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Motives and barriers for performing pleasurable activities

Study on the motives and the barriers for performing pleasurable activities in the daily life of the Dutch elderly population

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Dear reader,

In your hands you have my bachelor thesis, "*Motives and barriers for performing pleasurable activities*". I have worked on this thesis for six months, and I would like to thank a few people for their support during this period.

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Achtergrondinformatie

De Nederlandse samenleving wordt steeds ouder, wat leidt tot hogere zorgkosten als gevolg van de stijgende vraag naar gezondheidszorg. 'Active ageing', actief ouder worden, heeft als doelstelling ouder worden terwijl de autonomie en de zelfstandigheid van het individu zo lang mogelijk behouden worden. Dit heeft als uiteindelijke consequentie lagere zorgkosten. Actief ouder worden wordt geassocieerd met participatie op sociaal, economisch, cultureel en spiritueel domein, alsmede betrokkenheid bij burgerlijke activiteiten. Het ondernemen van vrijetijdsactiviteiten is een vorm van participatie in de maatschappij, en daarmee een vorm van actief ouder worden.

Probleemstelling

Het probleem waar dit onderzoek zich op richt is dat hoe ouder Nederlandse ouderen worden, hoe minder tijd zij besteden aan vrijetijdsactiviteiten. De oorzaak hiervoor kan gevonden worden in mogelijke belemmeringen die zij ondervinden, maar het kan ook verwacht worden dat zij drijfveren ondervinden wanneer zij vrijetijdsactiviteiten ondernemen. Dit heeft geleid tot de volgende hoofdvraag: '*Wat zijn belemmeringen en drijfveren bij het ondernemen van vrijetijdsactiviteiten in het dagelijks leven van Nederlandse ouderen?*' Deze hoofdvraag zal worden beantwoord aan de hand van drie deelvragen: '*Wat zijn activiteiten die als plezierig worden beschouwd door Nederlandse ouderen?*', '*Wat zijn belemmeringen voor het ondernemen van vrijetijdsactiviteiten in het dagelijks leven van Nederlandse ouderen?*' en '*Wat zijn drijfveren voor het ondernemen van vrijetijdsactiviteiten in het dagelijks leven van Nederlandse ouderen?*'

Onderzoeksmethode

De onderzoeksmethode die gebruikt is voor dit onderzoek was kwantitatief, welke beschrijvend en transversaal was. Het onderzoek is gebaseerd op data verzameld via vragenlijsten. Deze vragenlijsten hebben bestaan uit vier delen: 1) de mate van participatie in de maatschappij, 2) de frequentie en het plezier dat ervaren wordt bij verschillende activiteiten, 3) belemmeringen die worden ervaren bij het ondernemen van vrijetijdsactiviteiten en 4) drijfveren die worden ervaren bij het ondernemen van vrijetijdsactiviteiten. De vragenlijst is ingevuld door respondenten bestaande uit zowel mannen als vrouwen, wonend in een dorp of een stad en 65 jaar en ouder. De resultaten zijn geanalyseerd met behulp van SPSS 21. Voor de vier delen is een vergelijking gemaakt tussen zowel mannen en vrouwen alsmede tussen respondenten wonend in een stad of een dorp. Voor het tweede deel is een top drie van de meest frequent ondernomen en de meest plezierig gewaardeerde activiteiten gemaakt, en voor het derde en het vierde deel is een top twee gemaakt van de hoogst gewaardeerde belemmeringen en drijfveren.

Resultaten

Concluderend kan worden gezegd dat gemiddeld gezien op bezoek gaan/bezoek krijgen, fietsen/wandelen en lezen werden gewaardeerd als meest plezierig. De hoogst gewaardeerde belemmeringen zijn slechte gezondheid en gebrek aan gezelschap, en de hoogst gewaardeerde drijfveren zijn ervaren plezier en vergrote sociale/maatschappelijke betrokkenheid. Verschillen in geslacht en leefomstandigheden zijn zowel in het ervaren plezier en de frequentie van vrijetijdsactiviteiten als in de waardering van de drijfveren en belemmeringen gevonden.

Conclusie

Het kan worden gezegd dat de resultaten van dit onderzoek voor sommige aspecten (activiteiten die als plezierig werden ervaren, drijfveren voor het ondernemen van vrijetijdsactiviteiten) gelijkenissen vertonen met eerder onderzoek, maar, behalve voor een gebrekkige gezondheid, geen gelijkenissen toont op het gebied van belemmeringen. Het onderzoek werd hoofdzakelijk beperkt door het aantal respondenten, de diversiteit van deze respondentengroep (op het gebied van hun woonplaats) en de validiteit van de vragenlijst. Over het algemeen is het uitgevoerde onderzoek betrouwbaar, maar moet de validiteit met gepast voorzichtigheid benaderd worden wanneer conclusies getrokken worden. De interventie waar dit onderzoek achtergrondinformatie voor heeft verzameld wordt geadviseerd rekening te houden met de belemmerende gezondheid van zijn gebruikers, en wordt daarnaast aangeraden een begrijpelijke basis voor de mogelijkheid voor contact te vormen tussen gebruikers met dezelfde interesses. Het wordt aangeraden om voor toekomstig onderzoek in dit gebied dit onderzoek nogmaals uit te voeren, met een grotere en meer diverse respondentengroep, alsmede een kwalitatief onderzoek uit te voeren met een focus op belemmeringen die ouderen ervaren als zij vrijetijdsactiviteiten (willen) ondernemen.

Summary in English

Background information

The Dutch population is ageing, bringing along high costs for health care due to the high demand in health care. Active ageing aims for an ageing process that helps elderly to maintain their autonomy and independence for as long as possible, with lower costs of care as a consequence. Active ageing is associated with participation in social, economic, cultural and spiritual participation and civic affairs. Performing pleasurable activities is a form of participation in society, and thus a form of active ageing.

Problem statement

The problem this research focuses on is the older the Dutch elderly population get; the less time they spend on pleasurable activities. This might be due to some barriers they experience, but it is expected that they also experience motivators to perform pleasurable activities. This has led to the main question to be answered: *'What are barriers and motivators to perform pleasurable activities in daily life of the Dutch elderly population?'* This main question will be answered by answering three sub questions: *'What are activities regarded most pleasurable by the Dutch elderly population?'*, *'What are barriers to perform pleasurable activities in the daily life of the Dutch population?'* and *'What are motivators to perform pleasurable activities in the daily life of the Dutch population?'* and *'What are motivators to perform pleasurable activities in the daily life of the Dutch elderly population?'* and *'What are motivators to perform pleasurable activities in the daily life of the Dutch elderly population?'* and *'What are motivators to perform pleasurable activities in the daily life of the Dutch elderly population?'* and *'What are motivators to perform pleasurable activities in the daily life of the Dutch elderly population?'*

Method

The research method used was a quantitative design, which was descriptive and transversal. The research was based on data gathered from questionnaires. The questionnaire consisted of four parts: 1) level of participation in society, 2) frequency and pleasure different activities, 3) barriers perceived when performing pleasurable activities and 4) motivators perceived when performing pleasurable activities. The questionnaire was filled in by respondents consisting of men and women, living in a village or a city and with an age of 65 years and over. The data analysis was done using SPSS 21. For all four parts, a comparison was made between gender (male and female) and living conditions (rural or urban environments) of the respondents. For the second part, a top three of most frequently performed and most pleasurable rated activities was stated, and for part three and four, a top two of highest rated barriers and motivators was stated.

Results

Concluding, it can be said that on average, visiting/receiving visits, walking/bicycling and reading were rated as the most pleasurable regarded activities. The highest rated two barriers were health impairment and lack of company, and the two highest rated motivators were perceived pleasure and increased social participation. Differences between gender and living conditions were found in the pleasure and frequency of certain activities, as well as in the rating of the barriers and motivators.

Conclusion and discussion

It can be said that the results of this research have shown to be partially in accordance with earlier performed research, but did not show similarities for barriers, apart from health impairment. The research was mainly limited by the number of respondents, the diversity of the respondent group (regarding their residence in the Netherlands) and the validity of the questionnaire. Over all, the conducted research is rather reliable, but the validity has to be approached carefully when concluding certain aspects. The technology-based intervention this background information was gathered for is advised to take the health impairment of its users into account, and to try to develop an understandable basis for contact between users with similar interests. It is recommended to perform this research once more, with a larger and more diverse respondent group, as well as to conduct a qualitative research focussing on barriers elderly experience when performing pleasurable activities.

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1. Introduction

The Dutch population is an ageing one and is expected to continue ageing until at least 2041. According to the Rijksinstituut voor Volksgezondheid en Milieu (RIVM), in 2012, 2.7 million people in the Netherlands were aged 65 years and above ¹. It is expected that the number of elderly will increase from 2.7 million in 2012 up to 4.7 million in 2041 ². Also, the number of people aged 80 years and over is expected to increase significantly, the so-called double ageing of the population. In 2040, 26% of the Dutch population will be 65 years and over, of which one third will be 80 years and over. In comparison: in 2012, 16% of the Dutch population was 65 and over, from which 25% of this population were 80 years and over. The ageing of our population is as well a triumph as a challenge. On the one hand, an aging population brings along challenges to the healthcare services both in terms of personnel and costs. The ageing of a population brings along high costs of care ³. On average, the population of 60 years and over has the highest costs for health care. This depends on the risks on mortality and illnesses that increase with age.

As stated by the RIVM ³ as well as by the World Health Organization (WHO) ⁴, an ageing population will come with an increasing demand in health care, which will lead to higher costs. This is where the term 'active ageing' comes in. Active ageing aims for an ageing process that helps elderly to maintain their autonomy and independence for as long as possible, more years with a high quality of life, with lower health care costs as a consequence ⁴. According to the WHO, active ageing 'is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age. The word "active" refers to continuing participation in social, economic, cultural, spiritual and civic affairs, not just the ability to be physically active or to participate in the labour force. "Health" refers to physical, mental and social wellbeing as expressed in the WHO definition of health ⁴." The WHO's full definition of health as confirmed and not adjusted since 1948 is "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."⁵ In 2011, Machteld Huber introduced an adjusted definition of positive health: "Health as the ability to adapt and self-manage, in light of the physical, emotional and social challenges of life".⁶ This definition of health includes a form of active ageing in the terms 'adapt and self-manage'. Bearing the two definitions of health in mind, active ageing is a much broader concept than just being able to be physically active.

Active ageing is associated with participation in society. This participation is divided into five domains; social participation, economic participation, cultural participation, spiritual participation and civic affairs ⁴. Participation in all five domains has benefits for the people engaging in it. Below one example will be mentioned to illustrate these benefits of participation on which many research has been done, which has led to a lot of examples of benefits from participation. The example is physical activity,

a form of participation. Physical activity can be regarded as social participation from the perspective that it can be performed through for example group lessons or associations, but even when performed individually it shows engagement in society by being active. It has been long known that physical activity has a positive relationship with the mental and physical health of people, including elderly (active ageing)⁷. It has been stated that 'people of all ages, both male and female, benefit from regular physical activity'⁷. Increasing their endurance and strength for example contributes to their ability to live independently, which then again leads to an increase in mental health ⁷. Physical activity is overall associated with a better quality of life ⁸. These examples illustrate that participation has a positive influence on as well mental as physical health.

The level of participation in society can be determined by, amongst others, the pleasurable activities elderly perform. The definition for pleasurable activities used in this research is 'the pleasurable activities that individuals engage in voluntarily when they are free from the demands of work or other responsibilities' ⁹. Pleasurable activities are likely to be related with a positive relationship with mental and physical health ⁹. Performing pleasurable activities was associated with positive effects such as lower blood pressure, total cortisol and lower levels of depression ⁹. Older adults who are active in performing pleasurable activities report increased wellbeing ¹⁰. Also, active ageing, which implies good mental and physical health, was associated with pleasurable activities such as social/productive engagement ¹¹⁻¹².

A report in 2012 from the Nederlands Interdisciplinair Demografisch Instituut (NIDI) states that men and women have a life expectancy at 65 years of respectively 18.0 and 21.2 years ¹³. Within this life expectancy, on average men spend 8.1 years on voluntary work (a form of participation) and women 9.1 years ¹³. This is less than half of the life expectancy, but is still a relatively good number when looking at the voluntary work and thus a form of economic participation. This report has also taken a look on the years that elderly are still mobile. In this report, being mobile does not only imply (voluntary) work, but also implies doing groceries, visiting family and friends, walking/bicycling or performing in cultural activities. Being mobile in this report thus covers a lot of forms of performing pleasurable activities. Within the life expectancy at the age of 65, men on average spend 11.3 years mobile and women 10.2 ¹³. From this report, it can be concluded that the older Dutch elderly get, the lower the amount of time spend on pleasurable activities is ¹⁴. This leads to the statement that participating in society is positively related to mental and physical health, but, as can be seen in the data on the amount of years spent being mobile, not all elderly are actively engaged in society. This might be caused due to experiencing barriers to perform pleasurable activities.

It is expected that elderly will on one hand experience certain barriers to perform pleasurable activities, but on the other hand will experience intrinsic and extrinsic motivators for performing pleasurable activities. To illustrate these barriers and intrinsic and extrinsic motivators, the same example as earlier will be used. Besides results on the benefits that participation in the form of physical activity brings to those who engage in these activities, earlier research on physical activity has also led

to certain barriers and intrinsic and extrinsic motivators that appear when participating in these activities. When performing physical activity, barriers such as health impairment, a lack of time, a lack of knowledge/information, anxiety and a lack of company are experienced ¹⁵⁻¹⁶. Lack of company, for example, is often heard as a barrier by elderly ¹⁷. Alleviating loneliness among elderly 'has long been considered important in providing support to develop, improve and maintain social contacts and mental wellbeing' ¹⁷. Also, motivators are experienced when performing physical activity by elderly, such as health benefits, pleasure, more competence, challenging experience, social engagement and self-expression/confidence ¹⁵⁻¹⁶. It is stated by Gardner and Lally in 2013 that people who are intrinsically motivated to do something, for example by perceiving more self-confidence when performing pleasurable activities, have stronger intentions to continue with the activity and create a habit of performing the activity ¹⁸. All above mentioned aspects are examples of barriers and intrinsic and extrinsic motivators for performing physical activity. A knowledge gap can be found regarding information on barriers and intrinsic and extrinsic motivators for performing pleasurable activities.

This research will focus on the Dutch elderly population. It will focus on the pleasurable activities they perform, and the barriers and motivators that they experience when (not) performing pleasurable activities. This research focus follows from the problem statement that performing pleasurable activities reflects on a positive relationship with mental and physical health, but not all elderly actively engage in performing pleasurable activities. The research is performed in order to receive background information to later on create a technology-based intervention that might help elderly with overcoming their barriers and motivate them to perform pleasurable activities. In order to receive this background information, the research will focus on three main points: what are activities regarded pleasurable by elderly; what are barriers to perform these pleasurable activities? And what are motivators for performing pleasurable activities?

It is expected that the Dutch elderly population will indeed experience barriers and motivators when performing pleasurable activities. It is expected that the more active part of the respondents will experience more pleasure when performing pleasurable activities. The less active part of the respondents is expected to be more bothered by barriers when performing pleasurable activities than the more active part. It is also expected that barriers such as loneliness and a lack of information about activities, and motivators such as pleasure and social participation will often be experienced by the Dutch elderly population. Besides these factors, it is also expected that demographics such as gender (male or female) and the living conditions (rural or urban environment) of respondents might have an influence. This background leads to the following main question to be answered: 'What are barriers and motivators to perform pleasurable activities in daily life of the Dutch elderly population?' This main question will be answered by answering the following sub questions: 'What are activities regarded most pleasurable by the Dutch elderly population?', 'What are barriers to perform pleasurable activities in the daily life of the Dutch population?' and 'What are motivators to perform pleasurable activities in the daily life of the Dutch elderly population?' These aspects will be further investigated on differences between gender and living conditions.

2. Methods

2.1 Research design

The research design that this research has used is a quantitative design, in the form of a questionnaire. The research was descriptive, focusing on the three main points: what are pleasurable activities; what are barriers to perform them and what are motivators for performing them. The research was transversal, the data was collected within a month time and the respondents were approached once to fill in the questionnaire.

The research design that has been used is a brief literature search, followed by the development of a questionnaire, data collection and data analysis. The brief literature search has been conducted focussing on two points:

 Finding background information on performing pleasurable activities to find the knowledge gap this research has focussed on and create a problem statement, as shown in the introduction
Finding background information to found a questionnaire on, as shown in paragraph 2.3.

The development of the questionnaire was then performed, followed by data collection via paper as well as using an online survey software and the data analysis, using SPSS 21.

2.2 Research population

The research population consisted of the Dutch elderly population. In this research, a person was defined as 'elder' when being 65 years and over ¹. The research population was aimed to be as diverse as possible, in order to create a group that was as representative as possible for the Dutch elderly population. The number of respondents was planned at about 50 people. Within the respondents, a balance was aimed to be found between men and women and living in a city or a village. The first distinction, between men and women, was made because of the different perceptions men and women could have on the perceived pleasure of leisure activities based on literature^{, 10, 19}. The second distinction, between living in a city or a village, was made because it was expected that there might be differences in the level of participation in society between people living in a city or in a village. These two distinctions could be found in the demographics of the questionnaire, where these two questions were asked to the respondents.

The respondents were chosen on basis of accessibility and willingness to fill in the questionnaire. This created a convenience sample of the Dutch elderly population. To prevent the bias from getting too big, the questionnaire was offered to multiple respondent groups. The questionnaire was offered to elderly in the researcher's environment but also to elderly that have participated in earlier research by the RRD, to respondents in a social environment such as the library and the market and to respondents living in a care home. The respondents reached via contacts at the RRD, the library

and the market and the respondents living in a care home were all living in the region of Twente. The respondents reached via the researcher's environment, approximately 50% of the total data collection, was living outside the region of Twente.

2.3 Measurement instrument

In this paragraph, the research metre used to conduct this research, a questionnaire, will be illustrated. A questionnaire has been developed named '*Belemmeringen en drijfveren voor het ondernemen van vrijetijdsactiviteiten*' (in English: '*Barriers and motivators for performing pleasurable activities*'). The full version of the questionnaire can be found in appendix A - Questionnaire. The questionnaire consisted of four main parts and an introduction apart regarding the demographical information. The first part of the questionnaire was aimed to create an overview of the level of participation in society of the respondent. The second part asks about the frequency and pleasure the respondent experiences when performing certain potentially pleasurable activities. The third part asks about the barriers the respondents come across when (not) performing pleasurable activities, and the fourth part asks about the motivators. An overview of the draw for the questionnaire is shown in table 1, with information about the content, goal and needed information is stated.

Part	Content	Goal	Needed information
1 – Overview	Questions about the	Create an overview on	Domains on how to
level of	average hours per week the	whether the respondent	measure participation in
participation in	respondent is engaged in	is active in society or	society
society	different domains of	not	
	activities		
2 - Frequency	Questions on whether the	Create an overview of	List of commonly
and pleasure of	respondent engages in	what the respondent	referred to as
different	different activities, and	regards pleasurable	pleasurable activities
activities	how pleasurable he rates	activities, and whether	
	these activities, plus option	or not he engages in	
	to add pleasurable activities	them regularly	

Table 1 - Draw for questionnaire with part 1-4

Part	Content	Goal	Needed information
3 - Barriers	Questions on how possible	Create an overview of	List of possible barriers
perceived when	barriers for performing	how respondents are	
performing	pleasurable activities	affected by given	
pleasurable	hinder the respondent, plus	barriers, and to see	
activities	option to add barriers	whether there are more	
		barriers that hinder	
		respondents	
4 - Motivators	Questions on how possible	Create an overview of	List of possible
perceived when	motivators for performing	how respondents are	motivators
performing	pleasurable activities	affected by given	
pleasurable	stimulate the respondent,	motivators, and to see	
activities	plus option to add	whether there are more	
	motivators	motivators that	
		motivate respondents	

Below an explanation per part is given, including the literature found in the brief literature search that was used to create the parts of the questionnaire.

Part 1 – Overview level of participation in society

Part 1 of the questionnaire focused on the level of participation in society of the respondent. The level of participation in society was measured by the average amount of hours spent per week on the five domains, based on the definition of active ageing stated by the WHO as mentioned in the introduction (chapter 1). ⁴ This means that in part 1, the questionnaire focuses on the average hours the respondent spends on social, economic, cultural and spiritual participation and civic affairs. This in order to create an overview of the level of participation in society of the respondent.

Part 2 - Frequency and pleasure of different activities

Part 2 focused on the frequency and the pleasure elderly perceive when performing different activities. A list of different potentially pleasurable activities was conducted, based on a validated list of pleasurable activities publicized by The Dialectical Behavior Therapy Skills Workbook by Lisa Groesz ²⁰. The list presented in this workbook is very complete, but rather extended. The list has been filtered, taking the target population and their cultural background into account, in order to create a smaller, more compact list of potentially pleasurable activities. Many activities have been excluded, for example because they did not apply to the research population (e.g. 'playing video games'), or were included in a broader term instead of multiple smaller activities (e.g. 'doing sports activities'

instead of 'go for a swim'). A list of ten activities has been conducted, which has been compared to the existing list to check whether no pleasurable activity was missing ¹⁶. This list is shown below.

- 1. Gardening
- 2. Reading
- 3. Making music
- 4. Walking/bicycling
- 5. Sports activities

- 6. Playing games
- 7. Voluntary work
- 8. Craftwork
- 9. Visiting/receiving visits
- 10. Church activities

The respondent was given the opportunity to fill in one or two other pleasurable activities if necessary, which were not yet mentioned in the questionnaire. The respondents were asked to rate these activities on the frequency the respondent participated in these activities on average a week (on a scale of 1 - 5, where 1 indicated 'never' and 5 indicates 'more than two times a week') and how pleasurable the respondent rated these activities (on a scale of 1 - 5, where 1 indicated 'unpleasant' and 5 indicates 'very pleasant').

Part 3 and 4 – Barriers and intrinsic and extrinsic motivators perceived when performing pleasurable activities

Part 3 and 4 focused on the barriers and intrinsic and extrinsic motivators for performing pleasurable activities. The questionnaire asked the respondent on a scale from 1 - 5 whether certain barriers and motivators influence the respondent, where 1 indicated 'not' and 5 indicated 'very much'. Possible barriers and motivators were already presented. The mentioned aspects were gathered by research already performed on barriers and motivators for physical activity ^{15-16, 21} (see table 2). It can be expected that these aspects are possibly also experienced by elderly when (other) performing pleasurable activities. This due to the similarities performing physical activities and performing pleasurable activities show, such as sometimes a need for a companion or the need to be physically able to perform the physical/pleasurable activity. Besides the already mentioned aspects, the respondent was also given the option to fill in an open question, asking whether there were any other barriers/motivators experienced when (not) performing pleasurable activities. A distinction could be made between intrinsic and extrinsic motivators. For example, an extrinsic motivator could be bigger participation in society, while an intrinsic motivator could be an increased amount of self-esteem.

Barriers	Reference	Motivators	Reference
Health impairment	10-11, 17	Improved health (I)	10-11, 17
Lack of company	11	Perceived pleasure (I)	10, 17
Feelings of anxiety	10-11, 17	Increased confidence (I)	11
New, unaccustomed	11	Increased social	10-11, 17
activities		participation (E)	
Lack of information	10-11	Gathering new knowledge	10
		(I)	

Table 2 – Draw for part 3 and 4 with barriers and intrinsic (I) and extrinsic (E) motivators

2.4 Data collection

The data collection was conducted using a questionnaire, presented to the respondents digitally using an online survey software or presented to them on paper. The elderly reached via the contact data of the RRD and via the elderly associations were given the option to fill in the questionnaire digitally, the respondents in the researcher's environment and approached on the market, library and in the care home were also given the option to fill in the questionnaire on paper.

The two options that were created to gather the data were on paper and digitally. The online survey software used to collect the required data digitally for this research was ReQuest. ²² ReQuest is an online survey software designed for the RRD by Jan-Willem van 't Klooster. The main advantage of using this software is the guarantee that the collected data is not able to be accessed by other parties than the researcher ²². The researcher is the only person to access the data, or to provide the data to other researchers if applicable. In case the respondent was not familiar with digital questionnaires, the questionnaire was presented to them on paper. The via paper gathered data was later on entered via ReQuest by the researcher, in order to create an easier transition when importing the data in to SPSS 21. In this case, the data has only been accessed by the researcher, as well on paper as via ReQuest. The data has been processed anonymously.

2.5 Data analysis

The data was analysed using SPSS 21. After the data had been collected, this data has been cleaned and an analysis has been conducted. No missing data was detected by the researcher. The data in question 1 was cleaned (removing additional words such as 'uur') and the data regarding the age was cleaned (removing additional words such as 'jaar'). Then, the data variables were recoded in SPSS 21 and labels were valued again using the original names of the variables. For an overview of the recoding of the variables, see appendix B – Recoding variables question 2, 3, 4 and 6. To make working with SPSS 21 easier, after recoding and cleaning the data, the variable types of question 1, 2, 3, 4 and 6 (and the demographics) were changed from 'string' to 'numeric'. After these preparations,

data analysis was conducted. This was first conducted on the demographics and the first part, to get an overview of the respondent group, and then done per sub question, using data gathered on part 2, 3 and 4 of the questionnaire. For all parts, a distinction was made between men and women and living in a village or city, by splitting the data in SPSS. This to compare the data on these aspects and to see whether there were any remarkable differences. A top three out of ten was stated of the highest rated frequency and pleasure of the different activities and a top two out of five was stated of the highest rated barriers and motivators. The statistics options used in SPSS 21 were descriptive and frequencies. The last option was not used for the first sub question (resp. part 2), and was used on the two highest scoring barriers/motivators for sub questions 2 and 3 (resp. part 3 and 4). For an overview of the parts and the corresponding questions, see table 3. When analysing the data, differences within gender and living conditions were compared and tested on their significance, using an independent samples t-test in SPSS.

An important detail regarding the data analysis was the option for the respondent to fill in an open question, and how to process this data. This option was present in question 2.11 and 2.12, to add a pleasurable activity to the list, and in question 5 and 7, to add a barrier or motivator. Sometimes the extra pleasurable activity mentioned by the respondent in question 2.11 or 2.12 was a form of an activity that was already mentioned in questions 2.1-2.10. The researcher then added the extra pleasurable activity's data (on the frequency and the pleasure) to the existing category by using the highest value for the frequency and the average value for the rating for perceived pleasure. There were also some extra pleasurable activities mentioned by the respondents that were not covered by the activities mentioned in 2.1-2.10, that vary from browsing the internet to writing letters. After processing these answers, a short list of extra pleasurable activities remained, consisting of writing letters/e-mailing, making tours in the cabriolet, visiting the theatre, baking and browsing the internet.

There were also some responses to the open question 5: "*Are there any other factors that hinder you when performing pleasurable activities?*" The reactions led to a short list of extra barriers; lack of knowledge of music, occasional dizziness, hip prosthesis, lack of motivation, lack of money, lack of time, difference of interests, distance and severe disease. Each of these added barriers was mentioned once. Unfortunately, there were no reactions to question 7, whether there were any other motivators for performing pleasurable activities. For a complete overview of the data collected via the open questions, see appendix C – Overview data open questions (2.11a, 2.11b, 2.12a, 2.12b, 3.11, 3.12, 5, and 7).

Table 3 - Parts questionnaire	with corresponding questions
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Part	Question(s)	Aspects	Options
1 - Overview	1 – How many	1.1 – Social participation	Numerical (hours in
level of	hours do you spend	1.2 – Work-related participation	numbers)
participation in	on average on the	1.3 – Cultural participation	
society	following	1.4 – Spiritual participation	
	activities?	1.5 – Civic affairs	
2 - Frequency	2 – How many	2.1 – Gardening	1 Never
and pleasure of	times do you	2.2 – Reading	2 1 x per two weeks
different	perform the	2.3 – Making music	3 1 x per week
activities	following activities	2.4 – Walking/bicycling	4 2 x per week
	on average?	2.5 – Sporting activities	5 More than 2 x per
		2.6 – Playing games	week
		2.7 – Voluntary work	
		2.8 – Craftwork	
		2.9 – Visiting/receiving visits	
		2.10 – Church activities	
	3 – How would you	3.1 – Gardening	1 Unpleasant
	rate the pleasure	3.2 – Reading	2 A bit unpleasant
	that you perceive	3.3 – Making music	3 Average
	when performing	3.4 – Walking/bicycling	4 Pleasant
	the following	3.5 – Sporting activities	5 Very pleasant
	activities?	3.6 – Playing games	
		3.7 – Voluntary work	
		3.8 – Craftwork	
		3.9 – Visiting/receiving visits	
		3.10 – Church activities	
3 - Barriers	4 – How do the	4.1 - Health impairment	1 Not
perceived when	following aspects	4.2 - Lack of company	2 A bit
performing	hinder you when	4.3 - Feelings of anxiety	3 Average
pleasurable	performing one of	4.4 - New, unaccustomed	4 Very
activities	the by you rated	activities	5 Very much
	pleasurable	4.5 - Lack of information	
	activities?		

4 - Motivators	6 – How do the	6.1 - Improved health	1 Not
perceived when	following aspects	6.2 - Perceived pleasure	2 A bit
performing	motivate you when	6.3 - Increased confidence	3 Average
pleasurable	performing one of	6.4 - Increased social	4 Very
activities	the by you rated	participation	5 Very much
	pleasurable	6.5 - Gathering new knowledge	
	activities?		

3. Results

In this chapter, an overview of the data analysis will be given. This will be done on four subjects:

- 1. An overview of the demographics and the level of participation in society (part 1 of the questionnaire), in order to get an overview of the respondent group
- 2. An overview of the frequency and pleasure of different activities (part 2 of the questionnaire), in order to answer sub question 1; *'What are activities regarded most pleasurable by the Dutch elderly population?'*
- 3. An overview of the barriers perceived when performing pleasurable activities (part 3 of the questionnaire), in order to answer sub question 2; *'What are barriers to perform pleasurable activities in the daily life of the Dutch population?'*
- 4. An overview of the motivators perceived when performing pleasurable activities (part 4 of the questionnaire), in order to answer the last sub question, sub question 3; *'What are motivators to perform pleasurable activities in the daily life of the Dutch elderly population?'*

In all four parts, comparisons will be made on basis of the gender of the respondents and their living conditions. This because it is expected that these factors might influence the respondent's experiences and answers to the questions in the questionnaire. The questionnaire has been filled in by approximately 50 respondents, both male and female and living in villages as well as in cities.

3.1 Overview demographics and the level of social participation (part 1)

In this part, an overview will be given of the respondent group, based on the demographics and their level of activity. All SPSS output tables for the demographics and part 1 can be found in appendix D - SPSS output – demographics and part 1 (level of participation in society). First, a general overview will be given of the demographics. A total number of 49 respondents have filled in the questionnaire, of which 26 women and 23 men. Of the respondents, 31 people (16 men and 15 women) were living in a village and 18 people (7 men and 11 women) were living in a city, see table 4. The average age of the respondent group was 73.6, where the average age of women was higher than the average age of men (men 72.8, women 74.2).

Table 4 -	demographics –	gender and	living	conditions
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	Village (%)	City (%)	Village and city (%)
	N = 31	N = 18	N = 49
<i>Men (%)</i> N = 23	32.7	14.3	46.9
<i>Women (%) N</i> = 26	30.6	22.4	53.1
Men and women (%) $N = 49$	63.3	36.7	100.0

Secondly, part 1 of the questionnaire was analysed. In table 5, the level of participation for gender and living conditions is presented. Overall, the respondent group shows to mainly participate on the social domain, with an average of 6.5 hours per week. Follow-up is participation in the economic domain, with an average of 4.6 hours per week. These two domains are the main participation domains for the elderly in the respondent group. When comparing the data from men to data from women, a few minor differences can be found. The most interesting differences can be found in the participation on the social and the economic domain. Women in the respondent group tend to spend on average more hours per week (0.8 hours, p-value = 0.51, indicating an insignificant difference) on social participation, while men spend more hours on an average week (2.2 hours, p-value = 0.34, also indicating an insignificant difference) on economic participation. Especially the last domain is interesting, tough the high standard deviation (7.8 for the total respondent group) must be taken in to account. This indicates many differences within the respondent group.

	Men	Women	Village	City	Total
	Mean	Mean	Mean	Mean	Mean
	(SD)	(SD)	(SD)	(SD)	(SD)
1.1 – Social participation	6.1 (3.5)	6.9 (4.8)	7.1 (4.1)	5.4 (4.2)	6.5 (4.2)
1.2 – Economic participation	5.8 (7.8)	3.6 (7.8)	6.0 (9.4)	2.3 (2.5)	4.6 (7.8)
1.3 – Cultural participation	2.2 (1.6)	1.9 (1.7)	2.3 (1.8)	1.5 (1.2)	2.0 (1.7)
1.4 – Spiritual participation	1.1 (1.9)	1.2 (1.3)	0.9 (1.2)	1.6 (2.1)	1.2 (1.6)
1.5 – Civic affairs	1.3 (2.1)	1.2 (2.2)	1.2 (2.2)	1.2 (2.0)	1.2 (2.1)

Table 5 - part 1	- level of participation	in society in aver	age hours per v	veek – gender ar	nd living conditions
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Graph 1 - part 1 - level of participation in society in average hours per week – gender and living conditions



Besides a comparison between male and female respondents, another comparison was made between respondents living in a village or in a city. This comparison also showed differences on the social and economic domains for participation, tough the standard deviation for economic participation was very high here as well. When looking at the differences in social participation, respondents living in a city tended to spend 1.7 hours (p-value = 0.18, indicating an insignificant difference) on average more per week on this domain than respondents living in a city. It can be said that the time the elderly in the respondent group spend on each domain varies per respondent, seen the relatively big number for the standard deviations. It can be concluded that they spend the most hours on average per week on the social and economic domains.

Concluding, the respondent group consisted of a balanced range of men and women, and a larger part of the respondent group was living in a village than in a city. The respondent group's level of participation in society was relatively high on the social and economic domains, compared to the cultural and spiritual domains and the civic affairs. The main differences between men and women, as well as for living in a city or a village, were to be found on the average amount of hours spend on the social and economic domains, though these numbers were influenced by varying responses, seen the high standard deviation.

3.2 Overview pleasure and frequency activities (part 2)

In this part, an overview of part 2 of the questionnaire will be given, in order to answer sub question 1; *'What are activities regarded most pleasurable by the Dutch elderly population?'* All SPSS output tables for part 2 can be found in appendix E – SPSS output – part 2 (frequency and pleasure of different activities).

Firstly, the data on question 3 was analysed; what are activities regarded pleasurable by respondents. In table 6, the perceived pleasure of different activities for gender and living conditions is presented. This showed that the respondent group rated the presented list of different activities as follows:

- 1. Visiting/receiving visits
- 2. Walking/bicycling
- 3. Reading
- 4. Playing games
- 5. Voluntary work
- The top three rated activities; visiting/receiving visits (3.1), walking/bicycling (2.9) and reading (2.7), were al given an average rating higher than 2.5, which indicates that the majority of the respondents rated these activities as (very) pleasant, see table 6. This top three also represents the answer to sub question 1.

- 6. Gardening
- 7. Craftwork
- 8. Making music
- 9. Sports activities
- 10. Church activities

Table 6 - part 2 - pleasure different activities – gender and living conditions

The means presented are based on the recoded variables as explained in the research method and sho	wn in appendix B:
unpleasant - 0, a bit $unpleasant - 1$, $average - 2$, $pleasant - 3$ and $very pleasant - 4$.	

	Men	Women	Village	City	Total
	Mean (SD)				
3.1 - Gardening	2.3 (1.5)	2.0 (1.5)	2.3 (1.4)	1.8 (1.7)	2.1 (1.5)
3.2 - Reading	2.4 (1.1)	3.0 (0.9)	2.8 (1.1)	2.6 (0.9)	2.7 (1.0)
3.3 - Making music	2.1 (1.5)	1.8 (1.4)	2.2 (1.5)	1.4 (1.3)	1.9 (1.4)
3.4 - Walking/bicycling	3.0 (0.9)	2.7 (1.0)	2.9 (0.9)	2.8 (1.1)	2.9 (1.0)
3.5 - Sports activities	2.2 (1.5)	1.5 (1.2)	2.2 (1.3)	1.1 (1.3)	1.8 (1.4)
3.6 - Playing games	1.9 (1.0)	2.7 (1.1)	2.5 (1.1)	2.0 (1.1)	2.3 (1.1)
3.7 - Voluntary work	2.6 (1.0)	1.9 (1.4)	2.3 (1.2)	2.1 (1.4)	2.2 (1.3)
3.8 - Craftwork	1.5 (1.3)	2.4 (1.3)	1.9 (1.5)	2.1 (1.0)	2.0 (1.3)
3.9 - Visiting/receiving	3.0 (0.8)	3.3 (0.6)	3.1 (0.7)	3.2 (0.7)	3.1 (0.7)
visits					
3.10 - Church	1.5 (1.1)	1.6 (1.5)	1.5 (1.3)	1.6 (1.4)	1.6 (1.3)
activities					

For question 3, comparing data on men and women showed some differences in the rating for perceived pleasure on some activities. The largest differences were to be found on the average rating for perceived pleasure for craftwork (difference of 0.8 with a p-value of 0.03, indicating a significant difference), playing games (difference of 0.8 with a p-value of 0.01, indicating a significant difference) and voluntary work (difference of 0.8 with a p-value of 0.04, indicating a significant difference). For craftwork, the perceived pleasure was rated with an average 1.5 for men, indicating they rate it between average and a bit unpleasant, where women rated craftwork with an average 2.4, indicating they rate it between average and pleasant. For playing games, women as well rated the perceived pleasure on average higher than men. For voluntary work, men rated the perceived pleasure higher. Men indicated the perceived pleasure with an average of 2.6, indicating they rate it between average higher than average of 1.9, indicating they rate it between average and pleasant.

When comparing the data from question 3 on living conditions of the respondent group, it also shows some differences. The largest differences were to be found on the average rating for sports activities (difference of 1.1, p-value of 0.01, indicating a significant difference) and making music (difference of 0.8, p-value of 0.07, indicating an insignificant difference). For sports activities, the average rating for perceived pleasure was 2.2 for respondents living in a village, indicating they rate the activity between average and pleasant, where respondents living in a city rated the perceived

pleasure with an average of 1.1, indicating they rate the activity between average and unpleasant. For making music, respondents living in a village also rated this activity higher (with an average of 2.2) than respondents living in a city (with an average of 1.4).

An overall comparison between the top three of all different groups (men, women, living in a village or living in a city) and the average of the whole respondent group was made, see table 7. This shows that, besides the differences just described, over all the top three of all groups are rather similar. They all include the same activities, except for voluntary work, which is perceived rather pleasurable by men.

Concluding, after this overview of the data gathered from question 3, it can be stated that visiting/receiving visits, walking/bicycling and reading are regarded most pleasurable by the respondents. A few differences can be observed, such as the rating for craftwork between men and women or the rating for sports activities between respondents living in a village or a city.

Table 7 - part 2 - pleasure different activities - top 3

	Men		Women		Village		City		Total	
Nr. 1	Walking/	3.0	Visiting/	3.3	Visiting/	3.1	Visiting/	3.3	Visiting/	3.1
	Bicycling		receiving		receiving		receiving		receiving	
			visits		visits		visits		visits	
Nr. 2	Visiting/	3.0	Reading	3.0	Walking/	2.9	Walking/	2.8	Walking/	2.9
	receiving				bicycling		bicycling		bicycling	
	visits									
Nr. 3	Voluntary	2.6	Walking/	2.7	Reading	2.8	Reading	2.6	Reading	2.7
	work		bicycling							

Secondly, the data on question 2 was analysed: what activities are performed most frequently by the respondents? In table 8, the frequency of different activities for gender and living conditions are presented. This shows that the respondent group rated the presented list of different activities on the frequency of performing them as follows:

- 1. Reading
- 2. Walking/bicycling
- 3. Visiting/receiving visits
- 4. Gardening
- 5. Playing games

- 6. Craftwork
- 7. Sports activities
- 8. Voluntary work
- 9. Church activities
- 10. Making music

This means that the top three rated activities are reading (3.2), walking/bicycling (2.2) and visiting/receiving visits (2.0).

Table 8 - part 2 - frequency different activities - gender and living conditions

	Men	Women	Village	City	Total
	Mean (SD)				
2.1 - Gardening	1.8 (1.3)	1.5 (1.6)	2.0 (1.4)	1.1 (1.4)	1.7 (1.5)
2.2 - Reading	2.9 (1.2)	3.4 (1.2)	3.3 (1.2)	3.0 (1.3)	3.2 (1.2)
2.3 - Making music	1.0 (1.5)	0.7 (1.2)	1.1 (1.5)	0.4 (1.0)	0.8 (1.3)
2.4 - Walking/bicycling	2.1 (1.3)	2.3 (1.4)	2.1 (1.4)	2.4 (1.3)	2.2 (1.4)
2.5 - Sports activities	1.6 (1.6)	1.1 (1.5)	1.7 (1.6)	0.6 (1.2)	1.3 (1.6)
2.6 - Playing games	1.4 (1.5)	1.9 (1.3)	1.9 (1.4)	1.2 (1.3)	1.7 (1.4)
2.7 - Voluntary work	1.4 (1.6)	1.0 (1.3)	1.4 (1.5)	0.8 (1.1)	1.2 (1.4)
2.8 - Craftwork	1.1 (1.3)	1.7 (1.2)	1.4 (1.4)	1.4 (1.2)	1.4 (1.3)
2.9 - Visiting/receiving	1.8 (0.7)	2.1 (0.9)	1.9 (0.8)	2.1 (0.9)	2.0 (0.8)
visits					
2.10 - Church	0.9 (1.0)	0.9 (1.1)	0.8 (1.0)	0.9 (1.1)	0.9 (1.0)
activities					

The means presented are based on the recoded variables as explained in the research method and shown in appendix B: unpleasant - 0, a bit unpleasant - 1, average - 2, pleasant - 3 and very pleasant - 4.

The data collected from question 2 was first compared on gender. This comparison showed certain remarkable differences in the rating for frequency of performing the different activities between men and women. The biggest differences were to be found in the frequency of performing craftwork (difference of 0.6 with a p-value of 0.10, indicating an insignificant difference) and reading (difference of 0.5 with a p-value of 0.11, also indicating an insignificant difference). For craftwork, the average rate for the frequency of performing given by women was 1.7, indicating a frequency of between 1 x per two weeks and 1 x per week, closer to 1 x per week, and the average rate for the frequency of performing the activity. Women rated the frequency on average with a 3.4, indicating a value between 2 x per week and more than 2 x per week, and men rated the frequency of performing this activity on average with a 2.9. A high rating as well, but indicating performing the activity on average less often than women, between 1 x and 2 x per week, closer to 2 x per week.

When comparing the data from question 2 on the living conditions it showed some bigger differences. The largest differences were to be found on the frequency of performing sports activities (difference of 1.1 with a p-value of 0.01, indicating a significant difference) and gardening (difference of 1.0 with a p-value of 0.02, also indicating a significant difference). For performing sports activities, respondents living in a village rated the average frequency higher than respondents living in a city.

Respondents living in a city rated performing sports activities with an average of 1.7, indicating a frequency of between 1 x per two weeks and 1 x per week, closer to 1 x per week, whereas respondents living in a city had an average rating of 0.6, indicating a frequency of between never and 1 x per two weeks.

An overall comparison of the different groups and the total respondent group was stated, using the top three on average most frequently performed activities of all groups, see table 9. Here, as well as with the top three most pleasurable rated activities (table 7), no large differences can be detected. The only two differences between the top three of all groups are the second nr. 3, gardening, for men in the respondent group, and the activity 'gardening' in the top three of respondents living in a village. The fact that gardening is by some respondent groups valued as nr. 3 of their most frequently performed activities is not remarkable, seen that gardening is the fourth most frequently performed activity in the ranking of the total respondent group.

	Men		Women		Village		City		Total	
Nr.	Reading	2.9	Reading	3.4	Reading	3.3	Reading	3.0	Reading	3.2
1										
Nr.	Walking/	2.1	Walking/	2.3	Walking/	2.1	Walking/	2.4	Walking/	2.2
2	bicycling									
Nr.	Visiting/	1.8	Visiting/	2.1	Gardening	2.0	Visiting/	2.1	Visiting/	2.0
3	receiving		receiving				receiving		receiving	
	visits		visits				visits		visits	
	Gardening	1.8								

Table 9 - part 2 - frequency different activities - top 3

Finally, a comparison is made between the rating for the perceived pleasure and the rating for the frequency of performing the different activities, see graph 2. This shows that for nine out of ten activities the average values for perceived pleasure are rated higher than the average frequency of performing the activities. This might be due to the terminology linked to the values. It is also possible that respondents indeed, as stated in the hypothesis, experience barriers to perform these pleasurable activities. It is remarkable that the activity rated the highest for perceived pleasure, visiting/receiving visits, does not show the highest frequency. Vice versa, the activity rated highest for the average frequency, reading, does not show the highest rating for pleasure. This is shown in table 10.

Graph 2 - part 2 - frequency and pleasure different activities



Table 10- part 2 – frequency and pleasure different activities - top 3

Total	Pleasure		Frequency	
Nr. 1	Visiting/ receiving visits	3.1	Reading	3.2
Nr 2.	Walking/	2.9	Walking/	2.2
Nr 3	Reading	27	Visiting/	20
147 5.	Keuding	2.7	receiving visits	2.0

Concluding the overview of part 2, an answer can be given to sub question 1; *'What are activities regarded most pleasurable by the Dutch elderly population?'* Not all highest rated activities for perceived pleasure are also rated highest for the average frequency of performing the activity. Also, some differences can be found between men and women (such as the average frequency and the perceived pleasure of performing craftwork) and between respondents living in a village or a city (such as the average frequency and the perceived pleasure of performing sports activities). All in all, the activities regarded most pleasurable by the Dutch elderly population are visiting/receiving visits, walking/bicycling and reading.

3.3 Overview barriers (part 3)

In this part, an overview of part 3 of the questionnaire will be given, in order to answer sub question 2; *'What are barriers to perform pleasurable activities in the daily life of the Dutch population?'* All SPSS output tables for part 3 can be found in appendix F - SPSS output – part 3 (barriers perceived when performing pleasurable activities).

To give an overview of part 3, the data gathered on question 4 of the questionnaire was analysed: how do the following aspects hinder you when performing one of the by you rated pleasurable activities? In table 11, the barriers when performing pleasurable for gender and living conditions are presented. This shows that the respondent group rated the presented list of potential barriers as follows:

- 1. Health impairment
- 2. Lack of company
- 3. Lack of information
- 4. New, unaccustomed activities
- 5. Feelings of anxiety

The top two rated barriers for this respondent group are health impairment (1.5) and lack of company (1.0), see table 11, are rated respectively as between a bit and average and rated between not and a bit, closer to a bit. This top two also represents the answer to sub question 2.

Firstly, the data collected on question 4 was compared on gender, see table 11. Overall, the barriers were on average rated higher by women than by men, except for the barrier 'lack of information'. The comparison showed some remarkable differences in the rating of the barriers. The main differences were to be found on the average rating for health impairment (difference of 0.9 with a p-value of 0.07, indicating an insignificant difference) and lack of company (difference of 0.5 with a p-value of 0.09, also indicating an insignificant difference). For health impairment, the barrier was rated higher by women. Women rated this barrier with an average of 1.9, between a bit and average, closer to a bit. For lack of company, the barrier was rated higher by women (1.2, indicating a value between a bit and average, closer to a bit) than by men (0.7, value between not and a bit, closer to a bit).

Table 11 - part 3 - barriers perceived when performing pleasurable activities - gender and living conditions

The means presented are based on the recoded ve	ariables as explained in the re	esearch method and shown	in appendix B: not
-0, a bit -1 , average -2 , very -3 and very muc	:h - 4.		

	Men	Women	Village	City	Total
	Mean (SD)				
4.1 - Health	1.0 (1.3)	1.9 (1.7)	1.0 (1.4)	2.2 (1.6)	1.5 (1.6)
impairment					
4.2 - Lack of company	0.7 (1.0)	1.2 (1.3)	0.8 (1.2)	1.2 (1.3)	1.0 (1.2)
4.3 - Feelings of	0.2 (0.4)	0.6 (0.8)	0.2 (0.5)	0.8 (0.8)	0.4 (0.7)
anxiety					
4.4 - New,	0.7 (0.8)	0.9 (1.1)	0.6 (0.8)	1.2 (1.2)	0.8 (1.0)
unaccustomed					
activities					
4.5 - Lack of	0.9 (0.9)	0.7 (1.0)	0.7 (1.0)	0.9 (0.9)	0.8 (1.0)
information					

Secondly, the data gathered from question 4 was compared on the living conditions of the respondents. This showed some differences between these groups as well, with one relatively big difference. The two barriers that were rated most differently were health impairment (difference of 1.2 with a p-value of 0.01, indicating a significant difference) and new, unaccustomed activities (difference of 0.6 with a p-value of 0.04, also indicating a significant difference). For health impairment, the difference is relatively big. Respondents living in a city rated this barrier the highest, with an average of 2.2, indicating an average value between average and very, closer to average. Respondents living in a value rated this barrier on average with a 1.0, between a bit and average, closer to a bit. The second barrier on which differences were found was also on average rated higher by respondents living in a city. For new, unaccustomed activities an average of 1.2 for respondents living in a city was give, and 0.6 for respondents living in a village.

To further investigate the two main barriers, health impairment and lack of company, the frequencies and percentages are given in table 12. In this table it can be seen that for both barriers, women and respondents living in a city have higher average ratings than men and respondents living in a village. For health impairment, 42% of the women rated the barrier as very (much) hindering. Of the respondents living in a city, 50% rated the barriers as very (much) hindering. For lack of company, 19% of the women and 17% of the respondents living in a city rated the barriers as very (much) hindering.

4.1 - Health impairment	Men N = 23	Women N = 26	Village N = 31	City N = 18	Total N = 49	4.2 - Lack of company	Men N = 23	Women N = 26	Village N = 31	City N = 18	Total N = 49
	Perc	Perc	Perc	Perc	Perc		Perc	Perc	Perc	Perc	Perc
	%	%	%	%	%		%	%	%	%	%
Not	52	35	55	22	43		61	39	55	39	49
A bit	17	15	19	11	16		22	27	23	28	25
Average	9	8	3	17	8		13	15	13	17	14
Very	17	15	13	22	16		0	12	3	11	6
Very much	4	27	10	28	16		4	8	7	6	6

Table 12 - part 3 - barriers perceived when performing pleasurable activities - 4.1 and 4.2 - gender and living conditions

Finally, an overall comparison of the different groups and the total respondent group was stated, using the top two on average most highly rated barriers, see table 13. Here it can be seen that the responses to the top two barriers were homogeneous, seen the lack of differences within the top two. It can be concluded that women in general had an average higher rating of barriers than men, as well as respondents living in a city to respondents living in a village.

Table 13 - part 3 - barriers perceived whe	n performing pleasurable activities - top 2
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	Men		Women		Village		City		Total	
Nr.	Health	1.0	Health	1.9	Health	1.0	Health	2.2	Health	1.5
1	impair-		impair-		impair-		impair-		impair-	
	ment		ment		ment		ment		ment	
Nr.	Lack of	0.9	Lack of	1.2	Lack of	0.8	Lack of	1.2	Lack of	1.0
2	infor-		company		company		company		company	
	mation									
							New,	1.2		
							unac-			
							customed			
							activities			

Concluding the overview of part 3, an answer can be given to sub question 2; *'What are barriers to perform pleasurable activities in the daily life of the Dutch population?'* Overall, it can be said that the almost all barriers, except for health impairment, were relatively not rated that high. On average, the most highly rated barriers when performing pleasurable activities by the Dutch elderly population are health impairment and lack of company.

3.4 Overview motivators (part 4)

In this part, an overview of part 4 of the questionnaire will be given, in order to answer sub question 2; *'What are motivators to perform pleasurable activities in the daily life of the Dutch elderly population?'* All SPSS output tables for part 4 can be found in appendix G – SPSS output - part 4 (motivators perceived when performing pleasurable activities).

To give an overview of part 4, the data gathered on question 6 of the questionnaire was analysed. In table 14, motivators when performing pleasurable activities for gender and living conditions are presented. This shows that the respondent group rated the presented list of potential motivators as follows:

- 1. Perceived pleasure
- 2. Increased social participation
- 3. Increased confidence
- 4. Improved health
- 5. Gathering new knowledge

The top two rated barriers, see table 14, are perceived pleasure (3.1, indicating between very and very much, closer to very) and increased social participation (2.4, indicating between average and very, closer to average. This top two also represents the answer to sub question 3.

Firstly, the data collected on question 6 was compared based on gender, see table 14. Over all, the differences were not that big. The main differences were to be found on gathering new knowledge (difference of 0.5 with a p-value of 0.11, indicating an insignificant difference) and perceived pleasure (difference of 0.4 with a p-value of 0.01, indicating a significant difference). For gathering new knowledge, men on average had a higher rating than women. Men rated this motivator with an average 1.9, indicating that it motivated them between a bit and average, closer to average, and women rated it on average with a 1.4, also between a bit and average but closer to a bit. For perceived pleasure women had a higher average rating, 3.3 compared to 2.9. Both genders rated this motivator on average the highest.

Table 14 - part 4 - motivators perceived when performing pleasurable activities – gender and living conditions

	Men	Women	Village	City	Total
	Mean (SD)				
6.1 - Improved health	1.9 (1.3)	2.0 (0.9)	2.1 (1.0)	1.7 (1.2)	1.9 (1.1)
6.2 - Perceived pleasure	2.9 (0.7)	3.3 (0.5)	3.1 (0.4)	3.1 (0.9)	3.1 (0.6)
6.3 - Increased	2.2 (0.8)	2.2 (1.2)	2.2 (1.1)	2.1 (1.0)	2.2 (1.0)
confidence					
6.4 - Increased social	2.6 (0.7)	2.2 (1.0)	2.5 (0.8)	2.2 (1.0)	2.4 (0.9)
participation					
6.5 - Gathering new	1.9 (0.9)	1.4 (1.1)	1.9 (1.0)	1.2 (1.0)	1.6 (1.1)
knowledge					

The means presented are based on the recoded variables as explained in the research method and shown in appendix B: not -0, a bit -1, average -2, very -3 and very much -4.

Secondly, the data on question 6 was analysed looking at the living conditions of the respondents. These differences are, as well as the differences between men and women, not that big. The main differences can be found on gathering new knowledge (difference of 0.7 with a p-value of 0.02, indicating a significant difference) and improved health (difference of 0.4 with a p-value of 0.19, indicating an insignificant difference). The difference for gathering new knowledge is rather big, respondents living in a village rated that motivator higher (1.9) than respondents living in a city (1.2). For improved health, respondents living in a village rated the motivator higher than respondents living in a city as well. Respondents living in a village rated improved health with an average of 2.1, indicating between average and very, closer to average, and respondents living in a city rated it with an average of 1.7, indicating between a bit and average, closer to average.

To further investigate the two main motivators, perceived pleasure and increased social participation, the frequencies and percentages are given in table 15. For perceived pleasure, the highest values came from women and respondents living in a village. 100% of the women valued perceived pleasure as very (much) motivating, 97% of the respondents living in a village did the same. For increased social participation the highest values also came from respondents living in a village, but also from men. Of all respondents, 0% rated increased social participation as very much motivating when performing pleasurable activities. Of the male respondents, 70% rated the motivator as very motivating as well as 65% of the respondents living in a village.

Table 15 -	part 4 -motivators	perceived when	performing	pleasurable activities	-6.2 and 6.4 -	- gender and	living conditions
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6.2 - Perceived pleasure	Men N = 23	Women N = 26	Village N = 31	City N = 18	Total N = 49	6.4 - Increased social partici- pation	Men N = 23	Women N = 26	Village N = 31	City N = 18	Total N = 49
	Perc	Perc	Perc	Perc	Perc		Perc	Perc	Perc	Perc	Perc
	%	%	%	%	%		%	%	%	%	%
Not	0	0	0	0	0		0	8	3	6	4
A bit	9	0	0	11	4		13	12	7	22	12
Average	4	0	3	0	2		17	31	26	22	25
Very	78	69	84	56	74		70	50	65	50	59
Very much	9	31	13	33	20		0	0	0	0	0

Finally, an overall comparison was made for the different groups compared to the total respondent groups. This was, as well as with the barriers, done by comparing the top two motivators of all groups, see table 16. As was the case with the barriers, all groups showed the same main motivators, being perceived pleasure and increased social participation. When comparing this data to the data on the barriers, it shows higher values than the ratings given to the barriers.

Table 16 - part 4 - motivators perceived when performing pleasurable activities - top 2

	Men		Women		Village		City		Total	
Nr.	Perceived	2.9	Perceived	3.3	Perceived	3.1	Perceived	3.1	Perceived	3.1
1	pleasure									
Nr.	Increased	2.7	Increased	2.2	Increased	2.5	Increased	2.2	Increased	2.4
2	social									
	participati									
	on									

Concluding the overview of part 4, an answer can be given to sub question 3: *'What are motivators to perform pleasurable activities in the daily life of the Dutch elderly population?'* There was big difference amongst the average rating of the motivators, tough all motivators were rated higher than 1, which indicates that the respondent group was on average at least a bit motivated by these aspects. On average, the highest rated motivators when performing pleasurable activities by the Dutch elderly population are perceived pleasure and increased social participation.

Concluding the results, it can be said that in this research on average visiting/receiving visits, walking/bicycling and reading were rated as the most pleasurable regarded activities. The highest rated two barriers were health impairment and lack of company, and the two highest rated motivators were perceived pleasure and increased social participation. These findings represent the answer to the main question *'What are barriers and motivators to perform pleasurable activities in daily life of the Dutch elderly population?'*

4. Discussion

The research method used was a quantitative design, which was descriptive and transversal. The research was based on data gathered from questionnaires. These questionnaires consisted of four parts: 1) level of participation in society, 2) frequency and pleasure different activities, 3) barriers perceived when performing pleasurable activities and 4) motivators perceived when performing pleasurable activities and 4) motivators perceived when performing pleasurable activities. The questionnaire was filled in by forty-nine respondents consisting of men and women, living in a village or a city and with an age of 65 years and over. The data analysis was done using SPSS 21. For all four parts, a comparison analysis was made between gender (male versus female) and the living conditions (rural versus urban environments) of the respondents. The most pleasurable regarded activities by the Dutch elderly in the respondent group were on average visiting/receiving visits, walking/bicycling and reading, these were also performed most frequently on average. The top two barriers were health impairment and lack of company, and the top two motivators were perceived pleasure and increased social participation. Differences between gender and living conditions were found in the pleasure and frequency of certain activities, as well as in the rating of the barriers and motivators.

4.1 Comparison literature

This questionnaire used for this research was mainly based on literature regarding pleasurable activities and barriers and motivators for performing physical activity. Looking at Groesz (2010), a big list of pleasurable activities was stated ²⁰. In this research, a more compact list was made of this present list, and it was researched whether or not these activities were also regarded pleasurable by the Dutch elderly population. Comparing these outcomes to Groesz' list, it can be said that almost all activities were regarded pleasurable (given a value > 2) by the respondent group, except for making music (1.9), sports activities (1.8) and church activities (1.6). These activities were valued between average and pleasurable, close to pleasurable. Why weren't they given an average value of > 2 by the respondent group? Potential causes might be a lack of interest (music), regarding an activity as a habit instead of something to experience as pleasurable (church) or experiencing barriers when performing the activity (sports).

Furthermore, when looking at the barriers, there were also some remarkable outcomes. In literature on barriers when performing physical activity, barriers such as health impairment, a lack of time, a lack of knowledge/information, anxiety and a lack of company are experienced ¹⁵⁻¹⁶. This literature all focuses on the same population as this research; elderly. These barriers were all mentioned in as well Baerta et al (2011) and Rasinaho et al (2006) ¹⁵⁻¹⁶. Besides these barriers, especially the systematic review of Baerta et al presented many other barriers, such as a lack of interest or time. Tough given the option to fill in other barriers than the ones presented, only forms of lack of company (e.g. 'my partner has other interests') and health impairment (e.g. 'hip prosthesis')
were filled in, no other barriers such as the ones found in the review by Baerta. Barriers that presented themselves in Costello et al (2011) were a lack of discipline and boredom, these were also not mentioned by the respondent group ²¹. Over all, the respondent group did not rate the barriers presented in this research very high. The only barrier rated higher than average was health impairment, with an average value of 1.5 (between average and very). The other four potential barriers were all rated with an average value of 1.0 or lower. This could indicate that all respondents do not experience barriers when performing pleasurable activities, but it is also possible that respondents did not feel free to fill in these personal details on paper. Also, they might not identify themselves with the mentioned factors, but it is possible that with a qualitative research the respondents not rating these barriers that high is that they do not apply to pleasurable activities. The barriers are all based on barriers for physical activities, potentially respondents do experience barriers, but they might not be equal to the barriers presented in the questionnaire.

Following, a look can be taken at the motivators for pleasurable activities. The motivators presented in the questionnaire were rated high, higher than the potential barriers. These motivators were also mentioned in the researches of Baerta et al (2011) and Rasinaho et al (2006) ¹⁵⁻¹⁶. When comparing the outcomes of this research and the outcomes of earlier research on motivators for performing physical activity, it can be stated that they are rather similar, when looking at the high values the presented motivators were given by the respondents. Unfortunately, no other motivators than the ones already presented were mentioned by the respondents, tough it can be expected that other factors might positively influence them as well. For example, factors that could have been mentioned (and were already mentioned occasionally in previous research on physical activity) were accessibility and purposeful activities, as mentioned by Costello et al (2011) or carrying on/being normal, as found in the systematic review by Baerta et al (2011) in Whitehead and Lavelle (2009) ²¹. Tough there were no other aspects mentioned than the ones presented, it can be said that in this research respondents showed similar motivators as the ones found in research on physical activity.

In general, some remarkable values were found as well. For example, respondents indicated that they on average spend the most hours per week on the social domain. This is remarkable, considering the TNS/NIPO report from November 2012 reporting that 0.9M Dutch elderly feel lonely ²⁴. Also considerable, as mentioned above, are the low values given for barriers, compared to motivators. This might indicate positive conclusions, but the explanation is more likely to be found in the other options (not feeling comfortable talking about barriers or not identifying themselves with the presented barriers). Remarkable values within the respondent group were also found. For example, the average values for the ratings from female respondents are over all higher than those from male respondents, for example when looking at the barriers, but also with the motivators and with the explanation might be that female respondents are more comfortable talking about their experiences. This factor should be considered when performing larger studies on this subject. Between respondents

living in a village or a city, there were also some interesting significant differences. For example, respondents living in a village showed a higher value (1.1 higher than respondents living in a city) for perceived pleasure as well as the frequency of performing sports activities (p-value = 0.01). Respondents living in a city then indicated a 1.2 higher value for the barrier health impairment than respondents living in a village (p-value = 0.01). Potential causes for these differences might be found in respondents living in a village having more access to sports activities in their environment, and thus performing them more frequent and experiencing more pleasure, or that respondents living in a city do not feel comfortable performing sports activities in their surroundings (e.g. go jogging/walking in the streets). It is also possible that due to the high value for health impairment as a barrier, respondents living in a city tend to perform less sports activities and also experiencing less pleasure. These are all possibilities, but should be investigated further to form any conclusions.

4.2 Strengths and limitations

This research focused on the barriers to and motivators for performing pleasurable activities by the Dutch elderly population. This presented an area in which no research had been conducted yet, tough it was stated by the Nederlands Interdisciplinair Demografisch Instituut that elderly benefit from being mobile and engaging in pleasurable activities, resulting in an increased life expectancy 1^3 . There have been multiple researches on barriers and motivators perceived when performing physical activity, also focussing on elderly. It was expected a possibility that their might be similarities between barriers and motivators perceived when performing physical activity and when performing pleasurable activities. This research has led to interesting outcomes, on which further research can be based. During this research, some limitations showed. The main limitations showed in the population group, the research metre used and the significance of the differences that occurred. Within the population group, the main limitation that occurred was the number of respondents. The research was aimed at approximately 50 respondents, which was within reach of this research, but to represent the Dutch elderly population it showed that a larger number of respondents is needed, because with this number of respondents, less precise results can be given and more often a result might be a coincidence rather than a valid conclusion. Besides the number of respondents, the respondent group approached also resulted in a convenience sample. This was due to the way the respondents were contacted. The respondents were reached via contacts at the RRD, the library and the market and the respondents living in a care home were all living in the region of Twente. The respondents reached via the researcher's environment, approximately 50% of the total data collection, was living outside the region of Twente. This way of contacting respondents might have decreased the representability of the respondent group for the Dutch elderly population. Besides these two factors, also the dexterity of respondents in filling in online questionnaires might have played a role in influencing the respondent group. Due to limitations on distributing paper versions (e.g. distance), most elderly that lived outside of the region Twente were reached with the online questionnaire. This might have caused some bias in the respondent group. The

level of respondents from Twente and the rest of the Netherlands was approximately 50/50, as well as the level of respondents that filled in the questionnaire online and via paper, but the distribution was not levelled. Almost all respondents in the region of Twente filled in the questionnaire via paper, and almost all respondents outside the region of Twente filled in the questionnaire online. This might have caused some bias, because, what does it indicate when an elder person is able to fill in a questionnaire online? Does it imply anything, and if so, what? These three limitations regarding the population group have potentially led to less precise results and might have decreased the representability of the respondent group. This might have influenced the external validity, because with some results it unfortunately cannot be concluded whether they are true for the whole population group or just for the respondent group.

Secondly, some limitations within the research metre showed. The reliability of this questionnaire is high, due to the quantitative research metre used. When using a questionnaire which mainly uses value scales when asking questions, the similarity amongst the research outcomes when repeating this research under the same conditions is high, leading to the test-retest reliability to be rather high. Tough it is rather reliable; the validity of the questionnaire is more difficult to determine. The research metre being quantitative resulted in more limitations than expected. The presented options might sometimes have been unclear. It is possible they did not respond to certain terms as they were mentioned in the questionnaire, when the researcher might have expected them to (e.g. a respondent filled in that she painted as an extra pleasurable activity, while the researcher had expected the respondents to mention this activity as the already mentioned activity 'craftwork'). Also, the presented options might have had a limiting influence on respondents, especially when looking at the barriers and motivators. When presenting respondents with options, they tend to not think further than the presented options. When asking about the barriers, it is possible that this subject might have been too sensitive to ask in a questionnaire. This is shown in the rather high values for motivators, compared to the low ratings for barriers. It could be that when having a conversation with a respondent, it occurs that they are limited to performing pleasurable activities, but that they did not rate certain barriers in the questionnaire. These limitations regarding the research metre have led to doubts on the conclusions for the barriers and motivators, because respondents potentially did not feel free to answer the questions truthfully when presented this plain on paper. The reliability of the metre is high, but the validity needs to be approached carefully.

Finally, a third limiting factor could be detected when conducting this research. The significance of the multiple difference within gender and living conditions was low, 10 out of 20 tests were insignificant. It is likely that the high level of insignificance is a result of the number of respondents. Examples can be given when looking at the level of activity. When comparing the means of the average number of hours spend per week per domain, remarkable differences showed when comparing men and women. Men tended to spend on average 2.2 hours per week more on the economic domain, while women spend 0.8 hours per week on average more on the social domain.

These conclusions were interesting, but with a p-value of respectively 0.34 and 0.51, the difference unfortunately were insignificant. Luckily, these were the largest insignificant values. The other eight insignificant values had a p-value varying from 0.19 - 0.07. These statistically insignificant differences led to less conclusions being able to state. Remarkable values showed, but were insignificant which led to the values not being interesting. These statistically insignificances also influence the validity; the extent to which these conclusions are true for as well the respondent group as the population group.

All in all, the main limitations that occurred during this research showed in the population group, the research metre and the significance of the remarkable differences between gender and living conditions. The reliability of this research is high due to the quantitative research metre, but the internal and external validity needs to be approached carefully, due to the different factors that potentially have had an influence (such as the number of respondents, a potential convenience sample, the level of digital dexterity of respondents and unclear terms in the questionnaire).

4.3 Conclusion and recommendations

Concluding it can be said that the results of this research have shown to be partially in accordance with earlier performed research. For barriers it does not show many similarities apart from health impairment, a barrier frequently mentioned in earlier performed research regarding physical activity. This research was conducted in order to gather information on the knowledge gap that existed on information regarding the barriers to and motivators for performing pleasurable activities for the Dutch elderly population. The research was limited by a couple of factors, which mainly were the number of respondents, the diversity of the respondent group and the validity of the questionnaire. Over all, the conducted research was rather reliable, but the validity has to be approached carefully when concluding certain aspects.

This research was performed in order to receive background information to later on create a technology-based intervention that might help elderly with overcoming their barriers and motivate them to perform pleasurable activities. Main barriers mentioned were health impairment and lack of company, the main motivators were perceived pleasure and social participation. It is advised that the intervention to be created could be applicable to certain health impairment. The main impairment it should take into account is the user's potential lack of mobility, a desirable aspect of the intervention would be the ability to adjust the intervention to the user's environment. To decrease their lack of company, the intervention could form a basis for contact. If the intervention succeeds in developing a basic, understandable way for elderly to derive new contacts via the technology with similar interests, this might increase the frequency and the perceived pleasure of performing pleasurable activities for the engaging elderly.

Finally, after conducting this research and looking at the limitations, it would be recommended to perform this research again with a larger number of respondents, who are living more widespread

across the Netherlands. Also, a closer look should be taken on the research metre when conducting this research once again; does it measure what the researcher wants to measure? When performing this research again, it should be able to present more precise results, on which future research could be based. Also, a possibility for future research which is strongly advised is a research with a deeper focus on the barriers. This research should have a qualitative design, in order to potentially make people feel comfortable talking about this sensitive subject. In this research, respondents could also be asked their opinion on how they would feel the influence of the barriers could be decreased, in order to get more specific ideas for the way the technology-based intervention could motivate users to perform pleasurable activities.

- H. Giesbers, A. Verweij and J. de Beer, *Vergrijzing: Wat is de huidige situatie?* (March 2013), Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid, Bilthoven <u>http://www.nationaalkompas.nl/bevolking/vergrijzing/huidig/</u>
- H. Giesbers, A. Verweij and J. de Beer, Wat zijn de belangrijkste verwachtingen voor de toekomst? (March 2013), Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid, Bilthoven

http://www.nationaalkompas.nl/bevolking/vergrijzing/toekomst/

- M. in't Panhuis-Plasmans and M. Poos, *Wat zijn de zorgkosten?* (September 2013), Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid, Bilthoven <u>http://www.nationaalkompas.nl/zorg/huidige-kosten/</u>
- 4. World Health Organization, *Active ageing: a policy framework* (April 2002) http://apps.who.int/iris/bitstream/10665/67215/1/WHO_NMH_NPH_02.8.pdf
- 5. World Health Organization, *Basic documents* (October 2006), 54th edition http://www.who.int/governance/eb/who_constitution_en.pdf
- 6. M. Huber and colleagues, *How should we define health*? (June 2011) <u>http://cybermed.eu/attachments/article/33014/How%20should%20we%20define%20health .p</u> df
- 7. U.S. Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General* (1996), Atlanta
- F. Penedo and J. Dahn, *Exercise and well-being: a review of mental and physical health benefits associated with physical activity* (March 2005), Behavioural medicine, p. 189 193 <u>http://journals.lww.com/co-</u> psychiatry/Abstract/2005/03000/Exercise_and_well_being_a_review_of_mental_and.13.aspx
- 9. S. Pressman, K. Matthews, S. Cohen, L. Martire, M. Scheier, A. Baum and R. Schulz, "Association of enjoyable leisure activities with psychological and physical well-being" (September 2009)
- 10. K. Adams, S. Leibbrandt and H. Moon, "A critical review of the literature on social and leisure activity and wellbeing in later life" (May 2011)
- 11. C. Depp and D. Jeste, "Definitions and predictors of successful aging: a comprehensive review of larger quantitative studies" (2006)
- 12. V. Menec, "The relation between everyday activities and successful ageing: a 6-year longitudinal study" (2003)

 N. van Nimwegen and C. van Praag, Actief ouder worden in Nederland (2012), Bevolkingsvraagstukken in Nederland anno 2012, Nederlands Interdisciplinair Demografisch Instituut, Amsterdam

https://www.nidi.nl/shared/content/output/books/nidi-book-86.pdf

- Rivierenland Bureau voor toerisme, Marktonderoek: vergrijzing heeft groot effect op vrijetijdsbesteding (2012) http://rivierenland.biz/marktonderzoek-vergrijzing-heeft-groot-effect-op-vrijetijdsbesteding/
- 15. V. Baerta, Ellen Gorus, T. Mets, C. Geerts, I. Bautmans, "Motivators and barriers for physical activity in the oldest old: a systematic review" (February 2011)
- 16. M. Rasinaho, M. Hirvensalo, R. Leinonen, T. Lintunen, and T. Rantanen, "Motives for and Barriers to physical activity among older adults with mobility limitations" (2006)
- 17. M. Cattan, M. White, J. Bond and A. Learmouth, *Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions* (January 2005), Ageing and society

http://journals.cambridge.org/action/displayFulltext?type=1&fid=270367&jid=ASO&volumeI d=25&issueId=01&aid=270366&bodyId=&membershipNumber=&societyETOCSession

- 18. B. Gardner, Principles of habit formation (2013), slide 24 <u>http://www.slideshare.net/Redmax_OnlineBeterMaken/ben-gardner-psychologie-gedragsverandering-redmax-management-diner</u>
- 19. Rosetta Stone, *Gender and the brain: differences between women and men* (2014) http://www.fitbrains.com/blog/women-men-brains/
- 20. Lisa Groesz, *The big list of pleasurable activities* (2010), The Dialectical Behavior Therapy Skills Workbook http://www.lmgroeszpsychotherapy.com/uploads/9/7/5/2/9752967/big list of activities.pdf
- 21. E. Costello, M. Kafchinski, J. Vrazel and P. Sullivan, "Motivators, barriers, and beliefs regarding physical activity in an older adult population" (2011)
- 22. J. van 't Klooster and M. Vollenbroek, *ReQuest: A responsive and flexible screening service for clinimetrics* (2016)
- 23. M. Poos, Wat is in Nederland de levensverwachting? (March 2014), Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid, Bilthoven <u>http://www.nationaalkompas.nl/gezondheid-en-ziekte/sterfte-levensverwachting-en-daly-s/levensverwachting/wat-is-in-nederland-de-levensverwachting/</u>
- 24. TNS/NIPO, '*Eenzaamheid onder ouderen*' (November 2012) https://www.ouderenfonds.nl/onze-organisatie/feiten-en-cijfers/

Appendices

Appendix A – Questionnaire

Vragenlijst

'Belemmeringen en drijfveren voor het ondernemen van vrijetijdsactiviteiten'

Beste lezer,

Mijn naam is Sannah van der Heijden. Ik ben een student Gezondheidswetenschappen aan de Universiteit Twente. In het kader van mijn bachelor opdracht neem ik deze vragenlijst af. De vragenlijst zal gaan over activiteiten die men onderneemt in zijn of haar vrije tijd, en belemmeringen en drijfveren die men ondervindt bij het ondernemen van deze activiteiten.

De vragenlijst zal ongeveer 5 tot 10 minuten van uw tijd in beslag nemen. Uw gegevens zullen strikt vertrouwelijk behandeld worden en worden anoniem verwerkt, zodat deze niet tot de persoon te herleiden zijn. Uit de gegevens zal een verslag worden opgemaakt met als doel het in kaart brengen van belemmeringen en drijfveren die men ervaart bij het ondernemen van vrijetijdsactiviteiten.

Voor vragen kunt u mij uiteraard te allen tijde benaderen.

Met vriendelijke groet,

Sannah van der Heijden – s.e.vanderheijden@student.utwente.nl

"Ik verklaar met het lezen van bovenstaande tekst op een voor mij duidelijke wijze te zijn ingelicht over de aard, methode en het doel van het onderzoek. Ik weet dat de gegevens en resultaten van het onderzoek alleen anoniem en vertrouwelijk aan derden bekend gemaakt zullen worden. Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik behoud me daarbij het recht voor om op elk moment zonder opgaaf van redenen mijn deelname aan dit onderzoek te beëindigen."

o Ja, dit verklaar ik

Demografische gegevens

Respondentnummer:	*	* in te vullen door de onderzoeker
Leeftijd:		
Geslacht:	M / V *	*doorhalen wat niet van toepassing is
Woonachtig in een:	dorp / stad	*doorhalen wat niet van toepassing is
Datum van invullen:		

Algemene vragen over activiteit

1. Hoeveel uur besteedt u gemiddeld per week aan de volgende activiteiten?

1.1 Sociale activiteiten	uur per week
(groepsactiviteiten, bezoek ontvangen etc.)	
1.2 Werk gerelateerde activiteiten	uur per week
((vrijwilligers-) werk etc.)	
1.3 Culturele activiteiten	uur per week
(naar musea, naar de bioscoop etc.)	
1.4 Spirituele activiteiten	uur per week
(een geloof uitoefenen etc.)	
1.5 Burgerlijke activiteiten	uur per week
(politieke/maatschappelijke betrokkenheid etc.)	

Vragen over de frequentie en het plezier van de activiteiten

- Hoe vaak onderneemt u onderstaande vrijetijdsactiviteiten gemiddeld? Omcirkel uw antwoord. Op de stippellijnen kunt u meer vrijetijdsactiviteiten invullen die u wekelijks onderneemt, indien deze nog niet genoemd zijn.
 - 2.1 Tuinieren2.5 Sporten1 nooit1 nooit2 1 x per twee weken2 1 x per twee weken3 1 x per week3 1 x per week4 2 x per week4 2 x per week5 meer dan 2 x per week5 meer dan 2 x per week
 - 2.2 Lezen
 - 1 nooit
 - 2-1 x per twee weken
 - 3-1 x per week
 - $4-2 \ x \ per \ week$
 - 5 meer dan 2 x per week
 - 2.3 Muziek maken
 - 1 nooit
 - 2-1 x per twee weken
 - 3-1 x per week
 - 4-2 x per week
 - 5 meer dan 2 x per week
 - 2.4 Wandelen/fietsen (vrije tijd)
 - 1-nooit
 - 2-1 x per twee weken
 - 3-1 x per week
 - 4-2 x per week
 - 5 meer dan 2 x per week

1 - nooit

2.6 Spelletjes spelen

- 2-1 x per twee weken
- 3-1 x per week
- 4-2 x per week
- $5 \text{meer dan } 2 \times \text{per week}$
- 2.7 Vrijwilligerswerk
 - 1 nooit
 - 2-1 x per twee weken
 - 3 1 x per week
 - 4 2 x per week
 - 5 meer dan 2 x per week
- 2.8 Knutselen/handwerk
 - 1-nooit
 - 2-1 x per twee weken
 - 3-1 x per week
 - 4-2 x per week
 - 5 meer dan 2 x per week

2.9 Op bezoek gaan / bezoek

ontvangen

1 – nooit

2-1 x per twee weken

- 3 1 x per week
- 4-2 x per week
- 5 meer dan 2 x per week

2.10 Kerkelijke activiteiten

- 1 nooit
- 2-1 x per twee weken
- 3-1 x per week
- 4-2 x per week
- 5 meer dan 2 x per week

2.11

- 1 nooit
- 2-1 x per twee weken
- 3-1 x per week
- 4-2 x per week
- 5 meer dan 2 x per week

2.12

- 1 nooit
- 2-1 x per twee weken
- 3 1 x per week
- 4-2 x per week
- 5 meer dan 2 x per week

- 3. Hoe waardeert u het plezier dat ondervindt bij onderstaande vrijetijdsactiviteiten? Omcirkel uw antwoord. Op de stippellijnen kunt u meer vrijetijdsactiviteiten invullen die u wekelijks onderneemt, indien deze nog niet genoemd zijn.
 - 3.1 Tuinieren
 - 1 onplezierig
 - 2-een beetje onplezierig
 - 3-gemiddeld
 - 4 plezierig
 - 5 zeer plezierig
 - 3.2 Lezen
 - 1 onplezierig
 - 2 een beetje onplezierig
 - 3 gemiddeld
 - 4 plezierig
 - 5 zeer plezierig
 - 3.3 Muziek maken
 - 1-onplezierig
 - 2 een beetje onplezierig
 - 3-gemiddeld
 - 4 plezierig
 - 5 zeer plezierig
 - 3.4 Wandelen/fietsen (vrije tijd)
 - 1 onplezierig
 - 2 een beetje onplezierig
 - 3-gemiddeld
 - 4 plezierig
 - 5 zeer plezierig

- 3.5 Sporten
 - 1 onplezierig
 - 2-een beetje onplezierig
 - 3 gemiddeld
 - 4 plezierig
 - 5 zeer plezierig
- 3.6 Spelletjes spelen
 - 1-onplezierig
 - 2-een beetje onplezierig
 - 3 gemiddeld
 - 4 plezierig
 - 5 zeer plezierig
- 3.7 Vrijwilligerswerk
 - 1 onplezierig
 - 2-een beetje onplezierig
 - 3 gemiddeld
 - 4 plezierig
 - 5 zeer plezierig
- 3.8 Knutselen/handwerk
 - 1 onplezierig
 - 2-een beetje onplezierig
 - 3 gemiddeld
 - 4 plezierig
 - $5-zeer \ plezierig$

3.10 Op bezoek gaan / bezoek

ontvangen

- 1-onplezierig
- 2 een beetje onplezierig
- 3 gemiddeld
- 4 plezierig
- $5-zeer \ plezierig$
- 3.11 Kerkelijke activiteiten
 - 1 onplezierig
 - 2-een beetje onplezierig
 - 3-gemiddeld
 - 4 plezierig
 - 5 zeer plezierig

- 3.12
 - 1 onplezierig
 - 2 een beetje onplezierig
 - 3 gemiddeld
 - 4 plezierig
 - 5 zeer plezierig
- 3.13
 - 1 onplezierig
 - 2 een beetje onplezierig
 - 3-gemiddeld
 - 4 plezierig
 - 5 zeer plezierig

Vragen over de belemmeringen en drijfveren van de activiteiten

Onderstaande vragen (vraag 4-7) hebben betrekking op de activiteiten die u bij vraag 3 als (zeer) plezierig heeft ervaren en heeft beoordeeld met een score van 4 of 5.

 In hoeverre belemmeren de volgende aspecten u bij het ondernemen van één van de door u als plezierig ervaren vrijetijdsactiviteiten?
Omcirkel uw antwoord.

4.1 Een slechte gezondheid	4.4 Het ondernemen van nieuwe,	
1 - niet	onwennige activiteiten	
2 – een beetje	1 - niet	
3 – gemiddeld	2 – een beetje	
4 - zeer	3 – gemiddeld	
5 – zeer veel	4 – zeer	
4.2 Een gebrek aan gezelschap	5 – zeer veel	
1 - niet	4.5 Een gebrek aan informatie over	
2 – een beetje	mogelijke activiteiten	
3 – gemiddeld	1 - niet	
4 – zeer	2 – een beetje	
5 – zeer veel	3 – gemiddeld	
4.3 Angstige gevoelens	4 – zeer	
1 - niet	5 – zeer veel	
2 – een beetje		
3 – gemiddeld		
4 - zeer		

- $5-zeer \ veel$
- 5. Buiten de bij vraag 4 genoemde aspecten, is er nog iets anders dat u in het dagelijks leven belemmert bij het ondernemen van één van de door u als plezierig ervaren vrijetijdsactiviteiten?

- In hoe verre vormen de volgende aspecten een drijfveer voor u bij het ondernemen van één van de door u als plezierig ervaren vrijetijdsactiviteiten?
 Omcirkel uw antwoord.
 - 6.1 Het verbetert de gezondheid 6.4 Het vergroot de sociale / 1 - nietmaatschappelijke betrokkenheid 2 – een beetje 1 - niet3-gemiddeld2 – een beetje 3 - gemiddeld 4 - zeer5 – zeer veel 4 - zeer6.2 Het leidt tot plezier 5 – zeer veel 1 - niet6.5 Het vergaren van nieuwe kennis 2 – een beetje 1 - niet3 – gemiddeld 2 – een beetje 4 - zeer3 - gemiddeld $5-zeer \ veel$ 4 - zeer5 – zeer veel 6.3 Het vergroot de zelfverzekerdheid 1 - niet2 – een beetje

3 - gemiddeld

5 – zeer veel

4 – zeer

7. Buiten de bij vraag 6 genoemde aspecten, is er nog iets anders dat u in het dagelijks leven motiveert bij het ondernemen van één van de door u als plezierig ervaren vrijetijdsactiviteiten?

Heel hartelijk dank dat u de tijd genomen heeft om deze vragenlijst in te vullen. Voor vragen en opmerkingen over het onderzoek kunt u mij altijd per mail bereiken.

Met vriendelijke groet,

Sannah van der Heijden - s.e.vanderheijden@student.utwente.nl

Table 2 - Recoding variables demographics - gender

Option (in Dutch)	Option (in English)	SPSS code
Man	Man	0
Vrouw	Woman	1

Table 3- Recoding variables demographics - living conditions

Option (in Dutch)	Option (in English)	SPSS code
Dorp	Village	0
Stad	City	1

Table 4 - Recoding variables question 2

Option (in Dutch)	Option (in English)	SPSS code
Nooit	Never	0
1 x per twee weken	1 x per two weeks	1
1 x per week	1 x per week	2
2 x per week	2 x per week	3
Meer dan 2 x per week	More than 2 x per week	4

Table 5 - Recoding variables question 3

Option (in Dutch)	Option (in English)	SPSS code
Onplezierig	Unpleasant	0
Een beetje onplezierig	A bit unpleasant	1
Gemiddeld	Average	2
Plezierig	Pleasant	3
Zeer plezierig	Very pleasant	4

Table 6 - Recoding variables question 4 and 6

Option (in Dutch)	Option (in English)	SPSS code
Niet	Not	0
Een beetje	A bit	1
Gemiddeld	Average	2
Zeer	Very	3

Zeer veel	Very much	4
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Nr.	Question 2.11a	Question 2.11b	Question 3.11
1	Brieven schrijven, mailen	More than 2 x per week	-
2	Toeren met de cabriolet	1 x per week	Pleasurable
3	Docent kunstschilderen	1 x per week	Pleasurable
4	Huishouden	2 x per week	Average
5	Schilderen, boetseren	More than 2 x per week	Very pleasurable
6	Theaterbezoek	1 x per two weeks	Very pleasurable
7	Jeu de boules	1 x per week	Very pleasurable
8	Bakken	1 x per two weeks	Very pleasurable
9	Puzzelen	More than 2 x per week	Pleasurable
10	Huishouden	More than 2 x per week	Average

Table 1 - Data open questions 2.11a, 2.11b and 3.11

Table 2 - Actions data questions 2.11

Nr.	Question 2.11a	Action
1	Brieven schrijven, mailen	Additional potential pleasurable activity
2	Toeren met de cabriolet	Additional potential pleasurable activity
3	Docent kunstschilderen	Data added to category 'Knutselen/handwerk'
4	Huishouden	Data added to category 'Vrijwilligerswerk'
5	Schilderen, boetseren	Data added to category 'Knutselen/handwerk'
6	Theaterbezoek	Additional potential pleasurable activity
7	Jeu de boules	Data added to category 'Spelletjes spelen''
8	Bakken	Additional potential pleasurable activity
9	Puzzelen	Data added to category 'Spelletjes spelen'
10	Huishouden	Data added to category 'Vrijwilligerswerk'

Table 3 - Data open questions 2.12a, 2.12b and 3.12

Nr.	Question 2.12a	Question 2.12b	Question 3.12
1	Bridge	2 x per week	-
2	Cursus klassieke muziek	1 x per two weeks	Very pleasurable
3	Internetten	2 x per week	Pleasurable
4	Puzzelen	More than 2 x per week	Very pleasurable

Table 4 - Actions data questions 2.12

Nr.	Question 2.12a	Action
1	Bridge	Data added to category 'Spelletjes spelen'
2	Cursus klassieke muziek	Data added to category 'Muziek maken'
3	Internetten	Additional potential pleasurable activity
4	Puzzelen	Data added to category 'Spelletjes spelen'

Table 5 - Data open questions 5 and 7

Question 5	Question 7
Muziek maken niet geleerd	No responses
Soms duizelig	
Heupprothese	
Motivatie	
Geld	
Tijdsgebrek	
Verschil interesse relatie	
Afstand naar kinderen/kleinkinderen	
Ernstige ziekte	

Geslacht								
		Frequency	Percent	Valid Percent	Cumulative Percent			
Valid	Man	23	46,9	46,9	46,9			
	Vrouw	26	53,1	53,1	100,0			
	Total	49	100,0	100,0				

	Ν	Minimum	Maximum	Mean	Std. Deviation
Leeftijd	49	65	91	73,55	5,489
Valid N (listwise)	49				

Descriptive Statistics

Geslact	nt	Ν	Minimum	Maximum	Mean	Std. Deviation
Man	Leeftijd	23	66	84	72,83	5,131
	Valid N (listwise)	23				
Vrouw	Leeftijd	26	65	91	74,19	5,810
	Valid N (listwise)	26				

Woonachtigineen

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dorp	31	63,3	63,3	63,3
	Stad	18	36,7	36,7	100,0
	Total	49	100,0	100,0	

Woonachtigineen

Geslaci	ht		Frequency	Percent	Valid Percent	Cumulative Percent
Man	Valid	Dorp	16	69,6	69,6	69,6
		Stad	7	30,4	30,4	100,0
		Total	23	100,0	100,0	
Vrouw	Valid	Dorp	15	57,7	57,7	57,7
		Stad	11	42,3	42,3	100,0
		Total	26	100,0	100,0	

Descriptive	Statistics
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	Ν	Minimum	Maximum	Mean	Std. Deviation
@1. 1 Socialeactiviteitengroepsactiviteitenbezoekontv angene	49	0	18	6,51	4,194
@1. 2Werkgerelateerdeactiviteitenvrijwilligerswerketc	49	0	40	4,63	7,815
@1. 3Cultureleactiviteitennaarmuseanaardebioscoo petc	49	0	8	2,02	1,652
@1. 4Spiritueleactiviteiteneengeloofuitoefenenetc	49	0	8	1,16	1,599
@1. 5Burgerlijkeactiviteitenpolitiekemaatschappelijk ebetrokk	49	0	10	1,23	2,148
Valid N (listwise)	49				

Geslach	ıt	Ν	Minimum	Maximum	Mean	Std. Deviation
Man	@1. 1Socialeactiviteitengroepsactiviteitenbezoekontv angene	23	0	12	6,09	3,450
	@1. 2Werkgerelateerdeactiviteitenvrijwilligerswerketc	23	O	24	5,78	7,793
	@1. 3Cultureleactiviteitennaarmuseanaardebioscoo petc	23	O	5	2,17	1,586
	@1. 4Spiritueleactiviteiteneengeloofuitoefenenetc	23	O	8	1,13	1,938
	@1. 5Burgerlijkeactiviteitenpolitiekemaatschappelijk ebetrokk	23	0	8	1,28	2,147
	Valid N (listwise)	23				
Vrouw	@1. 1Socialeactiviteitengroepsactiviteitenbezoekontv angene	26	2	18	6,88	4,794
	@1. 2Werkgerelateerdeactiviteitenvrijwilligerswerketc	26	O	40	3,62	7,844
	@1. 3Cultureleactiviteitennaarmuseanaardebioscoo petc	26	O	8	1,88	1,728
	@1. 4Spiritueleactiviteiteneengeloofuitoefenenetc	26	O	4	1,19	1,266
	@1. 5Burgerlijkeactiviteitenpolitiekemaatschappelijk ebetrokk	26	0	10	1,19	2,191
	Valid N (listwise)	26				

Descriptive	Statistics
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Woonact	ntigineen	Ν	Minimum	Maximum	Mean	Std. Deviation
Dorp	@1. 1 Socialeactiviteitengroep sactiviteitenbezoekontvan gene	31	2	18	7,13	4,129
	@1. 2Werkgerelateerdeactivite itenvrijwilligerswerketc	31	0	40	5,97	9,439
	@1. 3Cultureleactiviteitennaar museanaardebioscoopet c	31	0	8	2,32	1,833
	@1. 4Spiritueleactiviteiteneen geloofuitoefenenetc	31	0	4	,94	1,209
	@1. 5Burgerlijkeactiviteitenpol itiekemaatschappelijkebe trokk	31	O	10	1,24	2,239
	Valid N (listwise)	31				
Stad	@1. 1 Socialeactiviteitengroep sactiviteitenbezoekontvan gene	18	0	18	5,44	4,204
	@1. 2Werkgerelateerdeactivite itenvrijwilligerswerketc	18	0	8	2,33	2,521
	@1. 3Cultureleactiviteitennaar museanaardebioscoopet c	18	0	4	1,50	1,150
	@1. 4Spiritueleactiviteiteneen geloofuitoefenenetc	18	0	8	1,56	2,093
	@1. 5Burgerlijkeactiviteitenpol itiekemaatschappelijkebe trokk	18	O	8	1,22	2,045
	Valid N (listwise)	18				

		Levene's Test Varia	for Equality of inces				t-test for Equality	/ of Means		
							Mean Std Error		95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
@1. 1 Socialeactiviteitengroep	Equal variances assumed	1,309	,258	,661	47	,512	,798	1,208	-1,632	3,227
sactiviteitenbezoekontvan gene	Equal variances not assumed			,674	45,224	,504	,798	1,184	-1,586	3,182
@1. 2Werkgerelateerdeactivite itenvrijwilligerswerketc	Equal variances assumed	1,309	,258	-,968	47	,338	-2,167	2,238	-6,670	2,336
	Equal variances not assumed			-,969	46,346	,338	-2,167	2,238	-6,670	2,336
@1. 3Cultureleactiviteitennaar	Equal variances assumed	,677	,415	-,608	47	,546	-,289	,476	-1,247	,668
museanaardebioscoopet c	assumed -,969 Equal variances ,677 ,415 -,608 scoopet Equal variances not assumed -,611	46,928	,544	-,289	,473	-1,242	,663			
@1. 4Spiritueleactiviteiteneen	Equal variances assumed	,709	,404	,134	47	,894	,062	,462	-,868	,992
geloofuitoefenenetc	Equal variances not assumed			,130	37,087	,897	,062	,474	-,899	1,023
@1. 5Burgerlijkeactiviteitenpol	Equal variances assumed	,090	,766	-,145	47	,885	-,090	,621	-1,340	1,160
itiekemaatschappelijkebe trokk	Equal variances not assumed			-,146	46,488	,885	-,090	,621	-1,339	1,158

	Independent Samples Test										
		Levene's Test Varia	for Equality of nces	t-test for Equality of Means							
				Mean Std Error		Std. Error	95% Confidence Interval of the Difference				
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper	
©1. 1Socialeactiviteitengroep sactiviteitenbezoekontvan gene ©1	Equal variances assumed	,247	,622	-1,368	47	,178	-1,685	1,232	-4,162	,793	
	Equal variances not assumed			-1,361	35,133	,182	-1,685	1,238	-4,197	,828	
@1. 2Werkgerelateerdeactivite itenvrijwilligerswerketc	Equal variances assumed	7,370	,009	-1,594	47	,118	-3,634	2,279	-8,220	,951	
	Equal variances not assumed			-2,023	36,840	,050	-3,634	1,796	-7,275	,006	
@1. 3Cultureleactiviteitennaar	Equal variances assumed	1,866	,178	-1,714	47	,093	-,823	,480	-1,788	,143	
museanaardebioscoopet c	Equal variances not assumed			-1,929	46,634	,060	-,823	,426	-1,681	,036	
@1. 4Spiritueleactiviteiteneen	Equal variances assumed	3,219	,079	1,319	47	,194	,620	,470	-,326	1,566	
geloofuitoefenenetc	Equal variances not assumed			1,151	23,726	,261	,620	,539	-,493	1,733	
@1. 5Burgerlijkeactiviteitenpol	Equal variances assumed	,101	,752	-,031	47	,976	-,020	,643	-1,314	1,275	
itiekemaatschappelijkebe trokk	Equal variances not assumed			-,031	38,369	,975	-,020	,628	-1,290	1,251	

	N	Mean	Std. Deviation
@2.1Tuinieren	49	1,67	1,477
@2.2Lezen	49	3,16	1,214
@2.3Muziekmaken	49	,84	1,344
@2.4Wandelenfietsenvrijetijd	49	2,22	1,358
@2.5Sporten	49	1,33	1,546
@2.6Spelletjesspelen	49	1,65	1,393
@2.7Vrijwilligerswerk	49	1,16	1,419
@2.8Knutselenhandwerk	49	1,41	1,273
@2.9Opbezoekgaanbezoekontvangen	49	1,96	,815
@2.10Kerkelijkeactiviteiten	49	,88,	1,033
Valid N (listwise)	49		

Geslach	nt	Z	Mean	Std. Deviation
Man	@2.1Tuinieren	23	1,83	1,302
	@2.2Lezen	23	2,87	1,217
	@2.3Muziekmaken	23	1,00	1,537
	@2.4Wandelenfietsenvrijetijd	23	2,13	1,325
	@2.5Sporten	23	1,57	1,590
	@2.6Spelletjesspelen	23	1,39	1,469
	@2.7Vrijwilligerswerk	23	1,39	1,559
	@2.8Knutselenhandwerk	23	1,09	1,276
	@2.90pbezoekgaanbezoekontvangen	23	1,83	,717
	@2.10Kerkelijkeactiviteiten	23	,87	1,014
	Valid N (listwise)	23		
Vrouw	@2.1Tuinieren	26	1,54	1,630
	@2.2Lezen	26	3,42	1,172
	@2.3Muziekmaken	26	,69	1,158
	@2.4Wandelenfietsenvrijetijd	26	2,31	1,408
	@2.5Sporten	26	1,12	1,505
	@2.6Spelletjesspelen	26	1,88	1,306
	@2.7Vrijwilligerswerk	26	,96	1,280
	@2.8Knutselenhandwerk	26	1,69	1,225
	@2.90pbezoekgaanbezoekontvangen	26	2,08	,891
	@2.10Kerkelijkeactiviteiten	26	,88,	1,071
	Valid N (listwise)	26		

Descriptive	Statistics
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Woonac	htigineen	Ν	Mean	Std. Deviation
Dorp	@2.1Tuinieren	31	2,03	1,402
	@2.2Lezen	31	3,26	1,154
	@2.3Muziekmaken	31	1,06	1,459
	@2. 4Wandelenfietsenvrijetijd	31	2,10	1,375
	@2.5Sporten	31	1,74	1,591
	@2.6Spelletjesspelen	31	1,90	1,423
	@2.7Vrijwilligerswerk	31	1,39	1,542
	@2.8Knutselenhandwerk	31	1,39	1,358
	@2. 90pbezoekgaanbezoeko ntvangen	31	1,90	,790
	@2. 10Kerkelijkeactiviteiten	31	,84	1,036
	Valid N (listwise)	31		
Stad	@2.1Tuinieren	18	1,06	1,434
	@2.2Lezen	18	3,00	1,328
	@2.3Muziekmaken	18	,44	1,042
	@2. 4Wandelenfietsenvrijetijd	18	2,44	1,338
	@2.5Sporten	18	,61	1,195
	@2.6Spelletjesspelen	18	1,22	1,263
	@2.7Vrijwilligerswerk	18	,78	1,114
	@2.8Knutselenhandwerk	18	1,44	1,149
	@2. 9Opbezoekgaanbezoeko ntvangen	18	2,06	,873
	@2. 10Kerkelijkeactiviteiten	18	,94	1,056
	Valid N (listwise)	18		

	Ν	Mean	Std. Deviation
@3.1Tuinieren	49	2,12	1,509
@3.2Lezen	49	2,71	1,041
@3.3Muziekmaken	49	1,94	1,435
@3.4Wandelenfietsenvrijetijd	49	2,88	,971
@3.5Sporten	49	1,80	1,399
@3.6Spelletjesspelen	49	2,33	1,125
@3.7Vrijwilligerswerk	49	2,20	1,274
@3.8Knutselenhandwerk	49	1,96	1,338
@3.90pbezoekgaanbezoekontvangen	49	3,14	,707
@3.10Kerkelijkeactiviteiten	49	1,55	1,324
Valid N (listwise)	49		

Geslad	nt	Ν	Mean	Std. Deviation
Man	@3.1Tuinieren	23	2,30	1,490
	@3.2Lezen	23	2,39	1,118
	@3.3Muziekmaken	23	2,13	1,486
	@3.4Wandelenfietsenvrijetijd	23	3,04	,878
	@3.5Sporten	23	2,17	1,527
	@3.6Spelletjesspelen	23	1,91	1,041
	@3.7Vrijwilligerswerk	23	2,61	1,033
	@3.8Knutselenhandwerk	23	1,52	1,310
	@3.90pbezoekgaanbezoekontvangen	23	2,96	,825
	@3.10Kerkelijkeactiviteiten	23	1,52	1,123
	Valid N (listwise)	23		
Vrouw	@3.1Tuinieren	26	1,96	1,536
	@3.2Lezen	26	3,00	,894
	@3.3Muziekmaken	26	1,77	1,394
	@3.4Wandelenfietsenvrijetijd	26	2,73	1,041
	@3.5Sporten	26	1,46	1,208
	@3.6Spelletjesspelen	26	2,69	1,087
	@3.7Vrijwilligerswerk	26	1,85	1,377
	@3.8Knutselenhandwerk	26	2,35	1,263
	@3.90pbezoekgaanbezoekontvangen	26	3,31	,549
	@3.10Kerkelijkeactiviteiten	26	1,58	1,501
	Valid N (listwise)	26		

Woonad	:htigineen	Ν	N Mean Std. Dev	
Dorp	@3.1Tuinieren	31	2,29	1,419
	@3.2Lezen	31	2,81	1,108
	@3.3Muziekmaken	31	2,23	1,454
	@3. 4Wandelenfietsenvrijetijd	31	2,94	,892
	@3.5Sporten	31	2,23	1,309
	@3.6Spelletjesspelen	31	2,52	1,122
	@3.7Vrijwilligerswerk	31	2,26	1,237
	@3.8Knutselenhandwerk	31	1,90	1,513
	@3. 90pbezoekgaanbezoeko ntvangen	31	3,06	,727
	@3. 10Kerkelijkeactiviteiten	31	1,52	1,288
	Valid N (listwise)	31		
Stad	@3.1Tuinieren	18	1,83	1,654
	@3.2Lezen	18	2,56	,922
	@3.3Muziekmaken	18	1,44	1,294
	@3. 4Wandelenfietsenvrijetijd	18	2,78	1,114
	@3.5Sporten	18	1,06	1,259
	@3.6Spelletjesspelen	18	2,00	1,085
	@3.7Vrijwilligerswerk	18	2,11	1,367
	@3.8Knutselenhandwerk	18	2,06	,998
	@3. 90pbezoekgaanbezoeko ntvangen	18	3,28	,669
	@3. 10Kerkelijkeactiviteiten	18	1,61	1,420
	Valid N (listwise)	18		

		Levene's Test Varia	for Equality of nces				t-test for Equality	of Means		
							Mean	Std. Error	95% Confidenc Differ	e Interval of the ence
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
@3.1Tuinieren	Equal variances assumed	,009	,925	-,791	47	,433	-,343	,434	-1,215	,529
	Equal variances not assumed			-,792	46,576	,432	-,343	,433	-1,214	,528
@3.2Lezen	Equal variances assumed	1,131	,293	2,116	47	,040	,609	,288	,030	1,187
	Equal variances not assumed			2,087	42,100	,043	,609	,292	,020	1,197
@3.3Muziekmaken	Equal variances assumed	,000,	,994	-,877	47	,385	-,361	,412	-1,189	,467
	Equal variances not assumed			-,874	45,384	,387	-,361	,413	-1,194	,471
@3. 4Wandelenfietsenvrijetijd	Equal variances assumed	,256	,615	-1,128	47	,265	-,313	,277	-,870	,245
	Equal variances not assumed			-1,140	46,904	,260	-,313	,274	-,865	,239
@3.5Sporten	Equal variances assumed	1,464	,232	-1,821	47	,075	-,712	,391	-1,499	,075
	Equal variances not assumed			-1,795	41,814	,080,	-,712	,397	-1,513	,089
@3.6Spelletjesspelen	Equal variances assumed	,270	,606	2,555	47	,014	,779	,305	,166	1,393
	Equal variances not assumed			2,562	46,688	,014	,779	,304	,167	1,391
@3.7Vrijwilligerswerk	Equal variances assumed	2,066	,157	-2,169	47	,035	-,763	,351	-1,470	-,055
	Equal variances not assumed			-2,208	45,846	,032	-,763	,345	-1,458	-,067
@3.8Knutselenhandwerk	Equal variances assumed	,526	,472	2,241	47	,030	,824	,368	,084	1,564
	Equal variances not assumed			2,236	45,806	,030	,824	,369	,082	1,567
@3. 90pbezoekgaanbezoeko	Equal variances assumed	3,135	,083	1,773	47	,083	,351	,198	-,047	,750
ntvangen	Equal variances not assumed			1,731	37,562	,092	,351	,203	-,060	,762
@3. 10Kerkelijkeactiviteiten	Equal variances assumed	3,367	,073	,144	47	,886	,055	,383	-,715	,825
	Equal variances not assumed			,147	45,803	,884	,055	,376	-,702	,812

		Levene's Test Varia	for Equality of nces				t-test for Equality	ofMeans		
							Mean	Std. Error	95% Confidenc Differ	e Interval of the ence
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
@3.1Tuinieren	Equal variances assumed	1,873	,178	-1,023	47	,312	-,457	,447	-1,356	,442
	Equal variances not assumed			-,981	31,385	,334	-,457	,466	-1,406	,492
@3.2Lezen	Equal variances assumed	,360	,551	-,811	47	,422	-,251	,310	-,874	,372
	Equal variances not assumed			-,852	41,101	,399	-,251	,295	-,846	,344
@3.3Muziekmaken	Equal variances assumed	,173	,680	-1,886	47	,065	-,781	,414	-1,615	,052
	Equal variances not assumed			-1,946	39,152	,059	-,781	,401	-1,593	,031
@3. 4Wandelenfietsenvrijetijd	Equal variances assumed	1,517	,224	-,544	47	,589	-,158	,290	-,741	,426
	Equal variances not assumed			-,513	29,675	,612	-,158	,308	-,786	,471
@3.5Sporten	Equal variances assumed	,000	,991	-3,058	47	,004	-1,170	,383	-1,940	-,400
	Equal variances not assumed			-3,091	36,824	,004	-1,170	,379	-1,938	-,403
@3.6Spelletjesspelen	Equal variances assumed	,996	,323	-1,571	47	,123	-,516	,328	-1,177	,145
	Equal variances not assumed			-1,586	36,657	,121	-,516	,325	-1,176	,144
@3.7Vrijwilligerswerk	Equal variances assumed	,374	,544	-,386	47	,701	-,147	,381	-,914	,620
	Equal variances not assumed			-,375	32,811	,710	-,147	,391	-,944	,650
@3.8Knutselenhandwerk	Equal variances assumed	6,603	,013	,381	47	,705	,152	,400	-,652	,957
	Equal variances not assumed			,424	46,111	,674	,152	,360	-,571	,876
@3. 9Opbezoekgaanbezoeko	Equal variances assumed	,021	,885	1,018	47	,314	,213	,209	-,208	,635
ntvangen	Equal variances not assumed			1,041	38,153	,304	,213	,205	-,201	,628
@3. 10Kerkelijkeactiviteiten	Equal variances assumed	,268	,607	,240	47	,812	,095	,396	-,702	,892
	Equal variances not assumed			,233	32,864	,817	,095	,407	-,733	,923

		Levene's Test Varia	for Equality of nces	of t-test for Equality of Means						
							Mean	Std Error	95% Confidenc Differ	e Interval of the ence
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
@2.1Tuinieren	Equal variances assumed	3,157	,082	-,676	47	,502	-,288	,425	-1,143	,568
	Equal variances not assumed			-,686	46,549	,496	-,288	,419	-1,132	,556
@2.2Lezen	Equal variances assumed	,513	,477	1,620	47	,112	,554	,342	-,134	1,241
	Equal variances not assumed			1,616	45,782	,113	,554	,342	-,136	1,243
@2.3Muziekmaken	Equal variances assumed	3,045	,087	-,797	47	,430	-,308	,386	-1,085	,469
	Equal variances not assumed			-,783	40,625	,438	-,308	,393	-1,101	,486
@2. 4Wandelenfietsenvrijetijd	Equal variances assumed	,651	,424	,452	47	,653	,177	,392	-,611	,966
	Equal variances not assumed			,454	46,805	,652	,177	,391	-,608	,963
@2.5Sporten	Equal variances assumed	,719	,401	-1,017	47	,315	-,450	,442	-1,340	,440
	Equal variances not assumed			-1,013	45,525	,316	-,450	,444	-1,344	,444
@2.6Spelletjesspelen	Equal variances assumed	,956	,333	1,244	47	,219	,493	,396	-,304	1,291
	Equal variances not assumed			1,235	44,415	,223	,493	,399	-,311	1,298
@2.7Vrijwilligerswerk	Equal variances assumed	2,220	,143	-1,059	47	,295	-,430	,406	-1,246	,387
	Equal variances not assumed			-1,046	42,698	,301	-,430	,411	-1,258	,399
@2.8Knutselenhandwerk	Equal variances assumed	,252	,618	1,693	47	,097	,605	,358	-,114	1,325
	Equal variances not assumed			1,688	45,744	,098	,605	,359	-,116	1,327
@2. 90pbezoekgaanbezoeko	Equal variances assumed	1,120	,295	1,076	47	,287	,251	,233	-,218	,720
ntvangen	Equal variances not assumed			1,091	46,612	,281	,251	,230	-,212	,714
@2. 10Kerkelijkeactiviteiten	Equal variances assumed	,135	,715	,050	47	,960	,015	,299	-,586	,616
	Equal variances not assumed			,051	46,766	,960	,015	,298	-,584	,614

Lev			for Equality of nces	t-test for Equality of Means						
							Mean	Std. Error	95% Confidenc Differ	e Interval of the ence
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
@2.1Tuinieren	Equal variances assumed	,049	,825	-2,332	47	,024	-,977	,419	-1,819	-,134
	Equal variances not assumed			-2,318	35,004	,026	-,977	,421	-1,832	-,121
@2.2Lezen	Equal variances assumed	,656	,422	-,714	47	,479	-,258	,361	-,985	,469
	Equal variances not assumed			-,687	31,707	,497	-,258	,375	-1,023	,507
@2.3Muziekmaken	Equal variances assumed	5,730	,021	-1,581	47	,121	-,620	,392	-1,409	,169
	Equal variances not assumed			-1,727	44,830	,091	-,620	,359	-1,343	,103
@2. 4Wandelenfietsenvrijetijd	Equal variances assumed	,007	,936	,862	47	,393	,348	,404	-,464	1,159
	Equal variances not assumed			,868	36,463	,391	,348	,401	-,464	1,160
@2.5Sporten	Equal variances assumed	7,845	,007	-2,613	47	,012	-1,131	,433	-2,001	-,260
	Equal variances not assumed			-2,818	43,743	,007	-1,131	,401	-1,940	-,322
@2.6Spelletjesspelen	Equal variances assumed	1,257	,268	-1,681	47	,099	-,681	,405	-1,496	,134
	Equal variances not assumed			-1,736	39,216	,090	-,681	,392	-1,474	,112
@2.7Vrijwilligerswerk	Equal variances assumed	3,095	,085	-1,466	47	,149	-,609	,416	-1,445	,227
	Equal variances not assumed			-1,596	44,588	,118	-,609	,382	-1,378	,160
@2.8Knutselenhandwerk	Equal variances assumed	1,543	,220	,150	47	,881	,057	,381	-,710	,824
	Equal variances not assumed			,157	40,626	,876	,057	,365	-,679	,794
@2. 90pbezoekgaanbezoeko	Equal variances assumed	,001	,972	,626	47	,534	,152	,243	-,337	,642
ntvangen	Equal variances not assumed			,610	32,810	,546	,152	,250	-,356	,661
@2. 10Kerkelijkeactiviteiten	Equal variances assumed	,037	,849	,342	47	,734	,106	,309	-,516	,728
	Equal variances not assumed			,340	35,106	,736	,106	,311	-,525	,736

	N	Mean	Std. Deviation
@4.1Eenslechtegezondheid	49	1,47	1,569
@4.2Eengebrekaangezelschap	49	,96	1,207
@4.3Angstigegevoelens	49	,43	,645
@4. 4Hetondernemenvannieuweonwennigeactiviteit en	49	,80	,979
@4. 5Eengebrekaaninformatieovermogelijkeactiviteit en	49	,82	,950
Valid N (listwise)	49		

Geslach	Geslacht		Mean	Std. Deviation
Man	@4. 1Eenslechtegezondheid	23	1,04	1,331
	@4. 2Eengebrekaangezelsch ap	23	,65	1,027
	@4.3Angstigegevoelens	23	,22	,422
	@4. 4Hetondernemenvannieu weonwennigeactiviteiten	23	,74	,810
	@4. 5Eengebrekaaninformati eovermogelijkeactiviteiten	23	,91	,848
	Valid N (listwise)	23		
Vrouw	@4. 1Eenslechtegezondheid	26	1,85	1,690
	@4. 2Eengebrekaangezelsch ap	26	1,23	1,306
	@4.3Angstigegevoelens	26	,62	,752
	@4. 4Hetondernemenvannieu weonwennigeactiviteiten	26	,85	1,120
	@4. 5Eengebrekaaninformati eovermogelijkeactiviteiten	26	,73	1,041
	Valid N (listwise)	26		

Descriptive	Statistics
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Woonac	htigineen	N	Mean	Std. Deviation
Dorp	@4. 1Eenslechtegezondheid	31	1,03	1,426
	@4. 2Eengebrekaangezelsch ap	31	,84	1,186
	@4.3Angstigegevoelens	31	,23	,425
	@4. 4Hetondernemenvannieu weonwennigeactiviteiten	31	,58	,807
	@4. 5Eengebrekaaninformati eovermogelijkeactiviteiten	31	,74	,965
	Valid N (listwise)	31		
Stad	@4. 1Eenslechtegezondheid	18	2,22	1,555
	@4. 2Eengebrekaangezelsch ap	18	1,17	1,249
	@4.3Angstigegevoelens	18	,78	,808,
	@4. 4Hetondernemenvannieu weonwennigeactiviteiten	18	1,17	1,150
	@4. 5Eengebrekaaninformati eovermogelijkeactiviteiten	18	,94	,938
	Valid N (listwise)	18		

@4.1Eenslechtegezondheid

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Niet	21	42,9	42,9	42,9
	Een beetje	8	16,3	16,3	59,2
	Gemiddeld	4	8,2	8,2	67,3
	Zeer	8	16,3	16,3	83,7
	Zeer veel	8	16,3	16,3	100,0
	Total	49	100,0	100,0	

@4.1Eenslechtegezondheid

Geslaci	nt		Frequency	Percent	Valid Percent	Cumulative Percent
Man	Valid	Niet	12	52,2	52,2	52,2
		Een beetje	4	17,4	17,4	69,6
		Gemiddeld	2	8,7	8,7	78,3
		Zeer	4	17,4	17,4	95,7
		Zeer veel	1	4,3	4,3	100,0
		Total	23	100,0	100,0	
Vrouw	Valid	Niet	9	34,6	34,6	34,6
		Een beetje	4	15,4	15,4	50,0
		Gemiddeld	2	7,7	7,7	57,7
		Zeer	4	15,4	15,4	73,1
		Zeer veel	7	26,9	26,9	100,0
		Total	26	100,0	100,0	

@4.1Eenslechtegezondheid

Woonachtigineen		Frequency	Percent	Valid Percent	Cumulative Percent	
Dorp	Valid	Niet	17	54,8	54,8	54,8
		Een beetje	6	19,4	19,4	74,2
		Gemiddeld	1	3,2	3,2	77,4
		Zeer	4	12,9	12,9	90,3
		Zeer veel	3	9,7	9,7	100,0
		Total	31	100,0	100,0	
Stad	Valid	Niet	4	22,2	22,2	22,2
		Een beetje	2	11,1	11,1	33,3
		Gemiddeld	3	16,7	16,7	50,0
		Zeer	4	22,2	22,2	72,2
		Zeer veel	5	27,8	27,8	100,0
		Total	18	100,0	100,0	

@4.2Eengebrekaangezelschap

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Niet	24	49,0	49,0	49,0
	Een beetje	12	24,5	24,5	73,5
	Gemiddeld	7	14,3	14,3	87,8
	Zeer	3	6,1	6,1	93,9
	Zeer veel	3	6,1	6,1	100,0
	Total	49	100,0	100,0	

@4.2Eengebrekaangezelschap

Geslach	nt		Frequency	Percent	Valid Percent	Cumulative Percent
Man	Valid	Niet	14	60,9	60,9	60,9
		Een beetje	5	21,7	21,7	82,6
		Gemiddeld	3	13,0	13,0	95,7
		Zeer veel	1	4,3	4,3	100,0
		Total	23	100,0	100,0	
Vrouw	Valid	Niet	10	38,5	38,5	38,5
		Een beetje	7	26,9	26,9	65,4
		Gemiddeld	4	15,4	15,4	80,8
		Zeer	3	11,5	11,5	92,3
		Zeer veel	2	7,7	7,7	100,0
		Total	26	100,0	100,0	

@4.2Eengebrekaangezelschap

Woonachtigineen		Frequency	Percent	Valid Percent	Cumulative Percent	
Dorp	Valid	Niet	17	54,8	54,8	54,8
		Een beetje	7	22,6	22,6	77,4
		Gemiddeld	4	12,9	12,9	90,3
		Zeer	1	3,2	3,2	93,5
		Zeer veel	2	6,5	6,5	100,0
		Total	31	100,0	100,0	
Stad	Valid	Niet	7	38,9	38,9	38,9
		Een beetje	5	27,8	27,8	66,7
		Gemiddeld	3	16,7	16,7	83,3
		Zeer	2	11,1	11,1	94,4
		Zeer veel	1	5,6	5,6	100,0
		Total	18	100,0	100,0	
Independent Samples Test

		Levene's Test Varia	for Equality of inces				t-test for Equality	/ of Means		
							Mean	Std. Error	95% Confidenc Differ	e Interval of the ence
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
@4. 1Eenslechtegezondheid	Equal variances assumed	5,213	,027	1,830	47	,074	,803	,439	-,080	1,685
	Equal variances not assumed			1,857	46,416	,070	,803	,432	-,067	1,672
@4. 2Eengebrekaangezelsch	Equal variances assumed	2,047	,159	1,708	47	,094	,579	,339	-,103	1,260
ap	Equal variances not assumed			1,733	46,408	,090	,579	,334	-,093	1,250
@4.3Angstigegevoelens	Equal variances assumed	14,967	,000	2,243	47	,030	,398	,177	,041	,755
	Equal variances not assumed			2,317	40,155	,026	,398	,172	,051	,745
@4. 4Hetondernemenvannieu	Equal variances assumed	2,808	,100	,379	47	,707	,107	,283	-,462	,676
weonwennigeactiviteiten	Equal variances not assumed			,386	45,299	,701	,107	,277	-,451	,665
@4. 5Eengebrekaaninformati	Equal variances assumed	1,928	,172	-,666	47	,509	-,182	,274	-,733	,368
eovermogelijkeactiviteiten	Equal variances not assumed			-,675	46,706	,503	-,182	,270	-,726	,361

			Indep	endent San	nples Test					
		Levene's Test Varia	for Equality of nces				t-test for Equality	/ of Means		
							Mean	Std Error	95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
@4. 1Eenslechtegezondheid	Equal variances assumed	,647	,425	2,725	47	,009	1,190	,437	,311	2,069
	Equal variances not assumed			2,661	33,164	,012	1,190	,447	,280	2,099
@4. 2Eengebrekaangezelsch	Equal variances assumed	,140	,710	,915	47	,365	,328	,358	-,393	1,049
ap	Equal variances not assumed			,903	34,165	,373	,328	,363	-,410	1,066
@4.3Angstigegevoelens	Equal variances assumed	15,107	,000	3,141	47	,003	,552	,176	,198	,906
	Equal variances not assumed			2,689	22,565	,013	,552	,205	,127	,977
@4. 4Hetondernemenvannieu weonwennigeactiviteiten	Equal variances assumed	2,215	,143	2,091	47	,042	,586	,280	,022	1,150
	Equal variances not assumed			1,906	26,865	,067	,586	,307	-,045	1,217
@4. 5Eengebrekaaninformati	Equal variances assumed	,851	,361	,715	47	,478	,203	,283	-,367	,772
eovermogelijkeactiviteiten	Equal variances not assumed			,721	36,515	,475	,203	,281	-,367	,772

	Ν	Mean	Std. Deviation
@6. 1Hetverbetertdegezondhe id	49	1,94	1,107
@6.2Hetleidttotplezier	49	3,10	,621
@6. 3Hetvergrootdezelfverzek erdheid	49	2,16	1,028
@6. 4Hetvergrootdesocialema atschappelijkebetrokkenh eid	49	2,39	,862
@6. 5Hetvergarenvannieuwek ennis	49	1,61	1,057
Valid N (listwise)	49		

Descriptive Statistics

Descriptive Statistics

Geslacht		Ν	Mean	Std. Deviation
Man	@6. 1 Hetverbetertdegezondhe id	23	1,87	1,290
	@6.2Hetleidttotplezier	23	2,87	,694
	@6. 3Hetvergrootdezelfverzek erdheid	23	2,17	,834
	@6. 4Hetvergrootdesocialema atschappelijkebetrokkenh eid	23	2,57	,728
	@6. 5Hetvergarenvannieuwek ennis	23	1,87	,920
	Valid N (listwise)	23		
Vrouw	@6. 1Hetverbetertdegezondhe id	26	2,00	,938
	@6.2Hetleidttotplezier	26	3,31	,471
	@6. 3Hetvergrootdezelfverzek erdheid	26	2,15	1,190
	@6. 4Hetvergrootdesocialema atschappelijkebetrokkenh eid	26	2,23	,951
	@6. 5Hetvergarenvannieuwek ennis	26	1,38	1,134
	Valid N (listwise)	26		

Descriptive	Statistics
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Woonachtigineen		Ν	Mean	Std. Deviation
Dorp	@6. 1 Hetverbetertdegezondhe id	31	2,10	1,044
	@6.2Hetleidttotplezier	31	3,10	,396
	@6. 3Hetvergrootdezelfverzek erdheid	31	2,19	1,046
	@6. 4Hetvergrootdesocialema atschappelijkebetrokkenh eid	31	2,52	,769
	@6. 5Hetvergarenvannieuwek ennis	31	1,87	,991
	Valid N (listwise)	31		
Stad	@6. 1Hetverbetertdegezondhe id	18	1,67	1,188
	@6.2Hetleidttotplezier	18	3,11	,900
	@6. 3Hetvergrootdezelfverzek erdheid	18	2,11	1,023
	@6. 4Hetvergrootdesocialema atschappelijkebetrokkenh eid	18	2,17	,985
	@6. 5Hetvergarenvannieuwek ennis	18	1,17	1,043
	Valid N (listwise)	18		

@6.2Hetleidttotplezier

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Een beetje	2	4,1	4,1	4,1
	Gemiddeld	1	2,0	2,0	6,1
	Zeer	36	73,5	73,5	79,6
	Zeer veel	10	20,4	20,4	100,0
	Total	49	100,0	100,0	

@6.2Hetleidttotplezier

Geslact	nt		Frequency	Percent	Valid Percent	Cumulative Percent
Man	Valid	Een beetje	2	8,7	8,7	8,7
		Gemiddeld	1	4,3	4,3	13,0
		Zeer	18	78,3	78,3	91,3
		Zeer veel	2	8,7	8,7	100,0
		Total	23	100,0	100,0	
Vrouw	Valid	Zeer	18	69,2	69,2	69,2
		Zeer veel	8	30,8	30,8	100,0
		Total	26	100,0	100,0	

@6.2Hetleidttotplezier

Woonachtigineen		Frequency	Percent	Valid Percent	Cumulative Percent	
Dorp	Valid	Gemiddeld	1	3,2	3,2	3,2
		Zeer	26	83,9	83,9	87,1
		Zeer veel	4	12,9	12,9	100,0
		Total	31	100,0	100,0	
Stad	Valid	Een beetje	2	11,1	11,1	11,1
		Zeer	10	55,6	55,6	66,7
		Zeer veel	6	33,3	33,3	100,0
		Total	18	100,0	100,0	

@6.4Hetvergrootdesocialemaatschappelijkebetrokkenheid

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Niet	2	4,1	4,1	4,1
	Een beetje	6	12,2	12,2	16,3
	Gemiddeld	12	24,5	24,5	40,8
	Zeer	29	59,2	59,2	100,0
	Total	49	100,0	100,0	

@6.4Hetvergrootdesocialemaatschappelijkebetrokkenheid

Geslaci	nt		Frequency	Percent	Valid Percent	Cumulative Percent
Man	Valid	Een beetje	3	13,0	13,0	13,0
		Gemiddeld	4	17,4	17,4	30,4
		Zeer	16	69,6	69,6	100,0
		Total	23	100,0	100,0	
Vrouw	Valid	Niet	2	7,7	7,7	7,7
		Een beetje	3	11,5	11,5	19,2
		Gemiddeld	8	30,8	30,8	50,0
		Zeer	13	50,0	50,0	100,0
		Total	26	100,0	100,0	

@6.4Hetver	grootdesocialema	atschappeliike	betrokkenheid
	grootaoooaanonna		

Woonachtigineen			Frequency	Percent	Valid Percent	Cumulative Percent	
Dorp	Valid	Niet	1	3,2	3,2	3,2	
		Een beetje	2	6,5	6,5	9,7	
		Gemiddeld	8	25,8	25,8	35,5	
		Zeer	20	64,5	64,5	100,0	
		Total	31	100,0	100,0		
Stad	Valid	Niet	1	5,6	5,6	5,6	
		Een beetje	4	22,2	22,2	27,8	
		Gemiddeld	4	22,2	22,2	50,0	
		Zeer	9	50,0	50,0	100,0	
		Total	18	100,0	100,0		

		Levene's Test for Equality of Variances		t-test for Equality of Means							
							Mean	Std Error	95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper	
@6. 1Hetverbetertdegezondhe id	Equal variances assumed	6,383	,015	,408	47	,685	,130	,320	-,513	,773	
	Equal variances not assumed			,400	39,744	,691	,130	,326	-,528	,789	
@6.2Hetleidttotplezier	Equal variances assumed	,047	,829	2,611	47	,012	,438	,168	,101	,776	
	Equal variances not assumed			2,551	37,993	,015	,438	,172	,091	,786	
@6. 3Hetvergrootdezelfverzek erdheid	Equal variances assumed	5,262	,026	-,068	47	,946	-,020	,297	-,618	,578	
	Equal variances not assumed			-,069	44,787	,945	-,020	,291	-,606	,566	
@6. 4Hetvergrootdesocialema atschappelijkebetrokkenh eid	Equal variances assumed	1,480	,230	-1,368	47	,178	-,334	,244	-,826	,157	
	Equal variances not assumed			-1,391	46,097	,171	-,334	,240	-,818	,150	
@6. 5Hetvergarenvannieuwek	Equal variances assumed	3,774	,058	-1,630	47	,110	-,485	,297	-1,083	,114	
ennis	Equal variances not assumed			-1,651	46,675	,105	-,485	,294	-1,076	,106	

Independent Samples Test											
Levene's Test for Equality of Variances			t-test for Equality of Means								
							Mean	Std. Error	95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper	
@6. 1Hetverbetertdegezondhe id	Equal variances assumed	1,567	,217	-1,321	47	,193	-,430	,326	-1,085	,225	
	Equal variances not assumed			-1,276	32,017	,211	-,430	,337	-1,117	,256	
@6.2Hetleidttotplezier	Equal variances assumed	6,599	,013	,077	47	,939	,014	,186	-,360	,388	
	Equal variances not assumed			,064	20,889	,950	,014	,224	-,451	,480	
@6. 3Hetvergrootdezelfverzek erdheid	Equal variances assumed	,002	,960	-,268	47	,790	-,082	,308	-,701	,536	
	Equal variances not assumed			-,270	36,338	,789	-,082	,306	-,702	,537	
@6. 4Hetvergrootdesocialema atschappelijkebetrokkenh eid	Equal variances assumed	2,420	,126	-1,382	47	,174	-,349	,253	-,858	,159	
	Equal variances not assumed			-1,293	29,093	,206	-,349	,270	-,902	,203	
@6. 5Hetvergarenvannieuwek ennis	Equal variances assumed	,374	,544	-2,352	47	,023	-,704	,299	-1,307	-,102	
	Equal variances not assumed			-2,320	34,178	,026	-,704	,304	-1,321	-,087	