



Factors reducing substance abuse among older adults

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ABSTRACT

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This thesis aimed to investigate the factors that facilitate the reduction of substance abuse among individuals aged 65 and above. The objective was to offer practical insight for professionals working with this demographic, enabling them to gain a better understanding of the factors contributing to substance abuse reduction. Additionally, this study sought to extend its findings to benefit nursing students and educators in the field.

To achieve this, a descriptive literature review was conducted using international professional databases, including CINAHL Complete, CINAHL Academic, and from TUNI ANDOR library database. Initially, 253 articles were screened with six selected for final analysis. Thematic content analysis was applied to interpret the results.

The analysis uncovered various health- and psycho-social-related factors that appeared to aid older adults in making positive changes in their substance abuse habits. The significance of meaningful daily activities, social connections, and effective healthcare interventions became evident. Interestingly, negative experiences associated with abusive drinking and the challenges related to the natural aging process were also identified as factors motivating older adults to either reduce or cease their substance consumption.

These findings hold valuable insights for professionals working with older adults, offering a practical understanding of the factors that can be leveraged to assist in substance use reduction. Moreover, these results have practical applications in the development of services tailored to this demographic.

Further studies are needed to deepen the understanding of reducing factors and how future services may be developed, aiming to better comprehend the specific needs of older adults with substance abuse problems.

Key words: substance abuse, older adults, reducing factors.

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1 INTRODUCTION

The Aging of the population is globally seen as one of the megatrends, among population growth, international immigration, and urbanization. Facts that people live longer and reproduce less are real challenges for every country of the world, leading to ever larger proportion of aged population in contrast to younger one. This will mean that by 2050 every 6. individual worldwide will be over 65 years of age, when in 2019 every 11. was at this age. (United Nations 2019.) In Finland, this means that 25,6 % of the nation's population to be aged over 65 by the year 2030 (Väestön ikääntyminen Suomessa 2023). People aging today are a different kind of generation than previous ones, by their health behaviour and by their socio-cultural lifepath. Substance abuse among this population is already an existing phenomenon and yet not well acknowledged. The substance abuse among older adults has often been described as a “silent epidemic” (Chhatre, Cook, Mallik, & Jayadevappa. 2017; Immonen. 2012) or “emerging epidemic” (Yarnell, MacGroy, Trevisan & Kirwin 2020). One exceedingly trendy way to speak about our aging population is to call them baby boomers. These boomers were leaders of many social revolutions in their youth and the impressive expansion of illicit drug use was accompanied by those changes, among many other cultural changes, compared to earlier age cohorts. (Yarnell, MacGroy, Trevisan & Kirwin 2020.) This means that now a bigger amount of the aging population has experienced using different substances already in their youth and adult life, compared to previous ones.

The theme has been discussed lately and often also in media. Janita Virtanen (2022) interviewed Janne Härkönen for Aamulehti, who said that one core reason for increased alcohol consumption among older adults is, that they have been used to drinking more during their whole lives and, in the same article senior physician Markus Partanen tells, that one-third of risk users have started their drinking after retirement and the group of high educated women is highlighted in this group. Partanen continues also that often labor has been part of their identity and retirement brings experiences of uselessness, leading to loneliness, depression, and anxiousness. Partanen also mentioned that most of the risk users are not aware of the risk-limits of alcohol use at their age. (Virtanen 2022.)

Largely in studies and in public, the problem is discussed, and many studies focus on the aggravating factors, reasons why people drink or use substances, or to the risk limits in purpose to control the abusive use. The ever-increasing population has led health care systems all over the world in situation with limited resources to supply help and care. In this context, for all healthcare workers, is beneficial to identify factors that can ease and help to reduce the abusive use of substances among older adults. In this thesis the scope is to by literature review, find factors that can be seen as supportive or helping factors to reduce, control or stop the abusive use of substances among population over 65 years of age.

2 THEORETICAL STARTING POINT

2.1 Terminology

One challenge in this thesis was to find the most appropriate word to describe the population of the study. In the original studies used in the analysis of this thesis, authors have often used term elderly to describe their population. Use of the term elderly may be seen nowadays as one form of agism. Use of agist language “otherize and categorizes older people “and for this reason in academic writing is important to conscientiously examine the use of the terms in field of gerontology. (Morrow-Howell, N., Kunkel, S., Gendron, T., Jarrott, S. E., & Andreoletti, C. 2023.) According to American medical association’s manual of style for publishing, the use of term elderly is not encouraged and proposes instead using term older adults, as is less likely to be seen discriminative and causing less negative archetypal meaning (Christiansen 2020). The usage of proper terms has also been discussed in our gerontological studies and based on those and the literature, in this thesis the term older adults is used to describe the target population.

In this thesis term older adult describes the heterogenous group of all people above 65 years old, which is the target population of the analysis. The reasoning for the choice of this limitation for age was, that it is very often at that age when people retire from their paid work, and this leads to markable changes in their daily activities and in organization of their healthcare from occupational health to public health centers. Reducing or alleviating factors may be seen broadly as those, that help target population to switch either from abusive use to less harmful use, to decision of not to use at all or to more controlled use of substances.

Other terms used in the thesis are addiction and substance abuse. Substance abuse as a definition has many descriptions, but in several sources, it is described as problematic, harmful, or hazardous use of psychoactive substances (legal and illegal) despite negative consequences, often represented by uncon-

trolled use. (Zou, Uquillas, Wang, Ding, Chen 2017; Miller 2013; Merriam-Webster 2022). In this thesis term use doesn't only mean drug use, but broadly abusive use of substances, which alcohol is as well, among other substances.

Addiction is often used in an interchangeable way with the term substance abuse, but it has a broader meaning. Yet again there are many different definitions of addiction. American society of addiction medicine states addiction to be a medical state that is chronic and combined with mosaic of difficult interactions between neural connections, including also dimensions of the personal life experiences, environment, and genetics (American society of addiction medicine, 2019). Neal Levy (2013) is challenging the brain disease focused definition of addiction. He claims that to best understand the addiction, we should focus on both individual and her social environment and also to that environment where addict is living, underlying the psycho-social aspect of addiction. (Levy, 2013.)

According to the experience of members of self-help association of Narcotic Anonymous (2008), addiction means that person suffers from diseases that is incurable, progressive, and fatal, touching the body, mind, and spirit, but from what the recovery is possible by means of spiritual, not religious, solutions. In other terms explained, addict may be seen as an individual who uses substances that alter the mind and changes the mood. The claim that the use may provoke problem in any area of the life and successful controlled use of any substance, including marijuana and alcohol, is not possible. Focus is not on the amounts or specific substances used but merely on the reaction experienced when using those substances. (Narcotics anonymous 2008.) It is quite common that terms addiction and substance abuse are used at same time, despite the differences of the exact meaning of those.

2.2 Aging process, retirement and substance abuse

The aging process comes with inevitable changes in physiology, cognition and in overall appearance and in activity tolerance. In addition, there are some clear characteristics of older people with substance abuse problem. According to Salo-

Chydenius (2017) aging process in the body means a decrease in water content and an increase in adipose tissue, leading to slower clearance of the amount of alcohol and medications in the body, resulting greater adverse- and interactions. Alcohol worsens many of the normal negative changes of aging as the risk of falls, cognitive and sensory impairment, memory problems and risky fall of blood pressure. Increased sicknesses mean more medications in use, where alcohol can interfere and interact with used medications, causing one big risk for older adults using alcohol. (Salo-Chydenius 2017.) Polypharmacy and substance use can also lead to a situation where medications are not taken in right time. There is also a greater risk of impaired cognitive capacity and lack of proper self-care, including hygiene, nutrition, and other daily activities. The health-care sector may face older abusers still with stigmatized attitudes and in addition, the symptoms of addiction may mimic other somatic problems among this population, leading to under-diagnosis of the abusive behavior. It might also be difficult to believe that older person can even be an addict, due to the stigmatized believes of what substance abuser look like and how they live. (Eliopoulos 2014.)

Retirement is one of the major milestones of a person's life. According to Eliopoulos (2014) retirement can be seen as a transitive process that includes the switch of roles from working individual to realisation of being aging person, including the loss of occupational identity and the perceived loss of being productive member of society. In practice due to retirement, the person has a lot of free time, and the social connections of work life are mostly left behind, leaving an empty space to fill in terms of activity and other social networks. Retirement also means that organisation of persons health care is switched from occupational health care to the public health care. Classically we tend to think that all people arriving to the age of retirement are willing and can left the working life behind. The latest changes in the economical politics have led to increase the retirement age. Also, the less efficient working-life paths has led retired people continue working due to insufficient amount of pension.

The local Finnish risk limits of alcohol use are created for healthy populations under the age of 65 years old who are not using regular medication. The risk-

limits are always personal, and the current international recommendation proposes that for people over age of 65, only four weekly doses, which should not be consumed at once can be seen as safe amount. (Salo-Chydenius 2017.) The local Finnish current care guidelines (2018) state that moderate risk limits of alcohol use for women are seven doses and for men 14 doses per week. The alarming risk limits of alcohol consumption for women are two doses consumed regularly daily or from 12 to 26 weekly doses. For men amounts are either three doses regularly daily base or from 23 to 24 doses weekly. One dose is approximately 12 g of alcohol. For older adults, the risk limits are told to be reduced, without specification. According to these Finnish guidelines among one third of older adults with problematic alcohol use, the problems has emerged in late stage. Also is mentioned that the same treatment methods are valuable for older adults as for working age population and that there is no evidence that age-specific methods would be effective. (Alkoholiongelmat: Käypähoitosuositus 2018.) Different from these are the most recent Canadian recommendations informing that on all occasions every dose of alcohol increases the risks and with all ages, with more than two doses of alcohol the risk of injuries and other problems are also increased. Moreover, it is noticeable that according to these Canadian guidelines, health risks are told to be grater for women with increased use of alcohol, when for men the risks are seen in form of violence, injuries and higher mortality (Canadian center of substance use and addiction 2022.)

According to Partanen, Holmberg, Inkinen, Kurki, and Salo-Chydenius (2015) the informed risk limits vary according by who those are accomplished and so according to them, more important than focusing on the risk limits would be to consider the whole personal situation of the older adult in the case, including persons medical and medication history, current life situation, mental health status, risk-factors, and substance use tendencies. In risk factors there might be seen loneliness, fears, pain, and anxiety and in addition to substance use anamnesis the beliefs and given meanings for substances. They also mention that for older people with risky or problematic substance abuse, it is beneficial to offer help and guidance where the whole life path is taken to account and to emphasize neutral and non-judgmental health-promotive help. (Partanen, Holmberg, Inkinen, Kurki, and Salo-Chydenius2015.) The approach of Partanen and co. is proposing much

more personal and all including nursing care model to manage the possible substance abuse situation in case of older adult. One challenge for caregivers and healthcare is that problematic alcohol use may manifest itself with similar signs as normal symptoms of aging as for example decreased mobility and challenges with cognition (Butt, White-Campbell, Canham, Johnston, Indome, Purcell, Tung, and Van Bussel 2020).

The total amount of Finnish alcohol consumption has declined since the year 2008 and this is the most remarkable reduction in the past 85 years since there has been data to investigate alcohol use. Despite this, from around year 1985 the people over 60 ears and specially women have increased their alcohol intake up today. This trend goes hand in hand with the fact of aging baby boomers, also called as wet generation. This has led to more numerous reported problems by relatives and home-care professionals as well as an increase in mortal alcohol-related sicknesses. (Tigerstedt, Makela, Karllson, Härkönen, Lintonen & Warpenius 2020.) There is very limited focus or discussion about other drug and alcohol use among older adults in Finland. Even in the Finnish site of substance abuse help the focus on older adults substance abuse is mostly on alcohol. The focus is mostly on the use of multiple substances, often prescribed as long-term medication and alcohol. (Salo-Chydenius 2017.)

Finnish institute of health and welfare (Terveyden ja hyvinvoinnin laitos 2022) has published instructions how to bring up the concern of substance abuse among older adults. They emphasize the early recognition, recommending that all health-care units would have clear agreed formalities how to speak about issue and that these formalities could be easily added as a routine part of all normal questionnaires like admission interviews etc. Clear tools for these are AUDIT and AUDIT-C questionnaires, which are planned to use for working-age population. They also recommend the mini-intervention tool which shortly means asking directly about the problem, recognizing it, making a followable plan to change the problem and guidance to the helping services. (Terveyden ja hyvinvoinnin laitos 2022.) Partanen, Holmberg, Inkinen, Kurki, and Salo-Chydenius (2015) propose that when bringing up the issue with older adults is good to use a motivational approach,

emphasizing the right of self-determination, ethical respect and co-operation, taking account the whole life-path experience and the current life-situation. The role of the nurse is to make a non-judgmental and neutral space where the change is possible. They also propose that in addition to AUDIT-questionnaire several other evaluation tools can be used in case of older adults. Some of the examples are S-MAST (Short Michigan Alcoholism Screening test – Geriatric version, DAST-20 (Drug abuse screening test), CAGE (cut down your drinking, Annoyed, Guilty and Eye-opener) and SADD (Short Alcohol dependence Data Questionnaire). (Partanen, Holmberg, Inkinen, Kurki, and Salo-Chydenius 2015.)

3 PURPOSE AND OBJECTIVE

The purpose of this thesis was to conduct a descriptive literature review about reducing factors to help older adults with substance abuse problem.

The research question was: what are the reducing factors in case of abusive use of substances among the population of people over 65 years of age.

The objective was to provide information about reducing factors that could be in use for nurses and healthcare workers when working with older adults with substance abuse problem. Information may also be valid for nursing students and teachers, when finding information about substance abuse among population over 65 years of age. In addition, this information may be used when the aim is to detect and prevent future problems with substances among older adults.

4 METHODOLOGY: DESCRIPTIVE LITERATURE REVIEW

The chosen research method was to do a descriptive literature review. Literature review can be in short defined as an analysis of the chosen literature which is related to the research question, including analysis and appraisal of chosen articles, obtained by systematic method. It should include a research or review question with rationale, method section with search strategy and appraisal and analysis method, result section with findings and lastly the discussion section with recommendations to practise. (Aveyard 2014.)

4.1 Systematic data search

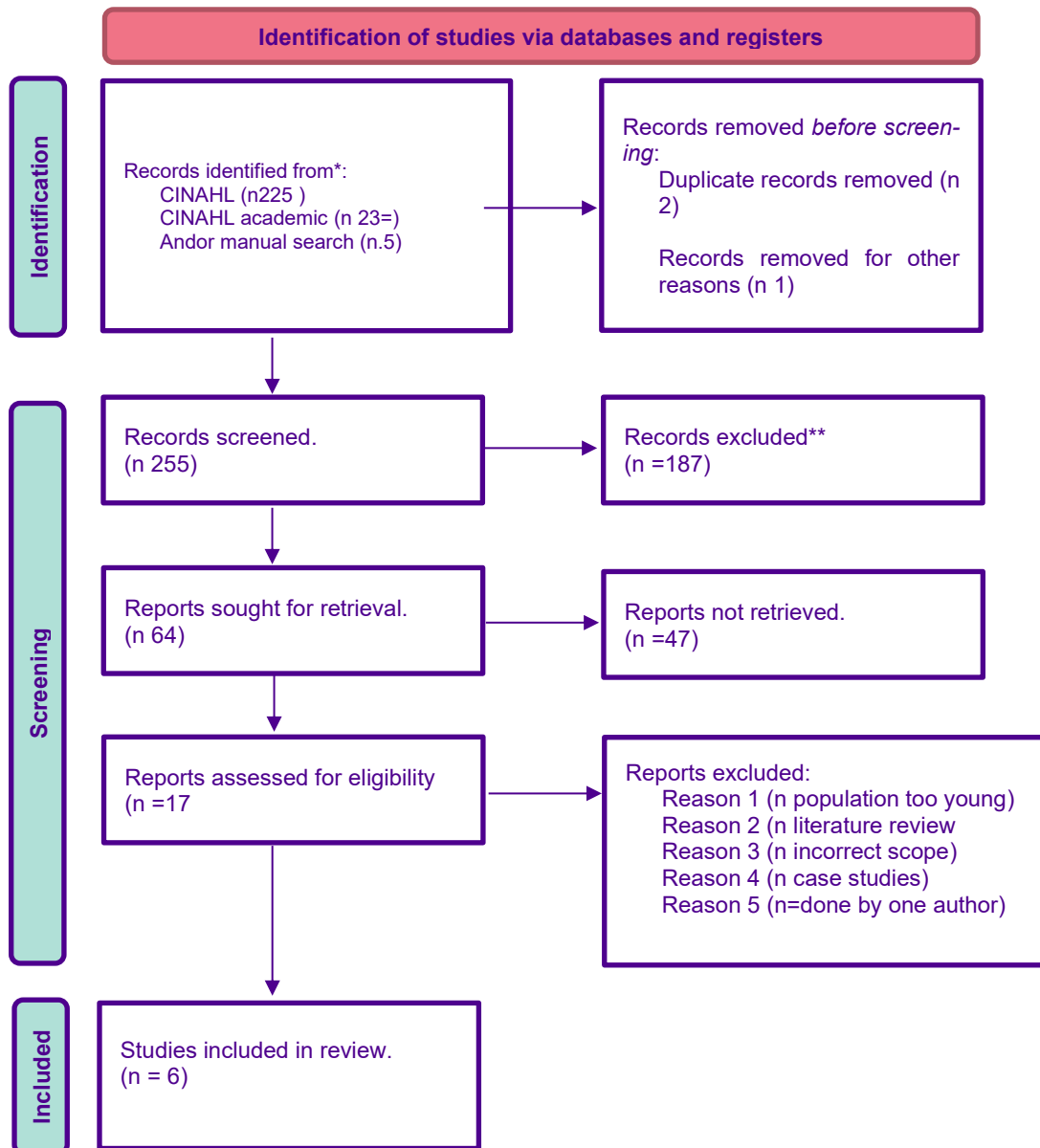
It's essential that conductors of literature review and analysis of content are aware that the quality of information found can differ a lot and the writer must be able to critically analyse and appraise our findings. It must be analysed if findings are relevant and answering for the research question and identify the strong and weak points of those. (Aveyard 2014.) With an aim to find valid and most relevant results limitations were made during the data search. The original inclusion criteria were to limit the search to the articles that were published within the last 10 years and to concentrate to the target population geographically living in Europe, Northern America or in another area that has similar cultural background. During the first phases of data search, it was found that with this limitation there were not enough meaningful results and for this reason the geographical limitation was taken off. Publications needed to be peer reviewed and available to read either in online or in published version and they needed to answer to the research question. Texts written in English or Finnish were included.

Three different searches were done. One search with CINAHL complete, which gave 225 results. Search phrase used was AB (geriatrics or older adults or elderly or aged or older or elder or elderly) AND AB (addiction or substance abuse or drug abuse). Limitations used were to search for full texts, with abstract available, published and peer reviewed. Text needed to be in English language and published between 1.1.2012-31.12.2023. Age groups +65 years. Expanders were used to apply also related words; to also search within the full text of the articles

and to apply equivalent subjects. From those 32 articles were preliminary chosen to closer observation and finally two articles were chosen to analysis. Another search was done from CINAHL Academic with 23 results, where 22 were chosen to preliminary reading and one article was chosen to analysis. Search phrase used was SU (("substance abuse" OR "alcohol abuse" OR "substance dependence" OR "drug abuse" OR "substance use disorders" OR Drug addiction") AND (aged OR "retired" OR 65+ years)) AND (65 years and older). Texts needed to be peer reviewed, published and with abstract available, within the same time frame as in first search but without limitation of language. Expanders were used to apply related words and to apply equivalent subjects. From this search one article was chosen manually. For the sake of not satisfied number of relevant articles one more search was done. Third search was manual search from Andor tuni library database giving 5 results from where 5 results were found and two was picked to reading. Articles needed to be peer reviewed and published with abstract available. Those two articles were finally also chosen to analysis. Also, one manually picked study was chosen to final analysis, which was found among the second search done from CINAHL complete. Some of the reasons for exclusion of articles at first phase were for example that the target population of the study was younger that was set for this analysis, also case-studies and literature reviews were excluded.

The last manual search was done, because from two original searches only four studies were significant and that was considered too little amount to create meaningful analysis of the study question. Also, the fact that after those two preliminary searches, the study question was minimized to concentrate only to factors that reduce substance abuse, some of the chosen articles did not let make meaningful reductions of themes as the results were concentration on aggravating factors. Results of data search are presented in detail at index one. Above explained data search process is presented in Prisma chart (Page, McKenzie, Bossuyt, Boutron, Hoffmann, Mulrow, Shamseer, Tetzlaff, Akl, Brennan, Chou, Glanville, Grimshaw, Hróbjartsson, Lalu, Li, Loder, Mayo-Wilson, McDonald and Moher 2021) at figure 1.

FIGURE 1. Flow chart of literature search (Prisma Flow Diagram 2023. Modified)



4.2 Thematic analysis

Different recommendations of how to analyze qualitative research results are only directive recommendations, but not rigid rules as the whole procedure of analysis can be described as a looping and dynamic process, which is good to give time and space to grow (Braun and Clark 2006). In this thesis, thematic analysis is used to open the results of the chosen records. Thematic analysis in short means that the researcher spots and classifies repetitive themes from results and describes them to the reader in categorical and comprehensive way (Braun and

Clark 2006). To be able to do so, it's important that researcher gets familiar with chosen records, simply by reading results through multiple times with an open mind, to finally be able to reveal something new, beyond the original results of every record. From the process of repetitive reflective reading, the researcher can identify contents that are correlating and answering the study question. These themes then will be named, meanings are given, and finally, different themes organized into categories and reported. (Sundler, Lindberg, Nilsson & Palmér,2019.).

In practice, during the process of this thesis, the analysis started by extraction of preliminary emerged themes from the results, which seemed to give a response to the research question. Chosen articles were read several times and exact phrases and parts of the findings answering to the research question, were chosen and further collected together. After this, the collected phrases were investigated, grouped and re-grouped in the way that preliminary theme groups started to be formed. Grouping and naming the main themes and categories was done several times in aim to find the most suitable and descriptive theme-names for main categories and further for the subcategories. Finding the most descriptive themes for the main categories was the most challenging part of the analysis. An example of the process in this thesis is presented here in table 1. The whole selection of themes and categorization of those is presented in index 2.

TABLE 1. Themes

Factors affecting to reduce substance abuse among population older than 65+

Original phrase	Reduction	Main Category	Subcategory
Social participation can take various forms: practice sports, meet friends every week or do volunteer work. These various forms of social participation contribute to reducing, controlling or increasing seniors' psychological well-being as well as their substance use, while also helping to reduce social isolation. For instance, one participant explained that after his wife died, he would go to a bar to drink to alleviate his sadness and help pass the time. This allowed him to meet new people, but these new relationships actually aggravated his alcohol consumption. (1)	Various forms of social participation contribute to control their substance abuse (1)	Psychosocial	Social
	Various forms of social participation contribute to reduce their substance abuse (1)	Psychosocial	Social

The main categories of themes found were Health and Psycho-social factors. Health category was structured with four subcategories including health-care interventions (3,6), factors that promoted the swift from addiction to sobriety (2,4,5,6), factors related to experienced changes in health status that promote sobriety/decrease substance abuse (1,2,5 6) and factors related to mental health status that promote sobriety. (5,6). Under the main category of psycho-social factors, two subcategories were found. Social factors that promote sobriety, (1,3,5, 6) and daily activities that included activities out from home that helped to decrease or regulate the substance abuse (1,5,6)

5 RESULTS

Chosen articles were published between 2014 and 2021 in Finland, Canada, the United States, and Norway and were written in English or in Finnish. Studies included in depth and semi-structured interviews and phenomenological-hermetic analysis, secondary analysis from longitudinal data and thematic analysis were used. Six studies were chosen for analysis. From thematic analysis, health- and psycho-social- themes were found, that helped to reduce substance abuse or helped to stop using totally. Themes are presented here at picture 2.

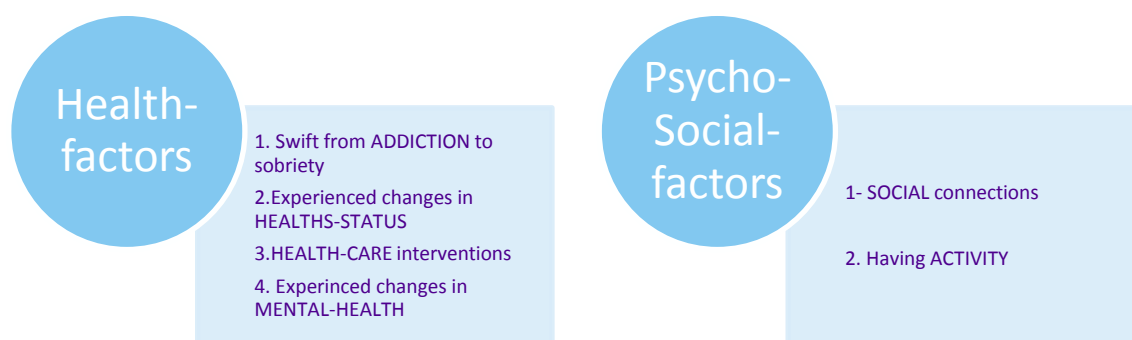


FIGURE 2. Factors reducing substance abuse.

5.1 Health-factors

Health factors encompassed swift from addiction to sobriety, experienced changes in health-status, healthcare interventions and experienced changes in mental-health. It was found that interventions done by healthcare services helped to decrease substance abuse (3). Also integrated care and enhanced referral to care were seen to reduce risky drinking as well as participation to specialized medical center visits, that in this case was aimed for veterans (3). Also, home care and family doctor had an important role for older adult when seeking help to substance abuse (6). In addition, sufficient information about adverse effects of alcohol consumption may direct the choices of older adults when getting help to substance abuse problem (6).

Own will, making decision, being motivated and awareness were personal factors that helped to swift from addiction to sobriety (5). Taking benzodiazepines to need or taking benzodiazepines because one is told to do so was not perceived as dependence (4). The understanding was, that if one takes more benzodiazepines than what is indicated at their prescription would be perceived as addiction and that made them not to do so. (4). The belief that increased use of benzodiazepine can result as addiction, manifested itself only when using regular, low doses (4). It was seen that sometimes older adults just did not feel desire to use alcohol no more (2). For some, the earlier lifestyle during active drinking, were everything was put down from throat and decreased satisfaction of the destructive lifestyle of active drinking, promoted the will to quit drinking (5). Being motivated had an important role in quitting abusive drinking and regulation of actions with conscious solutions were used to exclude drinking alcohol from life. (5) In addition, also mere control was used to maintain sobriety (6). Also, self-made decisions were important when seeking help to treat substance abuse problem (6).

Experienced changes in health status promoted sobriety or helped to decrease substance abuse. The health issues had led to decision to quit drinking (5) and the positive impact of sobriety to overall health might have helped older adults to consider their drinking (6). Decreased physical and cognitive health made older adults to realize the extent of their substance use (1). Older adults used less alcohol than before because the effects of alcohol had become stronger due aging and in case of combined use of medications and alcohol, older adults had reduced their alcohol use due to negative experiences (2).

Things that promoted mental health wellbeing and sobriety were also found. Older adults thought that working on traumatic experiences might have prevented from alcohol consumption and that emotionally safe environment of childhood would have prevented from alcohol consumption (5). The will to live and understanding of the finiteness of life had led to decision to quit abusive drinking (5) and experiencing negative changes in personality due to drinking promoted desire to reduce alcohol consumption (6). Importantly the experience of being heard and seen may also prevent from alcohol consumption (5).

5.2 Psycho-social factors

Psycho-social theme was combined with social connections that promoted sobriety and in addition having activity was also seen as reducing factor. Older adults saw that various forms of social participation contributed to control their substance abuse and to reduce their substance abuse (1). Volunteering helped them to learn to experience moments without substances and to enjoy themselves without substances (1). Having close social relationships might prevent from alcohol consumption (5) and relatives were seen to have an important role when seeking help to substance abuse (6). Also having company who does not drink, might have positive effect on sobriety (6). Another important aspect noticed was different kind of activities in and out from home that helped to decrease or control substance abuse. Just moving around out of home might promote the sobriety (6). Work was seen to prevent from alcohol consumption (5) and just having work-kind of activity helped to regulate the alcohol consumption (6). Furthermore, the meaningfulness of working life was seen something that might prevent from alcohol consumption (5). It was also seen that having daily activities made a difference in substance use (5). It was seen that doing something that towards focus and attention away from alcohol helped in quitting abusive drinking (5). Also, every day routines might prevent from alcohol consumption (5). Due to the retirement older adults have more free time and in this contrast possibility to sleep during daytime made them see use of sleeping pills exaggerated (2).

6 DISCUSSION

6.1 Ethics and reliability

The responsibility of every researcher is to understand the latest legislations and policies of research ethics and is beneficial to ponder ethical questions to clarify the purpose and objectives of their research. The preliminary ethical question to ask is, is there a need of the information this thesis could provide and do we need to involve people in our research. (Griffith 2009.) To answer the question of need, during preliminary literature research it was noticed that most of the results were concentrated on aggravating factors or risk factors that predict problematic use of substances. With the results of this thesis, it is possible to provide information around the supportive and reducing factors. In this thesis, descriptive literature review was conducted and previously published secondary data was used in analysis. The literature review must be done ethically, using the best methods and best available data (Griffith 2009).

One ethical theme that was pondered during the process, was the choice of non-judgmental and ethically correct terms to describe the target population. As mentioned at the theoretical starting point, the choice to use term older adults over elderly was done to describe the target population. This term is used on all occasions by the author, yet some authors of the original sources have used other terms and for purpose to maintain the integrity of the original authors, those terms are kept.

The Finnish national board on research integrity has also published guidelines for conducting research in ethical and responsible way (Varantola, Launis, Helin, Spoo and Jäppinen 2013). In this thesis, the principles of those guidelines are followed. The results will be published and communicated in an open and responsible way to enhance the distribution of scientific data and the work of other researchers will be respected by using correct citations, giving the credit to the original writer of different recourses.

In this thesis, the number of meaningful results was only six and this leads to pondering if the results can be seen as valid in a broader view, in contrast with the research question. The thesis provides some meaningful responses, but it would be needed to repeat again the systematic data search with more knowledge of the usage of different search engines to find bigger number of meaningful results.

One challenge of the thesis process was to form such a research question that would be proper to the set objective. The original aim was to provide usable information for nurses to apply nursing care and nursing interventions when they face older adults as clients with substance abuse disorder. During the initial data searches, this question appeared to be too large, and meaningful results were not found inside the wanted timeframe. Then the objective was changed to focus on factors that affect substance abuse in the target population. Finding enough results was also challenging with this scope and many of the found results were not applicable to this thesis due to their inappropriate study design or inappropriate target population, meaning that the population was for example from an age group starting from people 60 years old of age. Another challenge was to build up the most usable search phrase, as the words “old” and “geriatric” are used largely in studies, which meant a huge number of results that did not answer to search question of this thesis or offered an unmanageable number of results to screen.

The big challenge of this thesis was that the work was started by two students, but in the middle of the process the team was split in two. In practise this meant that the whole research question needed also to be split in two. The research question of this thesis was reduced only to consider reducing factors of substance abuse among older adults. This meant in practice that during the two first data searches, the research question was considering factors affecting substance abuse among older adults, including reducing and aggravating factors. This led to a situation where the resources screened offered a lot of information considering the initial research question, but not enough results around the reducing factors. Due to this one more search was done. In addition, during the analysis phase, it was a challenge to do the process with only one author. This meant,

there was not possibility to the reflective, communicative process, which would have enhanced the and validity of the results.

6.2 Discussion of key results

The results of this study demonstrated that having social connections may be beneficial when facing challenges with substance abuse. In other words, the need that emerged in this study was to work against the loneliness and enhance older adults to obtain social connections when facing substance abuse problems. According to the World Health Organisation (2021) social isolation and loneliness of older adults is ever increasing and existing problem in many parts of the world, including Europe, which leads to earlier mortality, worsens the quality of life, and decreases their physical and mental health. Compared between the Nordic countries, more loneliness is experienced in Finland and Sweden among older adults (Dahlberg, Frank, Lennartsson, McKee, Naseer, and Rehnberg 2020). Study of Nyqvist, Näsman, Hemberg and Nygård (2023) revealed that those experiencing loneliness, felt it getting even worse and chronic over time and that risk factors for becoming lonely were self-estimated poor health and loss of the partner. In the Canadian context it has been seen that loneliness among older adults is associated with higher rates of polypharmacy and daily use of opioids and benzodiazepines (Manav, Watt, Straus & Kapral 2021).

Another reducing factor according to the results was, that having some activity or work-kind of activity would be beneficial to reduce the use of substances. The union of retirees executed a questionnaire among 5000 Finnish retired people and according to the answers significant amount of people wanted to continue still working after official retirement age and some wanted to keep their freedom for spare time. The clear outcome of the answers was, that those who still wanted to work, and longed after that society would enable and enhance their possibility to work and organise recruit-services specialized for their age-group (Hiltunen, 2020). In light of these answers, it would be needed that the government would facilitate the part-time working opportunities of those older adults willing to do so, which might be beneficial in both economical level and enhancing the health status of this population.

Results furthermore showed that mental health status, aging and the process from addiction to sobriety were crucial factors to reduce the use of substances. Regarding these above-mentioned aspects, it is beneficial to consider how the society may better support older adults facing substance abuse problem and additionally to see the individual's situation deeper. One way is to widen our understanding of addiction and acknowledge the social aspect of it. Smith (2021) bases his view on Albert Bandura's social learning theory, claiming that drug addictions merge from the functional triangle of individuals' specific personality, social entourage, and substance-focused comportment. From this viewpoint, he also claims that when helping people with drug addiction, all above mentioned aspects should be taken in consideration and focuses the look for the aftercare. One efficient way to take care of the aftercare, is to promote the attendance to Narcotic and Alcoholics anonymous meetings, which has proven to be efficient way to help to recover and to avoid relapse. The 12-step program of these associations recognizes the addiction with broad view and these associations offer a permanent social environment and context for the individual seeking help, which is totally cost free of charge for the individual and for the society. (Smith 2021.)

Regarding on mental health aspect, the Finnish mental health association MIELI invited together 33 co-working parties to workshops to construct a vision (Ikääntynyt mieli 2050-visio) on how to enhance the mental health and well-being of older adults above age 65 of years. As a result of those workshops, the vision was compound of eight principles that should be taken in consideration when aiming to develop the situation of older adults. Age-friendly attitude atmosphere, prevention of inequalities, mental health as a life skill, social inclusion and daily life encounters, sufficient services, age friendly housing and seeing older adults as important work-life resource were brought up to be important goals. In addition, it was seen that environmental carrying capacity must be taken in consideration and facilitate the accessibility to local nature. (MIELI ry 2023.) This vision of MIELI is responding in many ways to the needs that emerged from this thesis and offering a great point of view for the future development of the services for older adults, taking in consideration the whole wellbeing situation of the older adults.

Healthcare interventions were also seen to have an impact on substance abuse. The reform of the health care organization in Finland was effectuated at the beginning of the year 2023 with the aim to ameliorate accessibility and nature of the services (Finnish government 2023). Several well-fare areas have reported the need to run through co-determination negotiations and re-organisation of the services due to the economical deficit in addition with lack of medical staff resources (Riipinen 2023). This means that in many ways the organisation of basic and specialised care needs to be re-organised, meaning that also the organisation of older adult's care needs changes in aim to cover all the costs but also providing needed care. According to Tarja Virolainen (2023) the new health-care reform means also as a new start for substance-and mental healthcare services. This means for example that people should get help from same organisational unit to both mental health and substance abuse problem, help should be organised more rapidly than before and this applies to all age groups, despite where in Finland they live (Virolainen, 2023). In the scope of the results of this thesis, highlighting the importance of healthcare interventions, this vision of new services and changes gives a positive picture. Times of change added with economic challenges might be difficult, but they may also be seen as an opportunity to develop the better services for older adults.

Lastly, the number of articles chosen to the analysis of this thesis was limited and would be beneficial to continue further with the theme to more deeply understand the factors that may help older adults to manage and control the substance abuse. Further studies could also dive to investigate how the new social- and welfare areas have managed to support and enhance the care of the vulnerable group of older adults facing challenges with their substance abuse and mental health well-being.

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APPENDICES

Appendix 1. Articles chosen for analysis

Title, author, year, publication year, country	Purpose	Method, Study, Population	Main results
<p>1. Problematic Substance Use, Help-Seeking, and Service Utilization Trajectories among Seniors: An Exploratory Qualitative Study</p> <p>Aubut, Valérie., Wagner, Vincent., Cousineau, Marie-Marthe., Bertrand, Karine.</p> <p>Journal of psychoactive drugs, 2021, Vol.53 (1), p.18-26</p> <p>https://doi.org/10.1080/02791072.2020.1824045</p> <p>2020</p> <p>Canada</p>	<p>To investigate the perspectives of older adults related to their substance use experiences, help-seeking and utilization of addiction treatment services</p>	<p>In-depth interviews were conducted among 11 older adults, who received treatment for addiction, living in Quebec. Thematic analysis was used as a method in analysis.</p>	<p>Experiences, life contexts, and social participation influenced the substance use of target population and use was seen as a tool of adaptation when loneliness, boredom and hard times were faced. Triggering factor to seek help might have been the understanding of amounts used. Social connections were important in help seeking process.</p>
<p>2. Older peoples' narratives of use and misuse of alcohol and psychotropic drugs.</p> <p>Aud Johannessen, Anne-Sofie Helvik, Knut Engedal, Venke Marion Sørli.</p> <p>https://doi-org.libproxy.tuni.fi/10.1111/scs.12282</p> <p>2015</p> <p>Norway</p> <p>Manually retrieved.</p>	<p>To investigate older peoples' experiences and reflections on the use and misuse of alcohol and psychotropic drugs among older people.</p>	<p>Qualitative interviews were done of 16 older adults between ages of 65 and 92. Phenomenological hermeneutic method was used in analysis.</p>	<p>Most had used alcohol and psychotropic substances without any experienced challenges, seeing the use as normal for older adults. Healthcare provider as prescriptions writer was seen as responsible for use. Risks of use were not well known.</p>

<p>3. Comparing behavioural health models for reducing risky drinking among older male veterans.</p> <p>The American Journal of Drug and Alcohol Abuse, 43(5), 545–555</p> <p>Wooten, N. R., Tavakoli, A. S., Al-Barwani, M. B., Thomas, N. A., Chakraborty, H., Scheyett, A. M., Kaminski, K. M., Woods, A. C., & Levkoff, S. E.</p> <p>https://doi.org/10.1080/00952990.2017.1286499</p> <p>2017</p> <p>United States</p>	<p>To compare two behavioural health models, integrated care, and enhanced referral care for reducing risky drinking among older male VAMC primary care patients. (VAMC: Veterans Affairs Medical Centre)</p>	<p>Study was a secondary analysis of longitudinal data obtained from PRISM-E, a multi-site randomized controlled trial (RCT). It was used to make comparison between health-models. Population was people between ages of 65-74 who were primary care patients, had depression and anxiety and/or had habit of risky drinking among civilian patients of VAMC (Veterans affairs medicine centre). n.438</p>	<p>Enhanced and integrated care was shown to reduce risky drinking. Is possible that integration of behavioural health care to geriatric care, might serve as a reducing tool in case of risky drinking. It needs to be noted that possibly, the care offered from VAMC may be more effective compared to</p>
<p>4. Perceptions of Benzodiazepine Dependence Among Women Aged 65 and Older</p> <p>Canham, S. L., Gallo, J., & Simoni-Wastila, L. Journal of Gerontological Social Work, 57(8), 872–888.</p> <p>https://doi.org/10.1080/01634372.2014.901470</p> <p>2014</p> <p>United States</p>	<p>To study does older women with chronic benzodiazepine users identify themselves as dependent, how dependence was perceived, and how meanings and understandings shaped experiences of benzodiazepine use</p>	<p>Semi structured interviews were done, and descriptive phenomenological design was used to explain results.</p>	<p>Self-reported benzodiazepine dependence was associated with being unable to reduce use or a desire to discontinue use and reliance on benzodiazepines to remain comfortable and able to handle daily life.</p>

<p>5."Toivoni ainoa tuskaton tuokio pieni." : Fenomenologis-hermeettinen tutkimus ikääntyneiden alkoholinkäytön syistä ja merkityksistä.</p> <p>Noekoski Petra</p> <p>https://urn.fi/URN:NBN:fi:tuni-202005295824</p> <p>2020</p> <p>Finland</p>	<p>To investigate reasons and meanings given that are linked to alcohol consumption among older adults</p>	<p>Thematic interviews of six individuals born between 1946 and 1955 and Phenomenological-hermetic analysis</p>	<p>Five themes were found that were linked to alcohol use of older individuals: situational social context and cultural models, the relationship between alcohol use and routines and habits, alcohol use as a mechanism of emotional self-regulation, the link between alcohol use and traumas and alcohol as medicinal use. Also, separational models were found.</p>
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<p>6. Tampereen päihdepalvelu ja kotipalvelu ikääntyneiden ja kotihoidon työntekijöiden kokemana. Puustinen Jarno. https://urn.fi/URN:NBN:fi:uta-201509112291 2015 Finland</p>	<p>To investigate how alcohol using older adults perceive their functional capacity and how this capacity is seen at eyes of homecare and what kind of care is offered to home for these individuals. Also aim is to investigate the experiences older adults and home care personnel has from substance abuse services.</p>	<p>Thematic interviews of seven individuals receiving home-care services and five home-care professionals. Theoretical framework of the study combines ethnographic and phenomenological approach.</p>	<p>In general basis, older adults have trust on home-care services, but the young age of workers and high staff turnover is seen as a negative aspect. Also, they perceive it's difficult to get treatment and specially with low threshold. Employees are worried over lack of instructions when facing violent clients and about responsibility issues when helping clients that are drunk. Employees also consider that difficulties to get treatment for individuals with low functional capacity as well as the difficulty to receive after-care without interruption in treatment chain or without long waiting time.</p>
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Appendix 2

Themes

Original phrase	reduction	Main category	Subcategory
<p>Social participation can take various forms: practice sports, meet friends every week or do volunteer work. These various forms of social participation contribute to reducing, controlling, or increasing seniors' psychological well-being as well as their substance use, while also helping to reduce social isolation. For instance, one participant explained that after his wife died, he would go to a bar to drink to alleviate his sadness and help pass the time. This allowed him to meet new people, but these new relationships actually aggravated his alcohol consumption. (1)</p>	<p>Various forms of social participation contribute to control their substance abuse (1)</p>	Psychosocial	Social
	<p>Various forms of social participation contribute to reduce their substance abuse (1)</p>	Psychosocial	Social
<p>Other seniors noticed social participation, especially volunteering, had an effect on their psychological wellbeing and substance use. Volunteering gives them a sense of contributing to society, and helps them learn to experience moments without using substances and enjoy themselves (1)</p>	<p>Volunteering help to learn to experience moments without substances. (1)</p>	Psycho-social	Social
	<p>Volunteering help to enjoy themselves without substances. (1)</p>	Psycho-social	Social
<p>An important motivation for seeking help is the onset of various health consequences. Their deteriorating physical and cognitive health made some participants realize the extent of their substance use. (1)</p>	<p>Decreased physical health made older adults to realize the extent of their substance use (1)</p>	Health	Health status
	<p>Decreased cognitive health made older adults to realize the extent of their substance use (1)</p>	Health	Health status

<p>The informants who used alcohol expressed that they did not drink the same amount of alcohol now as they had earlier in life, because the effects of alcohol have become stronger, or they did not fancy it any longer and is well described by the following extract from an informant's transcript. Now it's a little sorry for me because I have no desire for alcohol any longer. (2)</p>	<p>Older adults used less alcohol than before because the effects of alcohol have become stronger due aging (2)</p> <p>Older adults did not feel desire to use alcohol no more (2)</p>	<p>Health</p> <p>Health</p>	<p>Health status</p> <p>Addiction</p>
<p>The informants explained that they had retired now and could sleep whenever they wanted to and that use of pills was exaggerated. However, they expressed as well that many older people use sleeping pills regularly today, which they did not do some years ago, and described by an informant in this way: Some people use sleeping pills as a candy (2)</p>	<p>Possibility to sleep during daytime made them use of sleeping pills feel exaggerated (2)</p>	<p>Psychosocial</p>	<p>Activity</p>
<p>The informants said that they had negative experiences with combining medications and alcohol, and for that reason they had reduced the amount of their alcohol use, but not their use of psychotropic drugs. (2)</p>	<p>In case of combined use of medications and alcohol, older adults had reduced their alcohol use due to negative experiences. (2)</p>	<p>Health</p>	<p>Health status</p>
<p>The unadjusted prevalence of risky drinking revealed that risky drinking decreased among older veterans assigned to both behavioural health models over time. For integrated care, risky drinking decreased from 100% to 61.8% at 3 months and from 61.8% to 52.8% at 6 months. For enhanced referral care, risky drinking decreased from 100% to 59.5% at 3 months and from 59.5% to 52.9% at 6 months. (3)</p>	<p>Integrated care reduced risky drinking. (3)</p> <p>Enhanced referral to care reduced risky drinking (3)</p>	<p>Health</p> <p>Health</p>	<p>Healthcare</p> <p>Health care</p>
<p>Older male veterans seen at VAMC 4 had lower odds of risky drinking (AOR: 0.24; 95% CI: 0.07–0.81) compared to those seen at VAMC 1. (3) (Veterans Affairs Medical Centers)</p>	<p>Participation to Veterans Affairs Medical Centre visits reduces the odds of risky drinking (3)</p>	<p>Health</p>	<p>Health care</p>

<p>Concern over addiction/abuse maintains low-dose benzodiazepine use: A final theme that emerged from the data was the influence of informants' concern about addiction on the amount of benzodiazepine used. Perceiving that an increase in one's prescribed benzodiazepine dose would result in addiction kept informant's benzodiazepine use at regular, low doses. (6)</p>	<p>The perception that increased use of benzodiazepine can result addiction, manifests in only using regular, low doses. (4)</p>	<p>Health</p>	<p>Addiction</p>
<p>Three informants, Evie, Andrea, and Betty did not perceive being dependent on their benzodiazepine. Evie, who used alprazolam as well as zolpidem, a nonbenzodiazepine sedative-hypnotic, reported feeling dependent on zolpidem: "I'm dependent on the Ambien [zolpidem] because I can't sleep without it." Andrea, who did not state feeling dependent, reported being unable to sleep without temazepam: "If I don't take it, I'm not sleeping." Betty, too, did not report feeling dependent on clonazepam, which she begun using 3 months prior to the interviews following an anxiety attack: "I take them because I was told to. ... I don't think that's being dependent on them." (4)</p>	<p>Taking benzodiazepines to need, is not perceived as dependence. (4)</p> <p>Taking benzodiazepines because one is told to do so, is not perceived as dependence. (4)</p>	<p>Health</p> <p>Health</p>	<p>Addiction</p> <p>Addiction</p>
<p>The life-change has been preceded by health problems that have influenced the decision to get sober. The interviewees describe how change of life has been necessary. In the situation there has been both a forcing necessity and a choice in terms of how one wants to live one's own life. The desire to live has been stronger than the sometimes-short-term benefits of substance use. (5)</p>	<p>The health issues have led to decision to quit drinking. (5)</p> <p>The will to live has led to decision to quit abusive drinking. (5)</p>	<p>Health</p> <p>Health</p>	<p>Health-status</p> <p>Mental health</p>
<p>Realizing the finiteness of one's own life has been a factor that has made the interviewee sober (5)</p>	<p>Understanding of the limitless of life has led to quit abusive drinking (5)</p>	<p>Health</p>	<p>Mental health</p>

<p>Although it has not been easy to exclude alcohol, the motivation to quit has been so great that after the decision, alcohol was no longer taken. One's own actions have been regulated with very conscious solutions, for example, by doing something that has distracted attention and thoughts from alcohol. (5)</p>	<p>Motivation has important role in quitting abusive drinking. (5)</p> <p>Doing something that towards focus away from alcohol helps in quitting abusive drinking. (5)</p> <p>Doing something that towards attention away from alcohol helps quitting abusive drinking (5)</p> <p>Regulation of actions with conscious solutions is used to exclude drinking alcohol from life. (5)</p>	<p>Health</p> <p>Psycho-social</p> <p>Psychosocial</p> <p>Health</p>	<p>Addiction</p> <p>Activity</p> <p>Activity</p> <p>Addiction</p>
<p>Although my main purpose was to find in the speeches of the interviewees the mechanisms of the emergence of alcohol consumption and related events in the lives of older people, factors that prevented alcohol consumption inevitably also emerged. These include everyday routines, work, and the meaningfulness of working life, close relationships and relationships, the experience of being heard and seen, working on traumatic experiences, and the emotionally safe environment of childhood. (5)</p>	<p>Every day routines may prevent from alcohol consumption. (5)</p> <p>Meaningfulness of working life may prevent alcohol consumption. (5)</p> <p>Work prevents from alcohol consumption (5)</p> <p>Close relationships may prevent from alcohol consumption (5)</p> <p>The experience of being heard and seen may prevent alcohol consumption (5)</p> <p>Working on traumatic experiences may prevent from alcohol consumption (5)</p> <p>Older adults believe that emotionally safe environment of childhood would have prevented from alcohol consumption (5)</p>	<p>Psycho-social</p> <p>Psycho-social</p> <p>Psycho-social</p> <p>Psycho-social</p> <p>Health</p> <p>Health</p> <p>Health</p>	<p>Activity</p> <p>Activity</p> <p>Activity</p> <p>Social</p> <p>Mental health</p> <p>Mental health</p> <p>Mental health</p>

<p>The interviewee's quote shows how strong the will to quit has been. The previous lifestyle no longer produced the satisfaction to be continued. Before becoming sober, the interviewee had, for example, also lost his apartment due to alcohol consumption, when he "puts everything, he sees down his throat". (5)</p>	<p>The earlier lifestyle during drinking were everything was put down from throat, promoted the will to quit drinking (5)</p> <p>Decreased satisfaction of the destructive lifestyle of active drinking promote will to quit drinking (5)</p>	<p>Health</p> <p>Health</p>	<p>Addiction</p> <p>Addiction</p>
<p>Older people also try to maintain sobriety through conscious solutions and control it through various means. One's own state of intoxication was closely monitored, and it could be stopped even by force. (6)</p>	<p>Conscious solutions are used by older adults to maintain sobriety (6)</p> <p>Sobriety is tried to be maintained by mere control (6)</p>	<p>Health</p> <p>Health</p>	<p>Addiction</p> <p>Addiction</p>
<p>Elderly people reported that they had received sufficient information about the adverse effects of alcohol consumption, and their own choices were seen as important factors in getting help related to treating a substance abuse problem. (6)</p>	<p>Sufficient information about adverse effects of alcohol consumption may direct the choices of older adults when getting help to substance abuse problem (6)</p> <p>Self-made decisions were important when seeking help to treat substance abuse problem (6)</p>	<p>Health</p> <p>Health</p>	<p>Addiction</p> <p>Addiction</p>
<p>The elderly person expressed the desire to prolong periods of sobriety. She said alcohol changes her personality in a more negative direction. Without alcohol, he reported that he was more cheerful and active. Reducing alcohol consumption would also be in favor of the interviewee's state of health, which had made him think about things. The interviewee would like to prolong the periods of being clear, but on the other hand, considers the future and his alcohol consumption to be complicated. A certain uncertainty was noticeable in the interviewee's speeches. The week goes by lightly without drinking, but then after a week you start to slowly get a little carried away. [...] I often have a moral hangover even before I've taken the first one, I know I'm not going to take it now. (6)</p>	<p>Experiencing negative changes in personality due drinking promote desire to reduce alcohol consumption (6)</p> <p>The sobriety's positive impact on overall health may help older adults to consider their drinking (6)</p>	<p>Health</p> <p>Health</p>	<p>Mental health</p> <p>Health status</p>

<p>Of the seven interviewees, one had the hope of completely getting rid of alcohol in the future. This is a way of talking about a positive and goal-oriented attitude towards alcohol. According to the interviewee, in order to achieve sobriety, he would need: Well, if you had sober company and could move around a little bit, instead of just being here at home. Now it has been the last few years that there is always someone new to the disease. (A2,92) The interviewee mentions factors that he would need on the way to sobriety. (6)</p>	<p>Moving around out of home may promote the sobriety (6)</p> <p>Having company who does not drink, may have positive effect on sobriety (6)</p>	<p>Psycho-social</p> <p>Psycho-social</p>	<p>Activity</p> <p>Social</p>
<p>Retiring from working life also brought changes in life, as a result of which the number of times alcohol was consumed increased. The importance of work was evident when the interviewee said that he had not been absent from working life due to drinking and that there had been no time for drinking due to two jobs. Work can be seen to have been important in regulating alcohol consumption and setting the rhythm of life. (6)</p>	<p>Having work-kind activity helps to regulate the alcohol consumption (6)</p>	<p>Psycho-social</p>	<p>Activity</p>
<p>The role of relatives in referring them to substance abuse services was decisive for two interviewees. According to the interviewees, seeking substance abuse services would have been impossible without relatives. The elderly person said that the family doctor helped them find the right service, and two interviewees thanked home care for referring them to treatment. Of all those interviewed, only one said that they had sought treatment independently in 72 cases. Family members and loved ones can be seen as key guarantors of the well-being of the elderly (6)</p>	<p>Relatives have an important role in seeking help to substance abuse (6)</p> <p>Home care has an important role in seeking help to substance abuse (6)</p> <p>Family doctor has an important role in seeking help to substance abuse (6)</p>	<p>Psycho-social</p> <p>Health</p> <p>Health</p>	<p>Social</p> <p>Healthcare</p> <p>Healthcare</p>