group of individuals did not feel that they were problem drinkers, providing they could still function, thus reinforcing that their behaviours were acceptable. Further work is required to ensure that public health messages are received by individuals who do not currently identify with the information provided on alcohol by the government.

1.5 Reasons for alcohol use in older people

Older age comes with different experiences and challenges compared to that of younger people (Kuerbis & Sacco, 2012) and stressors faced, particularly in older people, and those entering retirement may be unique to this specific population (Bamberger, 2014; Cherrier & Gurrieri, 2013; Kuerbis et al., 2017)

therefore requiring a tailored intervention. Much research has focused on students and younger adults (Duncan, Duncan, & Strycker, 2002; Ross et al., 2014; Siegel et al., 2013), whereas little has explored the reasons for drinking in older individuals. Whilst the evidence in this field is growing, it is still inadequate to inform an intervention in the area, with more information needed on what works and for whom.

Older individuals have reported that they use alcohol as a way of binding them with other people in a social context (Dare, Wilkinson, Allsop, Waters, & McHale, 2014). Nurses in primary care (i.e. from general practices) describe the use of social drinking as a barrier to offering treatment to older individuals as it is too late to be concerned and they do not want to deprive any patients of the positive social aspects of alcohol use (Lock, Kaner, Lamont, & Bond, 2002; Lock & Kaner, 2004). The social benefits of alcohol should be considered when developing an intervention as individuals should not feel deprived of any social opportunities that are important to them, especially in situations such as retirement where loneliness and isolation is rife (Kuerbis & Sacco, 2012).

Early intervention has been cited as a crucial factor to curbing alcohol use in older people (Blow & Barry, 2012) and older adults may have different reasons for drinking compared to younger people. A recent study investigating alcohol use found that for older individuals there was a significant association between daily boredom and higher quantities of alcohol consumption, as opposed to younger individuals who had a significant interaction between poor sleep quality and higher levels of alcohol use (Kuerbis et al., 2017). It is only with the

exploration of reasons for alcohol use in the older population that successful interventions or strategies can be developed, refined, and implemented.

Reasons for increased frequency of alcohol use in older individuals are not well defined. Individuals with late-onset alcohol use disorder (defined as the onset of an alcohol use disorder after the age of 60) and whose alcohol disorder started after the age of 60, with previous unproblematic alcohol use were interviewed in a previous study by Emiliussen, Andersen and Nielsen (2017); qualitative methods were used to explore the main factors of late onset use and found that loss of identity, coping with physical and psychological problems and societal pressure were all named to be important when addressing alcohol use in later life. These findings were particularly relevant within the current thesis, as these factors may be intertwined with retirement, however there is currently little known about these constructs and there is a requirement for exploratory research to better define the main factors of late onset alcohol use. This thesis began the exploration process, to determine the specific factors individuals feel contribute to their alcohol use in later life.

Individuals struggling with the retirement transition may use alcohol as a coping strategy and also as a social adhesive to construct and maintain new relationships upon leaving work (Cherrier & Gurrieri, 2013). Working provides individuals with a sense of identity and often comes with responsibilities that prevent someone from using alcohol too often. The workplace can also provide a social environment for people, even if they are just seeing different faces and having conversations. Once retirement begins this may change and individuals

may feel a need to change their social lives, which may include a different relationship with alcohol.

1.6 Retirement

Retirement is described as the point in time whereby individuals cease working (Adams, Feinauer, Adams, & Feinauer, 2015) and around 20% of the current workforce are likely to be making the transition into retirement over the next decade (Kuerbis & Sacco, 2012). Retirement is described as a transition, due to the process of longitudinal adjustment whereby individuals are getting used to retired life (Wang & Shultz, 2009).

There are considerable differences in experience across retirement and this is dependent on numerous factors. A systematic review conducted by Barbosa, Monteiro and Murta (2016) investigated previous studies on retirement adjustment factors and found the following five variables to be the most likely to relate to positive effects on adjustment to retirement: physical health, finances, psychological health and personality-related attributes, leisure, voluntary retirement and social integration. Being physically or mentally unhealthy, financially unstable, forced to retire or being unable to integrate socially upon retirement may therefore have negative effects on individuals in retirement and lead to poorer general health.

Poorer general health in older people may lead to adopting unhealthy lifestyle behaviours such as decreased physical activity (Harris, Owen, Victor, Adams, &

Cook, 2009; Troiano et al., 2008), or increased frequency of alcohol consumption (Bacharach, Bamberger, Biron, & Horowitz-Rozen, 2008; Kuerbis & Sacco, 2012). It is important however to note that every individual will experience retirement differently and this can be positive or negative. Variances may be due to factors such as socioeconomic status, forced retirement and as a response to chronic pain (Royal College of Psychiatrists, 2018). This thesis explored why individuals may adopt unhealthy lifestyle behaviours; in this case alcohol consumption, and how an intervention could be implemented to aid the transition for those individuals.

1.6.1 Alcohol use in Retirement

As cited in the previous section of this thesis, experiences of and motivations for retirement are likely to vary considerably between individuals. Retirement has been suggested as a potential risk factor for unhealthy and problematic drinking in older adults, due to the transitional process one goes through when leaving work (Kuerbis & Sacco, 2012). The retirement transition may be experienced differently dependent on factors such as physical health, mental health and finances. The literature thus far in the field in exploring these factors is scarce, however reviews suggest that retirement as a process in general could lead to higher frequency of consumption of alcohol (Bacharach, Bamberger, Biron, et al., 2008; Bamberger, 2014; Kuerbis & Sacco, 2012) However, protective mechanisms, or indeed risk factors require further investigation and it is only with this exploration that we can begin to provide recommendations for strategies within this transition.

Research into alcohol use in later life has focussed on a broad age range of individuals (e.g. 55+), as opposed to placing emphasis on the stage of life, e.g. working, retired. Those who have recently entered retirement have been shown to be statistically significantly more likely to drink almost every day compared to those who are still in work, or those who have been retired for longer (Holley-Moore & Beach, 2016). Retirement has been shown to increase the prevalence of heavy drinking and this is evident in both sexes (Zins et al., 2011). However, it should be noted that this increase was followed by a decrease over the following years. It is interesting that alcohol consumption increased significantly around the time of retirement and the authors suggest that this could be due to increased leisure time, or reduced responsibility. A recent report from the “Drink Wise – Age Well” partnership surveyed 16,710 individuals aged 50 and over to establish their reasons for drinking in later life. Individuals expressed reasons similar to those from Emiliussen et al. (2017) for increased alcohol use including: retirement, bereavement, loss of purpose in life, fewer opportunities to socialise and changes in finances. Further research is required to investigate the existing nuances faced, specifically in retirement as opposed to trying to cater an intervention to fixed age brackets.

Retirement affects people in different ways and the “Drink Wise - Age Well” report (Holley-Moore & Beach, 2016) suggests that these effects can be either positive or negative. For some individuals, this can be a positive experience, whereby the new-found freedom and an increase in spare time means that more things can be enjoyed such as hobbies, spending time with family or relaxation. However, for some individuals, this can be a negative time marred

by a loss of purpose, periods of ill health or financial difficulties. Individuals who use alcohol often used it for pleasure, relaxation, socialisation and "as a way to mark the passage of time" (Nicholson et al., 2017, p.13). Nicholson et al. also found that sudden changes in routine can be linked to harmful drinking practises and that public health policies and practice should be supporting the reconstruction of those routines that provide an individual with structure to their days. Investigation is needed to determine the underlying mechanisms of why people may experience retirement differently and how this could be addressed when trying to modify alcohol use.

An increase in alcohol consumption has been associated with reduced income, changes in social identity and changes in social roles as a result of retirement (Kuerbis & Sacco, 2012). Evidence also suggests that alcohol could be used in stressful situations as a coping mechanism to alleviate anxiety, as opposed to it being used for recreational/social purposes (Wadd & Galvani, 2014). During the retirement transition, individuals will lose the roles that existed in their working lives that provided them with a sense of purpose and social contact (Heaven et al., 2013). Creating new roles in retirement and therefore solidifying an individual's feeling of identity could lead to an improvement in general wellbeing and less inclination to turn to alcohol as a coping mechanism.

The situation in which an individual leaves work can lead to greater levels of alcohol consumption in retirement (Kuerbis & Sacco, 2012) and forced or involuntary retirement, especially when an individual enjoys their job has been associated with higher amounts of alcohol use (Bacharach, Bamberger, Biron,

& Horowitz-Rozen, 2008). Involuntary retirement may be linked to stress-based drinking and alcohol may be used as a self-medication tool to alleviate the strain of emotional distress (Frone, 1999).

Within the retirement literature and drawing on systematic reviews of the literature, four theories appeared to be most relevant to alcohol use in retirement (Bamberger, 2014; Kuerbis & Sacco, 2012). These include: Social Network theory, Stress and Coping theory, Role theory and Continuity theory and Liminality. The aforementioned theories are described in further detail below and were considered throughout the current thesis.

1.6.1.1 Social Networks

Social networks can influence an individual's likelihood of drinking, and should they require, recovery from drinking (McCrary, 2004). In older age, friends and peers continue to set the standard for appropriate drinking levels (Akers, La Greca, Cochran, & Sellers, 1989). The mechanism and understanding of social networks on the context of retirement is still unclear (Kuerbis & Sacco, 2012) and may remain an important aspect of human behaviour and society. The retirement transition should be explored further to investigate the importance of social networks within this context.

In the context of retirement, social networks could affect alcohol consumption. Alcohol use may decrease as social networks change, as individuals may become cut off from their usual drinking partners (e.g. co-workers) or they may experience loss of social networks due to the burden of caring for ill family

members or losing loved ones. Social networks could also encourage an increase in alcohol consumption; due to less responsibility than at work, more free time, fewer negative consequences of alcohol use and links with new social networks that are more permissive of drinking (Kuerbis & Sacco, 2012).

Where some social networks may be more permissive of drinking, others could actively discourage drinking or the context of the group, such as physical activity-based groups may make it less easy to drink. Introducing social networks to older people that are not as encouraging in using alcohol may provide an alternative social network to promote within an intervention to retired individuals.

1.6.1.2 Stress and coping as a reason for using alcohol

Retirement is often viewed as leisure time by individuals leaving work, where they have more disposable income, can spend more time relaxing and make use of having more time with family (Crome, Brown, Dar, Harris, & Janikiewicz, 2011). There is also evidence that suggests that individuals in retirement benefit mentally from better sleep quality and relief from work-related stress (Eibich, 2015). Despite such potential positive effects, individuals in retirement may experience unique stressors in comparison to the wider population, such as lower income, boredom, bereavement, a loss of social roles and responsibility and smaller social networks (Kuerbis & Sacco, 2012; Kuerbis et al., 2017).

Stressors in retirement may differ from stressors previously experienced and they may therefore seek strategies to deal with these stressors (Adlaf & Smart,

1995). A stressor identified specifically in this population is that of boredom and lack of routine (Kuerbis et al., 2017). Individuals who use alcohol often used it for pleasure, relaxation, socialisation and "as a way to mark the passage of time" (Nicholson et al., 2017, p.13). Nicholson et al. found that sudden changes in routine can be linked to harmful drinking practises and that public health policies and practice should be supporting the reconstruction of those routines that provide an individual with structure.

Evidence has shown that alcohol can be used to cope with stressors whereby individuals report using alcohol to "cheer themselves up" or to "block out loneliness" (Kuerbis & Sacco, 2012). Other suggestions are that older individuals may use alcohol to relieve pain and to deal with boredom and as a "pick me up" (Kuerbis & Sacco, 2012). Individuals may also use alcohol to counteract psychological and physical problems that may come with old age, such as bereavement and self-pity (Emiliussen et al., 2017).

1.6.1.3 Role Theory

Individuals who are still working could be highly invested in their role within their career, and their feelings of self-worth are linked to how effectively they are able to carry out such a role (Ashforth, 2000). Being retired involves a switch in roles, where individuals go from finding self-worth from their career to strengthening their existing family roles (Adams et al., 2015) and this could have positive or negative consequences.

Role theory suggests that the way an individual identifies with their pre-retirement role will determine how they adjust to their post retirement life. There is emphasis placed on the importance of role exit and role transition being integrated into the retirement process (Wang & Shultz, 2009). Leaving work can either be experienced as a relief or a loss and can be a positive or negative life experience much depending on whether an individual's desires and goals are met (Adams, Prescher, Beehr, & Lepisto, 2002) and alcohol could increase or decrease according to individual's feelings. Exploratory methods can further our knowledge and understanding of these risk factors and individuals' choices dependent on how they frame retirement.

1.6.1.4 Continuity Theory and Liminality

Continuity theory (Atchley, 1989) suggests that people seek consistency and continuity throughout their life. Not being able to do this anymore may lead to discontinuities, which can be stressful to an individual (Bamberger, 2014b). The stressors and adjustment difficulties of this could lead to exacerbated levels of drinking. Bamberger also suggests that discontinuities may be more common in involuntary retirement as it disrupts long term life planning. This is consistent with findings that involuntary retirement is more likely to affect individuals and there is an increased likelihood of alcohol use and heightened levels of consumption (Kuerbis & Sacco, 2012). Edgar et al (2016) interviewed retirees and found that retirement was an event that could potentially lead to changed routines and practises around alcohol, therefore providing an opportunity for alcohol levels to increase or decrease dependent on social networks. This reiterates that there is a complex relationship between both the social networks

that an individual subscribes to, but perhaps also their individual attributes. Edgar et al investigated specific age ranges, as opposed to their current position in the retirement process, and only looked at individuals post retirement. Without further investigation, this relationship between retirement and alcohol use cannot be clarified and there is no way of applying findings for use in an intervention.

Lund (2017) argues that embodied values within a person's life can become conscious and explicit during the retirement process. Lund draws upon the theory of liminality. Liminality was described by (Swanson & Turner, 1975) as “the midpoint of transition in a status-sequence between two positions” with Lund expanding on the notion that being on the threshold between working life and retirement could consist of these same liminal processes. This theory suggests that individuals will define the next stage of their lives, based on one aspect of the previous liminal. The liminal of a retired/retiring individual could consist of the loss of social roles and identity, moving into the next phase would potentially require something to replace this, or avoid such realisation. Kuerbis and Sacco (2012) also highlight the importance of social roles and/or loss of identity in retirement and added that this is something that could lead individuals to use alcohol more to aid social cohesion or avoid the loss of role.

The retirement transition is either referred to as either being a positive choice, whereby an individual has had a fruitful career and retires early to a private pension – or a negative choice whereby individuals have been economically inactive and therefore drift from one form of state support to another (Banks &

Smith, 2006). This ambiguity should be further explored; as socioeconomic factors such as these may play some sort of role in alcohol use during retirement. With research often being equivocal in this field, Bamberger (2014) suggests that further insight is needed to find out “who, when and for whom” retirement may lead to the beginning, or the increase of alcohol use. It is only with these insights that the impacts of retirement on drinking behaviours can be understood and in turn, suitable interventions can potentially be developed.

A systematic review examining the complex link between retirement and alcohol use showed that retiring could act as a risk factor where retiring promotes an increase in drinking or alcohol related problems or a protective factor to drinking whereby retirement leads to a decrease in alcohol consumption or at-risk drinking (Neve, Lemmens, & Drop, 2000; Rodriguez & Chandra, 2006). This adds further strength to the argument that individual and contextual aspects of this problem need to be investigated, as it is clearly not a straightforward issue. Bamberger (2014) suggests that there is a consensus across the literature that it is not the sole event of retirement that directly triggers an increase or decline of alcohol use rather the conditions and situations an individual is presented with when they leave work (social networks, feeling of loss or relief at leaving work) - beginning before they leave the workplace.

1.7 Behaviour Change

Behaviour change theories address varying components which are proposed to have an effect on an individual’s capacity to adapt behaviours and these can

include cognitive, interpersonal, social and cultural factors. Theories aim to explain cause-effect relationships between these factors and behaviours in order to develop interventions and change at risk behaviours (Shumaker, Ockene, & Riekert, 2009). The following section discusses the use of behaviour change theories within public health and how they could be used within this thesis and in potential application of an intervention, or policy change.

1.7.1 Behaviour Change and Health

Efforts at changing health-related behaviour over the last few years have had varying success. Whilst there have been successes in changing health related behaviours; such as reducing smoking (Brown & West, 2017) and reductions in drug and alcohol use across England (Public Health England, 2015) there have also been many interventions which were expected to be effective but were not (Michie, van Stralen, & West, 2011). The potential reasons for this are discussed over the next few paragraphs making reference to the complexities involved in public health campaigns.

Michie et al. (2011) argue that whilst there are numerous examples of successful interventions; many were predicted to be effective but were then shown not to be. Examples are shown in systematic reviews of provider behaviour (Grimshaw et al., 2001), obesity in children (Summerbell et al., 2005) and smoking cessation (Coleman, 2010). In order to improve practise and ensure that research is translated effectively; Michie et al. suggest that both the science and the techniques of behaviour change are improved to ensure a more useful design of interventions and therefore better policy making. Using a specific intervention development protocol, could aid this process, as it ensures

that the science and techniques are transparent and open to future critique and evaluation; leading to further improvements on intervention design.

Changing health-related behaviours is complex and research on risky behaviours such as drugs, tobacco, alcohol or over indulgence in high fat/high sugar foods is often sustained and nurtured by highly profiting companies (Nestle, 2015; White, Bero, Junior, White, & Bero, 2017). Evidence suggests that alcohol manufacturers fund research and that this can jeopardise findings and ultimately the changing of behaviours (Babor & Robaina, 2013). Such companies are equipped with the resources to continue to aid the use of their products through tools such as lucrative marketing schemes. The current thesis aimed to incorporate effective behaviour change tools; whilst also being transparent and socially responsible. It is only with the combination of these factors that public health practitioners will be able to effectively intervene and modify risky alcohol consumption.

Kelly and Barker (2016) highlight the main errors in changing behaviour, with the consensus being that errors in changing health related behaviours stem around oversimplifying this complex task. They argue that expecting individuals to accept delivered information, process this information and then act rationally will not be effective in providing a sustained change to health behaviours. Moving forward in the field of changing health-related behaviours requires using a regressive inference approach looking at previous events and how they may lead to damaging behaviours and therefore how these factors can be

changed; rather than trying to predict future behaviours which can be ineffective and inaccurate in comparison (Kelly & Barker, 2016).

There have been numerous interventions and policies introduced to try to persuade individuals to reduce their alcohol intake and these include banning the sale of "below cost" alcohol, introducing minimum unit pricing (MUP) (Brennan, Meng, Holmes, Hill-McManus, & Meier, 2014) and the introduction of screening and brief interventions for those who are at risk as part of NHS health checks (Beard, Brown, Kaner, West, & Michie, 2017). A modelling study on the effects of minimum pricing versus below cost alcohol has suggested that MUP could be up to 40-50 times more effective than banning below-cost alcohol (Brennan et al., 2014). These results show that there are discrepancies in the effectiveness of introduced policies and that further research is required to investigate further what works and for whom in reducing alcohol consumption.

There are many reasons why individuals would choose to reduce their alcohol intake. Beard, Brown, Kaner, West and Michie (2017) assessed the predictors among high risk drinkers in England of the attempts to reduce consumption, the reasons given for such attempts and the associations between these reasons and consequent alcohol consumption. They used a large sample of high-risk drinkers who were attempting to reduce their alcohol consumption. Reported consumption was measured using the Alcohol Use Disorders Identification Test (AUDIT) and participants were also asked questions about their demographics, how they had attempted to reduce consumption and their reasons for cutting down consumption. The following reasons were given by participants for

reducing their alcohol intake; concern of further health problems, advice from a doctor or health worker, financial costs of drinking and detoxification.

Participants who were significantly older were more likely to be cutting down; however, the individuals who were more likely to be cutting down were also female, with higher AUDIT scores, less likely to be of white ethnicity and were more likely to live in the South of England. This has some positive elements as it suggests that of the population studied, older aged individuals are likely to want to cut down on their alcohol intake and therefore may be more likely to respond positively to an intervention.

A systematic review on reducing the negative effects of alcohol consumption in older people (see Study 1) has also shown individuals in the older age bracket respond well to interventions that are aimed at reducing alcohol consumption (Armstrong-Moore, Haighton, Davinson, & Ling, 2018). The interventions however often lack key detail, therefore make it difficult to ascertain the specific factors that contribute to reduced alcohol use in this population.

Interventions are often developed without being guided by evidence based frameworks. Michie et al. (2011) argue that whilst the Medical Research Council offers guidelines for developing and evaluating interventions (Craig et al., 2006), it does not indicate how to use theory within the stages of intervention creation and evaluation. Michie et al. offer the beginnings of a systematic framework that assess the circumstances that make an intervention likely to be effective, which are then be useful for intervention design. Whilst frameworks for classifying interventions are available, such as MINDSPACE (Institute for

Government, 2010) and Cochrane's EPOC (Cochrane Effective Practice and Organisation of Care Group, 2010), there are none that are "comprehensive and coherent" (Michie et al., 2011, p.2).

An issue cited by Michie et al (2011) is the importance of understanding such target behaviours before designing the intervention. Illustrating this point in terms of alcohol comes from a worked example from Babor, Caetano, & Casswell (2010) highlighting that government strategies on alcohol can demonise alcohol consumption, and praise drinking responsibly . This approach however focusses on reflective motivation and is "possibly influenced by little more than a common sense analysis" (Michie et al., 2011, p.64). It is only with a comprehensive needs assessment, which is conducted within this study; that factors that may contribute to changing behaviours in this population can be integrated with theory for the provision of an effective intervention.

1.7.2 Behaviour Change Theories

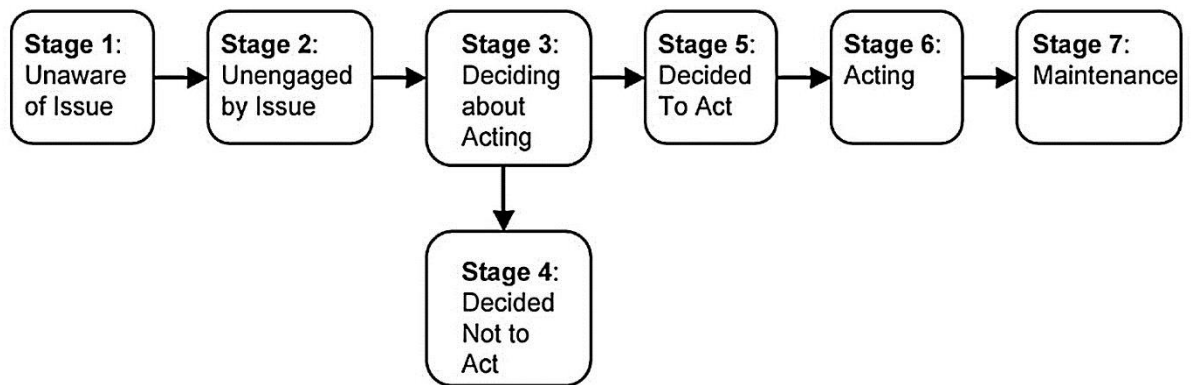
Behaviour change techniques and theories have developed substantially over the last few decades. When researching underlying behaviour change theories for this PhD, I considered numerous approaches and their potential application within the current thesis. The theories considered were the Transtheoretical Model of Behaviour Change (TTM) (Prochaska & Di Clemente, 1982), the Health Belief Model (HBM) (Rosenstock, 1974) and the Precaution Adoption Process Model (PAPM) (Weinstein, 1988). These behaviour change theories served to further my understanding of alcohol use in retirement and the development of an effective, implementable intervention. These theories are described and discussed in more detail below.

The Health Belief Model (Rosenstock, 1974) is a behaviour change model which was developed to predict the likelihood of individuals taking preventative action to avoid health threats (Michie, West, Campbell, Brown, & Gainforth, 2014). Taking preventative action is determined by perceived susceptibility and severity to the health threat and the perceived benefits and potential barriers of taking action. Despite the Health Belief Model being used as a theory behind a number of cited successful health-based interventions (Jones, Smith, & Llewellyn, 2014; Skinner, Tiro, Theory, & 2015, 2015) , however success of the model is disputed; with studies often not using it and intervention success being unrelated to the use of the model as a theoretical construct (Jones et al., 2014) there are also suggestions that the original design of this model does not consider social and psychological reasons as core determinants for behaviour change (Bartholomew Eldredge et al., 2016).

TTM consists of 5 sequential stages, concerning an individual's readiness to change their behaviour. These stages consist of: precontemplation, contemplation, preparation, action and maintenance. The main difference between the TTM and the PAPM are the stage names and their criteria; TTM uses time as a vehicle to move between the stages, whereas the PAPM uses mental states as indicators of an individual's readiness to move to the next stage (Weinstein, Sandman, & Blalock, 2008). This could be an important consideration, especially in terms of risk awareness; which may not be a linear process.

The Precaution Adoption Process Model (PAPM) theory was first discussed in 1988 (Weinstein, 1988) and formally accepted as a stage theory of behaviour change in 1992 (Weinstein & Sandman, 1992). The PAPM model could be used in the creation and implementation of an intervention as it “seeks to identify all the stages involved when people commence health-protective behaviours and to determine the factors that lead people to move from one stage to the next” (Weinstein, 1988, p.1). This model has been used effectively in previous health-related behaviour change investigations whereby, similar to the current health problem of alcohol use in retirement, individualised risk is a key issue (Costanza et al., 2005; Jin, Lee, & Yun Lee, 2018). The PAPM is a stage model that would help to evaluate individuals own perceived risk at varying stages of the intervention to ensure the intervention continued to be tailored to each individual at each stage of change. Figure 1.1 below, taken from Weinstein (1988) illustrates the stages that must occur before an individual changes a behaviour and is unique in that, unlike other stage models such as the Transtheoretical Model of behaviour change, it distinguishes among individuals who are aware of the issue, and those who are aware but are not yet interested in acting (Băban & Crăciun, 2007).

Figure 1.1: Stages of the Precaution Adoption Process Model taken from Weinstein (1988)



The PAPM model proposes that behaviour change and determining whether an individual will take protective action in response to a health threat occurs in seven stages. The seven stages are as follows: unaware, unengaged, undecided, decided not to act, decided to act, acting and maintenance. I considered the application of these theories throughout the process and used them as a key component in defining intervention recommendations.

1.8 Designing Interventions

Designing and implementing behaviour change interventions can be complex and following a set guide/protocol for this process is recommended (Michie, Atkins, & West, 2014). The Intervention Mapping approach (Bartholomew Eldredge et al., 2016) was used in this thesis to allow findings to be mapped to an implementable intervention in a logical way. Intervention mapping is discussed further in the methodology chapter of this thesis.

To design an effective intervention that can be used to support individuals and change health behaviours, it is important to understand the underlying

mechanisms of behaviour change and "how they can be influenced to establish the desired behaviour" (Klein, Mogles, & Van Wissen, 2011, p.2) . In using qualitative methods, this thesis investigated the behaviour taking place - alcohol consumption in the retirement transition - and how individuals feel this could be addressed using an intervention. I also applied appropriate behaviour change theory to findings. These two methods combined allow a deeper, more effective route to changing behaviour. The behaviour that I aimed to provide recommendations on improving within this thesis is alcohol consumption in the transition period between working life and retirement.

1.9 Interventions in the Workplace

The workplace could provide an important setting when trying to develop intervention for individuals who are retiring in the near future. Individuals spend a substantial amount of time in the workplace and this may therefore provide an ideal opportunity for a targeted intervention to reduce their alcohol use.

In terms of the effectiveness of workplace interventions on the general population, a systematic review conducted by Ames and Bennett (2011) on the prevention of alcohol use problems reported significant reductions in alcohol use outcomes, although they argued further research was needed to provide a "stronger and more integrated methodological approach". This included differentiating between individual or workplace change, as the type of intervention offered can alter results, however these could potentially overlap. Interventions were also shown to vary in terms of reach; whilst workplace

environmental studies gained significantly more reach; brief, one-to-one interventions may be more suitable in reaching those individuals with more complex, risky alcohol use. This review highlights that the workplace could provide an important setting when trying to develop interventions for individuals who are retiring in the near future, but that more research on the type of intervention, how it is delivered, to whom and where requires further investigation.

Ames and Bennett (2011) reviewed interventions including health promotion, social health promotion, and brief intervention, including web-based feedback interventions, (all focussing on individual behaviour), as well as environmental interventions, (reducing risk factors of alcohol use through changing the work environment). Interventions showed varying success across all domains, Ames and Bennet suggest that:

“the identification of specific and modifiable intervention strategies that may emerge in the process of working with various entities within the targeted population is crucial for the development of sustainable prevention of alcohol and other drug problems in the workplace” (p.186)

and recommend that using a framework alongside this, to systematically incorporate holistic findings in the workplace, may be the most viable route for systemic reductions in alcohol use.

Demographics of higher alcohol usage in the workplace suggest that industries with a higher proportion of male workers are more likely to have higher alcohol prevalence rates (Larson, Eyerman, Foster, & Gfroerer, 2007). However, with the same authors also showing that alcohol rates were higher in the following occupational groups; construction and extraction occupations (17.8 per cent) and installation, maintenance, and repair occupations (14.7 per cent), an assumption of the causal mechanism behind this prevalence (gender, or the workplace) cannot be drawn. This is an important consideration to make when developing an intervention and in particular whether one can opt for a “one size fits all” approach, with evident changes across different conditions.

In terms of “easing the transition” into retirement, the workplace could play a role in this by recognising the role of alcohol expectancies into their leaving work programme. A positive alcohol expectancy (positive association with using alcohol) is linked to higher likelihood to consume alcohol and a negative alcohol expectancy is linked to lower alcohol consumption (Leigh & Stacy, 2004) .

Research suggests that for many, the positive associations of alcohol use as “stress relief” are framed in the workplace (Frone, 1999) and this could indicate the importance of beginning a process of education and risk awareness whilst individuals are still in the workplace.

Positive alcohol expectancy, and a likelihood of individuals to use alcohol as a stress reliever, could be a particularly prevalent factor within older individuals facing retirement as they are potentially more likely to be in senior positions within the workforce; which often leads to elevated stress levels. There are also

key situations that are unique to retirees; such as bereavement or the onset of chronic health problems (Bacharach, Bamberger, Sonnenstuhl, & Vashdi, 2008). With these positive associations already being formed across the working life, Bacharach et al. suggest that employers and unions should target those who are older and retiring to highlight the negative effects of alcohol use, to confront their individual positive associations and help them to find an alternative strategy. A workplace intervention could therefore be the most appropriate place to change these associations as opposed to being community-based or in primary care. The rationale for this is that there is a larger population of individuals who can be accessed, at the specific time of leaving work and who may be missed as they may not come into contact with health services. Further support comes from the above findings from Bacharach et al suggesting that alcohol-stress responses suggest that they are created in this environment and may be best reversed in this environment before retirement takes place.

The period immediately prior to retirement could be a crucial time to offer support regarding healthy lifestyle options and could be key in offering information and prevention strategies regarding increased alcohol consumption (Britton, Shipley, Singh-Manoux, & Marmot, 2008). The workplace also provides an opportunistic venue for the provision of public health interventions and therefore offering prevention in the workplace would allow individuals to be made aware of the problems that they could face in retirement, including increased frequency of alcohol use. With regards to retiring individuals, an environment in which the employer knows their employees and who will soon

be retiring, so would make it less likely that individuals would leave the workplace without having received any support.

1.10 Mode of Delivery

The mode of delivery when considering the development of an intervention is important, and face to face brief interventions can be effective at reducing alcohol in primary care populations (Kaner et al., 2007; O'Donnell et al., 2014). Despite these findings, there are limitations of current interventions, such as poor descriptive quality (Armstrong-Moore, Haighton, Davinson, & Ling, 2018; Kaner et al., 2017), and limited effectiveness in specific subsets of the population (O'Donnell et al., 2014).

There is also evidence of effectiveness of web-based brief interventions to reduce alcohol consumption. Results from a group of young individuals within the workplace found that those who used a web-based intervention reported significantly lower levels of drinking than those in a control group (Doumas & Hannah, 2008). A systematic review of web-based alcohol interventions found that individuals can benefit from online alcohol interventions and that this may be especially useful for harder to reach groups including younger people and women (White et al., 2010). Retiring people could potentially come under this category of hard to reach as they are leaving the workplace and may not know where there is available help.

Hard to reach subsets of the population may miss out on important health messages and interventions. A way of accessing such individuals could be by providing access to a remote, digital intervention. Digital interventions are programmes delivered over a digital platform, such as a computer, website or smartphone that provide support and guidance on physical, emotional and mental health problems (Alkhaldi et al., 2016). Digital interventions have been shown to have effectiveness in improving a wide range of health-related behaviours, including promoting physical activity (Foster, Richards, Thorogood, & Hillsdon, 2013), improving depression through remote cognitive behavioural therapy (Kaltenthaler, Parry, Beverley, & Ferriter, 2008) and reducing alcohol consumption (Zarnie Khadjesari, Murray, Hewitt, Hartley, & Godfrey, 2011). Offering a digital intervention could therefore be both cost effective and easily accessible to users (Garnett et al., 2017).

The mode of delivery is important when delivering alcohol related interventions, as some individuals may have a personal preference to face to face, or indeed may be more inclined to divulge sensitive information when more removed (such as via the use of a web app). For example, web-based interventions reduced alcohol use has been beneficial in younger people and students (Kaner et al., 2017). There are contradictory studies whereby web-based interventions have not been shown to be effective (Davies, Lonsdale, Hennelly, Winstock, & Foxcroft, 2017), however the authors of these studies suggest that this may be due to poor recruitment and small sample sizes within the studies.

Kaner et al. (2017) suggest that there is no evidence that face to face applications are any more effective in reducing alcohol consumption, with reductions being shown (or not) whether the intervention is delivered face to face or via a web-based application. Kaner et al. also suggest that current studies are of low-moderate quality and findings from the review are consistent with that of a systematic review suggesting that current interventions delivered (not web-based), with the older generation lack detail (Armstrong-Moore et al., 2018) and therefore cannot be fully evaluated. Finding out individuals' personal views on how an intervention should be delivered, including the use of digital interventions and web-based applications allows for a depth of perspectives on how these types of interventions would be received. Individual perception of delivery is important to encourage engagement and must precede the development of an intervention.

1.11 Web-based interventions and older people

There are numerous reasons to support the rationale for offering a web-based intervention or smartphone application to the older population and specifically, certain subgroups of individuals and these are explored further in the following section.

The mode of delivery is important when delivering alcohol-related interventions, as some individuals may have a personal preference for face to face, or indeed may be more inclined to divulge sensitive information when more removed from the intervention, such as through a web app). Web-based interventions to

reduce alcohol use have been beneficial for younger people and students (Leeman, Perez, Nogueira, & DeMartini, 2015; White et al., 2010) Other studies have found no effect of web-based interventions (Davies et al., 2017), however the authors suggest that this may be due to poor recruitment and small sample sizes within the studies.

Further evidence for the use of digital interventions comes from Klein, Mogles and Van Wissen (2011), who suggest that the use of an "intelligent support system" could be an effective way to help individuals change their health behaviour. They suggest that individuals have lots of reasons not to do what is good for their health. It can be hard to find a balance between work, social life, diet and other important aspects of health such as taking medicines. Patient engagement and empowerment have been suggested as factors that could improve adherence to patient therapies and thence their health (Klein et al., 2011). If an individual is given a tool that helps them monitor their condition or behaviour, and therefore use an element of self-management, it could help them improve their behaviours (Barlow, Wright, Sheasby, Turner, & Hainsworth, 2002). A digital intervention could provide a platform for this self-management and provide individuals with an opportunity to monitor their behaviours and improve them. This would be particularly useful for older people, as a harder to reach population with the potential to have less mobility to engage with face to face tools, however further investigation is required on the user acceptability in an older age group; this thesis further establishes perspectives from this population of older individuals.

User characteristics have been investigated when developing smartphone interventions. Crane, Garnett, Brown, West, & Michie and (2017) sought to investigate who uses such interventions and how this "treatment seeking" group compares to the standard drinking population. Crane et al. (2017) collected data on the demographics of users, including age, gender, region, sexual orientation, social grade and AUDIT score. They found that individuals who engaged well with the app were younger, not heterosexual, less likely to be of a lower social grade, from the South of England and had a higher mean AUDIT score. These demographics are important to consider, as it may be that Crane et al's specific intervention does not work for all groups in society. There is currently limited investigation regarding the acceptability of an online application in older individuals and it is only with further investigation of these subsets of the population individually, that we can begin to understand how an application would work and for whom.

The development of a computerised tool for older people could be more acceptable to users when their individual perspective has been considered in the development process (Bailey & Sheehan, 2009). Individuals of the older generation may feel that they need specific content, such as personalised messages or access to face-to-face support. Currie et al. suggest that whilst older individuals are receptive to online e-health tools, they feel that the implementation of any tools should be gradual and perhaps complementary to existing care and may be perceived better when not perceived as replacing face to face care (Currie, Philip, & Roberts, 2015). This indicates that content and

delivery is important and should be explored before the implementation of any intervention.

There are advantages of online applications which may prove useful, specifically for older users. For example; social connections may be lost during retirement and interventions that promote social roles within retirement may further improve health and wellbeing (Heaven et al., 2013). A novel way of implementing such interventions would be via digital interventions and support for the acceptance of such interventions in an older population was found by Nef, Ganea, Müri and Mosimann (2013), who assessed qualitative studies of Internet use by older individuals (aged over 55 years). They found that use of the Internet helped this population maintain their social connections with family and friends.

Another benefit of online applications is that of anonymity. Anonymity in internet-based applications could promote health-seeking behaviours in populations that are harder to reach (Lai, Maniam, Chan, & Ravindran, 2014). For example, older individuals who are concerned about alcohol use. There is evidence that offering an alcohol-related intervention via computer-based online programmes in the workplace could be viable, as this offers private access to an intervention whenever the individual wants (British Medical Association, 2016). Qualitative research with staff members in clinics has also found that the provision of computerised brief interventions was deemed appropriate and acceptable in their patient community, especially for stigmatised behaviours such as drug and alcohol use (Mitchell et al., 2015).

Individuals aged 55 and over may prove harder to reach; including individuals who are less able to access healthcare for geographical reasons (Hong, Peña-Purcell, & Ory, 2012). The population of older people is rising more rapidly in rural areas than urban areas and this leads to service delivery challenges within public health (Mort & Philip, 2014). There are health inequalities among individuals who live in rural and coastal areas (Public Health England, 2019); and providing an intervention that is both accessible and useful in improving health would be advantageous to an ageing population.

The literature suggests that web-based applications are a viable method of delivering an intervention to older individuals and may allow practitioners to reach individuals who are less geographically accessible, or who feel uncomfortable discussing their alcohol use. This thesis investigated the mode of intervention further to establish individual preferences surrounding intervention delivery.

1.12 Aims and objectives

While there is some literature in this field of alcohol use in retirement, it is still scarce and does not clearly signpost the next steps in devising an intervention. There have been no recommendations offered thus far for an alcohol intervention that could be used upon leaving work and entering retirement.

In this thesis, I investigated the kind of support regarding alcohol use in retirement that individuals feel they would need upon retiring and I then offer

recommendations as to how these could be developed into an intervention.

Whilst the existing literature discusses the issues that individuals experience in retirement, specifically regarding alcohol (Bacharach, Bamberger, Biron, & Horowitz-Rozen, 2008; Bamberger, 2014; Bell, Ayrshire, & Gilhooly, 2016; Kuerbis & Sacco, 2012; Wang, Steier, & Gallo, 2014), there is no study at present that asks individuals what they feel they would need to moderate their alcohol use in retirement and how a specific alcohol intervention could help them. I investigate individuals' views on the mode of intervention (face to face, online) that they feel would be most suited to them.

This study aimed to provide recommendations for an intervention that could be provided to individuals upon leaving work and entering retirement. This intervention would be delivered with the intention to reduce frequency of alcohol consumption across retirement. I began this research by conducting a systematic review of the current literature surrounding alcohol use in older individuals, to inform the specific study objectives. The specific objectives were as follows

1. To review the literature on alcohol interventions targeted at older people (Study 1). This begins the "needs assessment" step of the Intervention Mapping process and informed the development of Study 2 and Study 3.
2. To interview individuals who were retired/retiring within 5 years, and those who worked in Human Resources/Occupational Health to establish their views on alcohol use in retirement and what would be needed, and in what form in a workplace-based, or workplace-initiated intervention.

3. To provide recommendations based on these findings for an intervention that could be used across the transition to retirement, using the Intervention Mapping approach.

Following these recommendations, implications for stakeholders and policymakers were also considered, as well as suggestions for further study.

1.13 Structure of the thesis

Chapter 1 presents the background motivation and rationale for the study, comprising literature reviews on key topics. A concept map was used to guide the introduction chapter of the thesis and to orient the concepts that were explored (see Appendix 1). The chapter begins with a general overview of alcohol use and its effects on population health, with supporting epidemiological literature and then links to alcohol use on older people and how this can affect their physical and mental health. Following this, the literature review examines retirement and the effects retiring can have on older people before going on to discuss the current literature on alcohol use in retirement. Behaviour change theories are also discussed, including the use of digital interventions. This thesis aimed to explore the feasibility of developing an intervention that could be used across retirement to reduce alcohol consumption across this transition and to provide recommendations for doing so.

Chapter 2 presents the methodological approaches and philosophical underpinnings that inform this study. It focuses on why different aspects of

qualitative methods were used for this study. Grounded Theory and framework analysis methods are discussed, describing the theoretical approach taken.

Chapter 3 presents the methods used in this study, based on the methodological principles outlined in the previous chapter. I explain methods of data collection, sample, data analysis and the Intervention Mapping approach as a tool for intervention development.

Chapter 4 presents the findings from Study 1, which was a systematic review conducted on interventions to reduce alcohol consumption in older adults. This chapter provides insight into the current literature base and how future intervention development could be improved.

Chapter 5 presents findings from a qualitative study of individuals who were retiring in the next five years and those who had retired in the last five years. The chapter begins with an introduction to the literature on retirement and alcohol use. The chapter then presents findings from interviews, this section is divided into hierarchical themes using subheadings to clarify interpretation. The themes identified from these interviews give insight into how people view the process of retirement, their relationship with alcohol and what an intervention could involve. This chapter ends with strengths and limitations of the study and suggestions for further work.

Chapter 6 presents findings from a qualitative study of individuals who work in Human Resources or Occupational Health. The first section of this chapter

examined previous literature to provide a background to the study, with aims and motivations for the current study. The chapter presents the findings from the interviews, structured with hierarchical themes and subheadings. The components identified from these interviews give insight into how individuals who work in Human Resources/Occupational Health view the process of retirement within their workplace and what their workplace currently offers. Furthermore, I also discuss what an intervention could involve and whether this would be feasible and acceptable within their workplace. This chapter concludes by examining the strengths and limitations of the study and suggestions for further work.

Chapter 7 is the discussion of the findings and starts with a summary of the main findings from the empirical studies. The findings are discussed within the context of the literature presented throughout the thesis, and the contribution of this thesis to the existing evidence base. Findings were mapped to the intervention mapping protocol to illustrate recommendations for an intervention. Following this, I explore implications for stakeholders and perspectives on the findings in line with research and policy, strengths and limitations of the study and the contribution of this thesis to the field.

CHAPTER 2 - METHODOLOGY

This chapter explores the philosophical orientation of my work and the methodology chosen. The methodological approach is consistent with the exploration of the research aims, which were to conduct a systematic review on previous literature (Study 1) and to explore the views of individuals who were pre/post retirement (Study 2) and those working in Human Resources/Occupational Health (Study 3) to provide recommendations for a workplace-oriented intervention.

The methodological approach of this study informs how the research aims were met and explored. This required a methodological approach that allowed multiple opinions and views on the subject to be considered whilst also considering the impact of individuals' views on what could be feasible and applied within the field of public health.

In this chapter, the theoretical underpinnings of the methodology are discussed. I focus on why aspects of qualitative methods were used and also justify why they were relevant and useful for this study.

2.1 Researcher background and stance

For every researcher, there will be different assumptions of reality and knowledge and this is reflected in the methodology and subsequent methods (Scotland, 2012). It is therefore important to discuss the ontological and

epistemological stance of the researcher and their priori set of beliefs at the beginning of this chapter.

In the generation of new knowledge, the researcher must decide which stance to take when conducting research with people. As a younger person, perhaps from differing experiences related to alcohol, no experience of the retirement process and a potential to differ assumed social class; I chose to adopt the primary positions of “outsider” as opposed to insider, and “learner” rather than expert (Blaikie, 2009). I felt these roles were most appropriate as I was interviewing individuals who were older about an experience I was personally unfamiliar with.

In my stance as an outsider, I maintained a professional distance from the interviewees; however, there were numerous times during interviews that I was called on to draw on my own personal experience. This was important as alcohol is a sensitive subject and if I did not reference aspects of my own life and “give part of myself” some individuals may have felt less inclined to discuss their thoughts and feelings.

Taking my position as a learner allowed me to engage fully with the concepts and understandings that the older adults had with their outside world, aiming to disregard prior thoughts and feelings surrounding the topic and allow the individuals to convey their own understanding of the phenomena of alcohol use in retirement. Again, there were instances whereby I would feel it necessary to draw on my expert status as a researcher, such as if I was asked a question,

whereby the individual showed an interest in the topic and would use me as their source of information.

2.2 Ontology

Ontology is the science or study of being and what there is to know about it (Blaikie, 2009), ontological assumptions exist to explore what constitutes reality, and essentially “what is” (Scotland, 2012). A researcher must decide which ontological position they will take when embarking on the gathering of knowledge to illustrate their perception of how things are and how they work. There are two positions one can hold within ontology: realism and idealism. Realism is the understanding that there is an “external reality which exists independently of people’s beliefs or understanding of it [...] There is a distinction between the way the world is, and the meaning and interpretation of that world held by individuals” (Ritchie et al, 2013, p.5). The opposite of realism is idealism, which suggests that reality is dependent on the mind (Blaikie, 2009). This means that the world can only be interpreted by the social constructs created by the human mind and that no reality can exist independent of this. There are suggestions that these laws are different between the social and natural world, as human beings have choice and agency, the notion that there are fixed laws governing the social world is often rejected in contemporary research due to this notion of individual agency (Ritchie, Lewis, McNaughton-Nicholls, & Ormiston, 2014).

When approaching this research project, it was important for me to consider the implications of my findings and where they would potentially be applied. Within the public health sector there is an emphasis placed on evidence that is “systematically generated and analysed, with interpretations that are well founded and defensible and able to support wider inference” (Ritchie et al., 2013, p.21). Within this, there is an expectation within the public health arena that research findings must be easily accessible and “sufficiently focussed to inform policy planning and implementations” (Ritchie et al., 2013, p.21). The consideration that my work must adhere to these constructs in order for me to create a body of evidence that could potentially inform the implementation of an intervention, my ontological stance broadly lies within that of critical realism. The realist approach relies on the assumption that social phenomena exist beyond that of the individual who is experiencing or observing such phenomena, but that this is accessed only when the perceptions and interpretations of individuals are considered (Blaikie, 2007)

2.3 Epistemology

Epistemology is defined briefly as the “theory of knowledge” (Carey, 2013, p.50) and is concerned with the nature and forms that knowledge can take (Cohen, Manion, Morrison, Manion, & Morrison, 2002); therefore what it means to “know” (Guba, Guba, & Lincoln, 1994). Two epistemological stances were considered at the beginning of this thesis and these were Objectivism (Positivism) and Interpretivism (Constructivism).

The first epistemological stance explored is that of Positivism. Positivism holds the view that reality exists, as “meaningful entities independently of consciousness and experience, that they have truth and meaning residing in them as objects” (Crotty, 1998, p.1). This stance is most closely related to positivism and the scientific method and aims to ascertain facts and “absolute” knowledge, that is not ground in political or historical context (Scotland, 2012). Positivism often generates quantitative data, whereby the researcher aims to be separated subjectively from the data, opting to use numerical tools for data collection such as standardized tests and closed ended questionnaires/surveys (Bryman, 2016). Analysis of such data often uses power-based statistical methods, which seek to provide generalisability, combined with predictability and causal explanations (Macdonald & Headlam, 2011).

The second epistemological stance is that of interpretivism; interpretivism rejects the positivist view of human knowledge, believing that human knowledge is not simply discovered, but must be constructed. This means that knowledge will be interpreted differently dependent on who is acquiring the knowledge and that there are different versions of realities, due to individuals likely experiencing the world in different ways (Crotty, 1998). Interpretivist methods usually generate qualitative data, where the researcher *is* the tool for capturing such data and may employ facilitatory methods such as focus groups, interviews and ethnography (Creswell, 2012). Data returned from qualitative research is often in the form of words or pictures and is analysed interpretively, whereby the researcher is embedded in the collection and analysis of data. Qualitative

methods seek to provide contextualisation, interpretation and understanding of the perspectives of others (Macdonald & Headlam, 2011) .

The epistemological stance of this thesis is located within the interpretivist paradigm, chosen as I believe the views of older adults about their relationship with alcohol across the retirement transition, and the views of Human Resources/Occupational Health workers were entirely subjective experiences and therefore can only be explored and understood by interviewing those who have experienced the transition themselves (Study 2) and who have assisted individuals with the leaving work process (Study 3). An alternative would have been to adopt a positivist epistemology and ask the individuals who took part in both studies questions which required specific answers. However, it was important to ensure that an intervention would be a realistic fit with the views of those who would potentially be using and implementing an intervention, therefore understanding individual views through exploration may yield subjective views that can offer context to the findings, something that cannot be gained as well using quantitative and therefore positivist measures. Therefore, rather than testing pre-determined hypotheses based on previous knowledge, as is often traditional in scientific studies, this research aims to promote discovery and obtain emergent knowledge.

This thesis is located within the interpretivist paradigm, however it makes use of both inductive and deductive approaches (Blaikie & Priest, 2019; Creswell, 2012). I used a deductive process in this thesis, whereby I conducted both a literature review and a subsequent systematic review, incorporating existing

theories in order to plan the study, develop my sampling framework and design my interview guides. During interviews and in analysis, I aimed to be more inductive; exploring the views of the participants and offering interpretation of what they meant. Interviews and analysis were contextualised and linked back to current knowledge and theories, where appropriate, within the field.

My interpretations on more abstract findings are related and illustrated directly to the original data to aid transparency and credibility to the interpretivist paradigm. This helped, especially when I drew higher level inferences within the results of Study 2 and Study 3, there were inferences made at both higher and lower level and being able to relate back to the original data added strength to the validity of my findings.

2.4 Theoretical Framework and Philosophical assumptions

2.4.1 Critical Realism

An overarching aim of this thesis was to inform policy and practice and therefore has more of an applied, as opposed to a theoretical focus. This is in line with the development of social policy change work carried out within the field. The Framework tool was used within this thesis, as it was developed at the National Centre for Social Research (Ritchie & Spencer, 1994), specifically to aid the development and implementation of social policy and change. The decision was therefore made to align with critical realism as a theoretical position.

As discussed, I took the ontological position that there is a real world that exists beyond our own perceptions theories and constructions (realism), but that each understanding of the world is constructed from our individual perspective (constructivism). Critical realism is the combination of a realist ontology, with a constructivist epistemology (Maxwell, 2012), offering the view that reality is arranged in levels and can differ from individual to individual (Bhaskar, 1979; Bunge, 1993).

This thesis is located within the interpretivist paradigm but is most closely associated with critical realism. Critical realism was created as response to positivist methods and is categorised as “post-positivist” (Scotland, 2012). This is in contrast to subjectivism which holds the belief that there is no external reality and meanings are directed towards certain objects or things (Creswell, 2012) . Critical realism fits with my ontological stance of realism. Realism is commonly most closely associated with positivism and quantitative methods, however with post-positivism and in turn, critical realism, there is the recognition that all of our observations is fallible and capable of error and that all theory can be revised and changed (Archer et al., 2016). In this thesis I observed and aimed to understand concepts, in line with the perception of others.

This thesis used qualitative methods in the form of open-ended, semi-structured methods to gain insight into how an intervention could be used to support individuals with their alcohol use within the retirement transition (Study 2) and how this could feasibly be implemented within the workplace (Study 3). However, this thesis also sought to answer questions that were determined by

pre-existing knowledge gained from previous literature and a systematic review of current evidence (Study 1).

2.4.2 Use of theoretical lenses

Although the overarching theory I used to aid my knowledge and understanding of my findings within this thesis lay within the realm of critical realism, I chose to adopt several “theoretical lenses” to further aid my understanding of alcohol use in older people and retirement and therefore how best to develop an intervention that would fit with this group of individuals.

The theories introduced below were employed to aid my understanding and interpretation of my findings throughout the study. My understanding of alcohol use in older people and therefore retirement was developed through conducting a literature search and systematic review. My understanding of the topic and suitable approaches for intervention were developed through conducting the systematic review and early analysis of the data, to establish which social theories may aid my interpretations further.

These early concepts and ideas were discussed throughout with my supervision team to establish how the relevant literature and subsequent theoretical lens would aid understanding of findings. Four theories were identified in the literature review and systematic review and these were Continuity Theory (Atchley, 1989; Bamberger, 2014) and Liminality (Beech, 2011; Swanson & Turner, 1975), Role Theory (Ashforth, 2000), Social Network Theory (Akers et al., 1989; McCrady, 2004) and Stress and Coping theory (Adlaf & Smart, 1995; Emiliussen et al., 2017). I feel that Continuity Theory (Atchley, 1989;

Bamberger, 2014) and Liminality (Beech, 2011; Swanson & Turner, 1975) work alongside Stress and Coping theory to provide a theoretical lens for the findings, but without consistently adhering to a strict framework. I also felt that Stress and Coping theory was adequate in providing an overarching lens to the previously mentioned Social Network and Role theory (Akers et al., 1989; Ashforth, 2000; McCrady, 2004), as these were named as stressors in previous findings (Holley-Moore, Beach, & Brancati, 2016; Kuerbis & Sacco, 2012) and therefore can be viewed through the theoretical perspective of Stress and Coping theory. These theories and constructs were useful in the development of interview prompts, aiding my understanding, and interpretation of my qualitative data, they did not ultimately determine the way that the study was conducted, and I was not bound by individual theoretical principles. Below I provide a summary of these theories and how they fitted within my thesis.

2.4.2.1 Liminality and Continuity theory

Continuity theory suggests that people seek consistency and continuity throughout their life and may feel the need to link instances in their past with those in their future (Atchley, 1989). Retirement may lead to a discontinuity in their view on life, and may be stressful to an individual (Bamberger, 2014). Individuals will look to base their retirement stage on the previous stages of their life; if they struggle to draw comparisons, they may feel unease and devoid of a strategy to work through this.

Linked to Continuity theory is the concept of Liminality, which is explained in further detail in the introduction chapter of this thesis. Liminality was described

by Swanson and Turner (1975, p. 237) as “the midpoint of transition in a status-sequence between two positions” and suggests that individuals define the next stage of their lives, based on one aspect of the previous position. An individual who is entering retirement may try to base their identity and way of life on their previous liminal of the workplace -and may experience a loss of identity should an alternative role not be provided.

2.4.2.2 Stress and Coping Theory

Retirement may be a positive experience for some older people, with more leisure time and the ability to interact with hobbies; however evidence also suggests that individuals in retirement have poorer mental health over the longer term (Heller-Sahlgren, 2017) and alcohol has also been shown to be used as a coping strategy to deal with physical and psychological problems in older adults (Emiliussen et al., 2017).

Alcohol is used to aid social cohesion (Wybron, 2016). Individuals who are entering retirement will experience some change in their social networks, either through the loss of workplace colleagues, or the gaining of new, retired, friends. The use of alcohol may be more prevalent in these situations in which an individual experiences a new social network, as drinking symbolises solidarity in social settings and those who do not drink are seen as “deviant non-conformists” (Cherrier & Gurrieri, 2013), alcohol may facilitate the expression of an unspoken commitment to newer friends. In this case it is used as a coping mechanism, to combat loneliness and aid the development of new friendships.

2.5 Methodological Principles

2.5.1 Principles of Grounded Theory

In this section, I explain my rationale behind the methodological principles I chose. My research question required me to develop recommendations for a specific subset of the population (individuals making the transition into retirement).

My chosen methodological principles guiding this study were most closely aligned with Grounded Theory, but in the form of Straussian (Strauss, 1987) principles, as opposed to “pure” Glaserian (Glaser, 1978) Grounded Theory to aid my analysis. I opted to use principles of the Straussian approach; but did not use the grounded theory approach as a prescriptive framework and chose to align those principles with the ethos of the Framework Approach (Ritchie and Spencer, 1994), which I discuss later in the Methods section of this chapter. I made this decision as it was better aligned to my research question, which was to provide recommendations for a strategy for retirement-aged drinkers; something that would require an applied approach as opposed to the production of new theory, whilst still allowing the richness of qualitative data, with the emergence of key findings.

Grounded Theory is described as a “general methodology for developing theory that is grounded in the data systematically gathered and analysed” (p. 273, Strauss and Corbin 1990). It was originally created by Glaser and Strauss in 1967 as a way of conceptualizing qualitative data. Charmaz (2006, p.5) lists the

following as defining components from Glaser and Strauss on Grounded Theory in practice:

- Simultaneous involvement in data collection and analysis
- Constructing analytic codes and categories from data, not from preconceived logically deduced hypotheses
- Using the constant comparative method, which involves making comparisons during each stage of the analysis
- Advancing theory development during each step of data collection and analysis
- Memo-writing to elaborate categories, specify their properties, define relationships between categories and identify gaps
- Sampling aimed toward theory construction and not for population representativeness
- Conducting the literature review after developing an independent analysis

Grounded theory has been taken in divergent directions since its foundation. Glaser and Strauss often disagreed on the future of grounded theory, with Glaser remaining consistent and focussed on the original method, defining theory as a method of discovery (Charmaz, 2006) and using inductive methods built from the ground up, with no prior knowledge. In contrast, Strauss moved the method towards verification and categorisation and against the original emphasised comparative methods and co-authored works with Corbin (Strauss & Corbin, 1990) to continue this development.

Grounded theory does not need to be a prescribed tool, but rather is a set of principles and practises that can be used to complement other qualitative approaches to data analysis and grounded theory is sometimes used to develop new theory, however it is also useful in creating a framework in which data remains grounded in the literature (Charmaz, 2006). As Charmaz argues, while some of these principles were adhered to, there may be areas that were not used dependent on the need within the current thesis. Principles of grounded theory were used in this thesis, as it allowed information and theory to come from the data itself, using elements of the guidelines such as constant comparison and the development of categories from the data itself as opposed to trying to prove or disprove hypotheses.

I also considered the use of phenomenology to inform the qualitative research within this thesis as it provides a rich understanding of individuals' experiences surrounding a lived phenomenon (Gerrish & Lathlean, 2015) and it could be argued that this would provide an insight into retired/retiring individuals lives. I did not, however, feel that retiring individuals could comment richly on an experience they had not yet lived, and I also felt that using a combination of data, which included data from Human Resources/Occupational Health interviewees would strengthen my argument relating to policy development and the realistic implementation of an intervention within the workplace.

An aspect of the methodological principles chosen for this thesis, which is not apparent in phenomenology is the use of constant comparison (Charmaz, 2006). Researchers using grounded theory principles compare their data, whilst

in the process may challenge the emerging findings but will ultimately strengthen it (Parahoo, 2006). This approach ultimately strengthens the findings within this thesis; as I was able to compare findings across cases of individuals, and ultimately across studies to provide recommendations from both retiring/retired individuals and those who worked in Human Resources and Occupational Health to provide a holistic interpretation of how my findings could be realistically used in practice.

2.5.2 Constant Comparison

Constant comparison is a key part of Grounded Theory and allows for a general method of constant comparative analysis (Glaser & Strauss, 1967). This method consists of concepts and ideas being continually compared with each other throughout the research process and allows the data to be enriched as it is collected, rather than repeatedly returning to participants and analysing all data at the end. During this comparison, similarities and differences can be drawn across cases and compared accordingly. Constant comparison makes use of an iterative process, whereby the findings from early interviews inform future interviews. In the case of my thesis, I used topic guides (See Appendices 3 and 4) to begin the conversations about an intervention and relevant findings from these first few interviews, and these findings were used to modify subsequent questions. This allowed for continuous flexibility across participants and studies.

CHAPTER 3 – METHODS

3.1 Data Collection

I used a mixed approach to data collection, opting for both deductive and inductive measures. Study 1 involved a systematic review, in which I critically synthesised and appraised documents to investigate the effectiveness of interventions to reduce the negative effects of alcohol on older people. Study 1 informed the development of Study 2 and Study 3 in which I interviewed individuals who were five years pre/post retirement (Study 2) and individuals who worked in Human Resources or Occupational Health (Study 3; see below for methods of sampling).

Participants were interviewed by myself and were interviewed in a private room away from any other members of the workplace, or over the telephone in a private area. Interviews were carried out between May 2017 and January 2018. Participants were informed that the interview would take around 25-30 minutes and would be audio-recorded. Interviews were transcribed verbatim by myself.

3.2 Sampling

A combination of purposive and convenience sampling was used to recruit individuals for both Study 2 and Study 3. These techniques were used to gain insight into the phenomena of retirement, whilst also allowing me to capture a broad range of views from across the sample. Purposive sampling is a non-probability sample, which aims to recruit individuals who are specific to the

population which is being investigated (Battaglia, 2008a). Purposive sampling was chosen to gain a more direct, expert opinion into the specific phenomenon of retirement rather than to draw inferences from the entire population.

Convenience sampling is another non-probability sample based on convenience (Battaglia, 2008b) was used when interviewees recommended others who would also be willing to take part; on the basis that they fit the same demographics required.

These sampling strategies allowed me to gain further information from individuals who had expertise on the retirement transition (Study 2) and the current strategies for individuals leaving work, including resources and cost-related priorities that may need to be considered (Study 3), whilst also enabling me to capture a broader sample than by using purposive sampling alone.

3.3 Data Analysis

3.3.1 Framework Approach as a Tool for Analysis and Interpretation

I adopted the Framework Approach to aid the analysis of my data as it aligned with my methodological principles and ultimately my ontological and epistemological stance as a researcher. My research aims were to provide recommendations on how best an intervention could be developed to reduce alcohol consumption in retirement and I felt that the Framework approach was the best tool to provide such recommendations (Gale, Heath, Cameron, Rashid, & Redwood, 2013; Ritchie, Lewis, McNaughton-Nicholls, & Ormston, 2013).

Framework allowed me to incorporate elements of grounded theory, including categorisation and constant comparison – which allowed me to not only enrich

the data as it was collected, but also allowed me to use findings from previous interviews in an iterative approach to informing future interviews. In this section, I give a comprehensive explanation of Framework as a tool for analysis and interpretation, to better justify my selection of it for this thesis.

Framework analysis was developed by Jane Ritchie and Liz Spencer in 1994 as a tool to better conduct qualitative analysis and allow for better transparency of analysis (Ritchie & Spencer, 1994). Framework analysis is similar to thematic analysis (Braun & Clarke, 2006) in many ways, in that it identifies themes, however, framework analysis aims to aid data analysis by constantly refining themes throughout the process. Thematic analysis is often used in qualitative research, as it allows data to be systematically searched and themes to be identified. However, in recent years, thematic analysis has been criticised for "lacking depth, fragmenting the phenomena being studied, being subjective and lacking transparency in relation to the development of themes which can result in difficulties when judging the rigour of the findings" (Attride-Stirling, as cited in Smith & Firth, 2011). Using framework enhances this rigour by allowing the data analysis to be transparent and also illustrates links between stages of the analysis; researchers can move back and forth across the data using stages, until refined themes emerge.

Framework uses a case and theme-based approach, looking at the case as an individual and giving overarching themes to each individual case, but then applying them to the whole dataset. Adopting the Framework approach allowed me to provide an audit trail of how my themes were achieved which allows me

to illustrate how I compared data across cases, using constant comparative techniques (see Chapter 2 - Methodology) and this allowed me to continually develop themes and data to aid the development of concepts. The framework approach in this thesis began with transcription of interviews, followed by familiarisation of the data, whereby interviews were read and re-read and the recorded audio was listened to allow for further familiarisation. Following this, transcripts were coded, and the development of an analytical framework began. Data were then charted to a framework matrix and a hierarchy of categories and subcategories were devised. The data were condensed through summarisation and synthesis and interpreted accordingly.

Framework is also used as a data management tool and supports key steps such as indexing and sorting. There are five steps that were used and these were taken from and Gale, Heath, Cameron, Rashid and Redwood (2013), with guidance also from Ritchie, Lewis, Nicholls and Ormston (2013). These steps are explained in detail below.

3.3.1.1 Steps 1 and 2 – Transcription and Familiarisation

The initial step is transcription of the interviews; which involves transcribing the data verbatim. I transcribed all interviews myself, which allowed me to fully immerse myself in the data. Following this, the researcher can begin getting an overview into the content and beginning to identify relevant topics of interest within the data. This step was crucial as it ensured that the labels developed were grounded in the data.

3.3.1.2 Step 3 – Coding

Step 2 involved reading the transcripts line by line and applying labels or codes to describe interpretations. Coding was guided in both studies by the topic guides; which had been developed through the use of existing literature and from the findings from Study 1, however there was also an element of 'open coding' in which anything relevant was coded, including emotions or interview impressions.

3.3.1.3 Step 4 – Constructing an initial analytical framework

After coding the first few transcripts for each study, codes were grouped together and then refined and sorted into a set of themes and subthemes that comprised the initial working analytical framework. These initial labels were agreed between RA and JL and were based on the original topic guides and key emergent findings.

3.3.1.4 Step 5 – Applying the analytical framework

Following agreement on the salient codes and themes from the first few transcripts, the working analytical framework was subsequently used for the following transcripts using the developed themes and codes. New codes or themes that emerged were constantly added to the framework to ensure that no findings were missed. It is worth noting that the working analytical framework is used as a tool to make categorising the data easier; but that the process of coding and sorting continues throughout.

3.3.1.5 Step 6 – Charting data into the framework matrix

After applying the analytical framework to raw data, data were further managed and summarised into a framework matrix. This allowed data to be concisely organised into relevant themes, with references to relevant and salient quotations to aid the next step of interpretation of results.

I also conducted a brief data summary for each individual dataset. In these, I wrote a brief summary of what was found in the interview. This helped in my interpretation of data and allowed me to better justify my salient findings.

3.3.1.6 Step 7 - Interpretation

After these steps were taken, the final stage in the process is abstraction and interpretation and ultimately categorisation. It is at this stage that the key findings of the data were presented and refined in the results sections of Study 2 and Study 3. I arranged data into categories such as “what is the range of things people are saying about a particular theme and how does this vary?” and “what types of response can be identified?”. I analysed each theme in turn using this technique and mapped all of relevant data extracts or summaries accordingly by at the range and diversity of the views and experiences expressed throughout the process.

3.4 Saturation

I conducted semi-structured interviews to allow for a full discussion and interpretation of ideas and interviews were conducted until saturation was reached. Saturation is defined as being met when to continue collecting data

would not lead to any fresh insights or new properties and there is a repetition of the same events or stories (Charmaz, 2006). Saturation in this thesis was defined when individuals began to say similar things, bringing no original information to the data.

3.5 Intervention Mapping as a Protocol for Intervention Development

Theory, data and tools exist within the health promotion literature, and theory in particular is necessary in the development of evidence informed health promotion. However it can be unclear where these factors fit within programme and intervention development (Bartholomew Eldredge et al., 2016). Intervention mapping provides a solution to this, as theory is used from a problem driven perspective to address very specific functions. Allowing theory to contribute directly to interventions is a useful concept within this thesis, as retirement-aged drinking affects a particular subset of the population. Searching the literature and subsequent review of existing interventions allowed theoretical constructs such as continuity theory, stress and coping theory and social network theory to aid each step of intervention development.

This thesis was developed in line with principles of the Intervention Mapping approach (Bartholomew Eldredge et al., 2016), which offers a systematic approach to intervention development. Intervention mapping uses a protocol (See Figure 3.1), defining each step of the process of intervention development. Below, each step is defined and then explained in terms of the current thesis and how data were used. It should be noted that the steps were only followed to step 4, with hypothetical recommendations for step 5 and 6 if the intervention

were to be implemented and ultimately evaluated, as the time constraints of the thesis did not allow for implementation and evaluation.

Intervention mapping is defined as a planning approach, using theory and evidence as the foundation for an ecological approach to health promotion that encourages community participation (Bartholomew Eldredge et al., 2016). Community based participatory research is a tool that is often used to modify complex behaviours (Dias & Gama, 2014). Despite this growing trend to using community based participatory research in prevention efforts, published articles are typically lacking in intervention description surrounding the process of program creation, development and implementation (Belansky, Cutforth, Chavez, Waters, & Bartlett-Horch, 2011). This adds further strength to the adoption of the Intervention Mapping approach in my thesis, as previous literature suggests that current intervention literature is lacking, particularly in the field of older adults and how their alcohol use can be reduced (Armstrong-Moore et al., 2018).

Intervention mapping is an approach that can be adopted regardless of time and resources and all steps need not be completed to use the tool to its full potential. The creators of Intervention Mapping propose that even outlining recommendations and proposing key questions for each step results in a more “well defined programme based in theory and evidence and [will] increase the potential for effective behavioural and environmental change” p.32 (Bartholomew Eldredge et al., 2016). This is pertinent to my thesis, as time and resources did not allow all steps to be carried out within the scope of this

programme of work, but the systematic and pragmatic nature of Intervention Mapping, combined with offering recommendations based on the findings provided the groundwork for the development of a suitable intervention.

When creating interventions, it is important to consider the following:

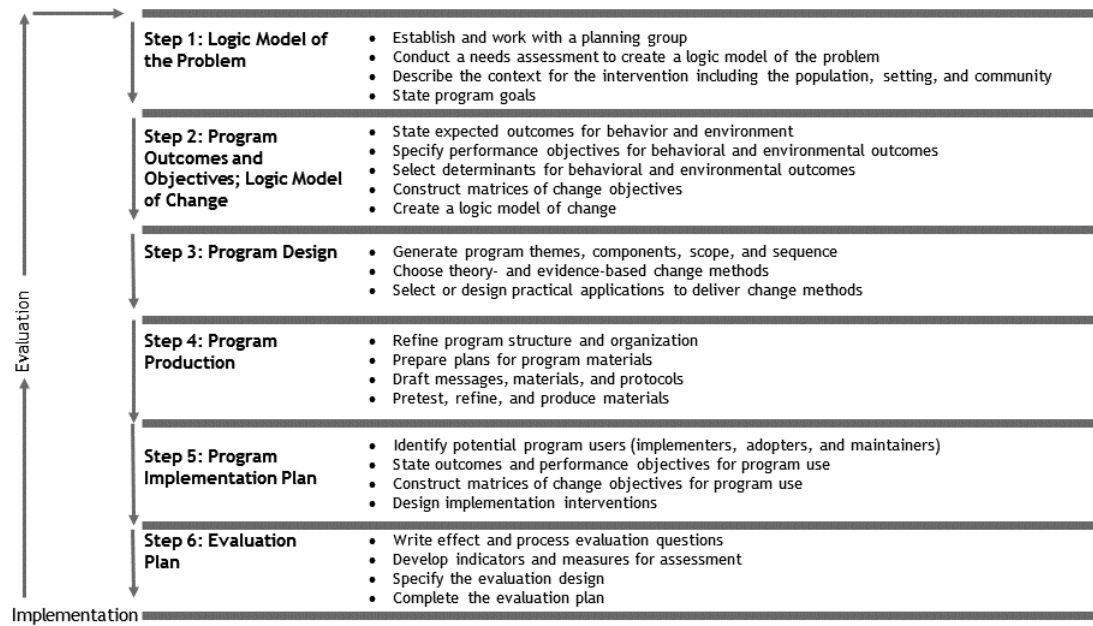
“(1) it [the intervention] must target a determinant that predicts behaviour; (2) it must be able to change that determinant; (3) it must be translated into a practical application in a way that preserves the parameters for effectiveness and fits with the target population, culture, and context”

(p. 297, Kok et al., 2016).

The intervention mapping approach uses a protocol to allow these steps to be completed in a systematic and pragmatic format (see Figure 3.1) and ensures that recommendations provided are appropriate for the target population, which in this case was individuals in the retirement transition.

Figure 3.1. Intervention Mapping Protocol: Bartholomew Eldredge et al. (2016)

Retrieved from <https://interventionmapping.com/>



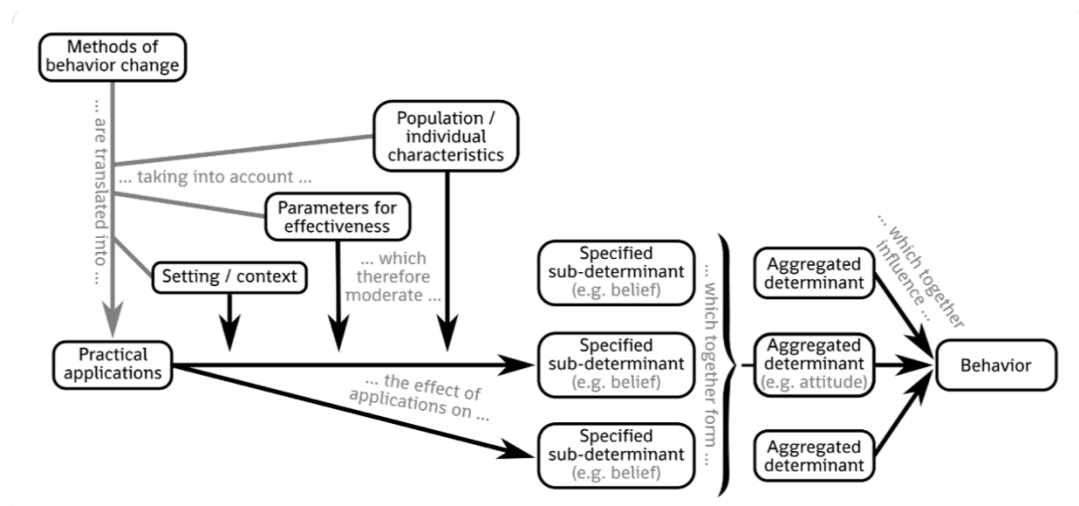
Other methods of changing behaviour through intervention development were considered before adopting the Intervention Mapping approach. The National Institute for Health and Care Excellence (NICE) offers guidelines for behaviour change which rely on three steps: “planning, delivery and evaluation” (National Institute for Health and Clinical Excellence (NICE), 2019) and these guidelines were introduced to keep behaviour change and intervention planning simple. However, despite these attempts to promote practical applicability on a real world level, Aro and Absetz (2009) argue that simplifying high level phases that are part of intervention planning and evaluation compromises the practicability on intermediate level principles and risks being overly generic on principles that requires specific action recommendations. My thesis considered this and adopted the Intervention Mapping approach, to avoid over-simplifying the modification of such complex behaviours, in this case, alcohol use within the retirement transition.

Another approach to changing behaviour through intervention development that was researched and considered was the Behaviour Change Wheel (BCW) framework with COM-B analysis (Michie, West, Campbell, Brown, & Gainforth, 2014; Michie et al., 2011) This approach was developed to conceptualise behaviour as part of a system, using a systematic review of existing frameworks to develop an all-encompassing model of behaviour change (Michie et al., 2011). The BCW consists of three layers, including the “hub”; the COM-B model, a surrounding layer of intervention functions and the outer layer serves to incorporate seven types of policy that can be used to deliver the intervention functions (Michie et al., 2014). The “hub” of this model is the COM-B model, which uses the following interacting elements; capability, opportunity and motivation. The COM-B approach suggests that the behaviour exhibited by any individual is a product of the individual’s capability, opportunity and motivation to enact it. Physical and psychological capabilities are considered, reflective and automatic processes of motivation and also physical and social opportunities created by the environment. Whilst this model has many advantages, including the incorporation of policy and the consideration of an individual’s ability to complete the behaviour, it was not selected for my work as I felt that a more systematic, step-based approach to intervention design such as Intervention Mapping was more appropriate to use in line with the research question that aimed to provide specific recommendations for behaviour change.

Further, the intervention mapping approach distinguishes aspects of behaviour change that are not considered, or are neglected in the BCW approach and other related approaches (Kok, Gottlieb, Peters, Mullen, Parcel, Ruiter,

Fernández, Markham, & Bartholomew, 2016; Peters, de Bruin, & Crutzen, 2015), and these include parameters of effectiveness, which in turn moderate the effects of an applied intervention on beliefs, determinants and ultimately behaviours (Peters & Kok, 2016), see Figure 3.2 for an illustrated example of the importance of these parameters in effectively changing behaviour. This strength was considered and aided my decision to choose Intervention Mapping as a development tool, as when presenting an intervention to be applied in the wider public health domain; I felt that establishing and having the ability to measure parameters of effectiveness in any subsequent intervention would be important in order to gain the backing of users, implementers and stakeholders.

Figure 3.2. The dynamics of behaviour change and importance of parameters illustrated using Intervention Mapping terminology (Peters & Kok, 2016)

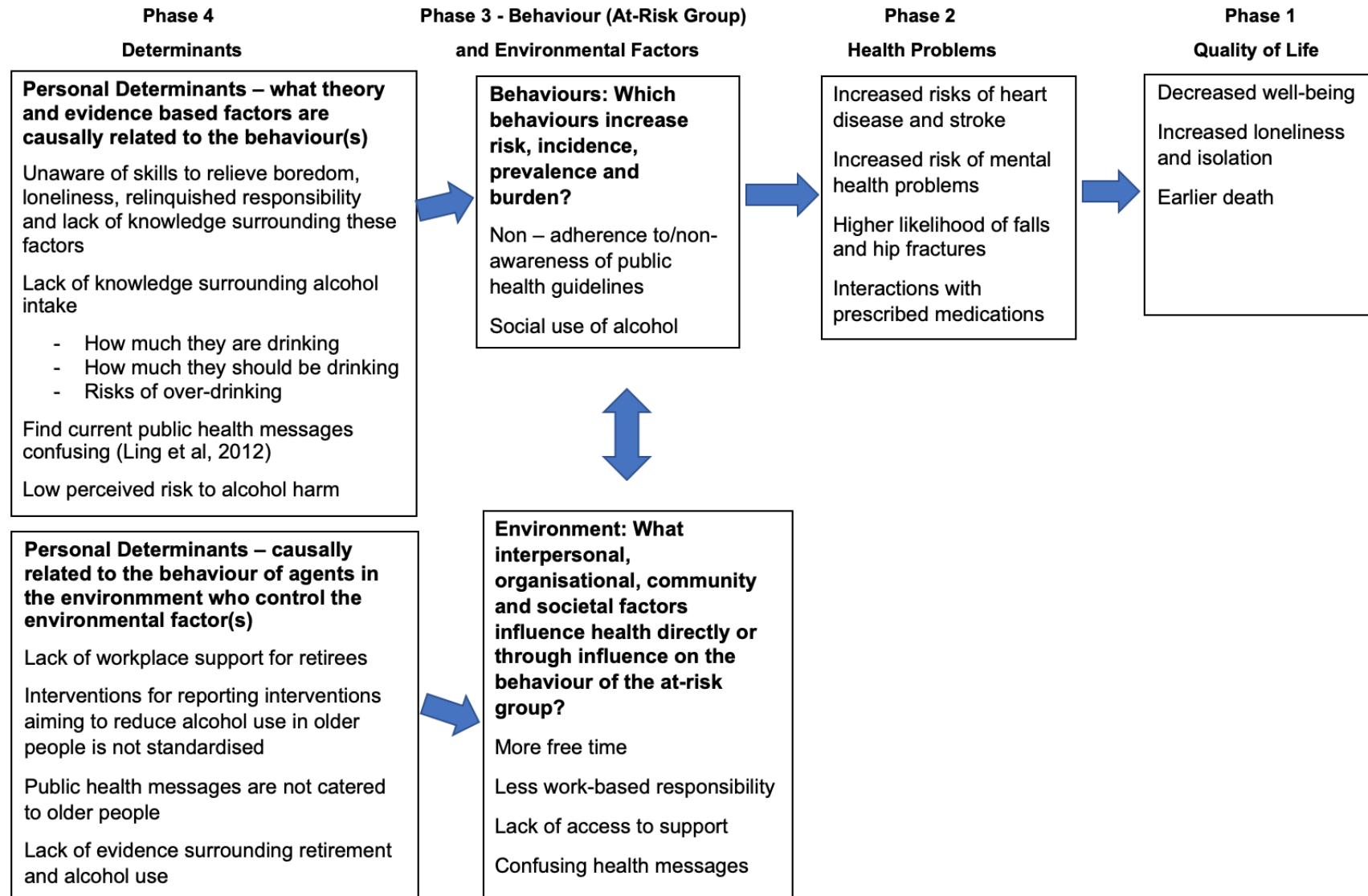


3.5.1 Step 1 - Logic Model of the Problem

In this step, a needs assessment was conducted both by reviewing the existing literature and exploring the views of individuals. In this needs assessment, the

data obtained were used to assess the capacity for the intervention and the community it ought to be delivered within (e.g. the workplace, the home or elsewhere). The goals were to reduce the risk of problem drinking in retirement and to investigate individuals' fears surrounding retirement, therefore aiming to eliminate risk via a deliverable intervention. This part of the intervention mapping approach was firstly addressed by a literature review, discovering what was currently available and what was missing in the field. Following on from this, qualitative interviews were conducted to find out what could work and for whom, the context of an intervention and the goals. See Figure 3.3 below, which demonstrates the created logic model. This logic model was created as a hypothetical graphical representation of the causal relationship between alcohol use in retirement and potential causes. I began with the questions of what the potential health problems are in relation to alcohol use in retirement (Phase 2) and moving to the right of this question (Phase 1), I explored potential quality of life and ultimate effects of the problem. To the left of Phase 2 (Phases 3 and 4) I discuss potential causes for individuals experiencing this health problem; for example, contributing environmental and behavioural factors and personal determinants linked to pre-existing theory.

Figure 3.3. Logic Model of the Problem



3.5.2 Step 2 – Program Outcomes and Objectives: Logic Model of Change

Step 2 offers specific performance objectives, behavioural outcomes and determinants and following this, specific performance objectives for each behavioural outcome are defined. In this stage, I determine and provide recommendations for the most appropriate methods and means to alleviate environmental barriers to drinking less frequently in retirement based on my findings in Studies 1, 2 and 3. This part of Intervention Mapping aimed to select the important changeable behaviours through the creation of a Logic Model of Change to identify these determinants and illustrate how they can be changed.

3.5.3 Step 3 – Program Design

Part of the intervention mapping approach sets out what an intervention could look like, based on the evidence given by the individuals in the study. These findings were grounded in the data and were a result of individuals who were retired and retiring, as well as those still in the workplace, for a holistic view on how an organised programme could be implemented in workplace settings. This step includes the introduction of theory that emerged from the needs assessment (Studies 1, 2 and 3), to best explain and help individuals manage their own levels of risk at varying stages of the intervention and ultimately aid the evaluation of the intervention.

3.5.4 Step 4 – Programme Production

Step 4 of intervention mapping includes the production of the developed programme. Despite this step not being in the scope of the current thesis, I offer a mode of intervention and ideas for the content that should be presented within

this. I also offer recommendations for programme materials. Recommendations are offered in line with the data obtained in Step 1 (needs assessment) including findings from the literature review, systematic review and interview findings reported by the older individuals and from the individuals who work in Human Resources.

3.5.5 Step 5 – Programme Implementation Plan

Step 5 was also not within the scope of this thesis; however, programme implementation was considered. This was explored further, looking at who would adopt, implement and maintain the programme. Issues discussed included potential barriers to implementation and how these can be avoided. Performance objectives were discussed at some level; however, the timescales of the current PhD were not sufficient enough to explore the evaluation of such objectives, however these are discussed briefly in the discussion.

3.5.6 Step 6 – Evaluation Plan

Step 6 usually involves evaluation of the intervention; however, this also was not within the scope of this thesis, but recommendations are provided.

3.6 Intervention Mapping and Links to Ontological Position as a Researcher

Programmes and interventions are required to cater for diverse groups; often who are different culturally from the educator/researcher. This was particularly true in my thesis, as I had to remain aware of these cultural and power differences and act with cultural humility. Cultural humility is a process of self-reflection and discovery, in order to promote and build honest relationships

(Yeager & Bauer-Wu, 2013). Levi and Sacks (2009) argue that it is impossible to fully know another culture and that humility is required to accept this.

Intervention mapping was useful in adopting this self-reflexive, self-evaluative approach as it ensured constant reflection. All steps of Intervention Mapping require some participation from the intended audience to ensure that the programme components and materials remain salient, and therefore useful, to the specific group, which in the case of this thesis was retirement aged drinkers.

The methodology and methods presented and discussed in this chapter were used to examine the findings from the individuals who were retired/retiring and to gain a theoretical interpretation of these. The findings from these studies are presented in the following chapters.

CHAPTER 4 – STUDY 1: INTERVENTIONS TO REDUCE THE NEGATIVE EFFECTS OF ALCOHOL CONSUMPTION IN OLDER ADULTS: A SYSTEMATIC REVIEW

This chapter was published as a peer-reviewed paper. See: Armstrong-Moore, R., Haighton, K., Davinson, N. & Ling, J. (2018). Interventions to reduce the negative effects of alcohol consumption in older adults: A systematic review. *BMC Public Health*, 18:302. <https://doi.org/10.1186/s12889-018-5199-x>.

4.1 Background

Worldwide, alcohol-related diseases are responsible for 2.5 million deaths per year (Addolorato, Mirijello, Leggio, Ferrulli, & Landolfi, 2013). Therefore, alcohol consumption and associated negative impacts are a significant problem to public health. Projections from the World Health Organization (WHO) indicate that by 2025, alcohol consumption is expected to increase in almost half of the member states, something that will only be reversible with the implementation of “effective policy responses”. The damage from alcohol use inflicts social and economic damage across many societies and this worldwide burden will increase if policy is not improved (World Health Organization., 2014). According to the WHO the highest levels of alcohol consumption are in the developed world, in particular Europe and the Americas, with intermediate levels of consumption in the Pacific and African regions with the lowest consumption in South-East Asia and the Eastern Mediterranean. (World Health Organization., 2014)

By 2050, around 22% of the world population will be aged 60 and over, with a significant proportion of these older individuals having a “pattern or level of drinking which places them at harm” p.656 (Wadd & Galvani, 2014). In comparison to younger people, older adults are more susceptible to the detrimental effects of alcohol, as their tolerance to alcohol lowers with age. In addition, older people are also more likely to take prescription medications which, when taken with alcohol, can reduce effectiveness of medication, exacerbate side effects or even lead to the development of new illnesses (Wadd, Lapworth, Sullivan, Forrester, & Galvani, 2011).

Drinking more than five standard drinks per week and a history of an alcohol problem in men over the age of 50 has been found to quadruple the risk of developing psychiatric problems including depression and memory loss (Perreira & Sloan, 2002; Stevenson, 2005). Cognitive impairment can lead to an increased likelihood of falls (Mukamal et al., 2004) and because older people often have weaker bones, this can lead to hip fractures, which is one of the highest causes of death in the older population (Ries, Fiellin, Miller, & Saitz, 2014).

Significant events experienced during the life course have been associated with increased alcohol consumption. One such event is retirement which is associated with changes in drinking patterns (Kuerbis & Sacco, 2012).

However, the relationship between retirement and alcohol consumption is unclear. In their review of the literature, Zantinge et al. (2014) found that some studies reported an increase in alcohol use after retirement, while others

reported a decrease, or no change. They concluded that individuals who retired involuntarily were generally more likely to increase alcohol consumption, with those choosing to leave less likely to change drinking pattern. There is also some evidence suggesting a reverse causality in this relationship between alcohol use and retirement, highlighting that men with existing alcohol problems who are eligible to retire are more likely to do so than men without such problems (Bacharach, Bamberger, Sonnenstuhl, & Vashdi, 2004).

A recent review by Bhatia et al., (Bhatia, Nadkarni, Murthy, Rao, & Crome, 2015) addressed recent advances in treatments for older people and the effectiveness of interventions for substance use problems as a whole. They concluded that older people are good at utilising interventions in this area and that they show positive outcomes. They do however note that the evidence base needs to be developed and refined. The current review is the first study to focus specifically on alcohol use in later life, as opposed to the broader topic of substance misuse.

The current study focused on research that has evaluated alcohol interventions in older people, this in turn allowed me to establish the factors that may work in an intervention for older individuals who are entering retirement and leaving the workplace. As alcohol use, and ageing are complex concepts; specific knowledge is needed to enable the development of effective alcohol interventions specifically for older alcohol users. Therefore, the aim of this study was to conduct a systematic review of interventions to reduce alcohol targeted at older individuals in order to examine the factors, conditions and motivations

that contribute to successful intervention in this area, with a view to develop an intervention strategy for older individuals.

4.2 Method

4.2.1 Design

A systematic review was conducted according to the Cochrane Handbook for Systematic Reviews of Interventions, which offers guidance on how to conduct reviews on healthcare interventions. The handbook was used to guide authors on planning the review, searching for material to include, assessing risk of bias and reporting results (Higgins, Green, Cochrane Collaboration., & Wiley InterScience (Online service, 2008). This systematic review is reported according to PRISMA (Moher, Liberati, Tetzlaff, & Altman, 2009) guidelines.

4.2.2 Data sources

Eight electronic databases (CINAHL, ERIC, MEDLINE, Science Direct, PsychINFO, SCOPUS, Web of Science and socINDEX) were searched by RA and checked by JL using the search terms outlined below (see Table 4.1 for search strategy for each database). The search was conducted in October 2017. In addition, the reference lists of included studies were subsequently hand searched in order to identify any other studies that would potentially be suitable for inclusion.

4.2.3 Search Terms

Search terms were devised using the PICO tool, which aims to address the population, intervention, comparator intervention and outcome measures of a study (Flemming, 1998). The search terms used were as follows:

- Age – synonyms for older included older adults, seniors, geriatrics or ageing/aging
- Alcohol – synonyms included drinking, alcohol consumption, substance
- Intervention – synonyms included strategies

4.2.4 Search Strategy and Study Inclusion Criteria

Any type of peer reviewed empirical study, written in English. Participants aged ≥ 55 years old and interventions that compared alcohol-related outcomes against a control group were included in this review. Definitions vary on what constitutes an “older” person. For this review, we focussed on those aged 55 years old and above, unless stated otherwise. This age was chosen to allow as much breadth of data as possible, from retirement age through to elderly individuals. Studies had to have been carried out within the last 27 years, in order to understand the current stance of the literature and to provide a synthesis on interventions from this point. Literature was eligible for inclusion if it was published between 1990 and 2017. For further detail on the search strategy see Table 4.1.

Table 4.1. Search Strategy

Date	31/10/2017
Strategy	#1 and #2 and #3 NOT #4 NOT #5
#1	older OR older adults OR seniors OR geriatrics OR ageing OR aging
#2	alcohol or drinking or alcohol consumption
#3	intervention OR strategies
#4	pharmaceutical or child or young adult or teenage or adolescent
#5	secondary analysis
Limiters	Language – English, Published between 01/01/1990 – 31/10/2017
Database	Web of Science/Medline/SocIndex/CINAHL/ERIC
Date	31/10/2017
Strategy	#1 and #2 and #3 NOT #4 NOT #5
#1	TITLE: older OR older adults OR seniors OR geriatrics OR ageing OR aging
#2	TITLE: alcohol or drinking or alcohol consumption
#3	TOPIC: intervention OR strategies
#4	TOPIC: pharmaceutical or child or young adult or teenage or adolescent
#5	TOPIC: secondary analysis
Limiters	Language – English, Published between 01/01/1990 – 31/10/2017

4.2.5 Exclusion criteria

Studies that used pharmaceutical interventions, or those that investigated specifically comorbidities or use of other substances were excluded from this review. Studies that aimed to speculate outcomes for future interventions or evaluations of previous research and reviews were also excluded, as these did not bring any novel findings or information relevant to the research question posed. Articles that were not peer reviewed and empirical studies were

excluded, as were studies not written in the English language, as translation services were unavailable.

4.2.6 Data Extraction

Titles and abstracts of articles were assessed by RA for eligibility based on inclusion/exclusion criteria. Full texts of all relevant articles were obtained and assessed for eligibility by RA and then checked independently by JL. Data were extracted from all eligible articles using a standard data extraction form and assessed for quality using the relevant Critical Appraisal Skills Programme checklist (CASP Critical Appraisal Skills Programme Oxford UK, 2016) studies were also checked for risk of bias, by checking results and funders. Where appropriate, authors were contacted to obtain and confirm data. This aligned well with the realist perspective of my thesis, as studies that included a clear research aim, methodological rigour in terms of sampling, and recruitment, and the most clarity in findings and research significance were selected for my final review.

4.2.7 Data Synthesis

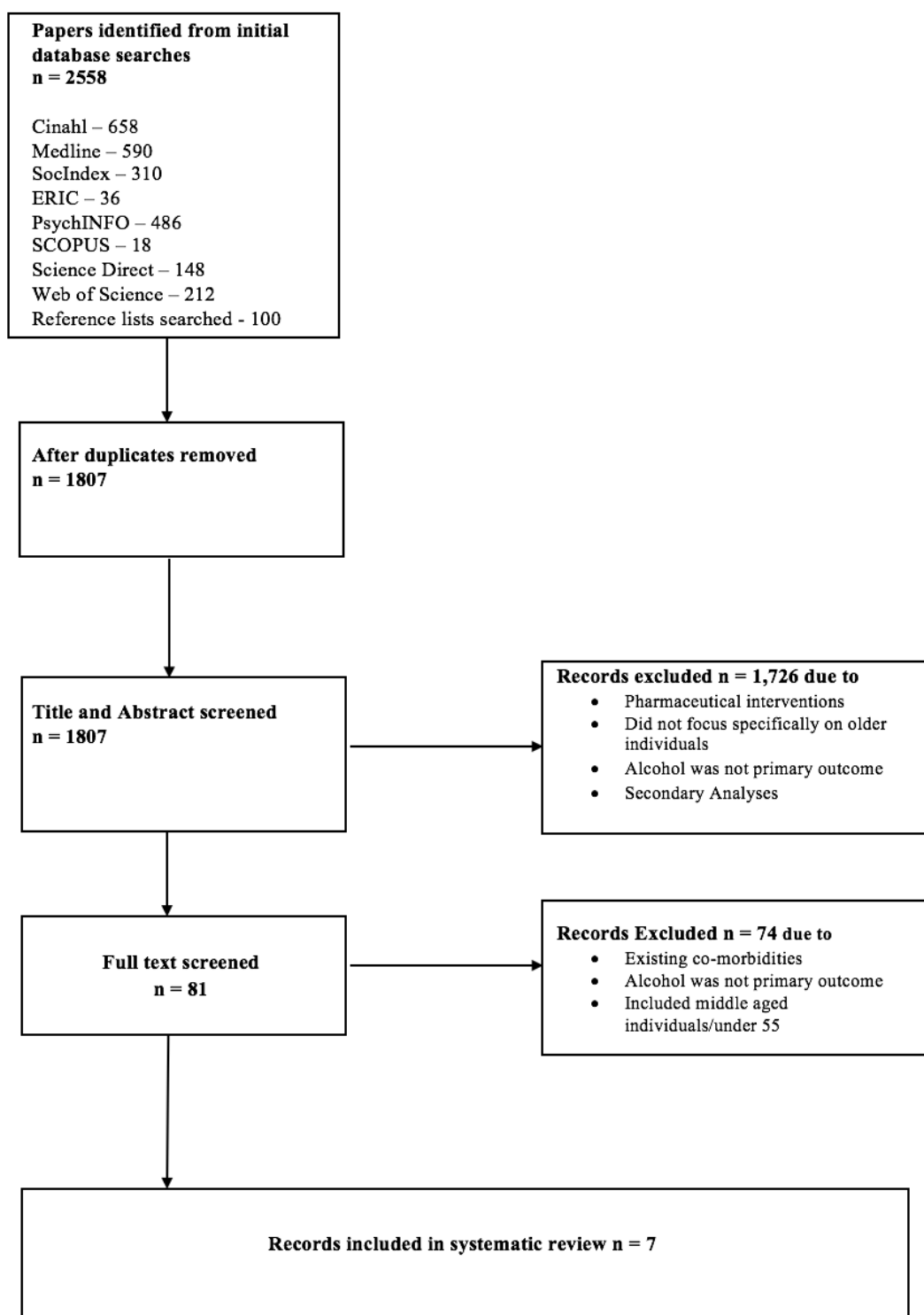
Results from the included studies were extracted and inputted into a data table. Data could not be pooled, due to lack of intervention detail or too much heterogeneity in outcome measures that could not be combined (frequency of alcohol consumption, amounts consumed in last week/month, alcohol risk score, binge drinking frequency, frequency of excessive alcohol use, alcohol-related problems, use of healthcare and trips to emergency department).

Data were tabulated and inputted into a table (Table 4.3). Data were then categorised into the following: country and origin of setting, details of sample, allocation of participants, methods, details of intervention(s), mode of delivery, interventionist, assessment periods and outcome measures and findings. The papers were examined with the above criteria and were analysed. As there was heterogeneity in the types of outcomes measured, a narrative synthesis was performed, see results section below.

4.3 Results

Figure 4.1 contains a PRISMA flow diagram of included reviews and shows the number of articles obtained at each stage of the review process. Table 4.3 shows the seven trials included in this review. A narrative synthesis is provided on the characteristics of the included studies, including outcome measures and critical appraisal of the interventions. As all interventions had different outcome measures it was not appropriate to conduct a meta-analysis. All included studies were randomised controlled trials; therefore the CASP Tool for Randomised Controlled Trials was used as the appraisal tool (CASP Critical Appraisal Skills Programme Oxford UK, 2016). All trials in this study were considered to have appropriately met the validity and quality appraisal in terms of CASP.

Figure 4.1. PRISMA flow diagram of included reviews



This analysis of seven published randomised controlled trials, involved a combined total of 3,531 participants. Six of the trials were conducted in the United States of America and one in Denmark. Studies were carried out in primary care centres and community-based groups or provided elsewhere (Ettner et al., 2014; Fink, Elliott, Tsai, & Beck, 2005; Fleming, Baier, & Lawton, 1999; Gordon et al., 2003; Kuerbis, Yuan, Borok, LeFevre, et al., 2015; Moore, Blow, Hoffing, Welgreen, Davis, Lin, Ramirez, Liao, Tang, Gould, Gill, Chen, & Barry, 2011); the exact location is not specific in Hansen et al (Hansen, Becker, Nielsen, Grønbæk, & Tolstrup, 2012). The included studies showed that there were varying levels of success, all interventions showed improvements in at least one area of alcohol consumption or frequency of consumptions. This was not always significantly more than control groups and the potential reasons for this are explored below.

4.3.1 Mode of Delivery

All but one of the interventions were carried out face to face, with five of seven using telephone follow-ups. Some of the included interventions were carried out solely by physicians (n=2) (Fink et al., 2005; Fleming et al., 1999) whereas other intervention providers used a combination of either physician and health educators (Ettner et al., 2014) (n=1) or trained research assistants/interventionists, care providers or health educators or postgraduate students (n=4) (Gordon et al., 2003; Hansen et al., 2012; Kuerbis & Sacco, 2012; Moore, Blow, Hoffing, Welgreen, Davis, Lin, Ramirez, Liao, Tang, Gould, Gill, Chen, Barry, et al., 2011).

4.3.2 Type of Interventions

Interventions used in trials included varying techniques and some used more than one intervention group, and these are listed below:

- Motivational Enhancement (Gordon et al., 2003) comprising a session lasting around sixty minutes that focussed on goal setting and consequences of their drinking, followed by two booster sessions of around 10-15 minutes that provided reinforcement on topics discussed.
- Brief Motivational Intervention (Hansen et al., 2012), described as motivating individuals to change their behaviours through open ended questioning.
- Brief Advice (Gordon et al., 2003), which comprised individuals receiving one 10-15 minute session that focussed on advice surrounding alcohol consumption.
- SHARE (Senior Health and Alcohol Risk Education) (Ettner et al., 2014). The project SHARE intervention involved the mailing of a personalised patient report; an educational booklet on alcohol and aging; a drinking diary to track alcohol consumption; and up to 13 “tip sheets” (e.g., on drinking sensibly, preventing falls and fractures, etc.) depending on the patient’s individual risk factor.
- Brief Intervention (BI) - used a brief intervention developed according to protocols used by the Medical Research Council trial and Project TrEAT, however there is minimal information on this. The protocol included a workbook containing feedback on the patient's health behaviours, a review of problem-drinking prevalence, reasons for drinking, adverse effects of alcohol, drinking cues and drinking diary cards. Participants

then attended two appointments, one month apart consisting of the intervention and then a reinforcement session (Fleming et al., 1999).

Results were corroborated with family members at 12 months.

- Personalised reports on risks and problems (Fink et al., 2005; Kuerbis & Sacco, 2012; Moore, Blow, Hoffing, Welgreen, Davis, Lin, Ramirez, Liao, Tang, Gould, Gill, Chen, & Barry, 2011). These consisted of reports on personalised alcohol use and risk and were, in some occasions, combined with other intervention facets.
- Educational tools (Fink et al., 2005; Fleming et al., 1999; Kuerbis, Yuan, Borok, LeFevre, et al., 2015) which included factors such as the effects of alcohol on health, interactions with medication, and recommendations for safe drinking.
- Diaries (Moore, Blow, Hoffing, Welgreen, Davis, Lin, Ramirez, Liao, Tang, Gould, Gill, Chen, & Barry, 2011) included use of a drinking diary to keep track of alcohol use.
- Telephone Counselling (Ettner et al., 2014; Moore, Blow, Hoffing, Welgreen, Davis, Lin, Ramirez, Liao, Tang, Gould, Gill, Chen, & Barry, 2011). In the study by Ettner et al., telephone counselling consisting of questions about the written materials being answered and a stepped process of assessment and direct feedback, negotiation and goal setting, behavioural modification techniques, self-help directed bibliotherapy and follow up and reinforcement. There were no further details regarding the steps and the content that they consisted of. Moore et al conducted telephone sessions based on motivational interviewing techniques, whereby a trained interventionist discussed risks associated with

drinking, and used “principles of motivational interviewing” to facilitate behavioural change, based on an approach defined by Miller (1983) which focusses heavily on individual responsibility and internal attribution to change.

Control groups received either care as usual or booklets on alcohol or healthy behaviours. There were no apparent restrictions or discouragement from talking about alcohol in the control groups.

4.3.3 Assessment Periods

All interventions included in this study measured results across 12 months or less. Assessment periods varied, testing outcomes at 1, 3, 6, 9 or 12 months and some focussed on more than one of these periods. Fleming (Fleming et al., 1999) also contacted family members at 12 months for clarification of participants' progress.

4.3.4 Screening

Participants in the interventions were identified before the studies took part as heavy drinkers or hazardous/problem drinkers, apart from one study (Fink et al., 2005), which used participants who were eligible if they had consumed more than one alcoholic drink in the last three months. The participants included in 6 of the studies were not dependent drinkers. Hansen et al. state that dependent drinkers could be included in their study and were not excluded, however there is limited further detail on this (Hansen et al., 2012) . The levels of hazard were determined using tools such as the Comorbidity Alcohol Risk Evaluation Tool (CARET) (Ettner et al., 2014; Kuerbis, Yuan, Borok, Lefevre, et al., 2015;

Moore, Blow, Hoffing, Welgreen, Davis, Lin, Ramirez, Liao, Tang, Gould, Gill, Chen, Barry, et al., 2011), Alcohol Use Disorder Identification Test (AUDIT) (Hansen et al., 2012) Time Line Follow Back (TLFB) (Gordon et al., 2003) and the Health Screening Survey (HSS) (Fleming et al., 1999).

4.3.5 Outcome Measures

The main outcome measure was reduction in reported alcohol consumption, and this was measured differently across studies. Other outcomes included alcohol-related risk level (Ettner et al., 2014; Kuerbis, Yuan, Borok, Lefevre, et al., 2015), hazardous levels of alcohol use (Fink et al., 2005), trips to physician and emergency department (Ettner et al., 2014), amongst other outcomes focussing on general health and education and knowledge in relation to alcohol (See Appraisal and Table 4.3 for further information). The specific outcomes achieved were considered and the tools used such as questionnaires and scales to determine frequency of alcohol consumption and health.

Statistical analyses or meta-analyses were not conducted. Instead, the existing analyses reported in the articles reviewed were extracted systematically, with the findings reported in a structured narrative synthesis. After careful consideration of the outcome measures, it was concluded that a meta-analysis was not appropriate for the results. The rationale for this decision was there was too much heterogeneity in findings. Outcome measures were varied and included such outcomes as drinks per week, alcohol risk score, levels of binge drinking, levels of “at risk” drinking. It is important not to combine outcomes that are too diverse this can lead to misinterpretation; however, decisions concerning what should and should not be combined are inevitably subjective

and consensus on this issue can be hard to reach. Such decisions are “not amenable to statistical solutions but require discussion and clinical judgement” (Higgins & Green, 2011, p.1), this judgement was carefully debated and decided across the supervision team and myself.

4.3.6 Potential Risk of Bias

Studies were appraised for risk of bias, confirming that most of the included studies were funded either wholly or partially by the National Institute of Alcohol Abuse and Alcoholism. The study conducted by Hansen et al., was funded by the National Board of Health, Denmark (Hansen et al., 2012). There were no conflicts of interest declared in the papers, and none were funded by alcohol manufacturers, which has been suggested as a factor that can potentially jeopardise the integrity of conducted research (Babor & Robaina, 2013). A risk of bias table (Table 4.2) has been included in line with the Cochrane Collaboration’s tool for assessing risk of bias in randomised trials (Higgins et al., 2011).

Table

4.2.

Risk

of

Bias

	Gordon et al (2003)		Kuerbis et al (2015)		Fleming et al (1999)		Etmer et al (2013)		Moore et al (2011)		Fink et al (2005)		Hansen et al (2011)	
	Authors' judgment	Support for judgment	Authors' judgment	Support for judgment	Authors' judgment	Support for judgment	Authors' judgment	Support for judgment	Authors' judgment	Support for judgment	Authors' judgment	Support for judgment	Authors' judgment	Support for judgment
Random sequence generation (selection bias)	Unclear risk	No description of randomisation techniques used.	Low Risk		Unclear Risk	Quote - "The unit of randomization was the individual patient. Randomization to the intervention and control groups was carried out separately for men and women in each physician's practice". Does not explain how they were randomised.	High Risk	Participants were matched to physicians at the centres. Authors suggest a limitation in that "The Project SHARE study enrolled relatively few physicians in a small number of clinics and enrolled primarily White, well-educated patients in a relatively affluent area".	Low Risk	"Research assistants used consecutively numbered, sealed opaque envelopes containing assignment information prepared at the study coordinating center using a computer-generated set of random numbers.	Unclear Risk	No description of randomisation techniques used.	Unclear Risk	No description of randomisation techniques used.
Allocation concealment (selection bias)	High Risk	Convenience sampling was used, risk of selection bias. Quote "Patients were recruited from a convenience sample of patients in the waiting rooms of 12 primary care sites in western Pennsylvania from October 1995 to November"	Low Risk	Research staff used consecutively numbered, sealed envelopes containing assignment information using a computer-generated set of random numbers to select permuted blocks of 2 and 4. Within each block, equal numbers were assigned to intervention or control groups.	Low Risk	One of the goals was to blind subjects assigned to the control group, to minimize the intervention effect of the research procedures. Control subjects were told the trial focused on a number of health behaviors, including alcohol. All research procedures, including the follow-up patient and family member interviews, asked parallel questions on smoking, exercise, weight, and alcohol use. The physicians and their staff were not told which of their patients were randomized to the control group.	Low Risk	Quote "Physicians from each of the matched pairs were randomly assigned by a statistician who drew random numbers from a uniform [0,1] distribution for the pair; the physician having the lower number was assigned to the intervention group. The patient's treatment assignment was then based on the random assignment of the patient's primary care physician."	Low Risk	Randomization of participants was stratified by site and gender; within each stratum randomly sized blocks of 8, 10, or 12 were used. "	Unclear Risk	Description of allocation is not included	Unclear Risk	No information given as to how participants were randomised into groups
Blinding of participants and researchers (performance bias)	Low risk	Quote "Physicians of the study patients were not informed of patients' randomization assignment"	Low Risk		Low Risk		Low Risk	Research assistants, blinded to treatment allocation, entered all data collected.	Low Risk		Unclear Risk	Blinding is not addressed	High Risk	Authors state that "Blinding was not feasible, either for staff or for participants."
Blinding of outcome assessment (detection bias)	Unclear risk	Unclear	Unclear		Unclear Risk	It is not clear if outcomes were blinded	Unclear Risk	Unclear	Low Risk	Research assistants, blinded to treatment allocation, conducted all baseline and follow-up outcome assessments	Unclear Risk	Blinding of outcome assessment not addressed	Unclear Risk	Unclear
Incomplete outcome data (attrition bias)	Low risk	No dropouts were disclosed, all participants appear to be accounted for. Data appears complete.	Low Risk	Dropouts disclosed and missing data at 3 month period was addressed by conducting sensitivity analyses using Last-Observation-Carried-Forward (LOCF) method	Low Risk	All outcomes were reported, 92.4% participated in full 12 months follow-up procedures	Low Risk	Quote - "Response rates at 12 months were 80.4% among the 546 intervention patients and 95.3% among the 640 control patients (p = .01 for the difference). To address the possibility of bias attributable to higher attrition rates among intervention patients, we performed "worst case" sensitivity analyses by assuming that 100% of study dropouts remained at-risk drinkers."	Low Risk	All data accounted for. Dropouts highlighted in Flowchart	Low Risk	All data accounted for. Dropouts highlighted in Flowchart	Low Risk	All data accounted for, dropouts explained in flowchart
Selective reporting (reporting bias)	Low risk	All outcomes were reported	Low Risk	All outcomes were reported	Low Risk	All outcomes were reported.	Low risk	All outcomes were reported	Low Risk	All prespecified outcomes were reported	Low Risk	All prespecified outcomes were reported	Low Risk	All outcomes reported

4.3.7 Appraisal of studies

This review involved a narrative synthesis of included studies. Results from the study were compiled into a table, as presented in Table 4.3. This allowed me to cross compare findings, and further allowed me to analyse the effective attributes of each study and align elements of each study that appeared to be effective with their prospective components. Below, I begin by discussing in summary form the individual studies and the effectiveness of each intervention. Following this, I summarise the results as to which components of the interventions appeared to be most effective.

Gordon et al. (2003) used a relatively small sample of hazardous drinkers (n = 45) over the age of 66 years old, of which 87% were male and 69% were high school graduates. This study used the Time Line Follow Back (Sobell & Sobell, 1996) survey to measure frequency and consumption of alcohol consumption. The authors state that “multivariate tests” revealed significant reductions in alcohol frequency measures across all groups, regardless of intervention given over time - however this also included standard care. On inspection of the results, none of the delivered interventions showed a significant reduction when compared to the group who received standard care. This indicates that for older adults, merely raising the issue of alcohol consumption may be enough to get them to reduce their drinking. Gordon et al. suggest further research on the efficiency, cost effectiveness and patient preferences for future intervention development.

Hansen et al (2012) included 772 participants over the age of 50 who were heavy drinkers, as determined by the AUDIT tool. Males made up 49% of participants in the intervention group and 54% of the control group. Around 40% of this sample had spent 15 years or longer in education. Hansen et al. found that alcohol consumption was reduced at both 6 and 12 months, however there were no significant differences between those who had the brief motivational intervention and the group.

Kuerbis et al (2015) tested the efficacy of a mailed screening and brief feedback intervention to reduce at risk drinking in 86 adults aged 50 and over. As discussed, this review was primarily investigating individuals over 55, however this study and the study by Hansen et al. was deemed appropriate for inclusion, due to mean ages of around 65 years old. "At risk" drinking was measured using the CARET tool. Of the 86 participants, 66% were male and 77% were educated to college level or higher; 88% of participants were non-Hispanic white. At three months, there were no significant differences in drinks per week between the two groups, although the CARET score did reduce in the intervention group ($p < 0.01$). However, this particular study was a pilot to test the efficacy and feasibility of the intervention, and thus included only a small number of participants.

Ettner et al (2014) investigated 1,186 participants over the age of 60 years old who were at-risk drinkers measured using the Comorbidity Alcohol Risk Evaluation Tool (CARET; (Moore, Beck, Babor, Hays, & Reuben, 2002)), 1049 of whom completed the full 12 months of the Project SHARE intervention. Of

the 1186 participants, 65.7% were male and 96.8% had attended at least high school. The authors concluded that the intervention was effective, at both 6 and 12 months, at significantly reducing alcohol consumption ($p < 0.01$), heavy episodic drinking ($p < 0.01$) and reducing patients' visits to physicians and emergency departments ($p < 0.01$).

Fleming et al. (1999) used a modified version of the Health Screening Survey (HSS) (Cunningham, Smith, & Knox, 1985; Fleming & Barry, 1991) to include 158 participants over the age of 65 who were problem drinkers. Individuals were eligible to take part if they were men drinking more than 11 drinks per week (132g of alcohol) or women consuming more than 8 drinks per week (96g of alcohol), had two or more positive responses to the CAGE questionnaire, or had consumed four or more drinks per occasion for men or 3 or more drinks per occasion for women on two or more occasions in the last three months which was defined as binge drinking. Of this sample, 66.4% were male and 33.6% were female. The whole study population were described as well educated, with "higher proportions" of individuals being educated beyond high school.

Individuals who received physician interventions significantly reduced their seven-day alcohol use ($p < 0.01$), episodes of binge drinking ($p < 0.05$) and frequency of excessive (more than 30 drinks per week for males and more than 13 for females) drinking ($p < 0.05$).

Moore et al. (2011) investigated the effects of an intervention with multiple components (including a personalised report, a booklet on alcohol and ageing, a diary to log levels of drinking, advice and telephone counselling) on 631

participants over the age of 55. Participants were defined as “at risk” using the Comorbidity Alcohol Risk Evaluation Tool (CARET; (Moore et al., 2002)). This sample included 71% males, and 77% were educated beyond high school. They found the intervention at three months reduced the proportion of at-risk drinkers ($p < 0.01$); participants were more likely to report having fewer drinks in the last seven days ($p < 0.001$) and had a lower risk score ($p < 0.01$). However, at 12 months, only the group difference in the number of drinks consumed in the past seven days remained significant ($p < 0.05$).

Fink et al. (2005) carried out their intervention on 665 “at risk” participants over the age of 55, of which 47% male and 91% with high school education or higher. Risk and alcohol-related problems were measured using the Computerised Alcohol Related Problems Survey (CARPS; (Moore, Hays, Reuben, & Beck, 2000)). Both intervention groups were associated with greater odds of lower risk drinking at 12 months follow up (both $p < 0.05$). This included the intervention group where only patients received their report on alcohol use and risks and the combination group where both physician and patient received the report. Linear regression showed that the combined report group had significantly decreased quantity and frequency of consumption compared to usual care ($p < 0.05$), however using only the patient report did not significantly decrease frequency of consumption. Both interventions led to a decrease in harmful and hazardous drinking compared to controls ($p < 0.05$).

4.3.8 Components for Behaviour Change

To better appraise the studies and in order for me to investigate the most effective components from included reviews, I have grouped the principles used for changing behaviours within the interventions into two distinct groups, which became evident through the systematic review and these were: interventions that used *therapeutic principles*; such as motivational interviewing and enhancement (Gordon et al., 2003; Hansen, Becker, Nielsen, Grønbæk, & Tolstrup, 2012) and those who offered *personalised risk and education related principles* (Ettner et al., 2014; Fink et al., 2005; Fleming et al., 1999; Kuerbis, Yuan, Borok, Lefevre, et al., 2015; Moore et al., 2011) based on individuals' behaviour.

Overall, from five of the included individual studies, there is some evidence that interventions that provide a personalised level of risk, combined with education related principles have the most effectiveness within this population. These results should be viewed with caution, due to the small amount of studies within this field.

Study ID, country of origin and setting	Details of Sample	Allocation of Participants	Methods	Details of Intervention(s)	Mode of Delivery	Interventionist	Assessment periods	Outcome Measures and findings
Gordon et al. (2003) USA Primary care offices	n = 45 Age > 66 years old Convenience sample gained from waiting rooms of primary care centres. All were hazardous drinkers Randomly allocated to one of three groups: Motivational Enhancement (ME) n = 18 Brief Advice (BA) n = 12 Control group - care as usual n = 12	Allocated randomly to receive one of two interventions, or standard care as usual	Enrolled and completed questionnaires at baseline	ME – Included feedback, goal setting and consequences. First session lasted around 60 minutes, with two booster sessions of around 10-15 minutes BA – one 10-15-minute session focussing on advice Control group (usual care) - were given care as usual, no discouragement against talking about alcohol	Face to face	Trained research interventionists	Baseline, 1, 3, 6, 9 and 12 months	Time Line Follow Back (TLFB) questionnaire used measure quantity and frequency of alcohol consumption Also includes a tool to measure amount of drinks consumed in the last month, amongst other frequency measures. All measures included were self-reports Each group showed decreases in alcohol consumption measures over time; however, these were not statistically different from those who received standard care

Study ID, country of origin and setting	Details of Sample	Allocation of Participants	Methods	Details of Intervention(s)	Mode of Delivery	Interventionist	Assessment periods	Outcome Measures and findings
<p>Hansen et al. (2011)</p> <p>Denmark</p> <p>No information on specific setting of intervention</p>	<p>n = 772</p> <p>Age > 50 years old</p> <p>Used AUDIT tool to identify only those who were heavy drinkers</p> <p>Intervention Group n = 391 (n = 316 at 12 months)</p> <p>Control Group n = 381 (n = 300 at 12 months)</p>	<p>No information given as to how participants were randomised into groups</p>	<p>Information gathered on alcohol use at baseline</p>	<p>BMI – Consisted of a conversation based on the principles of MI, designed to motivate individuals to change behaviour through open ended questions</p> <p>Also were given an information sheet with information about local alcohol treatment and a brief telephone booster 4 weeks later</p> <p>Control group received same leaflets about alcohol and local treatment. A pure control group was not included</p>	<p>Face to Face, telephone booster</p>	<p>Nurses and Postgraduate students</p>	<p>Baseline, 6 and 12 months</p>	<p>Outcome measure was drinks per week. This particular study did not find any significant intervention effect on drinks per week</p>

Study ID, country of origin and setting	Details of Sample	Allocation of Participants	Methods	Details of Intervention(s)	Mode of Delivery	Interventionist	Assessment periods	Outcome Measures and findings
Kuerbis et al. (2015) USA Primary care clinics	n = 86 Used CARET to ensure only selected at risk drinkers >50 years, mean age of just under 65 years old Intervention group n = 44 Control group n = 42	Participants were randomly assigned to the intervention or control group	Participants completed assessment tool at baseline	Intervention Group – received personalised mailed feedback outlining the risks specific to their alcohol use. Also received the <i>NIH Rethinking Drinking: Alcohol and Your Health</i> booklet Control group – did not receive anything	Mailed to Participants	n/a	Baseline and 3 months	CARET was used to measure alcohol risk score at 3 months. Significant reductions were found in the intervention group for binge drinking, alcohol use with a medical or psychiatric condition and alcohol with symptoms of a medical or psychiatric condition Intervention groups were 72% less likely to be an at-risk binge drinker and 92% less likely to be at risk due to a medical or psychiatric condition

Study ID, country of origin and setting	Details of Sample	Allocation of Participants	Methods	Details of Intervention(s)	Mode of Delivery	Interventionist	Assessment periods	Outcome Measures and findings
Fleming et al. (1999) USA Community based primary care practices	n = 146 for full 12 months Age >65 years old Used Health Screening Survey (HSS) to include only those who were problem drinkers	Participants were randomly allocated to receive either the brief intervention (BI) or care as usual Intervention group n = 87 Control group (usual care) n = 71	Participants completed assessment tool at baseline	BI group – received booklet on general health and were also scheduled to see their personal physicians. Used BI protocol including a workbook containing feedback on individual's behaviours and other educational resources. Had 2 x 15-minute appointments, one month apart consisting of the intervention and then a reinforcement session Control group (usual care) – only received a general health booklet	Face to Face and telephone	Physician trained in internal or family medicine	Baseline, 3, 6 and 12 months Family members contacted at 12 months for back up on results self-reports	Used drinks per week, levels of binge drinking and excessive alcohol use The intervention group maintained lower levels of drinking throughout and reduced their weekly alcohol use They also self-reported reduced amounts of binge drinking and excessive levels of drinking. These were statistically significant

Study ID, country of origin and setting	Details of Sample	Allocation of Participants	Methods	Details of Intervention(s)	Mode of Delivery	Interventionist	Assessment periods	Outcome Measures and findings
Ettner et al. (2013) USA Community based practice, 7 clinics	n = 1186 Age >60 years old Used CARET to ensure only selected at risk drinker Intervention group n = 546 Control group (usual care) n = 640	Patients were randomly assigned to a group dependent on which group the physician they saw was assigned to	Participants completed CARET and Alcohol-Related Problems Survey at baseline to determine risk and frequency of alcohol use, whether they had discussed their alcohol use with their physician and self-reported health care use	Intervention group – used project SHARE which included personalised reports, education material, telephone counselling and physician advice. Control group (usual care) – received care as usual. Alcohol discussions were not discouraged	Face to Face and telephone	Physician for intervention and health educator for telephone counselling.	Baseline, 3, 6 and 12 months	Alcohol- Related Problems Survey, CARET Primary outcome measure - Whether individual continued to be at risk Secondary outcome measure – score on CARET, drinks per week, amount of discussions with physician and use of health care including trips to emergency care etc. All measures were self-reports Greater declines and fewer at risk statistically in intervention group compared to control

Study ID, country of origin and setting	Details of Sample	Allocation of Participants	Methods	Details of Intervention(s)	Mode of Delivery	Interventionist	Assessment periods	Outcome Measures and findings
Moore et al. (2011) USA Primary care sites	n = 631 Age > 55 years old All participants were at risk, as identified by the CARET tool Intervention group n = 310 Control group n = 321	Participants were randomly assigned to either the intervention group or the control group	Patients were at risk of alcohol misuse as determined by CARET at baseline	Intervention group = received a multi-faceted intervention that included a personalised report, a booklet on alcohol and ageing, a diary to log levels of drinking, advice and telephone counselling Control group = only received a booklet on healthy behaviours	Face to face and telephone	Research assistant and primary care provider	Baseline, 3, 12 months	CARET, number of drinks consumed in the past 7 days and heavy drinking in the past 7 days. All measures were self-reports At 12 months, intervention group did not have lower levels of at-risk drinking, however did reduce levels of alcohol consumption. Results were statistically significant, but researchers suggest that they may not provide clinical significance.

Study ID, country of origin and setting	Details of Sample	Allocation of Participants	Methods	Details of Intervention(s)	Mode of Delivery	Interventionist	Assessment periods	Outcome Measures and findings
Fink et al. (2005) USA Community primary care practices	n = 665 Age > 65 years old Participants could take part if they had consumed more than one alcoholic drink in the last three months Three groups; two experimental and one control Experimental 1 (physicians and patients received reports) n = 212 Experimental 2 (patients received reports, physicians did not) n = 245 Control group (usual care) n=208	Participants were randomly assigned to intervention or control groups	Participants took part in one of three groups, two being experimental and one being control	Experimental group 1 – physician and patients received reports on patients' alcohol use, risks and problems. Also received personalised educational tools Experimental group 2 – Only patients received reports physicians did not. Also received personalised educational tools. Control group (usual care) – not informed of individual risks, or receive any educational tools	Computerised report	Physician	Baseline and 12 months	Found reductions in hazardous drinking, reductions in harmful drinking and maintenance of non-hazardous drinking in both experimental groups when measured with CARPS – baseline, 12 months later. Measures were self-reports. Both experimental groups had lower risk drinking compared to control Patient only reports led to reduced harmful drinking and less hazardous drinking Combined reports only decreased total consumption

4.4 Discussion

This was the first systematic review focussing solely on the effectiveness of interventions to reduce alcohol use in older individuals and in particular individuals aged over 55. There were improvements in frequency and amount of alcohol consumption in at least one area in all included interventions. Some interventions were successful, apart from Hansen et al. (2012) and Gordon et al. (2003) who found that whilst interventions show significant reductions over time, they did not show significant differences in comparison to the control group individuals who received standard care. The improvements included lower amounts of frequency and consumption (Ettner et al., 2014; Fink et al., 2005; Gordon et al., 2003) and reduced seven-day alcohol use (Fleming et al., 1999; Moore, Blow, Hoffing, Welgreen, Davis, Lin, Ramirez, Liao, Tang, Gould, Gill, Chen, & Barry, 2011). In addition, other studies found lower rates of heavy episodic drinking and visits to physicians and emergency departments (Ettner et al., 2014) a lower frequency of "binge drinking" episodes and frequency of excessive drinking (Fleming et al., 1999) and harmful and hazardous drinking (Fink et al., 2005).

In a previous systematic review of interventions focusing on the wider issue of substance misuse in older adults, older adults were found to respond well to psychological treatments (Bhatia et al., 2015). Bhatia et al. found that although there were promising responses from participants in regard to current treatments; further examination should focus on a wider range of interventions which could be offered and may better suit older individuals.

The current review begins to investigate these strengths of interventions, evidencing that individuals do appear to respond to psychological based treatments such as counselling and advice on behaviours, they also respond as well to educational tools, personalised reports that indicate their own level of risk and the use of diaries.

A common theme in this review was that studies often lacked a clear intervention description, which meant that determining which components were effective was problematic. The effective components were psychological based treatments such as counselling and advice on behaviours, educational tools, personalised risk reports and diaries. However, the information provided on these tools was not sufficiently detailed to clarify which specific elements of the interventions were effective. Information provided on the control groups that received “care as usual” was limited. One study provided some alcohol-specific information to control participants and some others (n=3) provided a general health information sheet to participants; others explicitly stated that discussions surrounding alcohol were not discouraged (n=3), however more information on the control groups would have been useful in assessing the effectiveness of the interventions.

Hansen et al (2012) found no significant difference between their brief motivational intervention group and the control group and they give numerous possible reasons for this. They stated that they included no pure control group for ethical reasons and that whilst control participants did not receive the brief motivational intervention; they were given leaflets on alcohol and treatment.

This information alone may have resulted in the documented reductions as they

concede that even the act of taking part in a health-based intervention may have led to a reduction in alcohol use. They also suggest that reductions could be due to “regression to the mean, social desirability bias and historical changes in alcohol consumption” p.30.

All studies included were assessed as per the CASP guidelines. There are 11 questions included in the guidelines that help the researcher to assess trials systematically. By using this set of guidelines, this systematic review assessed each trial appropriately. All included trials were assessed and deemed to be valid.

Six of the seven studies included used some form of blinding outcomes, which adds to the validity of results. However Hansen et al. (2012) did not use any blinding in their groups, declaring it unfeasible and Fink et al. (2005) provide limited information on blinding. Fink et al. also admit that physicians in their three groups may have discussed the process, however they have no evidence that this did occur; this was a weakness of both included studies.

In terms of sample size, Gordon et al. (2003) had a relatively small sample size, with no power calculation provided and the authors comment on this small sample as a potential limitation. Kuerbis et al (2015) also had a small sample for their pilot study. Sample sizes were larger in Ettner et al. (2014) (n= 1186) however power was not addressed in this study, nor was it addressed by either Fleming et al. (1999) or Fink et al. (2005) . Moore et al. (2011) and Hansen et al. (2012) addressed power, stating that numbers used ensured sufficient power, Hansen stating that power was sufficient providing that 75% of

participants completed the full study, which they did. Using the support from other individuals, including family members and friends could be effective in reducing alcohol consumption. Only one study in this review used the support of other individuals within the intervention setting which consisted of speaking to family members about participants' results (Fleming et al., 1999). Whilst this was useful to gain clarification on self-reported results, they do not explain how they affected alcohol-related behaviours.

Support from individuals could span beyond close friends and family members appear to be a positive and protective mechanism within the included interventions. Evidence suggests that social networks and groups to which an individual subscribes could also link to drinking behaviours and could include where an individual works or their age group. Views and behaviours in relation to drinking are linked to social background and may respond to interventions and public health messages accordingly. Future research could investigate how family and social networks surrounding older individuals could contribute to a successful intervention.

All the papers included in this review contain at least some element of self-reporting. This may lead to socially desirable responding from participants, who do not want to disclose the full extent of their problems and under-report usage (Davis, Thake, & Vilhena, 2010). This can threaten the validity of trials and underestimate harm. Gordon et al. (2003) suggest that there is a need for changes when measuring consumption and more reliable ways of reporting, as all reviewed studies relied on self-reporting which can lead to "conservative estimates of consumption" (Fink et al., 2005).

Another limitation of the papers included in this review was that the interventions appeared to address different levels of drinking in individuals. Five of the included interventions were carried out on “at risk” or “hazardous” drinkers, whereas two focused on individuals who consumed alcohol. This could lead to disparity in the results, as it was not determinable which elements of the interventions work or for whom.

Although a positive effect was found with most of the interventions in this review, the estimate of the effect could be even higher using other measures such as reporting from family members, clinicians or research assistants on physical aspects of alcohol use, or could use a “graduated frequency” approach, which begins questioning with high levels of alcohol consumption to avoid socially desirable responding (Graham, Demers, Rehm, & Gmel, 2004). This approach should be used with caution however, as starting with higher levels risks normalising them to participants and potentially encourage higher consumption (Graham et al., 2004).

All but one of the studies included in this review were carried out in the USA, with one study conducted in Denmark. Further research needs to be carried out cross-culturally as there could be some non-generalisable difference. One such difference could be the healthcare system that exists in the USA: where individuals may have to pay for treatment so may be less inclined to access support. It should also be noted that there was an underrepresentation of non-white, non-educated individuals in this field.

Some of the papers included in this review address randomisation and blinding, there was frequently only limited information presented on the techniques used. This was a limitation of the papers included and should be addressed in future work. The reliability and validity of interventions have been discussed within the original papers; however, they could be demonstrated better and this could be done through better intervention description and there are tools available to assist with this. The Medical Research Council (Craig et al., 2006) offers a framework for the development and evaluation of complex interventions and we recommend that this is followed in future work. The TIDieR (Template for Intervention Description and Replication) checklist and guide would also be a useful tool in intervention description and would allow authors to provide a concise description of administered interventions and where this information can be found within the individual papers.

Some papers were excluded from this review due to their inclusion of comorbidities. However, such comorbidities may be integral when investigating excessive alcohol use in older people, for example, in their study examining inpatient treatment for alcohol dependence in a group of older people, Blow et al. (2000) reported that 31% of their sample were experiencing at least one psychiatric illness. Alcohol misuse and dependence can contribute to psychiatric illness and lower levels of functioning, a risk significantly higher in older adults (Perreira & Sloan, 2002; Stevenson, 2005). Future work should explore how different groups may respond differently to interventions or have different motivations for drinking such as using alcohol as a coping mechanism (Kuerbis & Sacco, 2012).

There were several strengths to this review. This review was the first study to conduct a systematic approach to data collection focusing on interventions aimed at reducing alcohol use in older people. Previous studies have been less specific and focus on substance abuse as a whole or have included pharmaceutical interventions which may lead to a more reductionist approach to decreasing alcohol consumption in this field, rather than the current study which focusses solely on behaviour change interventions.

This systematic review has also determined that personalised risk-based approaches may be the most appropriate to help reduce alcohol or change alcohol-related behaviours in the older population. Further study ought to seek clarification on the user perceptions of personalised risk-based approaches and subsequent alcohol use after intervention.

This review has highlighted the need to incorporate specific intervention detail, in order to more appropriately evaluate future interventions. A suggestion for future interventions would be that a protocol is followed in order to develop, produce and evaluate interventions and their subsequent effectiveness (Brendryen, Johansen, Nesvåg, Kok, & Duckert, 2013). These findings are important and my inability to clarify the factors that contributed to intervention effectiveness strengthened my decision to explore specific protocols that would allow me to be more transparent within the intervention process. I chose to incorporate the Intervention Mapping approach (Bartholomew Eldredge et al., 2016) within my thesis as I believe it strengthened the process of intervention development, it also aligned with my realist approach of what works and for whom and gave me the ability to determine this further.

This study has numerous implications for public health. Individuals are living longer, and their health is important if they are to continue to live independently and enjoy later life. The development and use of interventions to reduce alcohol use in older individuals will lead to prevention, or delay of diseases such as stroke, heart disease or cancer (World Health Organization, 2011).

By using the information from this review, further work should investigate what works and for whom. Targeting interventions through public health practice, could lead to a significant reduction to the health and economic burdens of excessive alcohol use. In the UK, reductions in funding across the social care sector, are affecting people in later life (Age UK, 2017). By introducing and utilizing cost effective behaviour change interventions, older individuals will live longer, whilst also reducing the current financial burden on the economy.

4.5 Conclusion

This study has shown that while there is a growing evidence base for interventions for alcohol use in older individuals, there is still a need to conduct more research in the field to understand more about alcohol use in later life, and specifically understand which interventions work and for whom. The evidence within the included studies that individuals in this population respond better and are more likely to change their behaviours related to alcohol when provided with personalised risk-related information, however this requires further study. Currently, interventions are aimed at general populations rather than focusing on older people. Older people are affected disproportionately by lifestyle changes such as bereavement, social isolation and loneliness and

worklessness which may affect alcohol consumption (Kuerbis & Sacco, 2012).

More work is needed to establish the relationship between these factors and patterns of drinking in older people and also to look at varying levels of alcohol consumption across the life course, paying closer attention to stages of old age and factors such as retirement.

CHAPTER 5 – STUDY 2: A QUALITATIVE STUDY

INVESTIGATING THE VIEWS OF RETIRING AND RETIRED INDIVIDUALS TO INFORM A RETIREMENT-BASED INTERVENTION

5.1 Background

The UK population is getting older (Office for National Statistics, 2017b) and there will be therefore more people who are making the transition into retirement across the coming years. Retirement has been hypothesised as a contributor in older age drinking, (see Chapter 1 for further detail) (Kuerbis & Sacco, 2012).

Workplace interventions have been shown to be effective in reducing alcohol problems in the workplace (Ames & Bennett, 2011) acceptable to individuals especially when co-produced with key informants, such as decision makers and service users (Cameron, Pidd, Roche, Lee, & Jenner, 2018). These studies however do not incorporate individual perspectives on how this could be implemented; therefore, the mode of delivery of such education is currently unknown and requires further investigation. The current thesis aimed to gather perspectives from retiring/retired individuals and can therefore provide further insight into how such education can be integrated.

Despite the workplace being a setting that could provide important tools and intervention for those about to leave work, there is often little done in the way of retirement preparation and planning and discussions and support around

retirement from the workplace is minimal and often focuses on financial wellbeing as opposed to health (Kloep & Hendry, 2007). As retirement is such an important time in an individual's life, the workplace may be an ideal place to offer support to individuals who are leaving work.

This study was novel in asking individuals specifically what they feel they would need from an alcohol intervention in retirement and where they feel this would be best delivered and by whom. Individuals were also asked their opinions on feasibility and acceptability of an online alcohol intervention in terms of how the intervention could be delivered, with a view to offering a smartphone/computer-based intervention. They were also asked who they thought was responsible for delivering an intervention for retiring individuals. Participants in the present study were asked what they felt their own individual reasons for drinking were, as well as what they thought the general consensus of a retiring generation felt.

5.2 Method

5.2.1 Design

This study used semi-structured interviews to explore views from individuals who were 5 years pre or post-retirement, on the retirement transition and how an intervention could be put in place to help reduce the frequency of alcohol consumption across this transition.

5.2.2 Participants and recruitment

There were 17 participants recruited for this study, consisting of 11 females and 6 males (see Table 5.1). The sample consisted of individuals who were retiring in the next five years, or individuals who had retired in the last five years across

England and Scotland. Participants were recruited using a combination of purposive and convenience sampling (See Chapter 3), consisting of individuals who responded to an initial recruitment email (See Appendix 5). The email was composed and sent to individuals working within networks known to the researcher. From this, emails were sent to workplaces that included individuals who were nearing retirement. The main contact used to help recruit initial participants was a Public Health Improvement Specialist whom the researcher was in contact with, and this individual facilitated the recruitment process by sending potential workplaces with a study description, and they were then asked to forward the email to their staff members and asked them to email myself if they were willing to take part. An advert was provided to the Public Health Improvement Specialist to be used if necessary (see Appendix 3). Participants were approached from varying workplaces across the country that the specialist was affiliated with and participants then passed information to potential participants and I used convenience sampling (See Chapter 3) to maximise the sample. In terms of individuals who had already retired, these were obtained by emailing workplaces, local clubs and activity centres and via social media using the advert designed by myself (see Appendix 6), again, I used snowball sampling to further exploit these avenues and gain a sample that allowed the data to reach saturation.

Individuals were asked if they fit certain demographics before they were invited to take part and information was included on the email. The eligibility criteria were as follows: Participants had to be within 5 years pre or post retirement, over the age of 55 and drinking alcohol but not dependent on it. It was determined that participants would establish themselves whether their alcohol

use inhibited them from taking part in daily activities, which would class them as dependent (and would not be eligible to be included in this sample) before agreeing to take part. It was determined that individuals would be less likely to feel discomfort in discussing their alcohol use, if they did not have a problem with alcohol - such as dependence, however I appreciate that the definition of this may be subjective and I had to have trust that the participants would consider this when deciding to take part. When participants had emailed me and their demographics were checked, they were invited via email to take part in a face to face interview at a place and time convenient to them and received a gift voucher worth £10 in exchange for their time. Participants were recruited until it was deemed that data saturation had been met and to continue interviewing individuals would have yielded no further fresh findings (Charmaz, 2006) (see methodology chapter).

Table 5.1. Participant Information for Retired/Retiring Participants

	Participant Number	Date	Workplace	Gender
Retiring in next 5 years	101	24/05/2017	Factory - Office	Male
	102	19/06/2017	HMRC	Female
	103	25/07/2017	Sciences	Female
	104	18/08/2017	Human Resources	Female
	105	22/08/2017	Healthcare	Female
	106	23/12/2017	Healthcare - Private	Female
	107	07/01/2018	Government	Male
Retired in last 5 years	201	15/06/2017	Manufacturing/Automotive	Male
	202	15/06/2017	Support worker	Female
	203	20/06/2017	Community worker	Female
	204	20/06/2017	Speech Therapist (NHS)	Female
	205	02/07/2017	NHS /Council	Female
	206	31/07/2017	Education	Male
	208	22/08/2017	Finance	Male
	209	26/09/2017	Banking	Male
	207	24/10/2017	Government	Female
	210	23/12/2017	Hospitality	Female

5.2.3 Materials

Individuals were asked questions from a topic guide which included key questions around the subject of alcohol use in retirement, created for the study (see Appendix 3). The questions in the topic guides varied slightly depending if the participant was pre or post retirement and was used flexibly, giving participants the opportunity to add any information they felt would be useful and allowing the investigator to gain more information if required. A recording device was used to record interviews both face-to-face and over the phone.

5.2.4 Procedure

Individuals were given an information sheet to ensure they were aware of the study they would be taking part in (see Appendix 7), following this they were given a consent form (see Appendix 8) to sign and date to confirm they were happy to take part and that they could withdraw from the study at any time, including removing their data after the study was complete. The information sheet and consent form had been pre-approved by the University of Sunderland ethics board (see Ethics section). Participants were interviewed by RA, who has training in conducting and analysing qualitative interviews and data. Interviews were conducted in a private room away from any other members of the workplace, or over the telephone in a private area. Interviews were carried out between May 2017 and January 2018. Participants were informed that the interview would take around 25-30 minutes and would be recorded. Interviews were conducted and recorded, and participants were given the opportunity to ask any questions. Following this, interviews were transcribed verbatim by RA. All information was held according to ethics and data protection.

All interviews took place on university grounds, or another mutually agreed location (this was agreed with supervisor prior to interviews taking place and all protocols were followed accordingly). The interviews were semi-structured, to allow as much information to be gathered as possible, whilst still allowing some discussion.

5.2.5 Ethics

Ethical approval was obtained from the university ethics board; see Appendix 2 (Ref 000537). Numerous considerations were made in the process of gaining ethical approval. One such consideration was harm to participants; alcohol is a sensitive subject, however there were no foreseeable problems with the study before it took place and participants were not expected to be subject to any physical and/or psychological harm/distress. I also did not interview individuals who had expressed that they had problems with alcohol dependence, to further reduce the chance of any discomfort. Participants were briefed and informed of content before they agreed to take part and were also provided with details of my supervisor on the information sheet, should they have felt they needed to seek any further support upon completion of the study. Consent was taken from individuals based on the information sheet they had been provided, as well as the opportunity they had to ask questions before the study commenced.

Another ethical consideration was the storage and management of data. The data were anonymised on transcription so that individuals could not be identified from the information they had given. Participants were informed that their interviews were recorded. Data were kept in locked cabinets or on

password protected computers and will not be kept for longer than necessary in line with university ethics.

Payment was offered to participants in the form of a £10 voucher redeemable in a range of stores. This was deemed a reasonable amount to cover individual's time but would not lead individuals to feel they *had* to take part, some participants did not take this payment and that was their right, they were however all offered the same opportunity.

5.2.6 Data Analysis

Data were coded by RA and checked by JL. Results were analysed using the Framework approach (Ritchie & Spencer, 1994), and coding and framework development was assisted with the Computerised Aided Qualitative Data Analysis (CAQDAS) tool, NVivo (QSR International, 2012). During analysis; a priori set of themes were established from the first few interviews and this created a working analytical framework, the following transcripts were coded using this framework, and into newer emergent themes until a working framework matrix was complete (See Appendix 9).

Participant quotations are presented within the results section to illustrate the themes and findings and they are identifiable in the results using participant number and the sector in which the participant worked. Also provided in the results is the page number the quotation is from.

5.3 Results

Results are presented under the themes that were established during analysis. There were six themes in total and these are presented below with quotations for clarity and further understanding of data.

5.3.1 Lifestyles will change after retirement; however routine and socialisation remain important

During interviews, participants were asked about their experiences and circumstances surrounding retirement. The reason for this was to establish whether they felt the experience was a pleasant one, or if they felt it had been involuntary for any reason. Employees who felt pushed or undervalued by their workplace may have a different experience in their retirement compared to those who felt they made the decision themselves and had some autonomy over the process.

5.3.1.1 Voluntary versus involuntary retirement

The majority of individuals in this study felt that their experience of retiring was a voluntary process that they had chosen and that they managed themselves.

Despite individuals feeling that they had made the decision voluntarily to retire, there were instances of individuals feeling that they had been pushed to retire when they maybe would not have taken the choice yet. This led to them feeling undervalued by their workplace and subsequently pushed to retire.

I would have been quite happy to work on if I could have, erm, but we were like getting pushed, I was like based at [location] and I [was] sent over to [location], then I was sent to [location], they just, it made you feel

like they were trying to piss you off basically, which I did it, I did [it for] quite a while

Participant 202, p.5, retired

This is important as it may have impacted negatively on individual's feelings surrounding retirement. If a person was pushed into retirement without feeling ready, they may lose that sense of belonging to a workplace early and may not have felt fully prepared for retirement, this could lead to seeking coping strategies or alternate activities to deal with their lack of preparation.

5.3.1.2 Positive aspects of the workplace

Individuals were asked about an average day at work and this was used both as a technique to encourage individuals to open up about their workplace (in alignment with my researcher stance of "learner" as opposed to "expert") and the parts of the role they enjoyed and did not enjoy and then how they would feel about leaving and retiring. Individuals were asked about parts of the role that they enjoyed, and a salient finding was that individuals who expressed that the part of the role offering the most enjoyment to individuals was working with others and having a social aspect of working life.

I enjoy working with the team; I work better as a team, as part of a team rather than working in isolation

Participant 102, p.2, retiring

I enjoyed meeting new people, seeing a vast range of people. You never quite knew what you were gonna meet when you visited people at home. It was ages, all backgrounds, no two days were ever the same

Participant 203, p.2, retired

The social aspect of individuals working life is a key factor to consider, as when individuals retire, they may lose that sense of socialisation and may seek to find it elsewhere. Individuals also expressed that they found it rewarding and enjoyable to be “making a difference” which symbolises the importance of having some sort of purpose within their lives and workplace, again something that they may lose when they retire. One participant said that they liked to meet different people in their role and that was something that they missed when they retired. They felt that within the workplace they were contributing to society by making positive changes to the lives of others.

Meeting different people, making a difference in their lives...so it was to make a difference you know, you'd go in, they might just see you that day

Participant 202, p.2, retired

Individuals expressed that the parts of the role that they did not enjoy were things like the politics of the business, meetings and unnecessary paperwork. All the participants enjoyed the social aspect of their job, which was an important finding in the context of retirement as they may lose some of these social connections.

Okay, and which parts of the role would you say you didn't enjoy so much? - RA

The internal politics and some of the decisions that were being taken...

Participant 209, p.2, retired

5.3.1.3 Changes since retiring

Many individuals expressed that the main positive change in their life since retiring was that they had more time to do the things that they wanted to do. They did not have to wait until weekends anymore to do odd jobs and were able to spend more time on the things that they enjoyed. Both individuals who were retiring and individuals who had already retired expressed that they felt this would be/or already was the main positive change. It is important to consider these positive changes that individuals felt have occurred since retiring, and that these are not disregarded when offering alternate strategies to deal with the potential pitfalls of retirement that individuals may face.

Erm, its, its, it's great to be able to do the things that you couldn't do before. Your time is your own, ok you fill your time there's no doubt about it...so it's really allowing you to adjust your priorities and do things that you want to do as opposed to everything, all that having to be squeezed into that period outside your nine hour working day

Participant 202, p.3, retired

5.3.1.4 Routine

Some individuals stated that they were aware that in retirement they would need to keep some element of routine in their lives. They knew that one of the biggest changes in retirement life would be the lack of routine and the amount of freedom that comes with it and knew that they would have to ensure that this was not lost.

I think it's not having the structure like have to be up at half past six to go to work and you know very structured and just having the freedom to be able to and I'm not sure whether that'll be the difficult bit and also the interacting with other people you now I quite like social, well not so much socialising but the social side of work and I think I'll miss that more than anything.

Participant 105, p.5, retiring

This individual then went on to explain that she had already considered this would be a potential pitfall and had actively put plans in place to ensure that the social aspect was not lost for her.

Yeah I've already started volunteer work at a hospice so, cos I recognise that to me that'll be the hardest for me, not having like the people that I work with around me to interact with so I've already recognised that that for me would be an issue and I have done something about that plus I've already started, I've picked up one new hobby and I plan to start another one

Participant 105, p.5, retiring

5.3.1.5 Making plans for retirement

Putting plans in place appears to be important for those who were retiring; however, some people may not have the ability to make these plans regarding routine and maintaining a social life themselves and may need some support in doing this. This was explored later when asking individuals what they would require in an intervention.

When individuals spoke about the plans that they have for retirement, they often described that they would like to do more of the things that they enjoyed. They also expressed that they would like to do more hobbies such as walking as sports which they do not feel they can fully participate in while they are working. This was a positive plan that individuals expressed, with many suggesting they would like to take part in more sports-based activity when they retire.

Individuals made suggestions that they would like to take on some sort of voluntary work when they retired, again this was something that had put in place of their own volition. This was an important part of the retirement process for some and shows that they have plans in place to fill a void that they were aware may be present upon leaving work.

Erm, maybe voluntary work... work with children, erm, as I say have to have some focus to me day.

Participant 102, p.5, retiring

Individuals discussed activity levels in terms of alcohol use, stating that their activity levels were important, and that alcohol use could jeopardise this. This is

an important factor, as individuals may be more likely to consciously avoid alcohol if they are aware that it can have a negative effect on something that they enjoy doing, or that they feel is important to them. This is investigated further when alcohol is discussed in more detail.

I've always liked to keep active you know...I would say so, I think so as well, as you get older like I said to Paul like you noticing like you know you get up on a morning and you're stiff, and you gotta start to keep active and you've gotta keep, you've gotta enjoy your life, so if you've got a hangover, you're not gonna

Participant 202, p14, retired

There was an emphasis on making days useful. Individuals expressed that after leaving work and entering retirement, they would need to add some sort of focus to their day, keeping them aligned to a routine. They felt that this would help them keep the purpose and focus that they may lose after leaving work.

Erm, I mean...probably adding some focus into my day and having a plan and I'm not gonna just be sitting around all day, I'll have to have something, a routine really, initially, I mean for the first four weeks but after that, some sort of routine

Participant 102, p3, retiring

Individuals who had already retired said the same, that they need some sort of structure and routine to their week so that they are not wasting days doing nothing which will make them feel unfulfilled. This individual pointed out that she

still keeps the structure to her day and ensures that she gets up at the same time each day.

Yeah cos I think I do, I do need some structure in my week and in my time, I think if I haven't got much to do, I think oh, I can soon waste time and do nothing then I think what sort of day was that cos I've done nothing... so I do like to have some structure in my day I like to be busy...so erm it just depends what I've got on but that's the start of my day, get ready for whatever I'm gonna do at 9 o'clock

Participant 204, p9, retired

5.3.1.6 Hobbies and Interests

Structure that included hobbies and interests was expressed as an important factor throughout the interviews that individuals had some sort of hobbies both before and after retirement; they gave reasons for these such as filling time, filling void and maintaining a sense of purpose. The list of things individuals enjoyed and used their time for was extensive and featured things such as gardening, going on holidays and travelling, playing sports and spending more time with grandchildren. Some individuals also mentioned the importance of having pets in their lives, as this gave them a reason to go out and do something.

You know as they say if I'd been sat at home alone, the devil finds work for idle hands this may have been one of the reasons why some people

sort of feel the need to turn to drink, because there is a gap in their life and they aren't succeeding in filling it

Participant 209, p5, retired

Individuals expressed the importance of filling the void in their lives that had been left by retirement and not working with activities. They also stated that not filling this void may lead to individuals increasing their alcohol use.

5.3.2 Self-awareness can be a protective factor against increased levels of alcohol consumption in retirement

It was evident that individuals who took part in this study were aware of their alcohol use and to some extent the impact it could have on their day to day lives. This theme highlights the changes individuals felt they would experience or had experienced when entering retirement and includes my interpretations of how they viewed alcohol and its role across the transition.

5.3.2.1 Alcohol use is a normal part of daily life

Whilst individuals in this study did not always say that they drink more now that they have retired, or that they feel they will drink more, there was an awareness that this could become a problem for individuals and that an element of control was required so that drinking more frequently did not become a norm. The quote below evidences this point, with the individual stating that he and his partner had a bottle of wine "last night", something that he admits would not be done had they been at work.

So you have to, erm, develop an element of control that wasn't there before, cos you can easily go off the rails, you can see it, I know we were

talking about it a few months ago and you know, we still, we could see that you could easily you know, I mean we had a bottle of wine last night, so you could, during the week you could easily drop into it...where you could start drinking every night or, it's got no consequence for the next morning really

Participant 201, p11, retired

When asked about changes in alcohol use after retirement, this individual described that the relationship with alcohol had not changed, but that there was more opportunity to drink. Whilst most individuals in this study stated that they treat alcohol the same, they go on to say that they feel their alcohol use may have increased slightly after retirement due to these shifts in opportunity and constraint.

I think I still treat it the same, I've got more opportunity to, there's less constraints upon me as when we were working we never went for a drink at lunch time, the only time anything passed our lips was after work, whereas now if I fancy it I can go for lunch and have a few drinks. So, I suppose on balance I have more opportunities to drink, and I think my drink may have increased slightly since I retired. But not significantly.

Participant 209, p8, retired

For those who had not yet retired, some individuals were worried that retirement would lead to an increase in their alcohol use. This particular individual worked in an environment where drug and alcohol testing was the norm for all employees and she expressed that without that, she may be more inclined to

use alcohol in the week – something that she would not take a chance on at the moment.

This is a drink and drug free environment [her workplace] so if I got tested it would be not a good example. That will be taken away from me when I retire and although from a health point of view, I can easily see myself going to the pictures and going for a drink so that's another reason why people may start and then it becomes a habit

Participant 104, p2, retiring

Whilst some individuals expressed that they felt their alcohol use would increase in retirement and some stated that it already had, there were also individuals who felt they drink less now that they were retired for reasons such as lower stress, less money and awareness of health and how alcohol use can make them feel the next day.

5.3.2.2 Stress and coping as a reason for alcohol use

Individuals in this study expressed that they drank prior to retirement to aid relaxation and to reduce stress levels, with some individuals stating that they drank more alcohol while they were working compared to when they retired to aid stress reduction. This is important as alcohol use may be engrained within individuals' lives, to the point of being habitual once they reach retirement.

I will say I drank more when I was working...I think sometimes cos you got stressed you know with the work, you got frustrated

Participant 202, p12, retired

I suppose I'd liked a drink when I came home some nights as a sort of aid to relaxation wasn't it and to help you sleep a bit if your mind was twirling with everything that was going on that you'd done during the day

Participant 203, p6, retired

Across the transition individuals may notice they experience stressors of different varieties that align with retirement, such as loneliness or lack of purpose. Using alcohol in this habitual manner may continue to be problematic in retirement.

I think partly because I don't have the massive stress that I had, probably part of me if I'm honest, I don't have the larger salary that I had, I tend to be limiting and also I'm 67 this year and I think your tolerance to alcohol erm you know lessens as you get older, erm so whereas I could go out partying and drinking quite a lot, now If I've had what is too much for me, I just, I do feel quite ill the next day

Participant 205, p8, retired

The aforementioned issues regarding lower stress levels, less money and higher awareness of health are important, as this suggests that without these factors the individual may feel more inclined to use alcohol. For those individuals in retirement who still feel stress, who are affluent and who are not aware of the health burden, alcohol may be a more tempting commodity. This

again highlights the association that an individual has with alcohol upon leaving the workplace and how this can carry on into retirement.

5.3.2.3 Increased alcohol use and potential reasons for this

There were numerous reasons given by participants that they thought could contribute to increased alcohol consumption in retirement. These included being able to afford to drink and having the financial capacity to use alcohol regularly, boredom, low-self-esteem and hopelessness, lack of purpose and relinquished responsibility and loneliness. These factors may be specific to a retiring generation and were were important to consider within this thesis.

In terms of financial capacity, one interviewee expressed the opinion that affluence could lead to an increase in alcohol use in retirement. He suggested that being able to afford to drink led to a need to be disciplined in his drinking behaviours.

[Y]ou've got to discipline yourself, I'm not typical, I can afford to drink if I choose to. The only thing that stops me is if I drink too much. I know it's not good for me.

Participant 209, p7, retired

Boredom was an important factor interpreted from the results and was described by participants as a reason for drinking in retirement, insinuating that using alcohol could be a way of passing time.

Boredom. Boredom cos if you've got nothing else to maybe you'd feel I'd just have a drink, passes the time

Participant 105, p7, retiring

This was an important discovery within the results; individuals seemed to recognise that retirement was an expanse of time that lay ahead of them that offered very little structure and activity in comparison to the career they had spent their lives doing. This expanse of time seemed to be portrayed as vast and without any real purpose, something that was likely to lead to boredom without proper planning.

As well as being a way to pass the time, alcohol was described as a way to alleviate boredom by giving individuals a reason to leave the house. Hobbies described within retirement such as golf and walking were coupled with drinking alcohol and stopping off at a pub was very much part of these experiences.

I think maybe some people might think I'm a bit bored, I'm gonna spend, I'm gonna spend more time going to the pub

Participant 103, p9, retiring

Another factor described as a contributing factor to increased alcohol use in retirement was that of loneliness. Individuals suggested that not interacting with others as they had previously been able to do in the workplace, either with other staff members or with members of the public could lead individuals to find another means of escaping.

The other thing I think is a contributing factor is loneliness cos you don't have that interaction with people so you're lonely and you know it's an escape isn't it. Let's have a drink then you don't feel so lonely

Participant 105, p9, retiring

Individuals highlighted that with old age comes the increased likelihood of poor health and potential disability, both of which can lead to people experiencing less opportunity to leave the house and see people. In this situation, alcohol would seem to offer a route out of this feeling of helplessness and lack of socialisation.

Relinquished responsibility and lack of purpose were also suggested as reasons why individuals may drink more alcohol in retirement. There was a consensus that there was no responsibility to get up for work the next day and that there was no real purpose to days once retirement begins.

I would think it's probably around, the next day's not a school day sort of thing so you think if I have a glass of wine too many tonight. I don't have to get up for anything

Participant 103, p9, retiring

Yes, when there's no real purpose. So maybe on a personal level when I'm having a really bad day and everything I touch turns to shit, you do turn to drink. Anything that takes you away and the more desperate you are the more you'd turn to drink.

Participant 209, p9, retired

An important inference from this was that individuals were often led to desperation, especially when they were in a period of their life that lacks the constraints of a workplace. Expressions from participants suggested that having no strategy to deal with feelings of desperation could lead them to using alcohol, should they not see any real consequences of doing so.

5.3.2.4 Self-discipline and drinking less

The following participant expressed that they now drink less compared to when they were working. When they were working, they used alcohol in a social aspect and there was a feeling that individuals were more relaxed in social situations when they were drinking alcohol. Because these social situations were no longer prevalent in this individual's life, they feel that they drink less, as they do not have these types of social interactions and also do not need to force relaxation, like they would when they were working.

I would drink when other people drank. Erm... as a social role, errrr in other words people tend to talk to you rather better in social situations if you have a glass of alcohol rather than a glass of water. If they're drinking that is

So, would you say you drink less now that you've retired?

Marginally, yes...now you don't need to force relax and therefore you turn to drink a bit less

One particular individual in this study commented that she had noticed she was drinking more than the recommended limits and therefore chose to cut down.

Well I knew I was drinking more than the you know prescribed erm suggested amounts...it doesn't take much to go over really, cos it's a little old weeny glass of wine.

Participant 207, p7, retired

She goes on to say that using alcohol made it harder for her to maintain an active lifestyle and that this was a contributing factor to reducing the amount of alcohol consumed. This self-awareness appears to be an important factor in whether individuals chose to reduce the amount of alcohol they consume in older age; however, this could also potentially work the other way in that individuals have increased their alcohol use and therefore become less active as a result.

Individuals mentioned that self-discipline can be an important part of retirement particularly in terms of alcohol use. Especially when individuals have an abundance of free time and can afford to drink; this is where discipline may come in.

But you've got to discipline yourself, I'm not typical, I can afford to drink if I choose to. The only thing that stops me is if I drink too much, I know it's not good for me.

Participant 209, p7, retired

This particular individual evidenced the point that self-discipline is important, stating that he does not drink too much as he knows it's not good for him. He did not elaborate as to why it was not good for him, and this highlighted to me that individuals may say that things are not good for them; but do not resonate with the mechanisms behind such risks.

There appeared to be some level of active choice in individuals in this study to not drink as much, or to cut down on their levels of alcohol use. This was for numerous reasons, such as wanting to continue to be active; being aware of the risks of alcohol to their health and longevity, or from observing the effects that alcohol has had on their friends and family. This particular individual expressed that she had a friend who had died of illness related to alcohol dependence and that this had been a contributing factor to her reducing her alcohol use.

I have sort of taken active steps to cut down my alcohol consumption...I had a friend who died of you know things related to alcoholism.... And I've taken active steps to support my liver with milk thistle, so when I am drinking, and I don't know if it does any good or not, but things have changed in a way

Participant 207, p7, retired

Whilst there were some expressions of risk awareness in terms of alcohol use in old age, individuals would often discuss alcohol in terms of other people. There were no explicit linkages between themselves and the risks of alcohol

use. I feel that the absence of this was salient; as it evidenced a lack of resonance with alcohol risks.

5.3.2.5 Realisation of over consumption requires self-awareness

There was a realisation by some individuals that they were drinking too much, and they then made a conscious effort to reduce this. Again, this was down to discipline and self-awareness which may not be something that all individuals have. One individual started to notice that his partner and he were drinking around 6 bottles of wine per week and that this was too much, they then made the conscious decision to cut back on this amount.

You were saying about 10-15 years ago you used to drink more...and you decided to pull back...what made you? – RA

Cos we realised, both of us realised we were drinking more...you know, you would get through six bottles [of wine] in a week

Participant 201, p12, retired

Individuals expressed that even when they were not working, they mainly drank at the weekend as this was their “treat” even though they were no longer working. Having a bottle of wine on a Friday was also described by one participant as a “demarcation of the weekend”. This suggests that individuals who were already in the habit of drinking on a weekend when they were working in the week have continued to do so. A key factor to consider is if this remains the only time that they drink, or if it has begun to happen in the week as well which could increase their risk of alcohol-related problems.

I suppose we drink more of a weekend; we might open a bottle of wine on a Friday night, we don't drink it all then, we drink it over the weekend, that hasn't changed really.

Participant 204, p10, retired

Typically, I may buy a bottle of wine on Friday and have a couple of glasses Friday night, Saturday night and Sunday, so because I'm retired, that is a demarcation of the weekend...so, I would treat myself as wine as a weekend treat, even though I'm not working all week

Participant 205, p9, retired

5.3.2.6 Type of alcohol can be linked to normalisation and a disassociation from risk

Throughout the interviews, a salient finding was that individuals mentioned that they drink wine, much more so, and with much less hesitation, than any other type of alcohol. Having a glass of wine in an evening or a bottle of wine with a meal was often described as though it was the norm.

I like to have a glass of wine when I'm cooking in the evening, that's continued, erm, I like to think I don't drink much, I probably drink more than I think I do but that's probably for most people isn't it... But as far as drinking goes, it's not a big part of my life, but I do like wine, I would admit I have a glass of wine every night.

Participant 204, p11, retired

There were expressions from individuals that they believed they drank more than they should and were probably drinking more than they thought they did. Drinking one large glass of wine each evening can put an individual over the low risk guidelines offered by the government and the normalisation of this is a cause for concern. This is of course dependent on strength and measure, but if an individual is drinking a glass of wine every night and then drinking more on a weekend, there is a potential for alcohol-related damage to their health.

I probably drink more than I think I do but that's probably for most people isn't it?

Participant 204, p10, retired

Individuals appeared to normalise drinking more than recommended amounts or were drinking more than they thought they did. There was a belief that most people drank at this level, and that they were in the majority by doing so. Individuals did not recognise drinking at this level as negative behaviour.

It was a salient finding within the interviews that individuals disassociated from their own potential risks linked to alcohol. Throughout the interviews individuals expressed some level of awareness of how alcohol could affect them; however they sometimes did not personally associate their own behaviour with these risks. There was knowledge that alcohol can be dangerous and the affects that it can have on the body, especially in old age.

I don't think people are always aware of the impact, I wasn't until relatively recently, there's been much more campaigning about alcohol in the last few years, but I don't think it ever really occurred to me what effect alcohol might have on your body.

Participant 204, p14, retired

It is therefore important to continue addressing the risks of alcohol to individuals and educating them on how much is too much, to ensure they are staying within healthy recommendations. Despite this, there was some evidence that individuals were reducing the amount that they drink in retirement and that this was due to them realising they can't cope with it in older age.

I do see a lot of them reducing their drinking, cos friends nearby they drank whiskey most nights...but I think it happens to everyone once they get older, they realise they can't cope with it

Participant 207, p9, retired

Being aware of their own levels of tolerance could play a vital role in educating individuals of the risk of alcohol. Showing individuals that their tolerance changes and their susceptibility to alcohol-related disease and problems is higher when they age, may lead to a higher inclination to reduce their alcohol consumption levels.

5.3.3 Public health messages can be confusing and individuals were not aware (or not receptive) of their own personal levels of risk

5.3.3.1 Confusion of public health messages and lack of awareness of risk

Individuals in this study felt that the current public health messages regarding alcohol were confusing and were open to individuals own interpretation. This section of the results is low in inference, as I was striving to determine reasons why current messages are failing to resonate with older drinkers and their reasons for alcohol use and therefore interpretation would not aid discovery.

*Yes, cos they can be interpreted differently. Like one glass of wine, you've got to know what the size of the glass of wine is, like "ooh I've only had one glass of wine" but then that glass is - you know... *gestures to large size with hands*... So you know it, I think one of the things is like a very clear guidance on what is your limit, or right what are your units because I think that's confusing, I mean a lot of the messages that come out are confusing and that's for me, someone who's worked in healthcare for the vast majority of my life*

Participant 105, p14, retiring

Individuals felt that in the future, limits should be made easier to understand, especially for older people.

Participant: Yes, if you speak to anybody my age about how many units they should be having, they've got no idea. I think the whole units business is a load of rubbish, you're far better saying how many pints

you can have. Like you can't have more than 4 pints a session, there's units on the can but they don't mean a great deal to me.

RAM: So they're quite confusing?

Participant: Well it's just like why complicate it? Make it simple, we recommend you don't drink more than 20 pints per week and no more than 18 pints on a night out I could clearly understand that while they say you shouldn't have more than 3-4 units, but I just stop looking

Discussion between RA and Participant 107, p15, retiring

Individuals showed that they were taking notice of some of the public health messages being disseminated to the general public which is encouraging; however it was worrying to discover that individuals do not always associate these risks with themselves and may see their own habits as normal. This could make them more susceptible to the risks that come with alcohol.

5.3.4 Retirement support offered by the workplace is minimal and often finance-based or inappropriate

5.3.4.1 Financial focus

Where support had been offered in terms of a pre-retirement workshop, individuals often stated that the focus was on finance.

[T]hat involved financial advice, erm it was financial advice, it was about planning for the future and it was also about erm making a will that sort of

thing that we needed to do...there was an element about needing support and how the transition from working to not working and awareness raising really

Participant 105, p2, retiring

This interviewee went on to state that there was also a section on the transition from workplace to retirement and raising awareness of this. None of the individuals in this study recall having any information given to them about alcohol use in retirement and that it was all fairly finance based.

In some cases, individuals expressed that whilst they were offered support, they found this to be inappropriate and not useful to them. The individual below states that she was horrified to be given support around planning her funeral:

[T]he thing that stuck in my mind is there was a woman talking about planning your funeral which I was absolutely horrified about. I mean I'm here to think about the rest of my life, not to plan my death

Participant 204, p5, retired

This illustrated that it is important that content delivered to retiring individuals is relevant and appropriate.

There were some interviewees that felt they were offered no support at all in terms of retirement. One particular individual, when asked if she was offered any support, expressed disdain at the way she had been treated.

None, none whatsoever, you just felt like you got left see cos I was on the sick for err about 6 months something like that...and you just, you were just, the way I felt was you were just a number

Participant 202, p4, retired

I feel that this reflects the need to be valued as an employee within the workplace. The use of phrasing from this particular individual that she was “just a number” really emphasises the impersonal experience that she feels she was given in terms of retiring.

5.3.4.2 Reluctance to seek support

Interviewees also expressed some reluctance in seeking help from their workplace with regards to alcohol as they felt it could lead to them losing their job.

I would imagine if you went to see HR and you had an alcohol problem you'd be wary of it because they might stop you working

Participant 101, p12, retiring

There was an indication of reluctance to seek support for alcohol use in the workplace due to unknown consequences, this individual went on to say if they were to seek support they would be more inclined to go elsewhere like their GP due to the worry that they may lose their job. Although there inevitably must be some rules regarding alcohol in the workplace, individuals spend so much time in the workplace it would be an ideal place for them to seek support.

When asked about what should be offered to individuals, either in the workplace or elsewhere, interviewees were keen to express that an intervention needed to be relevant enough for individuals to take notice. They were often against “just giving leaflets out” and expecting people to read them. “Just giving leaflets” out, again appeared to denote a lack of value to individuals and their mental health and wellbeing.

I mean you can offer them pamphlets, you can offer them face to face discussions and whatever, it, what you've got to offer them is something that's gonna have an impact and them take seriously...If you gave them, you know, if you give them something to read when they want. How many's gonna read it? [A] good proportion will just throw it in the bin they've got better things to do

Participant 201, p15, retired

5.3.5 Responsibility and Nanny Stateism

Interviewees differed in their opinion of who was responsible for providing an intervention to those leaving the workplace. Some felt it was the duty of the health service as they would benefit from it, others felt it was down to the government and some felt it was to the responsibility of the workplace, especially a responsible workplace.

Despite some individuals saying that a workplace intervention would be useful, some interviewees felt that they did not need any help and one participant felt that help offered could be seen as part of a “nanny state”. There was a sense of

entitlement if they have worked for their retirement and paid their taxes they deserve the freedom to do as they please in retirement.

Personally, I'm against the sort of nanny state, if you want to go out, blow your pension fund on whiskey, then do it - it's your money. I don't, I don't really agree with people trying to tell me how to live my life providing I'm not harming anybody...I understand the impact on the likes of the NHS but if you've worked 40 odd years you could say well I've paid for it, my National insurance, tax, blah blah blah

Participant 101, p14, retiring

The same interviewee who stated that they did not feel they needed help appreciated that others may require help with their retirement but that this should be down to the individual.

Maybe there should be an offer, but from a personal point of view I don't need anything, I've made a conscious decision and, and I know, I know the pit, I think I know the pitfalls, and the advantages so I think there should be something in place by whom I don't know

Participant 101, p14, retiring

I interpreted this statement as being quite defensive about asking for help. The individual was very firm in their belief that they would not need help and felt that they knew this. Other individuals within the study were keener to take up what could be offered from their workplace, and I felt that there was a salience in the requirement to have some sort of support, regardless of uptake.

5.3.6 An intervention should be holistic and should include practical information

Individuals in general felt that an intervention needed to have some element of signposting to groups or hobbies in their area, information about finances in retirement and a holistic element that encompasses numerous factors and does not address solely alcohol use in retirement.

Like a what's on in your area, what's available and what's happening cos I do find that that's a gap like I've said to people how did you know that's going on?

Participant 105, p13, retiring

An intervention could consider the above points, as there is not a tool offered as standard to individuals who were retiring or are currently in retirement, who were looking to find out about clubs and hobbies in their area. This would help individuals experiencing loneliness, feeling a lack of purpose, or a facing a potentially reduced social life after leaving work.

Despite people expressing that they were given minimal information that was always focused on finances, interviewees did acknowledge that they wanted to be given practical information upon leaving work and that they found this was often lacking. They felt that more specific information should be given on claiming your pension and how to cope with financial matters, as they felt that the information they received on finances was not practical and could not be applied in their lives.

Well it was not helpful, not really, I mean I wanted practical information, I wanted practical information about, how to sort your pensions out and all that sort of thing [...] at that time I didn't even know how to go about claiming my pensions, just basic information I wanted

Participant 204, p6, retired

There were some expressions from interviewees that people who were already good with large sums of money would not see having their pension as a problem, but for others who were dealing with a large pension pot or redundancy money could lead to stress. Stress was also described as a reason that individuals may use alcohol, especially when they were in work. If this stress was replaced with financial strain, there may be a risk of turning to alcohol.

Some interviewees expressed that retirement was more about seeing friends and that this ultimately included going on holiday more and drinking more. Having a social life is important to avoid the pitfalls of retirement such as loneliness and isolation, but this needs to be approached with caution so that it does not lead to another avenue that results in increased alcohol consumption. This showed that individuals have some knowledge of the dangers of alcohol within retirement, but they perhaps see it in a positive light. Alcohol was not mentioned in regard to themselves as a negative, only as a positive or a normal way of life and I think this was salient within the findings.

There were suggestions within interviews that it is important to advertise the risks to people who are older and use alcohol. There was a feeling that older individuals do not understand how dangerous alcohol is and that risks should be displayed to “get the message home”.

[I] mean if somebody sort of explains what went on, cos alcohol is a poison basically isn't it ...but I don't think people really understand that, I mean I think they have the idea that it does kill of some of your brain cells but I think if there was a journey of where it went into your mouth and went through the body

Participant 207, p11, retired

This participant also expressed the importance of advertising the risks of alcohol in a way that is relevant to the individual and used the example of women.

[P]articularly with women if you had something well like if you have something like oh if you drink too much it makes you wrinkly or you know it affects how you looks and I think if people knew more what was going on inside the body and how it impacts not only their health but how they look, how alcohol can affect the skin and their hair and things like that

Participant 207, p11, retired

Interviewees were keen to express that any intervention needs to be holistic, encompassing a wide variety of factors such as education on risks, signposts to

groups and hobbies and practical guidelines on alcohol use and further retirement necessities such as pensions and finances.

You wouldn't just want to sit down and talk about your future alcohol consumption I think it would need to be wrapped up in the whole thing about planning your time, remaining active, having things to do without being too busy, making sensible choices, how to budget, how to claim your state pension in due course and any other benefits you may be entitled to, how to plan, make you aware of things you can access like your free bus pass or free passes, all your entitlements would be useful and you could obviously include, cos you're getting older and your health isn't as good, you could include health both mentally and physically and I think alcohol could fit in there

Participant 107, p10, retiring

Motivation was also expressed by one individual as an important factor to consider in terms of changing individual's behaviour and encouraging them not to use excessive alcohol in their retirement.

So you can give them these things, but they've got to want to do it, I think to make an impact you've got to get people to want to do those things...you've got to change their mind-set you know

Participant 201, p16, retired

5.3.6.1 An online application would be an acceptable way to offer support, providing that value to employees was not compromised

An online or smartphone application was welcomed by most interviewees as an acceptable way to deliver an intervention. There was an understanding that delivering an intervention in this way would be an effective way to encompass all of the factors that they had mentioned and was something that could be used across the transition.

I think that would be really good. If they sent you away with like oh click this button and maybe a hobby search, so do you like this yes or no and then bringing you up with clubs or contacts in your area that would be good, certainly we talked about that, drinking could probably be wrapped up in those sort of health options so what are you drinking this week, eating and smoking and maybe a diary like a stay on track in retirement sort of thing

Participant 107, p12, retiring

This participant in particular felt that a tool where individuals could search for hobbies and also be informed about healthy behaviours and practical information would be helpful; especially if this was offered via one platform, such as an online application.

I think it would be handy, if you had somewhere you could, rather than sort of look about, I mean you're looking at one place for works pensions, you're looking another place what's gonna happen with your housing benefit, you're looking another place for all sorts of things where if there was something that was all together you could just look at one thing rather than fish about for different sites

Participant 106, p9, retiring

Despite positive reactions, there were concerns from some interviewees that providing an online application as a standalone intervention could be problematic in this age group and that it would be beneficial to have an initial session that was provided face to face to offer individuals advice and guidance on how to use the app.

It would have to be publicised and you know, somebody there to point out what it does and how it can be used

So, you think having like an initial training session which would be face to face or whatever?

Yeah or even you know, erm, you know if everyone had their phone with it loaded on and there was a big screen up and a tutor went through it and they could follow it with their phone couldn't they

Discussion between RA and Participant 207, p15, retired

A training session would also provide individuals with more information about the application itself to avoid individuals disregarding the application based on individuals not knowing how to use it. It would also provide a solution to those who felt that some face to face support would be necessary for an intervention to work. It seemed to be that individuals felt that the offering of a purely online intervention was devaluing to them and that by offering this face to face element would also assure individuals that they were worthy of the time being offered to support them with this transition, something that was expressed in the interviews.

I don't think my age group would welcome it all being online, I wouldn't. I think I'd be pretty hacked off. If I was told I was being given a course and it was all online, I think I'd feel a little bit undervalued to be honest.

Participant 107, p11, retiring

Feedback from individuals regarding the type of intervention they would be happy to receive is important. Individuals must not feel undervalued or that an intervention offered purely online or via smartphone was offered as an “easy way out”. The argument for offering an online intervention would have to be strong and as advised here would have to be combined with a face to face training element of some sort to ensure understanding and happiness with using the application.

5.4 Discussion

This study found that individuals who were retiring in the future and individuals who had already retired were aware of the risks that come with retirement and that could cause individuals to use alcohol more frequently. Individuals often felt that they had been provided with little support from their workplace and that this could be improved, covering other factors rather than just financial aspects.

Alcohol is often seen as an aid to socialisation (Wybron, 2016), a reward to individuals and a way of unwinding and alleviating stress after fulfilling work commitments (Bacharach, Bamberger, Sonnenstuhl, et al., 2008; Eibich, 2015; Richman, Zlatoper, Zackula Ehmke, & Rospenda, 2006). Individuals in this study often commented that they used alcohol to alleviate stress and to relax after a hard day at work. It could be that those who work in different roles experience more stress than others and consequently use alcohol differently. Workplace stress can also have a latent effect on retirees, with findings showing that those who experienced more stress whilst in the workplace are more likely to experience a residual effect of workplace stress in retirement (Richman et al., 2006). This is ultimately complex in that any intervention developed for use with older individuals must not hamper the reported social and stress relieving benefits that alcohol use may have on individuals and should endeavour to consider these complexities in intervention design.

Findings from Bareham, Kaner, Spencer and Hanratty (2019) suggest that alcohol could be used to maintain structure, which has been lost in retirement. There was evidence of individuals recognising such pitfalls within retirement

and needed to implement something to avoid retirement becoming a “waste” to them. I think that it is important to consider that individuals see not doing anything as a “waste of their time”. Time was interpreted as a valuable asset to the individuals in this study and it was important that they did not use their new free time for non-purposeful tasks. It may be the case that time for older individuals could be a protective factor, whereby the quality of their time is important, and they value how it is spent. They may however need support and suggestions in this process, and this should be factored into the development of an intervention.

The importance of individual autonomy was salient within the findings from this study; however, there was a consistent emphasis on “them” and “their” which highlighted to me that individuals within this study often tried to think about how help could be offered for others, not themselves. These findings were consistent with findings from the systematic review of interventions in older adults in Chapter 4 (Armstrong-Moore et al., 2018), which suggests that interventions may be more effective when individuals are provided with personalised risk information to allow them to differentiate between themselves and others, and reduce the normalisation of alcohol use.

I interpreted from the results that individuals did not always associate the retirement transition with negative effects. This could be due to still feeling within the “honeymoon period” of retirement i.e. within five years of retirement as per the study inclusion criteria. Individuals within this time period may still be enjoying their free time and enjoying the ability to do things that they wanted to do as. However, I also interpreted from this that individuals often did not

express any negative emotions as they felt that it was important to focus on the positives of their new lifestyle. These interpretations were consistent with findings from Wang, Henkens and van Solinge (2011) who suggest that retirees may at first experience a honeymoon stage where they can engage in new roles; but that this may be followed by a “disenchantment” stage, where individuals realise they have had unrealistic expectations of retirement, accompanied by a lifestyle that may involve fewer resources and activities. The combination of these findings would lead me to recommend the need to manage individual’s expectations throughout the process and ensure they planned for uncertainty and appropriate utilisation of resources; including finances, use of time and activities. A further explanation for the re-framing of individuals’ views on alcohol through education is offered by Bacharach, Bamberger, Sonnenstuhl et al (2008) and Leigh and Stacy (2004) who suggest that alcohol is viewed with positive connotations during the working life as a stress reliever, and that this leads to further alcohol use after leaving work.

Individuals within this study saw alcohol use in a positive or normalised way, and this is an important consideration for future intervention development. Public health messages can be seen as confusing to older adults (Haighton et al., 2016) and when they do use alcohol, certain types of alcohol (i.e. wine) are deemed more socially acceptable (Ling et al., 2012). This was evident in the findings from interviewees in the current study. Individuals within this study normalised alcohol use and did not appear to understand the units system. An intervention could provide educational tools on all types of alcohol, to show users that there are no better types of alcohol than others, despite differing social attitudes and could also offer tailored, age-specific public health

messages which focus on aspects of life that are more relevant, and perhaps important to older people personally, such as reduced tolerance and health considerations; factors that have been shown to resonate with older drinkers (Edgar, Nicholson, Duffy, Seaman, 2016) .

In terms of responsibility, individuals were mixed with their views as to who should be offering support, there was a reluctance to be part of a “nanny state” and expressions that individuals should be left to their own devices upon retirement. Whilst the notion of restricting autonomy is often rejected, there has to be some policy in place to avoid eventual harm on the general public (Calman, 2009). The conclusion of these comments is that uptake of an intervention will ultimately be the choice in an individual; some people will feel they need help upon leaving work and others will feel that they do not want to be subject to interference.

When discussing an intervention, most participants said that they would be happy with an online or smartphone application; however, this should be combined with some element of face to face contact to explain the intervention and provide some sort of personalisation. This is consistent with findings from Currie et al., (2015); who found that digital interventions would be acceptable to an older population, providing they were not being perceived to be replacing in-person care.

There was a consensus that an intervention should be holistic and all-encompassing and should not just focus on alcohol but should strive to offer other information and tools with regards to retirement and ageing. Literature

focussing on making and maintaining lifestyle changes with a health advisor also showed the importance of a holistic approach to intervention; reliant on a varied approach for different individuals (Visram, Clarke, & White, 2014) . The similarities between health domains are reassuring, showing that with further study, the underlying factors for changing health related behaviours may be accessed and subsequently modified via an all-encompassing “holistic” intervention.

5.4.1 Strengths

This study was novel in that it included both interviews from individuals who were retiring and who had retired to ascertain their views on alcohol use across the retirement transition and what they feel would be feasible and acceptable in an intervention. Individuals provided rich data which contributes to the current knowledge and also provides data for recommendations of what an intervention could realistically look like.

Another strength of this study was that participants who were interviewed came from a wide range of backgrounds and workplaces. This allows the findings to be more easily generalised across the entire population. It also allows policy to be considered and implemented regardless of sector, as information gathered was from both public and private sectors.

5.4.2 Limitations and Further Study

There were limitations to this study which should be considered. Individuals in this study had to reply to an advert or email and were therefore self-selecting, this may have inadvertently excluded individuals who were not exposed to the

advert or were less willing and vocal about their experiences. Further study could explore alternative means of recruitment and delivery.

Alcohol use is often stigmatised and self-reporting could lead to individuals feeling uncomfortable talking about their experiences face to face with a researcher (Mitchell et al., 2015). Future study could investigate the use of alternative methods such as through a computer, to avoid the discomfort experienced and the potential of socially desirable reporting.

Future study could assess the gender roles of individuals in more detail and investigate whether the environment in which an individual works would require differing types of intervention to be delivered dependent on the reasons for using alcohol. For instance, masculinity has previously been shown to influence hazardous use of alcohol (Wells et al., 2015) and therefore future study ought to incorporate further detail on the impact of the individual workplace on alcohol use and how this could be a barrier or facilitator to the implementation of interventions.

5.5 Conclusion

In conclusion, individuals who have retired in the last five years or were due to retire in the next five years were often unaware of their own personal risk in terms of alcohol use, and often referred to those with alcohol issues as people other than themselves. Individuals within this study found the idea of an intervention to aid retirement both acceptable and feasible. They felt that this should be holistic and not focussing solely on alcohol, they also felt that this

could be delivered by a smartphone application of computer provided there was some face to face interaction.

CHAPTER 6 – STUDY 3: A QUALITATIVE STUDY TO INVESTIGATE THE FEASIBILITY AND ACCEPTABILITY OF A WORKPLACE INTERVENTION TO REDUCE INCREASED FREQUENCY OF ALCOHOL USE IN RETIREMENT

6.1 Background

As discussed in the previous chapter, the UK population is ageing (Office for National Statistics, 2017b) and therefore there are more individuals who will be making the transition into retirement in the coming years. Academic literature suggests that retirement, especially when involuntary can have detrimental effects on health, including increased frequency of alcohol use (Hershey & Henkens, 2014).

Individuals may require additional support from professionals upon leaving work in preparation for retirement, such as Human Resources or Occupational Health or from elsewhere (such as their GP, local organisations or government initiatives) if they have already left work. However at present there are few workplace interventions to support individuals making the transition into retirement, and when support is offered it tends to focus on financial planning and advice (Kloep & Hendry, 2007).

The aim of this phase of the study was to explore the attitudes of Human Resource and Occupational Health employees in relation to the feasibility and acceptability of an alcohol-related intervention in their workplace, with the view to offering a smartphone or digital-based application, something that individuals

who were retiring or who have retired stated as an acceptable form of intervention in the previous chapter.

6.2 Methods

6.2.1 Design

This study used semi-structured interviews to explore employees' views on how their workplace viewed the retirement transition and how an intervention could be implemented to help reduce the frequency of alcohol consumption across this transition. This aligned with the interpretivist epistemological stance of my thesis as it allowed me to collect rich and contextual information from participants. The semi-structured approach to interviews allowed there to still be a logical flow of information acquisition within interviews. The topic guide for interviews was designed based on the literature review and systematic review (Study 1), see Appendix 4.

6.2.2 Participants

The sample consisted of individuals who work in the public and private sector organisations across England and Scotland and were selected using purposive sampling in which I identified individuals who worked in Human Resources and Occupational Health based on them being more likely than the general population to have relevant knowledge and experience about the process of an individual leaving work and how this is currently addressed. I felt that approaching these individuals would extend the results from Study 2, in order to provide a comprehensive examination as to what could feasibly be offered in the workplace; from both an employee, and organisational point of view. I also chose to interview individuals who worked in both private and public sectors, in

order to establish whether there was any scope for comparison of priorities when considering an intervention between these two sectors, as literature would suggest that the two sectors have differing priorities (Fernandez & Rainey, 2017). Following this, existing participants passed information to potential participants and I used convenience sampling (See Chapter 3) to maximise the sample. From these methods; 10 potential participants were invited to take part by email, sent out to contacts by both myself and other relevant gatekeepers (i.e. a Public Health specialist whom I was in contact with), providing them with a study description and were asked to reply to the email if they were willing to take part. Participants were approached from varying workplaces across the country, with the support of connections to myself and the research team. There were 8 females and 2 males; 5 worked in the private sector and 5 in the public sector. Details of participants can be found in Table 6.1 below.

Table 6.1. Participant Information for Human Resources/Occupational Health

Participants

Participant Number	Date	Gender	Workplace	Sector
301	24/05/17	Female	Manufacturing	Private
302	18/08/17	Female	Storage Plant	Private
303	18/08/17	Female	Manufacturing	Private
304	24/08/17	Female	Local Council	Public
305	20/10/17	Female	Automotive	Private
306	24/10/17	Female	Construction	Private
307	26/10/17	Female	University Central	Public
308	26/10/17	Male	Government	Public
309	24/10/17	Female	Occupational Therapy	Public
310	08/01/18	Male	Local Council	Public

Interviews were carried out at the individual's workplace or over the phone at a time that was suitable to them. The interviews were then transcribed and coded in line with grounded theory and framework analysis principles (see Chapter 2). Interviews were stopped when saturation was reached and to continue gathering data would not have yielded any new results.

6.2.3 Materials

Individuals were asked questions from a topic guide (see Appendix 4), created for the study, and based on previous literature and findings from Studies 1 and 2 to ascertain views on current offerings and views on a potential intervention. This was used flexibly, giving participants the opportunity to add any information they felt would be useful and allowing the investigator to gain more information if required. A recording device was used to record interviews both face-to-face and over the phone.

6.2.4 Procedure

Individuals were given an information sheet to ensure they were aware of the study they would be taking part in (see Appendix 10), following this they were given a consent form (see Appendix 11) to sign and date to confirm they were happy to take part and that they could withdraw from the study at any time, including removing their data after the study was complete. Participants were interviewed by RA, who has training in conducting and analysing qualitative interviews and data. Interviews were conducted in a private room away from any other members of the workplace, or over the telephone in a private area. Interviews were carried out between May 2017 and January 2018. Participants were informed that the interview would take around 25-30 minutes and would be recorded. Interviews were conducted and recorded, and participants were given the opportunity to ask any questions. Following this, interviews were transcribed verbatim by RA.

6.2.5 Data Analysis

Data were coded by RA and this was checked by JL. Results were analysed using Framework analysis (Ritchie & Spencer, 1994), using the Computerised

Aided Qualitative Data Analysis (CAQDAS) tool, NVivo (QSR International, 2012) in which a priori set of themes were established from the first few interviews and this created a working analytical framework, the following transcripts were coded using this framework, and into newer emergent themes until a working framework matrix was complete (See Appendix 12).

Participant quotations are presented to illustrate the themes and findings and they are identifiable in the results using participant number and the sector in which the participant worked. Also provided in the results is the page number the quotation is from.

6.2.6 Ethics

Ethical approval was obtained from the university ethics board (Ref. 000537, Appendix 2). Numerous considerations were made in the process of gaining ethical approval. Alcohol is a sensitive subject and therefore I considered potential harm to interviewees. However as there had been no problems with Study 2, I did feel that there would be any in Study 3. Furthermore, individuals worked within the context of Human Resources/Occupational Health and therefore were not commenting on their own use of alcohol, so this further reduced any risk of harm/distress. Participants were briefed and informed of content before they agreed to take part and were also provided with details of my supervisor on the information sheet, should they have felt they needed to seek any further support upon completion of the study. Consent was taken from individuals based on the information sheet they had been provided, and responses to any questions they had before the study commenced.

Employees may have felt uncomfortable discussing their workplace, or company policies and they were reassured that their data were confidential and that they had the right to withdraw themselves and their data at any time (see Appendix 10 which outlines the precautions taken to avoid discomfort on the information sheet).

Payment was offered to participants in the form of a £10 Love2Shop voucher. This was deemed a reasonable amount to cover individual's time but would not lead individuals to feel they *had* to take part, some participants did not take this payment and that was their right, they were however all offered the same opportunity.

6.3 Results

Results are presented below, under the theme under which they have been categorised. Six themes were identified. Quotations are used to illustrate key points, and these are identifiable by participant number, page number from transcript and the sector in which the participant worked.

6.3.1 Alcohol-related support would be acceptable within the workplace and should provide a more holistic focus

When asked what they felt about broaching the subject of alcohol from an organisational perspective, all participants were reasonably comfortable with discussing alcohol use with their employees and considered it part of their policy and practices within the workplace.

Oh yeah, I mean we do it now, we do it as part of the Better Health at Work [initiative], so we've had numerous campaigns on alcohol consumption and specifically on driving whilst under the influence

Participant 301, p 3, private sector

[P]ersonally I, I'm fine about approaching the subject with people, we have an alcohol policy in place, it's an alcohol and drugs misuse policy so if anything came up, erm with regards to anything at work that was causing concern, that would trigger a conversation anyway.

Participant 305, p.2, private sector

There were some expressions of concern and caution in approaching the subject with individuals in the workplace and feelings that the subject ought to be approached sensitively.

I just think it would have to be approached sensitively, cos you don't want to kind of imply that people are gonna retire then hit the booze cos they've got nothing else to do... It wouldn't be kind of shocking to our staff if we started blogging or introducing that topic, erm so I think we should be fine to approach it from an employer perspective

Participant 306, p.6, private sector

This individual expressed concern that even raising the issue of alcohol within the workplace could lead to an implication, and that this would potentially affect employees negatively. When this particular individual mentioned that it would not be shocking to their staff; there was not a reference to specific age groups.

Most workplaces included in this study almost always offered something in terms of retirement, but often added that this was limited and did not include alcohol consumption as a topic. Focus tended to be on general wellbeing (but did not include alcohol, or alcohol use after work or in retirement), or financial information regarding pensions and other money matters during retirement.

So at the moment we do an exit medical, that's done for all employees who leave the business but also they then get continued health surveillance throughout their employment. The get like an erm exit medical so we know what they're, what they're leaving at [in terms of their physical health], it also covers just some generic advice about retirement; I don't know if it specifically covers alcohol consumption, but just general[ly] how to look after yourself in older age

Participant 301 p. 1, private sector

This specific worker expressed that her company has various suppliers that can offer courses, including retirement courses. She provided limited information on what these courses could include. This was very much seen as something that was up to the individual to ask for and make use of.

We don't do an awful lot in the way of retirement courses, but we can do, we, there's various suppliers who do retirement courses, but we really leave it to the individual. Some of them [workers approaching retirement] are really geared up and know exactly what they want to do, others [are]

not so sure, I mean we had one last year who went on a, I think it was a two-day retirement course

Participant 302 p.1, private sector

Pre-retirement workshops often focussed on pensions. Other workplace or retirement-based initiatives were often generic courses, such as mental health and physical activity. This specific individual described a two-day retirement course which was offered; however, it is not known whether this was deemed to be the right amount of time for a course. Throughout this study there was not a participant who knew whether alcohol consumption in retirement was covered in any of these workshops.

We offer pre-retirement workshops which include information on their pension scheme and information from private sector providers about things that they can do outside of that. But we also, on the end of that, do things around things to do after retirement so...we often have like a mental health stall, we might have a volunteers' stall at that event as well. I must admit alcohol isn't something that we have normally focused on in that. We've usually focused on keeping fit and healthy with exercise in getting out and about, but we do always try to have something at the end of those events around health and well-being"

Participant 304, p.1, public sector

When support was offered to individuals it was often described by the interviewees themselves as minimal. Some companies offered courses for individuals on the basis that they asked for them, others offered courses

focussed heavily on the financial aspects of retirement, describing how their company offered advice on financial matters such as pensions. Participant 305 described that in her large company there was no specific policy in place when individuals retire and that they used a third-party company which individuals are put in contact with if they need support when they were still working in the business.

There's no kind of, exceptional policy that we have in place for people who retire in the business. They're just kind of treated as a resignation

Participant 305, p.1, private sector

Participants discussed offering alcohol-related support to employees, however where this was offered, this was often described as being on a more general health-based level and may look at issues such as general mental health or looking after finances.

Then she'll [the staff nurse] also just talk to them [the employee] in general, but like I say I'm not sure whether that general information covers alcohol consumption or not

Participant 301, p.2, private sector

6.3.2 Alcohol-related support was mainly financial and was only offered under individual, or time specific circumstances

When alcohol-related support was offered, it was always only offered to current employees and usually only if the individual came to them for support or was appearing to be detrimental to the business. Alcohol-based support was offered

in conjunction with other services or at specific times, such as mental health and wellbeing and debt management over Christmas time. This was also offered on a seasonal basis in one workplace, who picked out December as a time that she felt alcohol use needed to be discussed.

But we're currently in the process of designing our blogs and things for December but it'll be like based on Christmas parties, making sure you get home safe, stuff like debt management, but there'll definitely be like knowing your limits of alcohol in there somewhere but not quite sure where yet...we've also just introduced a kind of mental health buddies... that's kind of there for employees to approach not necessarily about alcoholism but about any problems that employees might have

Participant 306, p.3, private sector

Alcohol-related support was also offered in one instance when individuals were a risk to the business, and this participant described employees being hungover at work or drinking at work as a time when the workplace and Human Resources/Occupational Health in particular needed to intervene and that this could sometimes lead to a dismissal, however it was not clear if this was the case for all organisations. There were suggestions from participants that this could potentially lead employees to feel as though they could not speak to Human Resources or Occupational Health as there was a risk that they could lose their job.

[Y]ou want to make sure the people who are at work and they're not hungover or over the limit when they're driving. So, you know if a person

has got a problem with alcohol the employer needs to help that person and signpost them, as you said earlier to maybes some support.

Generally Occupational Health is the first point of call, I've dealt with that quite a few times people sort of hiding bottles of vodka at work and so on and it's been difficult, but they've not sort of lost their jobs they've been given help

Participant 309, p.4, private sector

We have random alcohol and drug tests for people who work here, and we have had problems in the past with alcoholism and we have occupational help and we support the employee through that erm... they can't be on site under the influence of drinking or drugs, it could be a dismissal

Participant 303, p.4, private sector

Most individuals in this study stated that there was either not much, or nothing provided to support those going into retirement with their wellbeing and alcohol use. One employee also stated that even discussing the option of offering something to individuals upon leaving work had raised her awareness of alcohol use in retirement and highlighted that the organisation should offer something for those leaving work and entering retirement.

[S]o there's nothing anything different that they're given, but we do kind of provide them with erm, kind of contact detail information for our counselling companies which we advertise throughout the business ... we've got over 20,000 employees in the business and I think you've

probably highlighted to me especially we should have a bit of a pack for retirement and sort of retired employees who are departing from the business because at the moment we do kind of treat them as a resignation...

Participant 306, p.3 and 6, private sector

6.3.3 Knowledge and awareness of alcohol use in retirement was mixed, however participants felt that current messages are confusing

Throughout the interviews, some participants were surprised that alcohol use in retirement by older people was a problem within society and had not considered it as part of any current, or future health-based interventions.

I don't know if we would actually think about including alcohol in there. I think we'd think more using your, planning your pension and we might do a health thing, but I don't know if we would specifically think to hire that because to be honest I didn't realise there was a specific issue....

Participant 302, p.4, private sector

Some participants had little awareness of the risk of alcohol use in older people, however one interviewee in particular offered some insightful comments on retirement and alcohol use and offered an explanation on why they thought that it was so. They explain that they believe alcohol use stems from social use and that being at work starts the process.

I think that's because of the culture that they've been brought up in where having a social drink on a regular basis was part and parcel of normal work, normal life and for some people they keep it in check, for

others it starts to take over them, plus the fact obviously event that if they keep in reasonable bounds when they're at work, the fact that they could be retiring err may lead them, for various reasons to increase their alcohol consumption...cos as you get older your metabolism changes, you don't, absorb err the alcohol erm and excrete it as quickly as you would do when you're younger.

Participant 308, p.2, public sector

All participants expressed their views on why they thought alcohol use in retirement could become a problem and also offered some solutions. Social interaction was mentioned, describing that individuals may need to find something else to do to give them the social interaction without feeling the need to go for a drink.

[S]haring ideas you know [with other people in the workforce], things that people might be thinking of doing out of retirement to avoid going for a drink every night or something or other things they can do to have that social interaction with people. Suppose going for a drink gives them that social interaction and not seeing anyone during the day, so what can we think about putting in that to stop them doing that? To get that social interaction and contact with other human beings if they lived alone or if they've got a small family unit

Participant 304, p.4, public sector

Within this study an individual felt that the current use of units to measure alcohol is confusing and that there should be a clearer, more simplified tool to measure alcohol use for individuals. This was particularly salient, as the individual worked within public health and they felt that if she did not know, it was unlikely that individuals beyond the sector would be aware. Interviewees themselves did not know the unit level for drinks and felt that a different measure should be used to make it easier for alcohol level in drinks to be assessed.

I think the one thing for me is the units, I mean we've worked with it a long time, I've worked with [a Workplace Public Health Specialist] a long time and we've done all the various messages to staff but when you start saying what is a unit people still don't understand what a pint would be in terms of units and its... about how do you make that simple... like if you look at 1 pint of lager it could be 3-4 units or whatever, but I think people are still confused... And I think that would be better if it was more simplified and easier to think oh well that pint is 4 units and that's my limit for today or whatever

Participant 304, p.7, public sector

Participants expressed that after this discussion surrounding alcohol use in retirement that an intervention and/or education surrounding the subject is something that should be put into organisational policy and practice. Individuals appeared to understand the importance of implementing an intervention and ensuring that this was a topic that they remained aware of within their business.

[T]he only thing that I could think of is whether we would encourage employers to maybe put something into policy and procedures for people thinking and retirement, maybe we put in our alcohol and substance policy, or our early retirement and redundancy policy, so that we've got it on our radar so it doesn't go off our radar as well, so you know if someone is retiring we've got this tool we can offer people...to try and help them not go for a drink on a regular basis

Participant 304, p.7-8, public sector

One interviewee expressed that it is explicitly important for public sector businesses to offer such support to employees to show the public that they are treating their employees well. They also expressed that this may be different in smaller private companies due to the cost of interventions and less responsibility to “prove” themselves to the taxpayer.

And I think it's absolutely right that from a taxpayer viewpoint they're seen to be doing the right thing for people when they retire...in smaller organisations where profit is everything, they struggle to get the balance right

Participant 308, p.3-4, public sector

6.3.4 “Alcohol intervention is our responsibility but not our policy”

In terms of responsibility, some participants thought that while it was not necessarily a responsibility of the employer, it would be good to offer individuals support upon leaving work as this would indicate that they were a caring and

responsible employer. However, the participant explicitly states that it is not a responsibility or policy, rather something that would be good practice.

I don't think specifically it's a responsibility, I think as a good caring employer we could offer it, but I don't see it as a responsibility so long as we provide all the pension and the leaving type of information... I don't see it falling as a responsibility but I think it would be nice to do

Participant 303, p.7, private sector

In this case, the participant felt that the responsibility should come from elsewhere and not the employer. Despite saying this, she does go on to say that as a good employer it would be appropriate to support people wherever possible even when they are leaving.

I would say, the responsibility would come from elsewhere, I don't think that it's an employer's responsibility, I think that it's something that falls more into sort of welfare category, so there isn't any obligation to do it...but I think as a good employer, you're looking to support people as well as you can, even when they're about to leave

Participant 307, p.4, public sector

6.3.5 Acceptability and feasibility will be dependent on specific workplaces

One of the participants described that their workplace interventions and campaigns had a low success rate and low take up. However, they felt that this could be due to having a male workforce. This flags up the issue of potential

gender differences in terms of development of an intervention and shows that there may need to be an element of consideration of such differences and further exploration as to what different genders may require.

We have quite a like, low take-up on any kind of the campaigns that we run... whether that's because we're a predominantly male workforce, I don't, I just don't know, but we do have quite a low take-up, but we keep err hammering at it

Participant 301, p.3, private sector

Some participants described that they felt it was down to each individual and that people could see interventions as interference in the individual's personal life, especially as they may have been planning their retirement for a long time.

[B]ut there's also a lot of people who don't want to know, they can do it themselves or they don't want you involved in their personal life going forward you know they've left the company they don't want you to know what problems they may come across

Participant 303, p.1, private sector

Participant 303 did go on to say that she felt discussing alcohol as part of wellbeing in a retirement workshop would be accepted, however that just because a workshop is made available, it does not mean that all employees would attend.

I think it would be accepted if we have pre-retirement course and then if it's becoming a problem then I would imagine these companies would include that in part of their retirement overview, but they would only get that advice if they're wanting to attend a course, even if we put one on doesn't mean that all staff would attend so

Participant 303, p.4, private sector

Expressions of uncertainty were apparent in the findings surrounding feasibility of an intervention in some participants. Participants felt there would be concerns over who the intervention would be delivered to; specifically, in the context of offering an intervention on retirement. Any intervention offered would only be made available to current employees as opposed to ex staff due to resources available.

I think on the whole once you've left the company, it's sort of your, you're independent you sort of, I think there's a limit to the amount of paternal offerings that a company can make to their retired staff, I think, you speak to any MD the likelihood they're gonna say if there's spare resource it's got to be spent on staff not ex staff

Participant 303, p.2, private sector

In terms of resources, costs were mentioned regarding an intervention within the workplace and when cost was mentioned, this was from participants in the private sector. Feasibility of an intervention being implemented in the workplace was mentioned alongside costs and cost effectiveness in two cases, with

suggestions that where possible it would be better to have in-house training or interventions delivered by Human Resources, to avoid the costs of getting an external speaker.

We have done retirement courses in the past when there's been a few people retiring in the year, to make it cost effective, we have got someone in to give an overview, so we have done that in the past, were pretty open, we take care of training in the Human Resources department and we've got quite a good training budget and there have been people who have asked if there's any help that we can give and we've always pointed them in the right direction or arranged for some help

Participant 303, p.1, private sector

[I]t depends on cost and other different things, if we could run something internally, we would. But if it's kind of, specific and we could get someone in external who was cost effective, then yeah, we would definitely consider an external speaker. We always have to consider cost but what we tend to do when we have our kind of health and wellbeing initiatives we approach like local communities and try to build it into our networks so we regularly attend health and wellbeing seminars with others businesses...but I think if it wasn't deemed as a big issue wed probably try to choose the cost-effective methods

Participant 306, p.4-5, private sector

This was a key finding from the interviews, as when applying a comparative approach between private sector employees and public sector; only private sectors mentioned the cost of an intervention and how this would be considered before implementing an intervention.

6.3.6 An intervention should be accessible to all staff

Participants expressed that one holistic intervention using a mixed format approach would allow some element of face to face delivery, combined with something that could be uploaded perhaps to staff intranet and then used again.

The suggestion of using a smartphone application was offered to participants as something which could be used both pre and post retirement. This would allow individuals to access something across the whole transition. Suggestions came from participants that an intervention needs to be interactive and have mixed approaches so that all employees receive value from it.

Erm I think it's probably two way, it's got to be interactive, if you just get someone coming in and delivering a presentation to a mixed audience then erm, you may, you may people to engage with erm a, part of that audience but if it was just being presented to I don't think they get as much value out of it. It think it's got to be interactive and it's got to have what if scenarios in it so they have to engage with all the individuals concerned and therefore not everybody is going to be 100% interested in something like that, especially if they don't believe they have an issue with it, so I think they first thing is to erm, arrange support activities that

will allow erm, role playing and erm, interaction to get people thinking about well I may not have a problem at the moment but that's something I need to be mindful of in case, or be useful to keep a watch on the amount of alcohol that I drink going forward

Participant 308, p.6, public sector

Individuals had differing views regarding whether an intervention should be carried out on a group basis or delivered one-one. This particular participant also mentions that ideas for potential activities that people in retirement could do with their time to enable social interaction without this involving alcohol.

[D]epending on what it would look like a group setting might be the best way to do it as you might get a more open forum, and open discussion, sharing ideas you know things that people might be thinking of doing out of retirement to avoid going for a drink every night or something or other things they can do to have that social interaction with people suppose going for a drink gives them that social interaction and not seeing anyone during the day so what can we think about putting in that to stop them doing that to get that social interaction and contact with other human beings if they lived alone or if they've got a small family unit

Participant 304, p.4, public sector

There were also suggestions that individuals who work together tend to be comfortable discussing issues with each other and would therefore be

comfortable discussing alcohol in a group, especially discussing the transition to retirement.

I think most people are fairly comfortable, particularly from the same company, happy to chat about most things, whether they'd want to sit and talk about alcohol with their colleagues is a different matter, but certainly sitting down and chatting about the transition to retirement would be good.

Participant 310, p.4, public sector

However, some participants felt that discussing alcohol may not be appropriate in a group setting. Employees may not feel that they have the confidence to speak up as part of a group, and others may feel that having the group support enables them to discuss matters of concern.

Support given may be dependent on the personality of the individual as to whether they would appreciate group or 1-1 support and this would potentially need discussion on a case by case basis.

Both, some people in a group wouldn't erm want to speak up and they might feel a bit intimidated maybe they're overwhelmed if there's other people there and then other people like that support. Within a 1-1 they might feel a bit you know too confrontational, so a bit of both depending on the character, I think it's down to personality"

Participant 309, p.6, private sector

Community networks were something that was important to their employees and their businesses and they felt that this could be an effective way to offer support to their employees.

I remember quite a few years ago we worked with the Albert centre in Middlesbrough about alcohol awareness and that was very good, they used to come in and do two day talks on alcohol awareness and that was excellent

Participant 309, p.6, private sector

When asked what an app would look like or include, individuals felt that it should not be directly aimed at changing alcohol use but should provide a platform to assist with retirement related issues such as loneliness and isolation. Participants believed that isolation was a real risk to individuals leaving work, as they go from working a large number of hours, often in a social environment to being alone and making plans for themselves.

I suppose it's about not having isolation in retirement, cos work is a very big time of your life, if you turn up and you're doing 37.5 hours a week and if you suddenly go from 37 hours to nothing, a lot of your friends and your contacts are through work and they might not have retired so what do you do? And, what's out there to get you back some different interaction and experiences and whether that's through some volunteer's groups or through some you know groups that you can sit on and get involved, community groups and things you can do

Participants reported that an app could provide a way for individuals to find extra clubs and hobbies to attend so that they had activities to participate in even if their friends were still working.

One participant expressed some concerns about just using an online application and suggested that the older generation he was from would rather deal with things face to face as opposed to all just online. Whilst he stressed that this may change, it was believed that at present a face to face element would be required.

Most individuals in this study felt that an application or computer aided intervention would work well with their employees.

I think they would [use an app], I think that 90% of the population must have smartphone or a tablet now. I think it's how you sell that to them and what the benefits of having that app would be...its whether that would be an interactive app, is there anything in there that would be interactive, but certainly that's the way things are going with the technology and as we go further through the retirements, more and more people will become more technology savvy

Individuals also reported that using an application would provide a level of privacy for individuals that talking to a staff member face to face does not provide.

I think people would be interested, especially if it's, privately, it's not anything to do with the company, it's something they could access from their own computer from their own home. As a lot of companies monitor the computer use, we actually shut down a lot of sites, so I think it would need to be they can do it in their own home... they might be a bit embarrassed if they found out their employer knew they were accessing such a site

Participant 303, p.6, private sector

There was some hesitation expressed by some participants about whether their employees, who were over a certain age, would be likely to use an application at the moment. Participants felt that while there would be some people who are used to technology, there would also be some who are not computer literate and would therefore require extra support.

[Y]eah, I think you've got to be a bit careful with platforms because you will get people that in that sort of age group that are absolutely use those and social media on a regular basis but there are especially in 55+ bracket still a number of people who don't use any sort of that technology, so you'd have to fit them across multi-platform.

Participant 308, p.7, public sector

Participants did however, suggest that individuals who were not computer literate and would perhaps struggle with an online application was something that gave them cause for concern, but they were aware that this was a view that would change across the future retirement generations as smartphone and computer use becomes more common in older individuals.

6.4 Discussion

Study 3 found that participants had a mixed amount of knowledge on the subject but could understand how alcohol use in retirement could become a problem. They felt that an intervention would be a responsible thing to offer employees, but it should not be an obligation. Participants were open to the use of interventions in their workplace and felt that the wellbeing of their employees was important because it was part of being a responsible and caring employer. Employers reported that there were limited discussions on alcohol in the workplace and interventions offered covered health in general when retiring and were more focussed on pensions and financial planning.

Participants were relatively open to the idea of using a web based, or smartphone application with their employees. Using computers and web-based interventions for stigmatised behaviours such as alcohol and drug use offers a promising solution to a complex problem (Ames & Bennett, 2011; White et al., 2010) . The use of alcohol both when an individual is at work and when they retire may make individuals feel subject to stigmatisation (Mitchell, Monico, Gryczynski, O'Grady and Schwartz, 2015); by offering a computerised

intervention, as opposed to a face to face intervention; individuals can engage with the intervention to deal with behaviours that they may previously have felt stigmatised for.

Individuals suggested that help with regards to alcohol use in retirement was not something that was offered as standard. This could be a concern, as individuals may not feel confident asking their employer for help with regards to retirement and almost certainly would not feel confident asking for advice on alcohol specifically, if this was going to be met with hesitation or judgement.

In a previous study, concerns were voiced by staff members concerning the appropriateness of a digital intervention with certain categories of users such as older individuals, those with lower levels of literacy or those who are unfamiliar or used to using computers (Mitchell et al., 2015). However, when using a simple computerised brief intervention format, there were no particular difficulties in using the intervention based on the age of the participants or reading ability and Mitchell (2015) found that whilst there were concerns about using a computer-based or smart phone application within this demographic, that providing a face to face element would be an ideal way to work with this population without excluding individuals.

Despite retirement being a significant time in an individual's life that almost everyone in the workplace will go through, there is little advice offered from the workplace on health-related subjects, especially related to alcohol (Kloep & Hendry, 2007). This present study reiterated these findings and when asked what was currently provided in the workplace in the way of an intervention,

Human Resources/Occupational Health staff stated that they provided support with pensions and financial planning when an individual retires but did not offer any interventions related to alcohol use.

Evidence suggests that alcohol use in retirement could be linked to social isolation and loneliness (Kuerbis & Sacco, 2012). Individuals in Study 2 (Chapter 4) highlighted that the main pitfalls of retirement could be social isolation and loneliness and that these could then lead to an increase in alcohol use. Some of the participants in this study suggested that an application or intervention could involve a group aspect, which if continued beyond retirement could provide a social element that retirement takes away.

Individuals who took part in this study often felt that there was some confusion in public health messages and that older people may not know the limits of alcohol consumption appropriate. This has been echoed in other studies (Holley-Moore et al., 2016; Ling et al., 2012), that have shown that individuals feel that public health messages are aimed more at younger people and that there is confusion over things such as what constitutes a unit and the effect of alcohol on the body as a person ages. This suggests that more research is needed to understand how to make messages resonate with this audience who are currently being neglected (Office for National Statistics, 2010).

6.4.1 Strengths

This study was the first to interview individuals who worked in Human Resources or Occupational Health to understand their opinions on the feasibility and acceptability of implementing an alcohol intervention in their workplace. Individuals were chosen from Human Resources and Occupational health for

their ability to not only understand workplace health, but to contribute knowledge on the feasibility of implementing new policies and interventions within the workplace. Individuals provided rich data that contributes to the knowledge base surrounding alcohol use in retirement and help to provide recommendations for an intervention that could potentially be delivered across the transition to retirement.

The sample within this study was made up of an equal number of individuals working in public sectors and private sectors. This allowed comparisons across groups. Individuals who worked in the private sector provided concerns and reflection on costs linked to an intervention that was not prevalent in individuals in the public sector. Despite these concerns, the findings from this study were positive in showing individuals would be open to some sort of intervention, however the costs would need to be recuperated externally. Future research could investigate costs to explore whether they may also act as a barrier to implementation of an intervention.

This study adds to the knowledge base and contributes to our understanding of how individuals are currently supported in the period of time before retirement. The findings from the current study reiterate suggestions that companies often provide minimal support to their staff when they retire and consider financial support and pension planning to be acceptable (Holley-Moore & Beach, 2016; Kloep & Hendry, 2007; Richman et al., 2006). This is a strength of the current study, as it shows what is missing for individuals currently making the transition to retirement and what could be implemented in terms of health-related

interventions and retirement related support to improve the wellbeing of individuals in later life.

6.4.2 Limitations and Further Study

This study has some limitations, for example, participants were required to reply to an email to take part and were therefore self-selecting. This may indicate that the individuals who took part were already interested in making some changes to workplace practices or were open to improvements to their current practice compared to those who did not choose to take part.

A further consideration is asking individuals to consider a workplace intervention/initiative for individuals when they were retiring and about to leave work. It is potentially unrealistic to believe that places of work would feel that they hold responsibility for employees after they leave the workplace, but the exploration of this showed that there was some scope and that participants did feel that it was in some cases their moral obligation, albeit not their responsibility. Further study should investigate where the most feasible outlet for an intervention should be, if not upon leaving work and which factors may influence this including cost, resources, feasibility of implementing an intervention with staff after they have left the workplace.

Another limitation is that all interviews were conducted in a work-related context, which is unavoidable due to the sample required, but individuals may have felt that the opinions they offered were those that would be deemed acceptable by their superiors. All interviews were carried out in private areas, but the Human Resources professionals and Occupational Health advisors may still have felt they needed to be cautious about information given about their

workplace policies and may have felt an element of maintaining the reputation of their workplace during the interview.

6.5 Conclusion

In conclusion, individuals who work in Human Resources or Occupational Health thought that offering further resources or intervention in retirement would be useful in reducing frequency of alcohol consumption and is something that several had not considered prior to our discussions. There was a consensus that a smartphone application or web-based intervention would be useful, however this would be ideally be delivered in combination with a face to face element for the current generation of older people, who may include individuals who are less computer literate.

CHAPTER 7 - GENERAL DISCUSSION

7.1 Research Aims

The literature on alcohol use in retirement is scarce and there is presently no known intervention in development, nor have recommendations been made to aid the development of an intervention that could be implemented to assist individuals in reducing their alcohol consumption within the retirement transition. An intervention offered to individuals upon retirement that is linked to alcohol could therefore reduce likelihood of increased frequency of alcohol consumption in retirement.

The aims of this research were to systematically review current evidence and extrapolate findings from individual interviews to form an evidence base as part of a “needs assessment” in order to provide initial recommendations for an intervention that would be useful in for individuals who were retiring in the next five years or had retired in the last five years. Within this, I aimed to ascertain views from individuals who worked in Human Resources or Occupational Health regarding what was currently offered in their workplace in terms of alcohol use and retirement and the acceptability and feasibility of an intervention in their workplace.

7.2 Summary of Findings

Study 1 consisted of a systematic review that critically evaluated 7 papers including the existing interventions for older adults and alcohol use. The findings suggested that individuals in this age range were responsive to such interventions and that they often showed improvements after taking part in an

intervention. Improvements were more regularly noticed when individuals took part in an intervention that provided insight to their own personalised risks of alcohol harm. Interventions did however lack detail and would be easier to replicate and evaluate if described using an existing protocol, such as Intervention Mapping.

In Study 2 individuals were interviewed who were retiring in the next five years or had retired in the last five years to find out their views on retirement and factors that they felt should be considered in the development of an intervention to reduce alcohol consumption. Individuals in this sample reported that there was little advice offered by their workplaces, and where it was offered, it mainly focussed on financial aspects. Participants reported that an intervention should be holistic - addressing general health and social concerns - and should not focus solely on alcohol. Participants also felt that delivering an intervention via a smartphone application or computer would be acceptable, however there was an emphasis placed on value and that a purely online intervention would potentially denote lack of value to them as an individual.

Study 3 involved interviewing members of staff in Human Resources or Occupational Health to understand their views regarding an intervention that could be implemented upon leaving work. Study 3 aimed to investigate the views of individuals and offer recommendations for a feasible, workplace-oriented intervention to aid retiring individuals with the process of retirement and therefore reduce their likelihood of increasing their alcohol consumption. Participants in Study 3 reported that offering resources for those who were retiring and leaving work in the near future would be a good idea and was not

something that was currently offered. There was consensus that a smartphone application or web-based intervention would be acceptable and feasible, however Study 3 participants felt this should ideally be delivered in combination with a face to face element as they felt that the current generation may not yet be entirely computer literate.

7.3 Evaluation of findings from Study 2 in the context of prior work

Participants in Study 2 expressed that upon retirement it was still important for them to maintain a routine and to experience a sense of purpose throughout their retirement. Individuals expressed that they had retained important factors to their day, such as waking up at the same time. This was consistent with findings from Holley-Moore, Beach and Brancati (2016) who suggested that discussions that take place pre-retirement should consider these individual routines and how those retiring can continue to have a sense of purpose, as these are key factors in the increase of alcohol consumption in retirement.

Individuals within retirement require structure and meaning in life, whilst managing the benefits and harms associated with drinking (Nicholson et al., 2017). The findings from this work have the potential to contribute towards the development of an intervention that can be put in place with individuals leaving work and could provide them access to an application that could aid the provision of structure and meaning in their new daily life, the potential underlying components of an intervention are discussed throughout this chapter.

7.3.1 Lifestyles will change after retirement; however routine and socialisation remain important

Drinking to relax was cited as a reason for alcohol use by some individuals in Study 2, specifically when they were still working and had not entered retirement. Individuals commented that working life was stressful and this would lead to using alcohol as a relaxant. However, individuals still used alcohol in retirement to relax and to demarcate leisure time, such as the weekend. Edgar, Nicholson, Duffy and Seaman (2016) also found this, with individuals in retirement using alcohol in association with relaxation and leisure time.

As well as relaxation, alcohol was also used as an aid to socialisation when individuals were working, and interviewees suggested this had decreased in retirement. Despite these findings, there is still the possibility that individuals may use alcohol in social situations in retirement as a form of “social glue” (Wybron, 2016), with literature showing that nurses in primary care express reluctance to offer alcohol-related treatment so as not to deprive older individuals of the social outcomes that may be linked to alcohol (Lock, Kaner, Lamont, & Bond, 2002; Lock & Kaner, 2004). This should be considered when developing an intervention, especially as individuals in retirement are subject to loneliness and isolation (Kuerbis & Sacco, 2012).

One reason for an increase in alcohol use that was found in Study 2 was individuals having more opportunities to drink alcohol in retirement and that they would have to adopt their own sense of discipline to avoid this happening. A sense of discipline could be sourced from taking part in voluntary work.

Voluntary work in retirement can replicate some of the aspects found with paid work, such as organising time and structure (Davis Smith & Gray, 2005) and an intervention could incorporate this, offering suggestions and signposting for volunteering opportunities in the local area.

7.3.2 Self-awareness can be a protective factor against increased levels of alcohol consumption in retirement

Findings in Study 2 suggested that there may be some reasons for reducing consumption of alcohol and these could be due to lower stress, less money, awareness of health being affected and the potential of hangovers which would intervene in daily life. Kuerbis and Sacco (2012) offer similar findings in a review of the literature; however, there is currently a lack of qualitative data to back up the exact reasons for potential decreases in alcohol consumption. These factors are important to consider and could be used as part of an intervention in offering stress reduction techniques and education on health.

As well as providing reasons why less alcohol could be consumed in retirement, some individuals reported also making a conscious effort to reduce their alcohol consumption. They attributed this to their own self-awareness and discipline, which may not be prevalent in all individuals as many people are unaware of the risks involved in excessive alcohol use (World Health Organization, 2014). Raising awareness of risks and making this information accessible to the older generation would be a key recommendation in reducing alcohol consumption.

7.3.3 Public health messages can be confusing, and individuals were not aware (or not receptive) of their own personal levels of risk

Individuals are less likely to engage with messages and guidelines when they do not feel that they are being understood. Current evidence would suggest that through the lack of understanding of epidemiological reasons for individuals drinking when trying to create guidelines and interventions would enhance their value and credibility (Lovatt et al., 2015). Individuals would rather messages were catered for them, as a specific subset of the population to not only adhering to a programme, but reducing alcohol consumption (Slaymaker & Owen, 2008; Wadd et al., 2011). This study began to understand the nuances that exist within older people across retirement and how they may receive interventions differently and such considerations were made when offering recommendations for an intervention in line with the Intervention Mapping approach taken throughout this thesis.

Providing an intervention for those in the retirement transition would require guidelines to be presented in a way that was accessible and relatable to individuals, allowing them to make better informed choices. Providing information through an educational tool, easily accessible through smartphones or computers would enable an individual to be better informed of these drinking guidelines. Previous findings on alcohol use in older people suggest that health messages and brief advice should focus on alcohol-related harm experienced at different life stages (Khadjesari et al., 2018). This thesis provided insight into the stage of retirement and is only through offering catered interventions that we can better support individuals and their lifestyles. This strengthens the rationale behind the recommendations offered for an intervention within this

thesis that individuals should be offered a 55+ intervention, specifically for the different lifestyle stressors they may face.

Individuals throughout this study did not seem to recognise their own levels of risk, displaying a tendency to refer to those other than themselves when exploring what it means to be a problem drinker; this is consistent with previous findings (Bareham, Kaner, Spencer, & Hanratty, 2019; Coulton, 2009; Khadjesari et al., 2018), and are key to attempting to develop an intervention that aims to reduce risk and resonate with a specific subset of the population. This is an important aspect to consider when designing an intervention, as any tools provided must resonate with the individuals and assist them with identifying with such risks before they can make progress in modifying their behaviours.

7.3.4 Retirement support offered by the workplace is minimal and often finance-based or inappropriate

Individuals who were retired or were retiring felt that the pre-retirement workshops that did exist often focussed solely on finances, with little information on health and wellbeing and were often described as being inappropriate; discussing death or dying. This is consistent with previous findings that show that currently there is little offered to individuals by workplaces to help plan their retirement (Holley-Moore & Beach, 2016). In addition what is offered often focusses on financial wellbeing as opposed to health (Kloep & Hendry, 2007). Individuals in the current study felt that there was currently too much emphasis on the financial side of retirement, but that it should not be removed altogether from a pre-retirement programme.

Whilst some of the given information was described by individuals as important and necessary to some degree, retiring from the workplace may not be the best time for this to be delivered. However, I interpreted from my results that individuals realised that practical information regarding issues such as funerals was necessary and important, but that perhaps the delivery of this within the workplace was not appropriate for them. Design of an intervention that helps individuals across the retirement transition would therefore need to adopt a holistic view that encompasses both practical elements such as finances, but also offers information on health and wellbeing to better inform individuals on the risk of increased alcohol use in later life.

7.3.5 Responsibility and Nanny Stateism

The state has a duty to look after the health of the public (Calman, 2009) and workplaces could play a crucial role in this. However one individual in this study was against any kind of intervention being implemented for individuals entering retirement and likened it to “nanny stateism” whereby individuals are not given autonomy to make their own decisions regarding health. Ling et al. (2012) encountered similar findings, with individuals comparing guidelines regarding alcohol use a form of nanny stateism. This suggests that an intervention will be subject to individual needs and should be assessed on an individual basis. This is a viewpoint that ought to be taken into consideration, however the findings regarding the health implications of over consuming alcohol in retirement would strengthen the argument that all individuals should be required to take part in some sort of programme when making the transition into retirement, just as they are often expected to adhere to other workplace policies.

Any support offered regarding alcohol in the workplace should be offered sensitively. Confidentiality was an important factor for some interviewees, who said that they may be reluctant to discuss alcohol with their Human Resources/Occupational Health teams due to a fear of losing their job. Although there was no evidence that suggested this would happen, participants felt the risk was too high for them to disclose such information. The stigma surrounding alcohol use, particularly in this age group (Wilson et al., 2013) should be considered when developing an intervention, alongside an assurance that confidentiality agreements would be adhered to and that individuals would not be at risk of job loss.

Individuals who took part in this study felt that an intervention should include more than someone coming in and doing a talk and then offering leaflets. The participants had experienced workshops like this before and they did not feel that they were helpful to them. A systematic review (Study 1, Chapter 4) conducted by Armstrong-Moore, Haighton, Davinson and Ling (2018) found that interventions tailored for this age group often lacked information about what works and for whom; interventions often lack specific detail and therefore it is hard to identify which elements of an intervention are responsible for reduction in alcohol consumption with older adults. By using a framework for reporting interventions such as the TIDieR (Template for Intervention Description and Replication) checklist (Craig et al., 2006) in the development of an intervention, reporting standards should be considered with the aim of providing a more holistic intervention that is clearly documented to provide adequate opportunity for evaluation.

7.3.6 An intervention should be holistic and should include practical information

Findings from Study 2 suggest that an intervention to assist with retirement and alcohol consumption should be multi-faceted, perhaps with signposting to hobbies and clubs in their area. Retired/retiring individuals felt that there was nothing they were aware of currently available that would be useful to them in finding such activities. Previous interventions working with older adults to reduce their alcohol consumption have focussed more on educational tools and counselling (Armstrong-Moore et al., 2018), and although they have showed effectiveness in some areas, this holistic approach was preferred by participants.

Explaining the risks of alcohol in a more relevant way to older individuals could lead to more careful alcohol usage and interviewees suggested that risks should be framed in terms of how they may affect an individual's appearance as this would resonate with them. Interviewees also suggested that tolerance and how this can decrease with age should be explained better to older people. An interviewee in Study 2 suggested that in general, older people do not understand the dangers of alcohol, and that the current advertised risks do not resonate with them. This is concurrent with findings from Edgar, Nicholson, Duffy and Seaman (2016) who found that whilst risks of alcohol use were generally understood by older individuals, they had little understanding regarding the protective factors towards alcohol use in retirement.

7.3.6.1 Delivering an intervention online

In terms of how an intervention could be delivered, an online or smart-phone app was welcomed in this study. Interviewees felt that an app would be an effective way to encompass all of the expressed useful factors (signposting to hobbies and volunteering opportunities, risks of alcohol) and could be utilised continually across the retirement transition – which is defined as five years before and after retirement. Apps have been successful in healthcare and diabetes management (Hanauer, Wentzell, Laffel, & Laffel, 2009), promotion of physical activity (Foster et al., 2013), improving depression through remote cognitive behavioural therapy (Kaltenthaler et al., 2008) and also in reducing alcohol use (Khadjesari et al., 2011). With the evidence rising for the effectiveness of smart-phone and web-based apps, it would be appropriate to consider that an intervention for individuals making the transition to retirement could be delivered in this way.

An online application may be more suited to older individual's needs, based on their attitudes toward discussing alcohol consumption with healthcare professionals. Individuals who were over the age of 65 have been shown to be more likely to possess a "pro-personal" attitude regarding discussing alcohol when compared to younger people (O'Donnell et al., 2018), with pro-personal attitudes suggesting that alcohol is a personal issue and should be dealt with by the individual as opposed to being asked about it by healthcare professionals. Individuals within this age bracket may feel an external application allows for this autonomy and personal responsibility and such findings offer strength for offering an online application, with the option remaining for face to face support if required.

Despite there being positive views expressed towards an online intervention, participants felt that there needed to be some element of face to face support, both to help them use the intervention and so as not to feel “fobbed off” by only offering something online only, individuals framed an intervention in terms of value and without this face to face support, they judged it to be testament to their value as an individual. Individuals in previous studies have stated that they would not like to feel that their usual health care is being entirely replaced by online support (Currie et al., 2015) and that there must be a balance between face to face and online care (Mort & Philip, 2014). Recommendations are therefore, that when devising and offering an intervention specifically with this age group; that there be at least one initial session which shows users how to install, set up and navigate such an application, to avoid non-engagement and dissatisfaction.

7.4 Evaluation of findings from Study 3

Individuals from Human Resources and Occupational Health were comfortable discussing alcohol with their workforce and felt that this was part of their workplace health and wellbeing policy. This was a promising sign and showed that alcohol use and discussions of it were not seen as unacceptable in any of the workplaces within this study.

7.4.1 Alcohol-related support would be acceptable within the workplace and should provide a more holistic focus

There were some expressions of concern from participants from Human Resources and Occupational Health staff in regard to approaching alcohol, with

the feeling that this subject should be approached sensitively. Individuals may feel less comfortable talking to individuals they do not know about their alcohol use (Moore, Blow, Hoffing, Welgreen, Davis, Lin, Ramirez, Liao, Tang, Gould, Gill, Chen, Barry, et al., 2011), therefore asking individuals they *do* know from their Human Resources/Occupational Health team to have this discussion could be useful. Alternatively, individuals may feel uncomfortable talking to staff members in their workplace due to a risk of being judged, as alcohol use can be a stigmatised behaviour (Mitchell, Monico, Gryczynski, O'Grady, & Schwartz, 2015). This could be a concern, as individuals may not feel confident asking their employer for help with regards to retirement and almost certainly would not feel confident asking for advice on alcohol specifically, if this was going to be met with hesitation or judgement. These findings therefore suggest that any potential discussions or intervention within the workplace should be both choice based (anonymously via an online platform, or with some face to face contact with Human Resources/Occupational Health staff), discreet and indirect and must also avoid implying that all individuals leaving work would be inclined to drink more.

Within the interviews from Human Resources/Occupational Health, there was no reference to applying workplace education or advice to specific age groups. This is important and potentially detrimental because existing findings suggest that older people are more likely to respond to alcohol-related interventions in terms of acceptability and related outcome measures, when it is delivered to individuals of the same age as them (Slaymaker & Owen, 2008; Wadd et al., 2011).

7.4.2 Alcohol-related support was mainly financial and was only offered under individual, or time specific circumstances

Whilst most workplaces within this study offered something in terms of support for individuals who are retiring (such as workshops, events or seminars) this was often limited to general wellbeing, legalities such as will-writing or financial matters and did not include alcohol as a topic. This is consistent with findings from Holley-Moore, Beach and Brancati (2016) who found that advice given to individuals who were soon to retire was limited and suggested that workplaces should be more supportive in helping those entering retirement to have a healthier relationship with alcohol. Holley-Moore et al. suggest that using the workplace would provide an opportunistic platform to engage individuals in discussions about their drinking habits and raise awareness of their alcohol use before entering retirement. Engagement and discussion could then lead to positive outcomes on an individual level and in public health in general.

Retirement can be voluntary or involuntary and individuals may feel that they have had no choice in their retirement. This element of choice can lead to different approaches to and experiences of retirement and drinking behaviours (Bacharach et al., 2008a; Emiliussen et al., 2017). By treating retiring individuals as the same as those who have resigned, retiring individuals may not be getting the specific retirement-related support that they need to face this transition.

If alcohol support was offered to individuals in the workplace, it was almost always offered only to individuals who were still working within the business. Leaving work resulted in support being no longer offered to employees, with

individuals who were retiring being treated more like a resignation (See Chapter 6 - Study 3), and retirement is described as “abrupt” and akin to a “cliff edge” (Banks & Smith, 2006). Employers may not offer retirement support this at the moment as they lack awareness of the problems that can occur, and as suggested by the interviewees in Study 3, individuals who work in Human Resources or Occupational Health may not be aware that alcohol use in retirement is a problem. A suggestion would be to offer education to all individuals in the workplace (including those in Human Resources/Occupational Health) and how they could offer support to those in retirement, alongside possible incentives for retirement programmes such as funding to support implementation (subject to further investigation) or award-based programmes to recognise their efforts as a responsible employer. By offering such systems to employers, there may be higher likelihood of adoption and implementation of interventions and utilising tools such as phasing out working or signposting to voluntary work where necessary.

7.4.3 Knowledge and awareness of alcohol use in retirement was mixed, however participants felt that current messages are confusing

There was differing awareness surrounding the problem of increased frequency of alcohol consumption in retirement both when interviewing older individuals and staff members. Some participants within the interviews were often surprised that alcohol use in older aged individuals was prevalent. This highlights the need for further information within the workplace, to educate Human Resources and Occupational Health employees on the dangers and prevalence of alcohol use in this age group. This could be provided in conjunction with an intervention, offering an opportunity for workplace employees to understand the

risks and harms of alcohol use in older age, before offering the intervention to retiring individuals.

Other individuals in this study offered their thoughts that alcohol use may stem from social use; which begins when individuals start their working life and use alcohol as a tool to socialise with work colleagues. This showed that there was some awareness of the subject and the dangers and risks that it can pose to older individuals. This links to previous literature (Wybron, 2016) and leads to recommendations in the current thesis that an intervention should not stop individuals from enjoying their social life, even with the use of alcohol, however they should be more aware of the risks and the importance of moderation.

7.4.4 “Alcohol intervention is our responsibility but not our policy”

Human Resources/Occupational Health staff in this study felt that while it was not necessarily their responsibility to offer an intervention to retiring individuals, it was certainly a moral obligation for workplaces. Being seen as a responsible employer alone could be a good incentive for workplaces to offer an intervention, however Holley-Moore et al. (2016) suggest offering some sort of accreditation scheme for employers who promote responsible drinking in the workplace which would provide further incentives to the workplace.

7.4.5 Acceptability and feasibility will be dependent on specific workplaces

A participant in this study suggested that their current workplace offered interventions and campaigns which had a low success rate and low take up and they felt that this could be due to having a predominantly male workforce. This suggests that an intervention needs to be tailored to appeal to both genders

and may require different elements based on who is using the intervention. Holley-Moore et al. (2016) also make this suggestion, that particularly male-dominated sectors need to work on offering and expanding opportunities for ex-employees. The recommendation therefore is that further research should be conducted focussing on potential gender differences in retirement and what each gender may require from an intervention (see further information within the Strengths and Limitations section of this Discussion chapter).

Participants also suggested that individuals could be reluctant to seek help with the retirement transition as there may be a consensus that individuals entering retirement should be happy that they have finished work and should not complain. Individuals entering retirement should therefore be reassured by the workplace that their feelings about retirement, whether negative or positive are acceptable and that an intervention is there to support them with the transition should they feel they need it. Reassuring individuals that their feelings surrounding retirement were understandable could potentially lead to better acceptance from employees to seek help and support. This was a novel finding within the current thesis and previous research was limited regarding investigation on how these specific feelings could affect an individual's likelihood to seek support in retirement.

Private sector employees may be more inclined to consider cost effectiveness as their goal is to make a profit. One of the findings in the current study was that none of the participants from public sector organisations mentioned costs as a barrier to introducing an intervention within their workplace. This is something that would need to be considered when aiming to implement an intervention,

specifically so that employees did not miss out on an intervention if funding was required. Future research could investigate costs to explore whether they may also act as a barrier to implementation of an intervention.

Participants mentioned the importance of speaking to employees before they leave work so that they have control over their health-related behaviours before retirement, but also so that they do not become part of a population that leaves work and gets left behind. This links to the WHO World Report on Ageing and Health which states:

“If we are to build societies that are cohesive, peaceful, equitable and secure, development will need to take account of this demographic transition and actions will need to both harness the contributions that older people make to development and ensure that they are not left behind”

(World Health Organization., 2015, p.15)

The above quote from the World Health Organisation is a critical point, arguing that the transition to retirement should be considered by practitioners in the development and subsequent implementation of an intervention within the workplace.

7.4.6 An intervention should be accessible to all staff

Individuals from Human Resources/Occupational health were concerned over the use of an online application for delivering an intervention. This is understandable, as individuals may feel that the older generation are not used to using computer-based interventions. Findings from individuals in Study 2

refute this claim; however, they maintain their focus on value in terms of an intervention and would potentially require some face to face element of an intervention.

As discussed previously, an online application can be used in circumstances where the behaviour that is to be modified is a stigmatised behaviour – such as alcohol use (Garnett et al., 2017; Mitchell et al., 2015). Following on from findings in this study that an application would be feasible and acceptable, recommendations would be that this is the platform of choice. An application would potentially reduce the likelihood of individuals feeling judged or stigmatised compared to having such conversations or interventions delivered purely face to face in the workplace.

7.5 Summary and Links to Intervention Mapping

Studies 1, 2 and 3 informed part of a need's assessment, to help understand what currently works in interventions with older people through the completion of a systematic review (Study 1). These findings led to two studies incorporating semi-structured interviews to ascertain the views of individuals who were retiring/retired (Study 2) and of individuals who work in Human Resources/Occupational Health (Study 3). Both studies gave a valuable insight into what an intervention could look like and how such an intervention could be implemented.

The findings from Studies 1,2 and 3 provide novel and comprehensive insights into how an intervention could reasonably be designed, with the foundations for

a successful approach to reduce alcohol use in retirement. The next part of this thesis uses an Intervention Mapping approach to systematically map the findings to an intervention development protocol, and therefore illustrates how the findings from this thesis could be used to inform an implementable intervention.

7.6 A Protocol for a Deliverable Intervention Created Using Intervention Mapping

Intervention mapping (IM) was the predominant tool adopted in this research to determine how best to provide an intervention that can be used in retirement to decrease the frequency of alcohol consumption. Intervention mapping ensures that the content of strategies is theoretically sound, links to goals and in turn fits with practice (van Empelen, Kok, Schaalma, & Bartholomew, 2003). I felt that using this specific approach allowed me to explore my findings and apply them to an intervention, in the alignment of a realist approach by identifying what works and for whom and how best to address any prevalent risk factors.

Findings are described below using the steps outlined in the intervention mapping protocol (Bartholomew Eldredge, Markham, Ruiters, Fernández, Kok & Parcel, 2016), this allows ease of interpretation of results and a clear way to demonstrate how findings could be implemented and mapped to an intervention.

7.6.1 Step 1 – Needs assessment

I used a combination of methods to fully conduct a needs assessment and complete the first step of Intervention Mapping. I began by conducting a systematic review of literature that currently exists in the field of interventions to

reduce the negative effects of alcohol use with older people and identifying the prospective effective components of such interventions. Following this, I conducted interviews with individuals who were retiring in the next five years, or who had retired in the last five years and additionally conducted interviews with individuals who worked in Human Resources or Occupational Health. Carrying out interviews with both the target group and the employees from workplaces who could potentially implement the intervention allowed for acceptability and feasibility to be assessed from both perspectives, it also aligned with my realist approach of determining what worked and for whom.

I conducted a systematic review on the current literature regarding effective interventions in older people (see Chapter 3– Study 1) and how elements of current interventions could be used to inform a prospective tool for retiring individuals. Upon conducting this systematic review, the conclusions were that there may be contributing factors to increased alcohol use in older age and one of these may include retirement. I also determined that interventions lacked specific detail, so full assessment and replication was often not possible.

I reviewed the literature in the field of alcohol use in retirement and found that there are numerous factors that can lead to increased frequency of alcohol use in retirement. Factors that may contribute to an increase in frequency are loneliness, boredom and social isolation (Kuerbis & Sacco, 2012) and findings also suggest that older individuals may find current public health messages confusing and feel that they do not personally resonate with government messages regarding alcohol (Ling et al., 2012). The workplace may be a good place to implement an intervention for those who are retiring, but at present

when anything is offered it is mainly focussed on financial matters (Holley-Moore et al., 2016).

Alcohol use in older people can have many negative outcomes and these were also highlighted in both the literature review and systematic review.

Consideration of the above findings (literature review and systematic review) informed the logic model presented in Figure 3.2 (Chapter 3).

Following this, I conducted 17 semi-structured interviews with retiring/retired individuals and 10 individuals who worked in Human Resources or Occupational Health. This allowed me to investigate the reasons that older people could be drinking more frequently in retirement, and the needs of individuals in the study. The themes that were identified from retiring/retired individuals were as follows:

1. Lifestyles will change after retirement however; routine and socialisation remain important
2. Self-awareness can be a protective factor against increased levels of alcohol consumption in retirement
3. Public health messages can be confusing, and individuals were not aware (or not receptive) of their own personal levels of risk
4. Retirement support offered by the workplace is minimal and often finance-based or inappropriate
5. Responsibility and Nanny Stateism
6. An intervention should be holistic and should include practical information

I also decided to interview individuals who worked in Human Resources or Occupational Health as it would be these individuals who would assess the feasibility of such an intervention being delivered upon leaving work and who would assist in the implementation process. The themes from these interviews were similar to those above where they were aligned with the topic guide (see Appendix 4), however, there were more organisational perspectives offered on the implementation of an intervention. The themes found are listed below:

1. Alcohol-related support would be acceptable within the workplace and should provide a more holistic focus
2. Alcohol-related support was mainly financial and was only offered under individual, or time specific circumstances
3. Knowledge and awareness of alcohol use in retirement was mixed, however participants felt that current messages are confusing
4. "Alcohol intervention is our responsibility but not our policy"
5. Acceptability and feasibility will be dependent on specific workplaces
6. An intervention should be accessible to all staff

From the needs assessment, numerous potential programme goals emerged. These goals were devised based on the literature review, systematic review and interviews.

- Individuals need to be more aware of their own risk to alcohol, avoiding normalisation of alcohol use. Individuals need to receive more education

on how much they are drinking, how much they should be drinking and the risks of over-drinking.

- Individuals have more free time in retirement, and they may require education on how to use this effectively. A programme goal would therefore be to offer hobbies that are taken up that do not involve alcohol use.
- Workplaces do not currently offer appropriate support for individuals leaving work and mainly offer financial advice – this is currently inadequate and in need of revision. A framework could be introduced to workplaces to allow them to assist employees more appropriately, a programme goal would be to implement this across workplaces.

7.6.2 Step 2 – Methods and strategies for behavioural change

In the second step of intervention mapping, I specify performance objectives, behavioural outcomes and determinants. I also investigate the most appropriate ways to alleviate environmental barriers to drinking less frequently in retirement.

The first behavioural outcome was outlined that individuals need to be more aware of their alcohol-related risk and then in turn avoiding the normalisation of alcohol use. Individuals need to receive more education on how much they are drinking, how much they should be drinking and the risks of over-drinking.

Information should be provided to individuals on these factors. Individuals have more free time in retirement, and they may require education on how to use this

effectively. This can be altered into a health promotion behaviour by suggesting hobbies that are taken up that do not involve alcohol use.

Lack of support that currently exists in the workplace and most information offered to individuals focusses on the financial aspects of retirement (Holley-Moore et al., 2016; Kloep & Hendry, 2007) alongside confusing public health messages that do not resonate with older individuals can be classed as environmental barriers to healthy behaviours which in the case of this thesis would be for older people to drink less frequently. Workplaces could offer more support, in a structured manner that fits with a standardised framework to ensure that the retirement transition is a healthy experience.

Below, I specify seven performance objectives for each behavioural outcome. And Table 7.1 shows the performance objectives for the first program outcome.

Table 7.1. Performance objectives for alcohol education, improving knowledge of alcohol-free activities and introducing workplace strategies

Alcohol Education

P.O.1. Older adults monitor their alcohol levels

P.O.2. Individuals become aware of their own risk

P.O.3. Older adults to reduce alcohol levels if they are at a pre-discussed risky level (this would be tailored to each individual)

Strategies to be used in retirement

P.O.4. Individuals to be made aware of hobbies in the area that do not rely on alcohol use

P.O.5. Individuals be provided with tools and strategies to cope with

negative aspects of retirement (such as tools to alleviate boredom, social isolation and lack of purpose). Examples of these are new hobbies, clubs in the area, things to do etc.

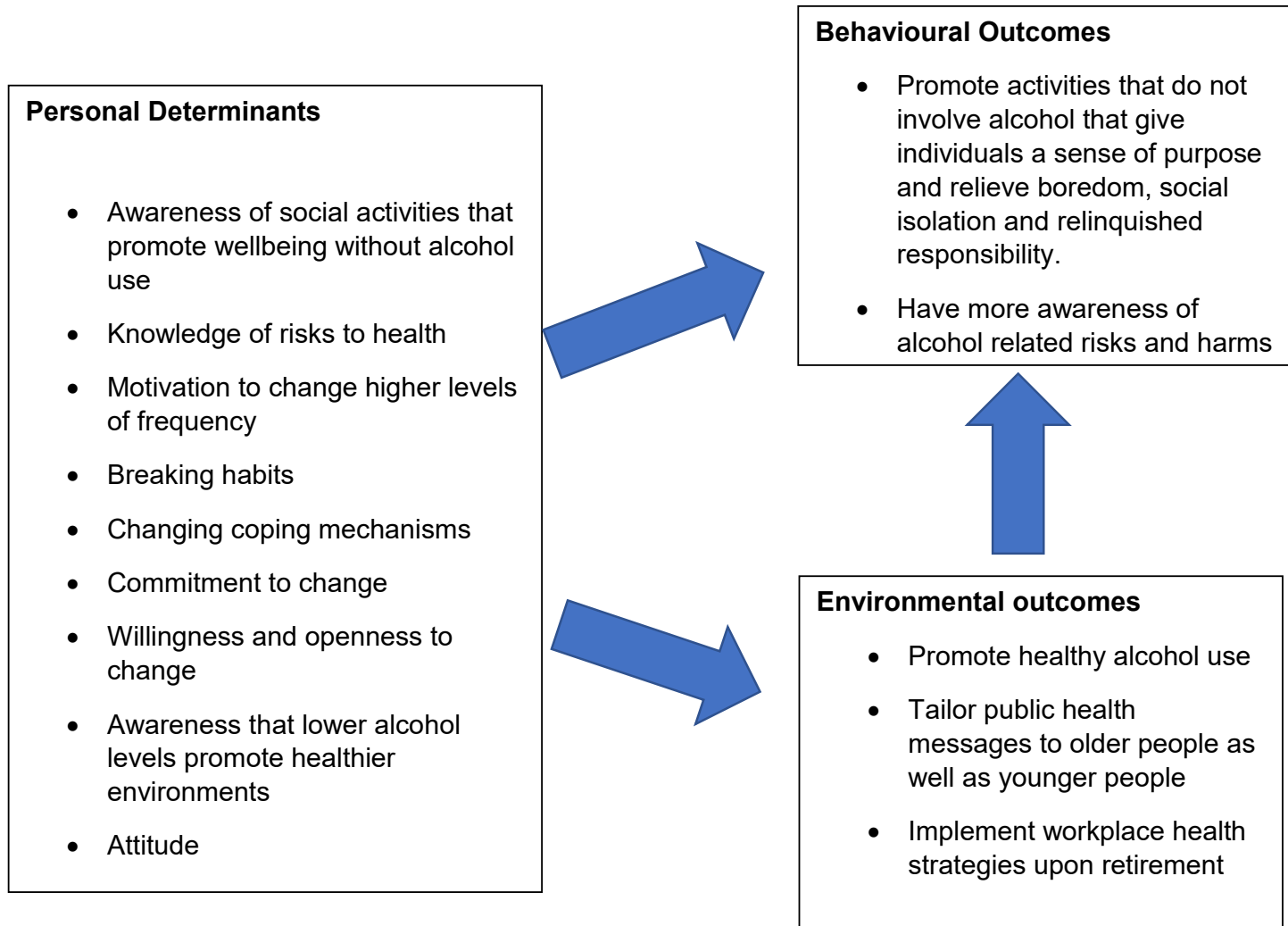
Workplaces to introduce strategies to help individuals adopt and maintain behaviours

P.O.6. Workplaces to work with professionals in the creation and implementation of an intervention

P.O.7. Workplaces to treat retiring individuals differently to a resignation, offering tools to help them with the transition

Figure 7.1, below, illustrates the Logic Model of Change showing the personal determinants and recommended programme objectives.

Figure 7.1. Logic Model of Change showing the personal determinants and recommended programme objectives

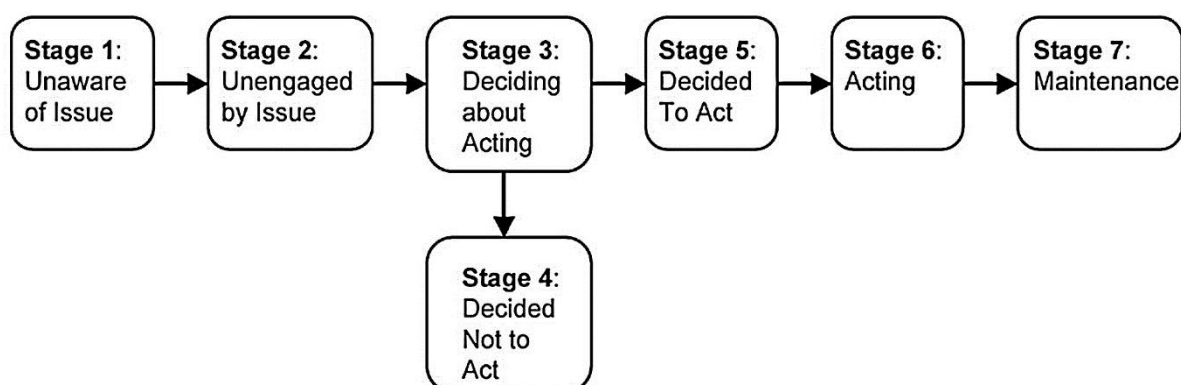


7.6.3 Step 3 – Practical application

In the third step of Intervention Mapping; I consider how these findings can be applied practically and introduce relevant theory that could be used. Individuals within this study were often not aware of the risks of alcohol use and did not resonate with risks and apply them to themselves and their own levels of alcohol use.

Upon consulting guides to existing behaviour change theories and how they can be used to modify health-related behaviours (Bartholomew Eldredge et al., 2016; Michie, West, Campbell, Brown, & Gainforth, 2014) and assessing the potential usefulness of other models; including the Health Belief Model (Rosenstock, 1974) and the Transtheoretical Model of Behaviour Change (Prochaska & Di Clemente, 1982); the Precaution Adoption Process Model (PAPM) (Weinstein, 1988) appears to be particularly relevant in providing recommendations for an intervention to reduce alcohol consumption in retirement. The reasoning for this decision was because individuals were often unaware of their own risk in regard to drinking and therefore may be unable to modify such risks, and the PAPM model is best aligned with harder to reach populations and individuals who do not consider themselves to be an “at risk” population (Bartholomew Eldredge et al., 2016). My systematic review findings (Study 1) showed that individuals respond better to personalised risk-based reports, and individual perspectives from Study 2 suggest that individuals were not aware of their risks associated with alcohol. Use of the PAPM theory is therefore substantiated with the findings in the current thesis and is consistent with the literature (Seddon et al., 2019) suggesting that older individuals are unlikely to class themselves as having a problem with alcohol.

Figure 7.2. Stages of the Precaution Adoption Process Model taken from Weinstein (1988)



The PAPM model can be applied to the current recommendations for suggested intervention. Therefore, recommendations are to ensure that individuals are aware of the issue of alcohol consumption as a whole and with their own personalised risk levels (Stage 1 and 2), which is in line with previous evidence on interventions in older people (See Study 1). This in turn would lead to individuals to be more likely to be more engaged by the issue and would be more inclined to decide to act (Stage 5 and 6) and maintain the healthier behaviours accordingly (Stage 7). Using this population specific approach would aid this process and the design and implementation of an intervention (Michie, West, et al., 2014). The PAPM stages could be applied to the uptake of healthier activities and the implementation of strategies in the workplace through ensuring individuals are aware and engaged to act on the issue. These findings also aligned with the realist approach that was taken throughout this thesis and allowed me to map what works and for whom, by identifying that personalised risk tools are potentially the most effective way to initiate behaviour change and reductions in alcohol consumption within the retirement window.

I used a combination of empirical data, theoretical data and the collection of new data to outline a refined list of determinants (See Table 7.2). This table was designed using Intervention Mapping core processes to identify and highlight my findings across this thesis. I offer my initial, candid thoughts that guided my preliminary feelings as a researcher, then the findings from my subsequent literature search (some of which were synonymous with my original thoughts), followed by the findings from theory and additions from the new data presented in Studies 1, 2 and 3

Table 7.2. Using Intervention Mapping core processes to identify the determinants underlying my recommendations for an intervention to reduce alcohol use in retirement

Original Provisional List	Additions from Empirical Literature	Additions from Theory	Additions from New Data
Determinants			
Boredom Loss of routine Loss of family members or friends in old age Loneliness/isolation	Bereavement Stressors Isolation Roles before and after retirement	PAPM – Unaware of risks PAPM – Not resonating with alcohol risks Continuity theory and liminality – individuals	Alcohol use is normalised Routine is important Self-awareness and personalised risk to alcohol is important Individuals were not currently aware of

<p>Intervention within the workplace/before or after?</p>	<p>Workplace interventions can be effective</p>	<p>may miss the consistency of the workplace</p>	<p>risk and do not resonate with current public health information</p>
<p>Use of an online intervention</p>	<p>Online interventions could be useful in this population – harder to reach etc.</p>	<p>Role theory – previous role of workplace and adapting to new role</p> <p>Social Network theory – using alcohol to aid social cohesion</p> <p>Stress and Coping theory – stressors arising in retirement</p>	<p>Stress and coping – particularly loneliness</p> <p>Normalisation of certain drinks</p> <p>Disassociation and “othering”</p> <p>Current support is inappropriate</p> <p>Support would be acceptable from both workers and employers if approached sensitively</p>

		such as loss of routine, bereavement, social isolation, boredom. Using alcohol to alleviate stress	Individuals are unsure about responsibility/obligation
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Characteristics unique to individuals related to their own personal interest are key techniques used within behaviour change approaches (Abraham & Michie, 2008) and internet based methods for improving health (Bartholomew Eldredge et al., 2016). Based on the views from participants when prompted about the use of an online intervention; I determined that this would be the most appropriate delivery method. Individuals felt that the process should begin with a face to face session, whereby they are shown how to download and use the application, and this would be delivered in the workplace, before individuals retire. Upon downloading the application, individuals would be asked demographic questions to tailor the application for them, such as hobbies and interests, current alcohol use etc. Asking such questions would allow the application to be personalised and provide educational tools based on the individual's interests. Participants in this study felt that having a tool that could direct them to local clubs and activities that did not centre around alcohol would be useful and would potentially deter individuals from isolation and turning to alcohol.

An application would also provide a portal for educational tools that individuals felt would be useful in retirement, not just focussing on alcohol use and could also provide a useful platform for offering individualised risk-based information. Examples of these are practical tools such as claiming a pension, appropriate and specific health-based information and person specific guidelines on alcohol use. Individuals felt that having all of these tools in one place would be the most useful way to deliver an intervention and would influence and reduce their alcohol use accordingly.

7.6.4 Step 4 – Production of the programme

Step 4, 5 and 6 were not completed as it was beyond the scope of this thesis to produce, implement and evaluate an intervention however I provide recommendations below for how these steps could be completed.

Step 4 involves the production of the intervention and recommendations are offered in line with the data gathered from the systematic review (Study 1) by the retired/retiring individuals (Study 2) and from the individuals who work in Human Resources/Occupational Health (Study 3). The most appropriate mode of delivery would offer a way to provide individuals with personalised risk education, and ways of offering a holistic intervention focused on various aspects of an individual's lifestyle. After considering the factors within my three studies and the existing literature, I recommend the production of an online application.

An online application would provide the means to offer an intervention to individuals who are harder to reach and sometimes missed from public health campaigns (Currie et al., 2015), it would also provide the opportunity to offer personalised risk-based education to those individuals for whom current public health messages may not currently resonate (Heffernan, 2014). Extra resources expressed to be of value by individuals in this study could also be included; such as practical information on pensions and finances and where to find local activities, hobbies and groups could also easily be provided via an online application. An online application would be developed and piloted with older individuals. The implementation and delivery of an application would be piloted with individuals in Human Resources and Occupational Health to ensure that there was enough time and resources for the intervention to be delivered

effectively, an online application would also offer a potentially more viable route for workplaces with had limited people and resources available to deliver an intervention.

7.6.5 Step 5 – Adoption, implementation and maintenance of the program

As above, step 5 was not completed, however recommendations are provided. Individuals from Human Resources and Occupational Health felt that most workplaces would be happy to adopt and implement an intervention with individuals who were about to retire, however the cost of this may come into question. An online application may offer a viable solution to this as there would be no requirement to hire external speakers or trainers to deliver an intervention and perhaps only the need for face to face support upon the initial set up of the application. Recommendations would be that there is an element of compromise, whereby costs are somehow matched by local councils or government, as higher rates of alcohol-related injury and harm is more expensive to governments and councils than the alternative of offering an intervention which could potentially be delivered at low cost whilst maintaining effectiveness.

7.6.6 Step 6 – Evaluation Plan

Although Steps 4,5 or 6 could not be completed, suggestions would be that parameters for assessment were developed to investigate levels of alcohol use before and after the intervention was delivered to individuals. Health, quality of life, behaviours and environment could also be assessed to evaluate the effectiveness of the intervention on individual's lifestyles. Health could be measured indirectly by measuring factors such as blood pressure to investigate the impact reduced frequency has had on health, comparison groups could also

be used to assess how individuals who have used the intervention feel their life has improved and how they do things differently and how this has affected them. The latter issues are less directly focussed on alcohol use but are still potential contributors to increased frequency of consumption.

7.7 Knowledge Exchange and the Implementation of Findings into Policy and Practice

Knowledge translation and the implementation of quality evidence into practice is problematic, particularly in public health (Boaz, Baeza, & Fraser, 2011). A systematic review conducted by Oliver, Innvar, Lorenc, Woodman and Thomas (2014) investigated the potential barriers and facilitators experienced by policy makers when using scientific evidence and found that clarity, reliability and relevance of findings were key in the facilitation of using evidence to inform policy. The current thesis aids this translation process in providing recommendations for an intervention that, on implementation and subsequent evaluation, would allow the demonstration of clearly relevant parameters of effectiveness; aided by the adoption of the intervention mapping approach (Bartholomew Eldredge et al., 2016).

There are four key principles to aid evidence synthesis and use in policy research and these state that research should be transparent, rigorous, transparent and accessible (Donnelly et al., 2018). A strength of this thesis is that it employs (or gives instructions of how to employ) these four principles when providing recommendations for intervention development/evaluation. This was achieved through the adopted methods, methodology and findings and these are explored in further detail below.

Transparency in this thesis was aided by the use of the Framework approach to data analysis (Ritchie & Spencer, 1994); which provides an audit trail through the analysis, allowing findings to be explicit and unambiguous, whilst allowing the incorporation of interpretivist views on emergent findings which are grounded in the data. Transparency was further aided by the use of a realist approach to intervention development, through the adoption of the intervention mapping approach (see Chapter 2 for further information on my methodological approach).

Rigour, inclusivity and accessibility are further principles that ought to be considered in the translation and synthesis of evidence (Donnelly et al., 2018) and the findings from this thesis and subsequent recommendations for implementation of an intervention offer a comprehensive body of evidence and recognises and minimises bias throughout, by defending methodological decisions and acknowledging any risk of bias in findings.

Future research, in the continued development and subsequent implementation and evaluation of an intervention would be inclusive and accessible to policy holders, by ensuring findings are clearly mapped to an protocol (such as Intervention Mapping) and by continuing to consider varying sources of evidence (similar to the current thesis which incorporates views from individuals experiencing the retirement process and those who could potentially offer an intervention in the workplace) and would aim to incorporate the views of policy makers, by establishing and maintaining effective relationships; key facilitators to the use of evidence in practice (Oliver et al., 2014).

7.8 Implications for Stakeholders

7.8.1 Employers

Providing an intervention for individuals leaving work has benefits not only for the retiring individual, but also for the workplace. A workplace that offers such health promotion interventions would be regarded as responsible and as a good company to work for, which in turn could lead to better candidates working for the company in the future and better retention rates within a company (Mitchell, Ozminkowski, & Hartley, 2016).

An employer that seeks to look after all employees, no matter which stage of their career they are in would be an attractive concept for future employees. As well as being regarded as a responsible employer, having discussions about alcohol at any stage of an individual's career would potentially provide positives for the company in general. By offering support for alcohol-related issues, employers could benefit from a more productive workforce, less absenteeism and fewer arguments and problems within a workforce (Ames & Bennett, 2011b).

7.8.2 Implications for retirees

Alcohol use in older people has many negative outcomes. Providing an intervention to educate individuals on the risks of alcohol use and the benefits of cutting down, would lead to individuals being better informed and more able to make decisions based on information that has been provided to them, ensuring they are aware of the risks of alcohol use in older age. By offering an intervention for individuals when they leave work and are about to retire, we can hopefully influence the process at a point before individuals turn to alcohol.

Individuals experiencing social isolation, boredom and loss of role are potentially more likely to use alcohol in retirement (Kuerbis & Sacco, 2012) and having such a tool that can be accessed both immediately on retiring and across retirement would assist them in the retirement transition.

7.8.3 Implications for Health Services

Alcohol-related hospital admissions are a large burden on the NHS and in 2016/17 there were 337,000 (estimated) admissions to hospital whereby the main reason for admission was attributable to alcohol and of this number of admissions, 39% of patients were aged between 45 and 64 (NHS Digital, 2018). An intervention implemented at the point of retirement would provide a tool that is available for individuals in this age bracket and would hopefully decrease alcohol consumption and ease the financial strain that this high rate of admission puts on the NHS.

7.9 Strengths and Limitations

This study provides recommendations for an intervention from the perspectives of individuals who have retired and who are retiring, with additional information on acceptability and feasibility from individuals who work in Human Resources and Occupational Health on how an intervention could be implemented upon leaving the workplace. The recommendations came from using semi-structured interviews and qualitative analysis, using the framework approach and grounded theory principles.

This research has several strengths and is the first known study to examine the views of both individuals who are retiring in the next five years and who have

retired in the last five years in regard to what they would require from an intervention that could be implemented upon leaving work to reduce alcohol consumption in retirement. This allowed me to obtain a rich perspective of how individuals were feeling; both looking to the future and retiring, and who have experienced the transition. By interviewing both individuals who had retired and who were retiring, I could fully investigate the views of a wide range of individuals across the transition and therefore provide better recommendations for an intervention that would be useful across the whole transition.

Studies that aim to improve any kind of physical health across the retirement transition may share similar components due to the complexity of retirement as a whole, with the changes to routine, social circles and stress experienced in retirement. Research suggests that physical activity, dietary and social role interventions in retirement can be effective, particularly in signposting to local resources (McDonald, O'Brien, White, & Sniehotta, 2015; O'Brien et al., 2016). This is consistent with findings in this thesis and may indicate that there may be some synergies between public health behaviours across retirement which could potentially yield interesting results and contribute to the wider public health agenda. This requires further investigation to ascertain the mechanisms behind such synergies.

Further strengths of this thesis lie within the chosen methodological principles and methods; semi-structured interviews, transcribed and then analysed using Framework Analysis and Grounded Theory principles. Interpretivist methods such as these allowed me to capture the subjective views of the studied population, exploring how meaning is given and interpreted (Saks & Allsop,

2012). Using semi-structured interviews allowed me to be flexible with my approach, following emergent themes and using an iterative process to inform future interviews.

A strength of this thesis is that interviewing both individuals in retirement and in Human Resources/Occupational Health allowed a wider scope of information to be gained. Developing and implementing quality interventions to promote health is dependent on the involvement of stakeholders and interventions must be “inexpensive, practical, efficient, effective and sustainable” (Brugha & Zwi, 1998, p.107). This study investigated the views of employees in Human Resources and Occupational Health from both the private and public sector to gain their views on what an intervention would include in order to be acceptable within their workplace. All individuals from Human Resources/Occupational Health expressed that they would be comfortable discussing alcohol in the workplace, and this is a promising sign, however this was not explored in detail. It may be that individuals would be comfortable discussing alcohol but would not be comfortable discussing problems with alcohol. It should also be noted that this finding could be due to employees feeling a need to maintain the reputation of their workplace. Changing policy is complex and is often due to organisational structure as opposed to employee resistance (Ames & Bennett, 2011b) and this resistance faced may be the responsibility of individuals higher up than the individuals interviewed in this study. Further study should investigate the views of individuals who are involved more deeply in the organisational structure and policy decision making within the workplace.

Time limitations of the current study meant that a more diverse sampling framework was not explored and therefore the diversity of the sample was limited. All of the participants in the study were white British and no individuals from black and ethnic minority (BME) groups volunteered to take part in this study, however BME are a significant part of the increasing older population in the United Kingdom (Coleman, 2010). The perspectives of these groups are therefore not represented in the current study findings and this is a problem in research generally (Pinsky et al., 2008). Future study should employ a more theoretical approach to sampling, ensuring that these underrepresented groups, which may have different needs in an intervention are considered and consulted.

Higher earners are more likely to drink alcohol than lower earners (NHS Digital, 2018), including in older individuals (Rao et al., 2015). However, alcohol misuse may lead to poorer health outcomes in areas of higher socio-economic deprivation, with one such suggestion being that there is the added burden of co-morbidity of physical and mental health disorders in these areas (Katikireddi, Whitley, Lewsey, Gray, & Leyland, 2017). The findings within this thesis are consistent with previous work; where older adults felt that affluence allows them to use alcohol more frequently. However, a limitation of this study is that socio-economic status was not explored with individuals or captured within sampling. Investigating socio-economic status further with individuals in the retirement window could further contribute to understanding of the factors required to develop an effective intervention and would also add to the discussion of how society can reduce health inequalities in later life.

Another limitation of the current study is that some of the included workplaces were predominantly patriarchal environments, however this was not accounted for, nor were the perspectives of the men explored differently to those of women, particularly in terms of recommendations for an intervention. For many years, researchers have sought to establish the links between masculinity and alcohol consumption, with males being more likely to use alcohol and the media reinforcing that social drinking constitutes “manliness” (Lemle & Mishkind, 1989). Future study should investigate further the factors concerning health behaviours and masculinity in which workplace interventions need to incorporate to achieve the greatest success (Verdonk, Seesing, & de Rijk, 2010).

An individual’s knowledge is grounded within their own experiences (Crotty, 1998) and a criticism of qualitative methods is that studies lack validity, as the researcher is often both the data collector and the data analyst, leading to an increased risk of researcher bias (Miles & Huberman, 1994). An opportunity to enhance rigour within qualitative findings, is to conduct content validity checks with respondents (Lincoln & Guba, 1985) whereby the researcher returns the interview transcript to participants, conducts another interview to clarify details, or by returning analysed data to participants to seek clarification (Birt, Scott, Cavers, Campbell, & Walter, 2016). However, in a thorough critical review of determining rigour in qualitative enquiry, Morse (2015) does not recommend the use of member checking, describing it as impractical and that the researcher’s knowledge and background in theory and methods should outrank the judgement of the participant. After consideration of the advantages and disadvantages of returning to participants to gain further content validity, the

decision was made to not conduct member checks. The rationale for this was that there was a chance that individuals would choose to reconstruct their narratives, after seeing their data in written form, as they may feel it portrayed them negatively, or that I would end up distanced from the interpreted data. I wanted to gain a 'true' reflection of each participant's initial feelings and I did not feel this should be modified.

7.10 Conclusion

Individual responses to interventions are complex, however from this study I found that individuals were receptive to risk-based interventions, although they were often unaware of such risks related to alcohol use. Current provisions from the workplace in terms of an intervention upon leaving work are often limited and individuals feel that an intervention would be useful, providing it was holistic. Employers felt it was their responsibility to offer support for retirees as a caring employer, but not an obligation.

Following data analysis, I have offered recommendations that an intervention be:

- Multi-faceted, using a holistic approach to assist individuals with the retirement transition. This may include educational tools on risks regarding alcohol use specifically catered to the individual, signposting towards practical advice, hobbies and activities that do not necessarily avoid alcohol use and the option to access a diary.

- Delivered via a smartphone application or computer, providing there was some face to face element and potentially some training for those who were not fully computer literate.

The development of an intervention was beyond the scope of this programme of research; however, future study should implement this intervention with the given principles to determine if this could work on reducing alcohol in a retiring population. As suggested within the Intervention Map for this thesis, a risk-based approach, in line with the PAPM theory, whereby individuals are provided with their own individual risk of the negative effects of alcohol use may be the most effective with this population.

Whilst there were some limitations to this work regarding timeframes and potential underrepresentation of BME groups; the current study provides a foundation to work with further groups of older individuals to cater for an area of unmet need. Over the next decade, around 20% of the current workforce are likely to be transitioning into retirement (Kuerbis & Sacco, 2012) and therefore the development, implementation and ultimately evaluation of an intervention that can be used to avoid an increase in alcohol consumption is a necessity. I have also provided recommendations for policy, practice and further research within this thesis which contributes to the field and extends current knowledge.

7.11 Contribution to the Field in line with Learning Outcomes for PhD

I have created new knowledge using original research with a systematic review (Study 1) that evaluated the literature on interventions aimed at reducing alcohol consumption in older people which was disseminated through a peer reviewed publication in *BMC Public Health*. I also presented the preliminary findings from this systematic review at the *European Health Psychology Conference* in 2016. Conducting interviews with individuals who had retired in the last five years or were due to retire in the next five years, alongside those who work in Human Resources and Occupational Health allowed for a substantial body of knowledge to be obtained and utilised to provide recommendations for an acceptable and feasible intervention. No previous work has examined the views of human resources or occupational health staff in relation to the development of resources related to alcohol use. I added extra depth to the research model by interviewing employees to ascertain views on acceptability and feasibility of an intervention, with the view of taking this research further in the future. I aligned my findings in a systematic manner, using the Intervention Mapping approach, which allowed me to consider each step that the development of an intervention takes; from assessing the needs of the population, through to the evaluation of an implemented intervention.

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APPENDICES

Appendix 1: Concept Map



Appendix 2: Ethical Approval



Downloaded: 01/06/2017
Approved: 24/04/2017

Roxanne Armstrong-Moore
School of Nursing and Health Sciences

Dear Roxanne

PROJECT TITLE: Developing A Strategy for Retirement Aged Drinkers
APPLICATION: Reference Number 000537

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 24/04/2017 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 000537 (dated 13/04/2017).
- Participant information sheet 1000671 version 2 (13/04/2017).
- Participant consent form 1000728 version 1 (13/04/2017).
- Participant consent form 1000672 version 1 (28/03/2017).

If during the course of the project you need to deviate significantly from the above-approved documentation please email ethics.review@sunderland.ac.uk

For more information please visit: <https://www.sunderland.ac.uk/research/governance/researchethics/>

Yours sincerely

Callum Gardner
Ethics Administrator
University of Sunderland

Appendix 3: Topic guides for retired/retiring individuals

Topic Guide: Alcohol in Retirement

Individuals Who Are Retiring in The Next 5 Years

Introductions

Who I am, what does their job involve? When they will be retiring?

Which parts of the role do you enjoy?

Which parts of the role do you not enjoy so much?

General questions – Retirement

1. Have you been offered any support linked to retirement and your plans for the future?
 - a. If yes, what and from who?
 - b. If no – do you feel this is something that individuals who are retiring in the future, you would need?
 - c. What do you see will be your plans in retirement?
 - d. Have you been offered any support linked to alcohol use?

Life before and after Retirement

- a. What do you feel are the main changes in your life will be when you have retired?
- b. Could you describe an average day now while you are at work and what you think an average day will be like once you have retired?
 - Again, if yes, what and from who?
 - If no, do you feel this is something that could be useful?

Evidence suggests that more people over the age of 55 are drinking more and that retirement could impact this. I'm interested today in what you, as a group feel would be appropriate for a workplace intervention

- a. What do you think makes people drink more when they retire? Do you have any friends that you have spoken to that could help you answer this question?
- b. How do you feel your retired friends view alcohol now they have left work? Have they changed their attitudes to it?

Responsibility and Development of an intervention

As I mentioned earlier, Evidence suggests that more people over the age of 55 are drinking more and that retirement could impact this. Imagine that you were asked to help create a service that people leaving work could access that would help to ease this transition and offer advice on their wellbeing and therefore their alcohol consumption

- a. what would you want to be able to access?
- b. Do you think this is an employer's responsibility or elsewhere?
- c. How would you feel an app delivered via the internet or a smartphone would work?
- d. If a smartphone or computer app was used, what sort of features do you think this could include for example; a diary to measure alcohol units, guidelines so you know how much you should be drinking, signposts to clubs and hobbies you could attend?

Topic Guide: Alcohol in Retirement – Retired in last 5 years

General questions

1. Open by asking individual some general questions about the/their experience of retirement
 - a. Could you start by telling me when you retired?
 - b. What was your place of work before retirement?
 - c. How did the decision of retiring come about?
2. What did your role involve before you retired and how long did you work here?
 - a. Which parts of the role did you enjoy?
 - b. Which parts of the role did you not enjoy so much?

The Retirement Process

3. Do you remember being offered any support when you were retiring?
 - a. If yes what and from who?

Life before and after Retirement

4. What do you feel are the main changes in your life now that you have retired?
 - a. Could you describe an average day when you were at work and an average day now that you have retired?

Alcohol use when working

5. What role do you feel alcohol played in your life when you worked?
 - a. Prompt – was there a usual time or place that you would drink, or with certain people?

Alcohol use now not working

6. I'm interested if this has changed. Could I ask what role do you feel alcohol plays now that you've retired?
 - a. So again, if there a usual time or place or with certain people?
 - b. Do you think that retirement has caused you to use alcohol differently?
 - c. How do you feel your retired friends view alcohol now they have left work?

Responsibility and Development of an intervention

Evidence suggests that more people over the age of 55 are drinking more and that retirement could impact this.

Prompt – imagine that you were asked to help create a service that people leaving work could access that would help to ease this transition and offer advice on their wellbeing and therefore their alcohol consumption

- a. what would you want to be able to access?
- b. Do you think this is an employers responsibility or elsewhere?
- c. How would you feel an app delivered via the internet or a smartphone would work?
- d. If a smartphone or computer app was used, what sort of features do you think this could include for example; a diary to measure alcohol units, guidelines so you know how much you should be drinking, signposts to clubs and hobbies you could attend?

Appendix 4: Topic guide for Human Resources/Occupational Health

Topic Guide: Alcohol in Retirement OH/HR

1. The Retirement Process - What is Offered now

- a. Can you tell me what sort of things you currently offer for those leaving work and about to retire?
- b. Do you have signposting options available for those asking for support when leaving work?

2. Asking about Alcohol and Delivering an intervention

Evidence suggests that more people over the age of 55 are drinking more and that retirement could impact this.

- a. How would you feel about approaching the subject of alcohol with those in your workplace?
- b. What would an intervention realistically look like to you? For example, would it be someone coming in before individuals retire and delivering a talk, providing educational materials, a video or something else (prompt: an online application, smartphone app etc)?
- c. Who do you think would be best to deliver this to employees? Yourself or externally?
- d. Do you think that this would be received better by your employees in a group or on a one to one basis?

3. Responsibility and Development of an intervention – The future.

- a. Do you feel that as an employer, it is your responsibility to offer support to those leaving work?
- b. If not, who else could provide this support?

Is there anything else you could add?

Appendix 5: Recruitment Email

Dear XXXXXXXX

My name is Roxanne and I am a PhD Student at the University of Sunderland and I was given your contact details from XXXXXXXX , who mentioned there may be a possibility of you putting me in touch with some potential contacts from Sunderland workplaces to conduct some research.

I am looking at the possibility of introducing a workplace intervention to reduce alcohol use in retirement. I have university ethical approval to conduct qualitative interviews and focus groups to find out individuals views on the content and feasibility of such an intervention. I am looking to interview three groups of individuals and these would be:

- Individuals who have retired in the last 5 years
- Individuals who are looking to retire in the next 5 years
- Employers who would be willing to discuss the current retirement process for employees/ feasibility of an intervention in their workplace.

I would be grateful if you could facilitate in recruitment in any way and can provide more details on my research should you require,

Best wishes,

Roxanne

Appendix 6: Advert for Recruitment Purposes



**University of
Sunderland**

Research Study



fuse

The Centre for Translational
Research in Public Health

TAKE PART TO RECEIVE A £10 VOUCHER

This study involves an interview (up to 60 minutes) asking questions about your views on retirement.

To take part you must:

- Either have retired in the last 5 years, or be due to retire in the next 5 years
 - Be over the age of 55
 - NOT be alcohol dependent
 - NOT be an abstainer from alcohol
- NOT be receiving treatment for alcohol use

Please email: roxanne.armstrong@sunderland.ac.uk
for more information or to take part

Appendix 7: Information Sheet for Retired/Retiring



Information Sheet for Participants

You are being invited to take part in a research study. Before you decide whether to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with friends, relatives and your employer if necessary.

What is the purpose of the study?

The aim of this study is to find out your views on your experience of retirement and alcohol use.

Why is the study being done?

This study is being done with the intention of informing a future intervention to help individuals adjust better to retirement, particularly focussing on the role of alcohol.

How have I been chosen for the study?

You have been asked to take part as you are an individual who is over the age of 55 and plans to retire within the next 5 years or has retired in the last 5 years.

Do I have to take part?

No. It is up to you to decide whether to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw from the study at any time and without giving a reason.

What am I being asked to do?

In order to find out what you think, I would like to speak to you about your own views on retirement and how you feel it could affect yourself and perhaps others. This will involve an interview with Roxanne Armstrong-Moore, who is a PhD researcher. There are no right or wrong answers. The aim of the interviews is to get your views to aid the development of a strategy to help future retirees.

Where will it take place and how long will it last?

The interview will take place either at the University of Sunderland, or at a convenient place for you, such as your home or place of work. The time taken will be dependent on the interview, but will probably be around 30 mins – 1 hour.

What will happen to the information I give?

The interview will be audio recorded so that an accurate account of your views is taken. However, any information will be collected in the strictest confidence. The recording will only be listened to by members of the study team and you will not be identified in any report. The recording will be destroyed once it has been transcribed anonymously. Written feedback, which does not identify anyone, will be provided to all those who take part in this study. Anonymous data taken from the interviews will be incorporated into a final report for Roxanne Armstrong-Moore's PhD thesis and may be presented at conferences or in academic journals.

What are the possible benefits of taking part?

You will be given a £10 Love to Shop voucher, to spend at a retailer of your

choice for your time. You will also be providing valuable opinions which could improve the development of interventions in the retirement window, in the future.

Who is carrying out the research?

This study is being carried out by researchers from the University of Sunderland. The study will be completed in July 2018 and meets University of Sunderland ethical requirements.

What next?

It is up to you to decide whether to take part. If you do you will be given this information sheet to keep and be asked to sign a consent form. You can withdraw at any time and without giving a reason. This will not affect your rights.

What will happen if I don't want to carry on with the study?

If you withdraw from the study we will ask your permission to use the data collected up to your withdrawal. All of this information will be completely anonymised and you will not be identifiable in any way. However, you can ask for all of your data to be withdrawn at any time before it is transcribed and anonymised.

What if there is a problem?

It is not anticipated that there will be any problems. However, any complaints will be referred to the School of Pharmacy, Health and Wellbeing at the University of Sunderland for further investigation.

What will happen to the results of the study?

Anonymised data from all the interviews will be analysed to identify important themes. These findings will be used to begin the development of an intervention. The findings from this will be then be incorporated into a final report. The findings will also potentially be presented at conferences and

papers will be produced for academic journals. Copies of the final report will be made available to all participants on request.

Who is organising and funding the research?

The PhD research is funded by the Medical Research Council

Who has reviewed the study?

This study has been reviewed by The University of Sunderland

You will be given a copy of the information sheet and a signed consent form to keep for your reference.

Many thanks for considering taking part in the study, and taking the time to read this sheet.

Contact details:

If you require any further information about the study, please contact:

Roxanne Armstrong-Moore
PhD Student - Public Health
School of Pharmacy, Health & Wellbeing
University of Sunderland
Sunderland
SR1 3SD

Email: roxanne.armstrong@sunderland.ac.uk

Or

Dr Jonathan Ling
Professor of Public Health
School of Pharmacy, Health & Wellbeing
University of Sunderland
Sunderland

SR1 3SD

Email: jonathan.ling@sunderland.ac.uk

Appendix 8: Consent Form for retired/retiring individuals



DEVELOPING A STRATEGY FOR RETIREMENT AND ALCOHOL USE

CONSENT FORM FOR INTERVIEWEE/FOCUS GROUP MEMBER

Tick the box to confirm your understanding of the following:

1. I confirm that I have read and understood the information sheet for the above study (version number 1, dated 27/03/17) and have had the opportunity to ask questions
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my rights being affected by emailing the researcher (see information sheet)
3. I agree to take part in the above study
4. I agree to the interview/focus group being audio recorded
5. I understand that anonymised quotations from interview transcripts may be used in reports and other outputs from this research

If employee, by signing this form you confirm that you are:

over the age of 55

NOT alcohol dependent

NOT abstaining from alcohol

NOT receiving treatment for alcohol use

Participant	Date	Signature
Researcher	Date	Signature

1 copy for Participant, 1 copy for Researcher

Appendix 9: Framework Example (Retired/Retiring)

	Activity Levels in terms of retirement	Alcohol use now retired	Alcohol use when at work	Awareness of Alcohol Risk	Affording to drink	Changes in alcohol use	Circumstances around retiring	Confusion of limits or safe
Participant 101					The more money they've got, the more often they will go out So... They would drink more, they might go out every afternoon and have two pints if they got lots of money they might have six pints that type of thing. So you think it's finance, finance dependent? Yes a lot of it is yes		I've never retired before I'm going from working full time to doing nothing unless the man in the corner who is the MD can persuade me to come back on some sort of part-time or basis Initially I thought I would faze myself out but because of certain delays what I didn't want to do was, leave in the erm, leave in the winter	
Participant 102							I'm hoping to retire in February 19 Okay, so did you say you're doing a phased retirement? Its what we call partial retirement Okay So, I've been doing that for 3 years, 3 years on February Okay So it means me hours are reduced and I'm doing 3 days now	Yeah but I think its publicised quite a television, but I think it's more you know be you know your glass of wine might units not! Okay, so it's being a bit more transparent Yeah like what's one unit look like
Participant 103	I think all of my friends are quite like myself quite keen to be fit and healthy so its quite a sort of yes,				I think maybe people who have been working and you know particularly if you've had a reasonable income and therefore if you're gonna have a reasonable pension as a result of that, then you know you're gonna feel you've got enough money to drink And it think whereas maybe in the past people thought oh now I'm retired I need to reign in my spending I think that's true maybe, but maybe not in the same way now, there are more people I think who are...	Mhmm yeah what do they do, I can see it myself. If it's a nice day I might sit in the garden and have a glass of wine, which I wouldn't tend to do at the moment cos it's a work day		
Participant 104					Cos they are affluent, and they can, they'll have a glass of wine with dinner			
Participant 105	The research shows that it helps keep your mind active cos you've got to remember the sets and steps where you need to be and actually the physical activity keeps you young anyway and considering the 93 year old puts me to shame and keeps telling me where I need to be I think to myself well if I can be as good as that when I get to 90 then that's fine							Yes, cos they can be interpreted differently. A glass of wine, you've got to know what a glass of wine is, like "ooh I've only had wine" but then that glass is - you know large size with hands" So you know it, I think one of the things is clear guidance on what is your limit, your units because I think that's confusing of the messages that come out are confusing for me, someone who's worked in health for the vast majority of my life
Participant 106				I think what a lot of people don't realise is how long it takes alcohol to get out of your system when you have been drinking Yeah so if you're going out the next day				
				I don't think so. I think you're researching increasing alcohol consumption in retirement I think it is a no brainer that you would drink more in retirement, its just to what extent				Yes, if you speak to anybody my age units they should be having, they've got the whole units business is a load of crap, better saying how many pints you can't have more than 4 pints a session the can but they don't mean a great deal So they're quite confusing? Well its just like why complicate it? My recommendation is you don't drink more than one unit a week and no more than 18 pints on a

Participant 203		<p>Erm, I still drink about the same time, but not for the same reason really. I don't need it to relax or to wind down, like I did before.</p> <p>Erm I drink socially if I go out, erm which is probably say 2 or 3 times a week erm, but I have the occasional glass of wine at home as well on a night.</p> <p>Okay then, do you feel that retirement has caused you to use alcohol differently? I think you mentioned that you use alcohol for different reasons,</p> <p>Yeah, yeah</p> <p>and that's it's more of a social thing now?</p> <p>Yes.</p>	<p>Erm, I suppose, I, I suppose I'd liked a drink when I came home some nights as a sort of aid to relaxation wasn't it and to help you sleep a bit if your mind was twirling with everything that was going on that you'd done during the day</p>	<p>I wouldn't sort of go over recommended units anyway, I do have an awareness of it</p>			<p>Erm, I dunno, I thought about it for a long time really cos although I enjoyed my job, I enjoyed the clinical bits, I didn't enjoy the, it had changed a lot over the years it wasn't just seeing patients it was all the admin that went with it really and I'm a bit of a technophobe really</p>
Participant 204				<p>Sort of think, I think that's where alcohol comes in isn't it, discussing about alcohol cos, erm, it's the, I don't think people are always aware of the impact, I wasn't until relatively recently, there's been much more campaigning about alcohol in the last few years, but I don't think it ever really occurred to me what effect alcohol might have on your body.</p>			<p>I think I got fed up of the NHS, I have worked with them for a long time, so I decided to finish that and I suppose at the time, the way things had turned out I was doing a locum job so it was fairly easy to just finish that and I decided that I would and just concentrate on doing this other aspect of work</p> <p>Erm, and I think really, I'm 60 in August and then you just can't be bothered I've been working that long, so it would be quite nice to not to, not to think about it so I suppose my thoughts of that have coincided really with not having any more work on at the moment so it just seemed to coincide so I think that might be it</p>
Participant 205		<p>I think partly because I don't have the massive stress that I had, probably part of me if I'm honest, I don't have the larger salary that I had, I tend to be limiting and also I'm 67 this year and I think your tolerance to alcohol erm you know lessens as you get older, erm so whereas I could go out partying and drinking quite a lot, now if I've had what is too much for me, I just, I do feel quite ill the next day,</p>	<p>I'd say when I worked, like most people in the nhs, probably quite a large amount in relaxing out of work</p> <p>Because it could be so stressful, it was never the core job, it was the politics around it and I guess it still is, erm, so quite an active social life in pubbing and clubbing, err particularly, obviously after I was divorced, erm and id usually go out with a crowd of friends from the a and e department, they were pretty big party people</p>			<p>I think partly because I don't have the massive stress that I had, probably part of me if I'm honest, I don't have the larger salary that I had, I tend to be limiting and also I'm 67 this year and I think your tolerance to alcohol erm you know lessens as you get older, erm so whereas I could go out partying and drinking quite a lot, now if I've had what is too much for me, I just, I do feel quite ill the next day,</p>	<p>I, I was minded retiring as soon as I got my state pension and I was fortunate to get that at 62, erm, because I'd come up here, job hunted, id got a low paid, part time job just to keep me ticking over, and it was always my aim to retire asap to enjoy leisure time</p>
Participant 206		<p>What role do you feel alcohol plays now you've retired?</p> <p>It plays that, socially certainly, I don't drink alcohol by myself, I never have drunk alcohol by myself</p> <p>Ok</p>	<p>what role do you feel alcohol played in your life when you worked?</p> <p>Social. I would drink when other people drank. Erm... as a social role, errr in other words people tend to talk to you rather better in social situations if you have a glass of alcohol rather than a glass of water. If they're drinking that is</p> <p>Was that work people?</p> <p>Work people and friends, it was just sort of a social tool to relax and it seemed to be the sort of thing that people did</p>				<p>And how did your decision of retiring come about?</p> <p>I got tired, I stayed on beyond the retirement age for, 3 years</p> <p>Ok</p> <p>And I thought that was probably enough</p>
		<p>Well, things have changed, really in a way, erm in that I became vegetarian on the 1st of April, erm pescatarian I should say, I mean I'm not passionate about it it's not cos I feel sorry for little lambs or anything I did it for health reasons more than anything and I have sort of taken active steps to cut down my alcohol consumption. I found bitters have you heard of angostura bitters?</p> <p>Yeah</p> <p>I have them you can mix them with tonic waters</p>	<p>Well it was always a social thing, isn't it? You know leaving dos, erm, erm you know going to the pub on a Friday erm, that sort of thing you know</p>	<p>I think as you get older you just cannot cope, you cannot cope, and that's a reason why I'm changing in a way cos you can't cope with it like you used to. To me life's too precious to be wasting it with a hangover or whatever</p>		<p>Okay great and when you decided to retire, how did that decision come about?</p> <p>Erm well, Charles had already retired and erm it was just a pain in the neck leaving him in bed every morning</p> <p>Yeah</p> <p>So, I said, my decision was id retire when I was 60</p>	<p>And I consider myself quite aware of going on in the world, but I had no sort of thing, I don't think its spelled well its not spelled out clearly en never mind old fogies</p> <p>I mean, the government education stick, what shakes down through erm suggested amounts, of alcohol drink, and people know about alcohol but you know the full impact on your clearly spelled out no</p>

Appendix 10: Information sheet for Human Resources/Occupational Health employees



Information Sheet for Participants

You are being invited to take part in a research study. Before you decide whether to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with friends, relatives and your employer if necessary.

What is the purpose of the study?

The aim of this study is to find out your views on your experience of retirement and alcohol use.

Why is the study being done?

This study is being done with the intention of informing a future intervention to help individuals adjust better to retirement, particularly focussing on the role of alcohol.

How have I been chosen for the study?

You have been asked to take part as you are an individual who works in Human Resources/Occupational Health and has knowledge of the retirement process.

Do I have to take part?

No. It is up to you to decide whether to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still

free to withdraw from the study at any time and without giving a reason.

What am I being asked to do?

In order to find out what you think, I would like to speak to you about your own views on retirement and how you feel it could affect your staff. This will involve an interview with Roxanne Armstrong-Moore, who is a PhD researcher. There are no right or wrong answers. The aim of the interviews is to get your views to aid the development of a strategy to help future retirees.

Where will it take place and how long will it last?

The interview will take place either at the University of Sunderland, or at a convenient place for you, such as your home or place of work. The time taken will be dependent on the interview, but will probably be around 30 mins – 1 hour.

What will happen to the information I give?

The interview will be audio recorded so that an accurate account of your views is taken. However, any information will be collected in the strictest confidence. The recording will only be listened to by members of the study team and you will not be identified in any report. The recording will be destroyed once it has been transcribed anonymously. Written feedback, which does not identify anyone, will be provided to all those who take part in this study. Anonymous data taken from the interviews will be incorporated into a final report for Roxanne Armstrong-Moore's PhD thesis and may be presented at conferences or in academic journals.

What are the possible benefits of taking part?

You will be given a £10 Love to Shop voucher, to spend at a retailer of your choice for your time. You will also be providing valuable opinions which could

improve the development of interventions in the retirement window, in the future.

Who is carrying out the research?

This study is being carried out by researchers from the University of Sunderland. The study will be completed in July 2018 and meets University of Sunderland ethical requirements.

What next?

It is up to you to decide whether to take part. If you do you will be given this information sheet to keep and be asked to sign a consent form. You can withdraw at any time and without giving a reason. This will not affect your rights.

What will happen if I don't want to carry on with the study?

If you withdraw from the study, we will ask your permission to use the data collected up to your withdrawal. All of this information will be completely anonymised and you will not be identifiable in any way. However, you can ask for all of your data to be withdrawn at any time before it is transcribed and anonymised.

What if there is a problem?

It is not anticipated that there will be any problems. However, any complaints will be referred to the School of Pharmacy, Health and Wellbeing at the University of Sunderland for further investigation.

What will happen to the results of the study?

Anonymised data from all the interviews will be analysed to identify important themes. These findings will be used to begin the development of an intervention. The findings from this will be then be incorporated into a final report. The findings will also potentially be presented at conferences and papers will be produced for academic journals. Copies of the final report will be

made available to all participants on request.

Who is organising and funding the research?

The PhD research is funded by the Medical Research Council

Who has reviewed the study?

This study has been reviewed by The University of Sunderland

You will be given a copy of the information sheet and a signed consent form to keep for your reference.

Many thanks for considering taking part in the study, and taking the time to read this information sheet.

Contact details:

If you require any further information about the study, please contact:

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Appendix 11: Consent Form for Human Resources/Occupational Health employees



DEVELOPING A STRATEGY FOR RETIREMENT AND ALCOHOL USE

CONSENT FORM FOR INTERVIEWEE/FOCUS GROUP MEMBER

Tick the box to confirm your understanding of the following:

1. I confirm that I have read and understood the information sheet for the above study (version number 1, dated 27/03/17) and have had the opportunity to ask questions
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my rights being affected by emailing the researcher (see information sheet)
3. I agree to take part in the above study
4. I agree to the interview/focus group being audio recorded
5. I understand that anonymised quotations from interview transcripts may be used in reports and other outputs from this research

Participant	Date	Signature
Researcher	Date	Signature

1 copy for Participant, 1 copy for Researcher

Appendix 12: Framework Example (Occupational Health/Human Resources)

	A : Acceptability/Non	C : Alcohol related support	F : Awareness	G : Cautious around Approaching	H : Comfortable approaching the subject	J : Confusion	K : Costs mentioned
301		Then she'll (the staff nurse) also just talk to them in general, but like I say I'm not sure whether that general information covers alcohol consumption or not			Em... but we do, we run it campaigns about once a year on it Oh right, okay, so its somethings sort of there anywhere - Yeah It's not like a taboo Mhmm, no no		And we'll offer fund, funding for that if needs be
302		we can help them with err if they want to give up, if they're really addicted and they need support, then we've got that, we've got an occupational health service and we've got a counselling service, we've got Westfield health which supplies cashback on dental and eye costs but a part from that they supply a counselling service which is free to employes	I don't know if we would a ctually think a bout including alcohol in there. I think wed think more using your, planning your pension and we might do a health thing, but I don't know if we would specifically think to hire that because to be honest I didn't realise there was, a specific issue		so we do random drug and alcohol testing So if that brought up something of concern, wed have no problem raising it with the employee but really wed only do it if there was a concern raised either by the individual or somebody who's witnessed something		
303	But there's also a lot of people who don't want to know, they can do it themselves or they don't want you involved in their personal life going forward you know they've left the company they don't want you to know what problems they may come across Oh no I think it would be accepted if we have pre-retirement course and then if it's becoming a problem then I would imagine these companies would include that in part of their retirement overview, but they would only get that advice if they're wanting to attend a course, even if we put one on doesn't mean that all staff would attend so				We have random alcohol and drug tests for people who work here and we have had problems in the past with alcoholism and we have occupational help and we support the employee through that erm, because ultimately this is a top tier site so they can't be on site under the influence of drinking or drugs, it could be a dismissal		We have done retirement courses in the past when there's been a few people retiring in the year, to make it cost effective, we have got someone in to give an overview, so we have done that in the past, were pretty open, we take care of training in the HR department and we've got quite a good training budget and there have been people who have asked if there's any help that we can give and we've always pointed them in the right direction or arranged for some help
304					I wouldn't have a problem with it because dealing from my job role I do do with her obviously we deal with it from an absent management point of view people have got issues with alcohol within the workplace I wouldn't have any issues raising that as a topic with anybody within the workplace at all.	we've done all the various messages to staff but when you start saying what is a unit people still don't understand what a pint would be in terms of units and its And it's about how do you make that simple Yeah like if you look at 1 pint of lager it could be 3-4 units or whatever, but I think people are still confused And I think that would be better if it was more simplified and easier to think oh well that pint is 4 units and that's my limit for today or whatever	

305					<p>Erm, personally I, I'm fine about approaching the subject with people, we have an alcohol policy in place, it's an alcohol and drugs misuse policy so if anything came up, erm with regards to anything at work that was causing concern, that would trigger a conversation anyway.</p> <p>Or the person themselves so having that conversation with somebody erm doesn't concern me, erm, it's not something I would initially instigate, erm, at the moment</p>	<p>I don't think, I don't know looking at it externally it might be fine for people who have occupational health so it depends on the cost of that, whereas if internally we could be trained to deliver it internally it wouldn't be a problem delivering it in house</p>
306	<p>we've got a health and safety app and that's been developed by XXXX but I'm sure that's got signposting on there, so even if its sort of an app, we are up to date to technology, so it would be something that we'd probably definitely share if it was developed</p>	<p>But were currently in the process of designing our blogs and things for December but it'll be like based on Christmas parties, making sure you get home safe, stuff like debt management, but there'll definitely be like knowing your limits of alcohol in there somewhere but not quite sure where yet.</p> <p>We've also just introduced a kind of mental health buddies, we just ran that initiative, we just put our mental health champions through training so hopefully they'll cascade that down through the business over the new year and that's kind of there for employees to approach not necessarily about alcoholism but about any problems that</p>	<p>well we've got over 20,000 employees in the business and I think you've probably highlighted to me especially we should have a bit of a pack for retirement and sort of retired employees who are departing from the business because at the moment we do kind of treat them as a resignation, erm</p> <p>So yeah maybe that's something that e can think about that you've kind of addressed that we could kind of include a bit more of a health pack, a health and wellbeing pack for planned departure</p>	<p>I just think it would have to be approached sensitively, cos you don't want to kind of imply that people are gonna retire then hit the booze cos they've got nothing else to do, erm, but no I think we would, we would definitely target it and were big on health and wellbeing here so it's something, it wouldn't be kind of shocking to our staff if we started blogging or introducing that topic, erm so I think we should be fine to approach it from an employer perspective</p>	<p>but we are doing a bit of a health initiative over Christmas which will probably cover alcoholism so its not kind of a taboo subject, we do kind of blog and have sessions and stuff with our staff on kind of a range of different subjects, there's nothing that were too scared to approach. We'll probably be having something in December</p>	<p>Erm, we always have to consider cost but what we tend to do when we have our kind of health and wellbeing initiatives we approach like local communities and try to build it into our networks so we regularly attend health and wellbeing seminars with others businesses, so the last one last month was with virgin money to try and utilise our networks if we can but if there was kind of something I dunno if we had a big epidemic of alcoholics in the business we would probably invest in erm kind of an external speaker if that was required. But I think if it wasn't deemed as a big issue wed probably try to choose the cost-effective methods</p>
307			<p>Which are available to people, available to staff, actually students as well, and they're held sort of a couple of times a year and advertised and well put information on the website around what you know the erm health possible health effects of alcohol and just I suppose raising awareness of what units are and what impact it can have. We also have developed, although its for existing staff, a document about alcohol, well its not just alcohol its any substance abuse and in that it talks about routes for getting support if someone feels that they do have maybe an addiction or some sort of problem with alcohol</p> <p>No nothing really that I've thought about, just, just making you try to recall what we do offer, but I suppose we don't, we target different groups to attend the groups that we've got on</p> <p>And I suppose we probably target a younger population more</p> <p>Around the alcohol things, so maybe its just something we could be more conscious of when</p>			