“What makes you happy?” Evaluating an intervention aimed at promoting social participation of lonely people: Identifying concepts that can serve as building blocks of self-chosen activities and developing and testing a questionnaire to measure the success of these activities.

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Acknowledgements

First of all I want to thank Marcel Pieterse and Stans Drossaert for the great supervision of this article and for spending so much time in consultation with me.
I also have to thank the organisation Arcon, especially Nicole Schrijver and Aad Francissen, for giving me the chance to evaluate this project and helping me to solve every problem that had arisen during the course of this study. I had a real good time while working in the organisation, and I thank all employees for being so friendly to me.
Big thanks also go to Gerard Nordkamp and Leni Claessens from the municipality Almelo for recruiting most participants of this study and letting me get information of the dossiers.
Last but not least my greatest thanks goes to my incredible family. I would never be able to write these words, if they had not continiously belived in me and supported me.

"Aan geluk kun je werken"

Abstract

Background: Loneliness is a highly prevalent problem related to various consequences for physical and mental health. These problems need to be addressed as loneliness is increasing.

Objectives: This paper evaluates the "happiness-budget" that aims at reducing loneliness in a sample of chronically physically and mentally ill. This budget is used to execute self-chosen activities. Additionally a questionnaire intended for longitudinal research within this project was presented, tested for its suitability and used to describe the study group.

Methods: Two studies were executed; the first was descriptive in nature and took the form of a dossier analysis in order to describe the population and executed activities.

The second study was an extended pre-test of a questionnaire developed to measure effects of the programme within the sample of lonely people. Aims of this study were to describe the population regarding to the concepts assessed with the questionnaire and to test whether the questionnaire could be filled in by all participants.

Results: Executing activities that enabled people to make new contacts and new experiences were most popular. The high occurrence of disease and socially related activities showed the will to fight disease as well as loneliness. Neurological and orthopaedic diseases were the most prominent disorder for the somatic population; the psychiatrics all suffered from psychological problems with some somatic co morbidities.

The sample was found to be severe isolated, but on average mentally quite healthy. The questionnaire could be filled in by nearly all participants within a reasonable amount of time.

Conclusion: The happiness budget was used in a highly functional, curative way. The population was found to be more robust and able to fill in the questionnaire than thought in begin, so longitudinal research within this group.

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1. Introduction

Loneliness is a problem that is highly prevalent in many countries, as for example in the Netherlands. Research done by Machielse (2006) revealed that 8 per cent have only a minimum of social contacts and 22 per cent are lonely. Moreover 6 per cent of the Dutch adults are socially isolated.

Loneliness was formulated by Perlman and Peplau (1981) as "the unpleasant experience that occurs when a person's network of social relationships is deficient in some important way, either quantitatively or qualitatively" (p. 31). Forbes (1996) described loneliness as an unwelcome feeling of lack or loss of companionship. It is a feeling of being alone and not liking it. Loneliness is the situation that occurs from a lack of quality relationships and can be divided in two subsets, emotional loneliness, stemming from the absence of an intimate relationship or a close emotional attachment (e.g., a partner or good friend), and social loneliness, resulting from the absence of a broader group of contacts or an engaging social network (e.g., friends, people in the neighbourhood) (Weiss, 1973). People can have social relationships, but when they are deficient in their quality, they will experience loneliness. The opposite of loneliness is embedded ness (de Jong Gierveld & van Tilburg, 2006). Loneliness is related to social isolation that refers to an objective situation that can be characterized through the absence of any social relationships to other people. It is one extreme of a continuum that puts social isolation on the one end and social participation on the other (de Jong Gierveld & van Tilburg, 2006). The concept of social isolation is a very complex one and up to now only little investigated. It can have a variety of reasons (psychological, physiological and economical) and apply to the whole population. However, with growing age or chronic disease the risk to become enduring lonely also grows, and indeed 12 per cent of people older than 65 is social isolation (Hortulanus, Machielse & Meeuwesen, 2003). With the main part of the society becoming older and more often sick the health costs will rise dramatically over the next years. Whereas in the Netherlands the percentage of people older than 65 now is about 14.5% it is expected to rise up to 20% by 2020 and 25% by 2040 (Centraal Bureau Statistiek, 2007). Worldwide the trend is that people are getting older and live longer. As will be shown in the next section, being extreme lonely has serious consequences for health and can aggravate existing disorders. Thus, even though this paper focuses on people suffering from chronic disease, the need to address loneliness is evident with respect to the demographic change in our society. This study specifically concentrates on chronically ill people who acquired chronic diseases that contributed to the status of loneliness.

Because not all of the people involved in the happiness programme are in enduring social isolation, some still have friends or relatives, the study will relate to both, the status of social isolation and loneliness. But in the following chapters both concepts will be referred to as “loneliness” to avoid confusion for the reader.

There is evidence that loneliness is a risk factor for enhanced morbidity and mortality. Therefore it is important to investigate the causes and consequences of loneliness and to develop programmes to overcome loneliness.

Hence, in the first part of this thesis the known causes and consequences of loneliness as well as existing interventions will be described and debated. A new programme to reduce loneliness, the happiness budget, will be introduced and evaluated in this thesis and its underlying theoretical assumptions will be explained in detail.

In the second part the methodological design of the study and the results will be presented and discussed. The programme will be evaluated and a questionnaire that is intended to measure psychological effects of the “happiness budget” is going to be introduced and tested in study two. Recommendations for the further development of the programme will be given.

1.1. Factors associated with loneliness

In this part, first the disorders that contribute to loneliness will be explained, then a general overview over factors associated with loneliness will be given, because it is not always clear which factors can be seen as risk factors for or consequences of loneliness.

This study focuses on people who suffer from a chronic disease (or psychological disorders) and in consequence have only a minimum of social contacts: although a special focus lies on neurological disorders, nearly all kinds of chronic diseases can lead to loneliness. People who suffer from acquired neurological disorders or other chronic diseases have to face a lot of problems, as for example bad movement and neurological problems. Research had proven that physical disabilities often lead to loneliness (Rokach, Lechcier-Kimel, Safarov, 2006).

Also mental illness can lead to a lot of problems, including loneliness (SANE Research Report, 2005). People with mental illness report that although social relationships are very important to managing one’s illness (62% ‘very important’, 26% ‘important’) they find it much harder to maintain close relationships (55% ‘much harder’, 30% ‘a bit harder’). They frequently attribute it to stigma and misunderstanding in their environment. As a consequence over two-thirds of people affected by mental illness reported to be lonely ‘often’ or ‘all the time’ (SANE Research Report, 2005).

Keyes (2005) involved 3032 American adults in a study concerning their mental health and mental illness. 65 per cent were found to be moderately healthy, and fully 17 per cent were defined as mentally unhealthy or languishing. These 17 per cent frequently reported to have various mental disorders, as for example a major depressive episode (28%), a panic disorder (16 %) or generalized anxiety disorder (10 %). By combining these two groups, 7 per cent (N = 214) were categorized as 'mental illness and languishing' and 16 per cent (N = 484) as 'pure mental illness'. Both groups reported to be strongly limited in activities of daily living, and work, in setting goals and in looking out for the future. People who were categorized as having a mental illness and being languishing reported to have more and severe problems than the pure mental illness group. More than twice as many people of the first group felt helplessness in dealing with daily problems and felt that they could not change things in life (Keyes, 2005).

Other risk factors of getting lonely are age, being male and living in a nursing home or living without a partner and feeling unhealthy (Tijhuis, de Jong Gierveld, Feskens & Kromhout, 1999). The effect from gender on loneliness is not clear, because different studies report different gender as risk factor for loneliness. Whereas Tijhuis et al. (1999) points out that being male is associated with loneliness, Savikko, Routasalo, Tilvis, Strandberg and Pitkala (2005) reports that being female was more related to loneliness.

In their study Savikko et al. (2005) collected data from 6786 elderly people in Finland. Loneliness was measured by one item (do you feel lonely?) and 5 per cent of the population characterized themselves as being often or always lonely. Factors that were significantly related to report being lonely were being female, widowed, having a poor income, living at residential homes and in rural areas. They also suffered from bad health, had a high need for daily help with domestic activities and did not do daily outdoor activities. Participants were asked about the causes for their loneliness. Own sickness, absence of friends and relatives as well as a meaningless life were the main causes attributed to loneliness (Savikko et al., 2005).

Having a heart disease could also contribute to loneliness. In one study by Sorkin, Rook and Lu (2002), participants were examined by a physician and were asked to answer a questionnaire that measured loneliness. Those who reported to feel lonely or to be lonely frequently showed to have a heart condition. The relation was so strong that increasing loneliness was linked to a heightened chance of having a heart condition. Self reported health status was a possible explanation for this link, because those who rated themselves as having a serious heart condition were found to be lonely (Sorkin et al., 2002). Maybe protective behaviours, such as staying at home and not doing too many things reduce contacts and promote loneliness.

One protective factor was identified by De Jong Gierveld and Dykstra (2008). They tested whether giving support to someone was related to loneliness. On the basis of altruism theory which states that giving support is not only cost, but also brings rewards

(Becker, 1976) they found out that providing support to family members was significantly related to lower loneliness scores.

So, being physically or mentally disabled, living without a partner or in residential homes, and living in an insecure neighbourhood are all factors that contribute to becoming lonely or lonely. One of the most prominent concepts associated with loneliness is depression. The direction of this effect is not yet clear, but Cacioppo, Hughes, Waite, Hawkley and Thisted (2006) described loneliness as risk factor for depression, and suggested that although depression and loneliness are two separate constructs they can exert synergistic effects on mental well-being. Vandervoort (1999) found that depression is strongly related to loneliness. Loneliness also increases the mortality risk associated with depression. When depressive people perceive themselves as being lonely the mortality risk is 2 times higher than normal (Stek *et al.,* 2004). This shows that the two concepts are not only related to each other, moreover, their effects on mortality seem to compound. Another factor that contributes to loneliness also is associated with depression: medical co morbid functional disability. Disability was most strongly associated with depression (McDougall et al., 2007). Being lonely or severe lonely has a strong impact on health: it can aggravate existing disorders and seem to contribute to the emerge of new ones. For example, loneliness turned out to be a predictor for differences in systolic blood pressure (Hawkley, Masi, Berry & Cacioppo, 2006). Loneliness, depressive symptoms, perceived stress and hostility were all significantly related to systolic blood pressure. The effect of loneliness on blood pressure became stronger with age; so that age and loneliness combined were the most significant predictors of heightened systolic blood pressure.

A study of Borg, Hallberg and Blomqvist, (2005) revealed that loneliness is significantly related to Life satisfaction. Elderly people who perceive a high degree of loneliness scored lower on a questionnaire assessing life satisfaction. This was confirmed by Rijken and Groenwegen, 2006, who found a relation between loneliness and life satisfaction of $r = 0.36$ (significant at 0.01 level). This effect worsened when people had severe or totally impaired self care capacity. Also poor financial resources played a role (Borg *et al.*, 2005; Rijken & Groenwegen, 2006). It is a well accepted finding that income and socio economic status are related to physical functioning (see Wilkinson, 2006) and psychological well-being (Kaplan, Shema & Leite, 2008). People with low financial resources and bad physical mobility are restricted in their ability to lead an independent life and fulfil needs (Borg et al., 2005). It does not seem surprising that these factors lead to low life satisfaction. Whether cause or consequence: having a chronic disease like neurological or musculoskeletal disorders clearly promotes isolation and financial losses, because people can not work any longer, have a bad physical condition and are restricted in their self care capacities. Net income is associated with physical disease and loneliness (Rijken & Groenwegen 2006; Routasalo, 2006). De Jong Gieverld and Scharf (2008) conducted a study to test whether the direct environment, thus the neighbourhood contributed to loneliness. They found that objective neighbourhood characteristics exert a significant influence on participation. A neighbourhood high in urbanisation and low in financial status was positively related to the intensity of isolation. They also found out that a cognitive process of subjective elaboration mediates the relationship between loneliness and neighbourhood. Thus if inhabitants feel that their neighbourhood is not secure they wont go out as much as they would do if they had the feeling that their neighbourhood was safe. As chronically ill frequently can not do paid work they are more likely to live in neighbourhoods that can be characterized as being low in financial status, which would enhance the level of loneliness even more.

It was already concluded that older or chronically disabled people have a higher risk of becoming isolated, as they frequently live without a spouse, in residential homes and are more often physically or mentally disabled. On average their socio-economical status is low, due to old age pension or restricted capability to do paid work. Bad health inevitably contributes to loneliness and surely someone disabled and lonely has a heightened chance of getting depressed.

Being extreme lonely or lonely has a variety of consequences which become more and more important in the light of the growing number of people, who have a high risk to become lonely (Hortulanus et al. 2003). The older people get the more diseases they acquire, and the more diseases they have, the greater the chance of getting depressed or feeling languished (Keyes, 2007).

Moreover, the consequences of loneliness, such as heart problems or heightened blood pressure will affect older or chronically ill people more strongly than younger or healthy ones. These findings together with the elevated risk on depression and suicide strengthen the problems that loneliness poses to a society that is steadily growing older and more anonymous.

The conclusion that can be made here is that it is of high importance to find means to address this problem and to bring lonely people back into a fulfilled social life. Interventions have to be addressed to the sample of chronically disabled people, as they can not help themselves. The following paragraph will give an overview over existing interventions.

1.2. Overview over interventions to reduce loneliness

This part will review some of the interventions that target the problem of loneliness and could be found in literature. For example a study by Martina and Stevens (2006) indicated that involving older women in a friendship program led to a moderate improvement in self-esteem, life satisfaction and positive mood. The programme consisted of 12 lessons including theory about and practice in skills needed for making friendships (self esteem, improving existing friendships), role playing of difficult situations and homework. Six month later 63% of the participants in the friendship programme reported that they had made new friends, 55% still had contact to other women of the programme. Also existing friendships were improved. The most significant effect after 6 month was an improvement in mood and positive affect. Also the decline in loneliness scores and negative affect was significantly, which suggests that involving women in a friendship program was successful in reducing loneliness (Martina & Stevens, 2006).

Fokkema and Knipscheer (2007) tested in their study whether the use of the internet could reduce feelings of loneliness. They gave their sample of 15 Dutch seniors free access to the internet for three years, training in how to use the PC, offering a volunteer that could be reached anytime when problems would arise. Volunteer visits were kept at a strict scheme in order to avoid the Hawthorne effect (loneliness would have decreased because of visits not because of cyberspace use). Though loneliness decreased the effect was only significant for the better educated, and 7 of 15 people dropped out of the study. From some qualitative analysis it could be concluded that the internet is an opportunity for disabled to get and stay in contact with others. Most participants stayed in contact with their family and friends. However, the internet gave them a way to cope with their loneliness by distracting them. Once the participants mastered using a PC and the internet they felt confident about and satisfied with the medium. They also used the internet to play games, search for information or write emails. So while internet did not succeed in making social contacts it did succeed in distracting people and giving them new means to spend time (Fokkema and Knipscheer, 2007).

In their article Cattan, White, Bond and Learmouth (2005) reviewed 30 health promotion interventions that employed a quantitative evaluation outcome study-design and targeted loneliness. Only a few (n = 10) interventions were found to be effective, eight were judged ineffective and the rest (n = 12) was inconclusive, or the research design was not stated. Ineffective studies generally had in common that they were one-to-one studies that took place in the homes of targeted people. The factors that the effective studies shared were that they were group interventions that focused on educational input and targeted specific groups (women, disabled people) that were recruited in existing settings, as for example municipal organizations. 6 of 10 effective studies enabled participation or facilitated control. (Cattan et al., 2005). Apparently giving control to people, enabling group participation and target specific groups seems to be important to reduce loneliness in the elderly.

In total, not much literature could be found. Of the programmes found, virtually no intervention specifically targeted loneliness in the group of chronically ill or has the goal to enhance happiness of these people. The literature that was found indicates that the internet is not a good mean to reduce isolation. Also one-to-one interventions that take place in the lonely people's homes do not enable people to take control over their problems do not seem to work. Apparently factors such as teaching people how to get back into social participation without doing all the work for them seems to be more successful (Martina & Stevens, 2005; Cattan et al., 2005). Targeting the group of chronically disabled, lonely people, helping them to overcome the first barriers, without taking all control and autonomy away seems to play a crucial role. This is still missing in most programmes and a main reason why this study will evaluate a new programme, the happiness budget.

1.3. A new approach: the happiness budget

In the Netherlands a project started that aims at reintegrating lonely people to the society or at least promote social participation, called the "Geluksbudget", which means: happiness budget. This project was invented by the municipality Almelo and started in 2004. In the last years the organization ARCON was asked to advise other municipalities implementing this intervention, to organize the training of involved persons and do research concerning the effects of the happiness budget.

The implementation of the intervention is done by the municipalities themselves (see Toolkit Geluksbudget, 2008). The municipalities work with an individual budget of maximal 450 Euro that is given to people who have fulfilled the criterion of being in enduring loneliness. With this budget individual, self-chosen activities can be executed, which will be explained below in more detail.

The project is aimed at people who suffer from serious illness (physical or mental) that contributes to loneliness of these people. For example from a cerebral disorder that they acquired later in life through an accident or an illness, or another chronic illness that affects cognitive and / or motor ability. Their whole life changes and suddenly they simply stay home, because they are not mobile enough to go somewhere on their own, or they lost the belief in their own ability to manage social situations (see Toolkit Geluksbudget, 2008). As one participant described it: "After I became sick, I fell into a deep hole. Before I became sick I did a lot of good work here in the neighbourhood. I was the one who was called whenever help was needed. But after the stroke I could not do this any more and before I fully realized it, I was sitting at home all the time. I lost all my self confidence because I could not speak any longer and because of the fact that I was disabled. The budget helped me, because in some way it has broadened up my life:

I made new experiences and contacts. Because of the budget social ties remerged, I got more self confident through the activities. The activities I do give me a lot to talk about."

Because of their physical condition participants got medical treatment for a certain period, and the doctors and nurses, as well as municipality workers can decide to suggest these people as candidates for the project. If they do so, the isolated person is enlisted in its municipality and a trained consultant makes an appointment for an interview. To assess wishes, needs and problems of the isolated person a consultant comes home to the people and interviews them. Above it was stated that one-to-one interventions that take place in people's homes were found to be generally ineffective in reducing loneliness (Cattan et al., 2005), so the reader should keep in mind, that this is not the whole intervention but only the intake procedure. Afterwards the consultant makes up a dossier of this person (which gives information about the disorder, functional disabilities and chosen activities for the budget) and then decides whether they get the budget or not. Until today only one candidate was rejected after the first interview. In consultation with the isolated person the consultant assesses the evident problems of that person and asks whether the client has a wish for an activity that could help bringing him or her back to social participation. Examples for activities are theatre cards, or a membership in a dance club. One man wished to have a second hand moped so that he could be more independent and decide when and where he wanted to drive.

The approach is demand-driven, that means participants decide which activities they want to use the budget. The intent is that if people can think of something they really like to do, than they could be helped realizing their dream. If this succeeds, than they would feel better about themselves and their lives and get back something they can look out for. Until today, no research has been conducted that asked whether it is crucial for the success of this kind of intervention which activities people chose, or if it is enough that they have the mere ability to chose and decide something on their own. Maybe this is already enough to enhance self esteem and activate people to actively seek for social contacts. This is an interesting question, because the ultimate goal is to enable people to participate in social life, enhance happiness and minimize health costs. As mentioned above, research has proven the link between being lonely and visiting the doctor, or a specialist. Moreover the intervention should lead to positive emotions, which in turn are connected to a higher quality of life and lower mortality rates. It is also a significant predictor against institutional care (Pitkala, Laakonen, Strandberg & Tilvis, 2003).

To prove effects of this new kind of intervention measurements are needed and until today there is no such measurement. That is why designing an instrument that is practicable for this project will be one focus of this study. Furthermore the project is now starting to spread around the Netherlands municipalities. So it is important to test whether the self-reported effects of this project are evident at a scientific level. Additionally, this papers aims at identifying and exploring the concepts of activities that could explain eventual effects of the intervention.

1.4. Theoretical framework for the happiness budget: Positive psychology

The project is based on the notion of positive psychology, and assumes that lonely people do know for themselves what needs to be done to get them back into social life. The following paragraph will briefly present this theoretic framework.

The field of positive psychology concerns three levels: the subjective level, characterized by valued subjective experience (well-being, hope and optimism), the individual level that is about positive individual traits (capacity for love, courage forgiveness) and the social level relating to civic virtues (responsibility, altruism, nurturance) (Seligmann & Csikszentmihalyi, 2000).

One question that is central to positive psychology is: What is happiness? Seligmann, Parks and Steen (2004) tried to define concepts that could be empirically measured and arrived at three components of or "routes to" happiness, which are based on the factors mentioned above: (1) pleasure or positive emotion, (2) engagement; and (3) meaning (Seligmann et al., 2004; Peterson, Park & Seligmann, 2005).

The first factor, pleasure is hedonic, increasing positive emotion. It is concerned with positive affectivity and how people interpret and react to events. In the introduction it was noted that people can feel lonely even with many people being around. This highlights the impact of positive emotion in the interpretation of a situation and its contribution to the negative consequences that loneliness has.

The second factor, engagement involves the pursuit of gratification. By completely committing ourselves to a job or activity we become fully absorbed in this activity and find gratification. Pursuit of gratification may not be accomplished by positive emotions (executing a physically straining activity), but that reaching our goals (complete the activity) makes us feel satisfied and fulfilled.

Whereas the first two routes do not imply more than the self the third route to happiness comes from using these strengths (positive emotion and engagement) to belong to something larger than one individual person, such as: religion, politics, family or friends. These higher instances give our life meaning as it satisfies our longing for purpose in life and belonging to something or someone (Seligmann et al., 2004, Peterson et al., 2005), which is one core ingredient lonely people are missing.

This shows that the interplay between the individual and its environment is crucial for a healthy, happy life.

Moreover, research by Seligman et al., 2005 has proven that it is possible to enhance happiness by simple interventions. For example, they delivered small interventions via the internet. Participants were asked to write down three good things that went well each day and were asked to provide causal explanations for these events. A second intervention asked participants to identify their most prominent character strength via a test on the internet site and were then asked to use this top strength in a new and different way each day of the week. Participants had to complete happiness and depression tests 6 times, the first before making the internet test, the last after 6 month. Results revealed that these 2 exercises enhance happiness significantly and that this effect even rises over a period of 6 month. Depression was significantly decreased, and here too, the effect grew stronger with time (Seligman et al., 2005). By simply asking people to become aware of good things and personal strength they succeeded in making people happier. This shows that people can be made happier with quite small interventions.

What are the factors that could make the happiness budget effective?

Using the paradigm of the three concepts of happiness (Seligmann, 2004; Peterson et al., 2005) the following points are assumed:

First, loneliness can be reduced and happiness can be enhanced by quite little interventions, as highlighted above. Second, when people get a chance to experience positive affect and something to fully connect to, for example while doing self-chosen activities, they can become happier. By choosing activities for themselves people can play on their strengths and do something they really want to do. Going out and doing the chosen activities should lead to the experience of positive emotion which should motivate to go on with doing activities. Completing the activities should enhance self-esteem, lead to a feeling of gratification and satisfaction. Because these activities aim at promoting social participation they give some social instance (new friends, or social network) to give meaning to someone's life. Being happier with one's life and having more social contacts to rely on should reduce problems associated with loneliness mentioned above. Based on the notion that people know for themselves what they would need to become happy someone to activate them should be sufficient to let people make the first move to a more social, happy life.

1.5. Research Questions

So following research questions remain:

(1) What types of activities did candidates chose in the last years?
    a) Can valid concepts be established to describe the activities?
    b) Can these concepts be related to disorder?
(2) How can the people participating in this programme be described concerning disorder, functional disabilities and outcomes of the questionnaire?
(3) Is the questionnaire suitable for longitudinal use in this population? Are all participants able to understand and answer all questions?

The study is set up to answer these questions, and will employ the design of a dossier analysis in study one and an extended pre test to test the developed questionnaire in study two. Until now no instrument to measure effects that the happiness budget has are available and this is why this study introduces a questionnaire that can be used for long term research. In the form of an extended pre test the questionnaires suitability for the use within the population of lonely and chronic disabled was tested.

This questionnaire is ought to be an instrument that can be used on long-term to assess effects of the intervention. Tailoring it to the needs of this target population is of high importance.

2. Methods

2.1. Study one: Dossier analysis

2.1.1 Procedure

The Dutch municipality Almelo had started in 2000 with the "happiness budget". In 2009 other municipalities in the Netherlands also started to implement the project, but still Almelo had the most people enlisted for the budget, so data gathering took place in Almelo.

80 dossiers were analyzed, though 94 people had received the happiness budget in the last years, only these dossiers were available for the investigator. The information that was taken out of the dossiers was sensitive, as it involved the kind of disorder, functional disabilities, address and demographic variables of the candidates.

The researcher was supervised by someone working at the municipality in order to ensure that private data was kept anonymous and not taken pout of the office.

A code scheme was used to extract a person's age, gender, disorder, the problems associated with this disorder in daily life (functional disabilities), the activity chosen and the amount of money that was spent. Only 47 dossiers contained information about age, and one was missing information about gender, as well as the budget spent. Two populations that had received the budget in the last years were identified: people suffering from pure physical illness and a psychiatric group that were identified by psychological disorder. Both populations differ on some important points (disorders and the related problem) they will be analyzed separately concerning these points. On the other hand, because both groups form the "lonely", they can be analyzed together in order to describe the population. Whenever groups will split up for analysis this will be noted.

2.1.2 Coded Variables

Demographic variables

First age and gender were taken out of the profiles. Gender was coded into 1 = male and 2 = female.

Disorders

During dossier analysis it became clear that the clients suffered from a variety of multiple disorders. So, the chapters IV – XII and XVIII of the online version of the Internal Classification of Diseases version 10 by the World Health Organisation were used to establish valid categories. Taking the Internal Classification of Diseases version 10 as a guideline the great variety of diseases was reduced to eight general categories and four for specific diseases that were occurring frequently within the population.

For an exact overview of the categories see table 1.

Table 1

Overview over classification of disease categories

ICD-10 Code	*Name of category / specific illness*
IV. E00 - E90 Endocrine, nutritional and metabolic diseases	Diabetes
V. F00 – F99 Mental and behavioural disorders	Psychology
VI. G00 - G99 Diseases of the nervous system	Neurology, Parkinson, Multiple Sclerosis, ME-VCS, Amyotrophic Lateralsklerose, Progressive supranuclear palsy
VII. H00 – H59 Diseases of the eye and adnexa	Visual disorder
VIII. H60 – H95 Diseases of the ear and mastoid process	Impaired hearing
IX: I00 – I99: Diseases of the circulatory system	Cardiology
X. J00 – J99 Diseases of the respiratory system	COPD
XIII. M00 - M99 Diseases of the musculoskeletal system and connective tissue	Orthopaedic, Fibromyalgia / Pain,
XVIII. R00 - R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Balance disorder

Diseases were coded 1-14, because some disorders were not only allocated to the whole chapter (Muskoskeletal system) but also on the subparagraphs (fibromyalgia, M79).

This was done in order to get a clear and detailed picture over the distribution of disorders and –specifically, to be able to detect the impact of certain disorders on for example functional disabilities or chosen activities.

Functional disabilities

For quantifying the specific problems that clients had with their disorder seven categories were established using the online version of the International Classification of Functions by the World Health Organisation based on their relationship to the disorders and frequency of occurrence. For example, having problems with the cognitive ability should be related to suffering from neurological diseases and summarizes all the abilities like learning, thinking, or planning. Moreover it was frequently mentioned by the clients. Having problems in fulfilling domestic tasks can relate to a variety of disorders, but was so frequently used, that it was included in the list. See also table 2 for an exact overview over the categories.

Table 2

Overview over classification of functional disabilities

ICF-Code: Subcategory: d Activity and Participation	Name of category / Problems
d1: Learning and applying Knowledge	Cognitive ability
d2: General Tasks and Demands	Execute tasks
d3: Communications	Communication
d4: Mobility and d920: Recreation and Leisure	Mobility; Balance *
d5: Self care and d6: Domestic Life	Domestic tasks, self care
d7: Interpersonal Interactions and Relations	Interpersonal relations

* was employed as extra category because of frequent occurrence

Chosen activities

Quantifying the activities was more difficult, because people could choose specific ones like going swimming join a dance club and visit a museum with the family. Or doing art work, buy a second hand scooter and have a volunteer that helps doing shopping. The main problem was: how can categories be established that are important for this study and that are vital to determine the effectiveness of the budget?

The techniques for developing grounded theory by Strauss and Corbin (1998) were used. The aim of this study was to find concepts that were the building blocks of every intervention. Following the procedure as suggested by Strauss and Corbin (1998) the researcher started looking for concepts that the activities have in common. These concepts reduce the number of units to work with and have analytic power, because they describe the underlying phenomena. Next step was assigning dimensions (more or less present, location of property on a continuum) to these concepts.

Using the approach of grounded theory by Strauss and Corbin (1998) 10 different concepts underlying the activities were identified with respect to the background of chronic disease and loneliness. These were respectively:

Social Participation: Is social participation promoted? Is the action done solitary (low), with someone (medium) or does the candidate join a network (high). Someone who goes swimming on one's own is doing something different than someone who does this with a friend or volunteer.

Making new contacts: Does the activity promote making new contacts? Or has someone chosen for doing something with the family (low), with friends and neighbours (medium), or with totally unknown people (high). This dimension taps the presence of other people.

Being physically active: was the candidate physically active? Did they do sitting activities (low), activities that forced them to move, walk around (medium), or did they do sports (high)?

Differences here may be obviously between doing a computer curse, going to the zoo or joining a fitness club.

Making new experiences: Did the activity leave a "picture in mind"? What kind of experiences did people make (new-but-not-rare, or new and rare). All activities do leave some new impressions in the candidates mind, here intensity was concerned. For example, participating in a patchwork-curse is a new but not rare experience, whereas visiting the museum or theatre would leave a bigger "picture in mind". Here only two dimensions were established: medium (new but not rare) and strong (new and rare).

Going out: Where did the activity take place? Was the candidate staying home (low), was he going to known places (medium) or was he visiting a new, unknown place (high).

Becoming mobile: Did the activity explicitly concern statements about mobility? Did the candidate get a driver service (low) or did he buy a motor in order to become mobile on long term (high)? Again only these two dimensions were used and unfortunately many dossiers did not contain that information.

Learning / improving cognitive ability: How much did the activity play on cognitive ability? Was someone more passively participating in an activity (walking with a volunteer) (low), was someone watching a theatre play (medium) or was he learning a new language (high)? Of course this dimension can also be characterized as being "disease related" for someone with neurological disorder, but for this is not true for someone with an orthopaedic disorder.

Related to disease: Was the activity related to ones disease, was the budget used to fight ones disease? This concept ranged from totally unrelated (someone with an orthopaedic disorder wished to have a season-card for his favourite football-club), was it indirectly related or was it directly related (someone with orthopaedic disorder does medical fitness).

Doing it autonomous: how much help did someone need in order to realize the activity? Did he need help with planning and realization (low), did he need help with realization (medium) or was the whole activity realized on someone's own (high) ?

Duration of the activity: How long could the activity be done? Once (low), up to 6 month (medium) or longer than 6 month? Did someone go away for a weekend (once), did they participate in any kind of course (medium), or did they buy a bicycle (long).

160 Activities could be identified during the dossier analysis. 2 dossiers were missing information about the activities, so that on average every one chose for 2 activities, range was between 1 and 4. They were coded into the 10 categories and degrees of presence (0-3), 0 = information was not available, 1 = weak presence of the concept, 2 = medium presence of the concept, 3 = strong presence. The coding was done manually by the author. In order to ensure reliability of the categories 10 dossiers (in anonymous form) were later given to two social researchers who were made familiar with the topic and the coding scheme. Interrater reliability turned out to be 0.68 and 0.72.

2.1.3 Data Analysis

Results were analyzed using the Statistical Package for the Social Sciences 16.0 (SPSS). Diseases and functional problems were coded following the Classification of diseases and functional disabilities. The average of presence of the different concepts was calculated for all 160 activities and for each dossier (N = 80). As said above, in order to ensure reliability of the categories, two social researchers later scored 10 dossiers to make statements about interrater reliability.

Then cross tabs were computed for the most dominant diseases and functional disabilities, in order to detect correlations and dependencies, which were tested for significance by the mean of Chi-Square tests. A linear regression did not yield significant results, so it was not included in the analysis.

2.2. Study Two: the Questionnaire

2.2.1. Participants and Procedure

Data gathering took place between April 2009 and July 2009. Consultants were instructed to tell all new candidates during the intake interview that a new measurement was available and to ask whether they wanted to participate in a study testing it´s suitability. In case they agreed the consultants sent dossier to the researcher, where disorders, functional disabilities and wishes concerning activities were mentioned. The content of the dossiers is identical to the ones used in the first study. Special envelopes that were explitely addressed to the researcher were used to be able to ensure privacy of the documents. 120 envelopes were sent to 6 Dutch municipalities that were participating in this study. Response rate was 10 %. This was mainly due to the procedure of enrolment for the study and kind of population, because the participant self had to agree to take part in this study and the consultant had to decide whether participants could handle the extra stress of having someone visiting them. Possible problems associated with such a selective sample will be discussed later in more detail.

Additionally, most municipalities had just started with implementing the happiness budget and did not have had many participants. Only 2 participants in this study came from new starting municipalities and 10 from the only one that had started earlier (Almelo).

After receiving these dossiers the researcher called the candidates to make an appointment and then visited them home. They first got information about the content and aim of the study and had to sign an informed consent. Researcher and candidate sat in a one-to-one situation at a table and filled in the questionnaire together. The general procedure was that the candidate read the questions aloud and indicated his or her agreement with it on the scale, but for some candidates the procedure had to be altered a little. For example some candidates had problems with writing, for example due to arthritis. Then they verbally stated their answer and the researcher marked it.

Candidates were asked to think aloud and voice out any thought they had concerning the questionnaire. These were noted by the researcher in order to find out about how candidates interpreted the questions.

2.2.1. The Questionnaire

This questionnaire was invented to be an instrument for longitudinal research to be able to detect effects of the happiness budget. Of course loneliness had to be employed in the study, so that a decrease in loneliness could be measured. Because loneliness exerts strong effects on general mental health (Depression, low life satisfaction, higher suicide rate) it was decided to take this construct in the questionnaire, so that improvements in the mental state could be discovered. Another question of interest was, whether the life of chronic disabled lonely people has any meaning to them, and whether this could be changed through the project. Of course the ability to move around in and outdoors is important, so this was employed too. Last, a self rating of health was taken into the questionnaire.
The measures for all these concepts are explained below, the final version of the Questionnaire is attached in Appendix I.

Social and emotional loneliness was measured by the 11 item scale for overall social and emotional loneliness by De Jong Gierveld and van Tilburg (1999). The list consists of 2 subscales that calculate social (5 items) and emotional (6 items) loneliness. In this study internal reliability of the scale was found to be satisfying: .76
Van Tilburg and de Jong Gierveld (1999_2) gave the following instructions to interpret the results of the loneliness scale: Scores between 0-2 distinguished lonely from not lonely people (68% elderly Dutch people), scores between 3-8 indicate mediocre loneliness (28%), between 9-10 they indicate severe loneliness (3%) and scores higher than 11 meant that a person is extremely lonely or lonely (1%).

Mental Health was measured with the Dutch version of the Mental health Continuum Short Form (MHC-SF), which consists of 14 items (Westerhof & Keyes, 2008). The mental health continuum short form identifies three broad factors underlying mental well being, as there are: emotional (items 1-3), social (items 4-8) and psychological (items 9-14) well being. It views mental health as a syndrome of symptoms of positive feelings and positive functioning in life (Keyes, 2002).
Mean scores of each subscale are given by Westerhof and Keyes (2008), for the subscale emotional well being they give 4.7 (SD = 0.9), for the subscale social well being Westerhof and Keyes (2008) gave 3.3 (SD = 1.0); on subscale psychological well being they give 4.2 (1.0).
In this study scale reliability was .855.

Physical health and mobility: was measured with the three items of the subscale “autonomy outdoors” and two items of the subscale “autonomy indoors” of the Impact on Autonomy and Participation Questionnaire (IPA) by Cardol, de Haan, van den Bos, de Jong, de Groot (1999; Cardol de Haan, van den Bos, de Jong, de Groot, 2002). The items concern the capability to move indoors and outdoors where and when one wants and was of special interest for municipalities participating in the project. Because this measure will be used to track changes over time, so no norm values were taken. Scale reliability in this study turned out to be .693, which can be attributed to the fact, that items from two different scales were used.

Meaning in ones life: was assessed using the Purpose in Life Index by Crumbaugh and Maholick's (1964; Crumbaugh, 1968) Purpose in Life (PIL) test is designed to measure an individual's experience of meaning and purpose in life. Each of the twenty items is rated on a 7-point scale and total scores therefore range from 20 (low purpose) to 140 (high purpose) (Seeman, 1991). Examples of the 20 items include: "I am usually: completely bored (1) --- enthusiastic (7)”. Seemann (1991) stated that a score of 20 (scoring 1 on every question) indicates a low purpose in life whereas 140 (scoring the full 7 points on every question) represented having found a full purpose in life. It differed from the proposed mean value given by Ebersole and DePaola for active married elderly people (1989) respectively 117.6. Internal reliability turned out to be high: .92.

Subjective Health: Was measured by one extra Item: which mark do you give your health? The item could be scored on a scale from 1-10, 1 indicating poor health and 10 indicating best health.

A questionnaire assessing depression could not be employed in this study due to practical considerations: the questionnaire had to be kept short and manageable even for the most impaired participants but still had to assess a wide spectrum of variables.

2.2.2. Data Analysis

Results were analyzed using the Statistical Package for the Social Sciences 16.0 (SPSS).

A problem was the low response rate, only 12 cases could be used for data analysis, so most statistical tests could not be executed, instead, analysis were descriptive in nature.

Values for all tests that were used in the questionnaire were computed using frequencies and cross tabs. Again, diseases and functional problems were coded following the classification of diseases and functional disabilities. Then activities were coded into the 10 categories into degrees of presence (0-3).

Cross tabs were computed for the most dominant diseases and functional disabilities, in order to detect significant correlations.

Special attention was paid to the results of the think-aloud procedure, where participants were asked to voice out any thought they had concerning the questionnaire. The results were analyzed qualitatively.

3. Results

3.1. Study one: Dossier analysis

3.1.1 The dossiers

First gender and age were assessed, information about gender, disorder and functional disabilities was available in every dossier, 78 contained information about the executed activities and 47 of 80 dossiers about age. Two different populations were involved, 70 dossiers came from the chronic disabled, and 10 from the psychiatric population.

The population is mainly female; in the psychiatric population even 90 per cent are female. The chronic disabled display a higher variation in age than the psychiatric population. Table 3 shows that most people used the full amount of money (450 Euro) and more than half of all participants executed at least 2 activities. Psychiatric participants more frequently stayed under 400 Euro and on average they chose for a smaller number of activities per person.

Table 3 displays the distribution of demographic data and gives information about money spent for executing and number of activities chosen.

Table 3

Demographic information of the dossiers

	All 80 dossiers	Somatic population (N = 70)	Psychiatric population (N = 10)
Male	29 (36%)	28 (40%)	1 (10%)
Female	51 (64%)	42 (60%)	9 (90%)
Age	53 (11-88 y)	56 (11-88 y)	45 (29-57 y)
Amount of Money spent (n %)	N = 78	N = 69	N = 9
100-200 Euro	3 (4%)	2 (3%)	1 (10%)
200-300 Euro	3 (4%)	1 (1%)	2 (22%)
300-400 Euro	7 (9%)	5 (7%)	2 (22%)
400-450 Euro	66 (83%)	62 (89%)	4 (44%)
Number of activities	160	142	18
1	78 (47%)	68 (48%)	9 (50%)
2	47 (28%)	39 (27%)	6 (33%)
3	27 (16%)	24 (16%)	2 (11%)
4	11 (14%)	10 (7%)	1 (6%)

Coded Variables

Coded variables in this study were: Disorders, functional disabilities and the activities chosen.

Disorders

As in many dossiers more than one disorder (1.9 on average) was present, the total number of all disorders adds up to 153.

The population shows a high degree of orthopedic, neurological and cardiologic disorders. More than a half of the dossiers mentioned neurological disorder, and about 40 per cent orthopedic.

Whereas in the sample of somatically ill, psychological disorder affects only 4 per cent of the population, a hundred percent of the psychiatrics suffer from psychological problems. But additionally they suffer from orthopedic and neurological problems.

Table 4

Overview over diagnosed disorder of 80 profiles

Disorder	All dossiers (% total disorder) (% total dossiers)	Somatic (% total dossiers)	Psychiatrics (% total disorder)
Neurological	43 (28%) (53%)	40 (57%)	3 (3%)
Orthopaedic	31 (20%) (38%)	29 (41%)	2 (2%)
Cardiologic	14 (9%) (17%)	14 (20%)	
Diabetes	13 (8%) (16%)	13 (18%)	
Psychological	13 (8%) (16%)	3 (4%)	10 (100%)
Pain / Fibromyalgia	11 (7%) (13%)	10 (14%)	1 (1%)
Balance	10 (6%) (12%)	10 (14%)	
COPD	7 (4%) (9%)	7 (10%)	
Visual disability	5 (3%) (6%)	5 (7%)	
Impaired hearing	2 (1%) (2%)	2 (2%)	
Parkinson	2 (1%) (2%)	2 (2%)	
Multiple Sclerosis	2 (1%) (2%)	2 (2%)	
Total amount	153	137	16

Functional disabilities

In table 5 functional disabilities are displayed. The total number of all disabilities adds up to 153, as many dossiers contained multiple functional disabilities.

Mobility, cognitive ability and problems with fulfilling domestic tasks are the most prominent problems, with one exception in the psychiatric group, where interpersonal relations pose the biggest problem. Mobility seems to be the problem that contributes most to loneliness, as it is frequently occurring in the sample of chronically disabled. Of course the psychiatric population mostly suffered from interpersonal problems, which surely contributes heavily to loneliness, but as much participants also reported problems with cognitive ability.

So a physical component contributed to isolation, but the mental (cognitive disability, interpersonal problems) seems to exert a stronger impact.

Table 5

Overview over functional disabilities of 80 profiles

Functional disabilities	All dossiers (% total disorder) (% total dossiers)	Chronically disabled (% total dossiers)	Psychiatrics (% total dossiers)
	56 (35%) (68%)	54 (77%)	2 (20%)
Mobility	29 (18%) (36%)	25 (36%)	5 (50%)
Cognitive ability	20 (13%) (25%)	17 (24%)	3 (30%)
Domestic tasks	13 (8%) (16%)	7 (10%)	5 (50%)
Interpersonal relations	12 (7%) (15%)	12 (17%)	
Communications	11 (7%) (13%)	11 (15%)	1 (10%)
Self care	8 (5%) (10%)	8 (11%)	2 (20%)
Execute tasks	8 (5%) (10%)	6 (8%)	1 (10%)
Pain	5 (3%) (6%)	5 (7%)	
Balance			
Total number	154	139	19

3.1.2 Relations between disorders and functional disabilities

Table 5 showed that neurological disorder was most frequent occurring, whereas mobility was the most prominent functional disability. To explore this relationship the three most dominant disease categories and psychological disorder were analyzed together with the four most prominent functional disabilities. The frequencies of cases where a disorder was occurring together with a functional disability are displayed in table 6. The relation between the two constructs is displayed below the frequencies of people with a certain disorder suffering from that functional disability.

Analysis did reveal that only about half of the people suffering from neurological disorder also report cognitive problems, but about 70 per cent report problems with mobility. This means that neurological disorders more frequently go together with problems with mobility than with cognitive disabilities, which is an interesting finding.

Nearly all people suffering from orthopaedic disorder report problems with mobility, interestingly also psychiatric problems were related to this concept. Only about a third of psychological disorder was related to interpersonal problems, but the relation was clearly significant.

Table 6

Relations between functional disabilities and disorders

	Neuro logical (N = 43)	Ortho paedic (N = 31)	Psych ological (N = 13)	Cardiolo gical (N = 14)
mobility	31 r = .049 χ^2 = .194	28 r = .353** χ^2 = 9.95**	5 r = -.303** χ^2 = 7.35**	10 .014 χ^2 = .016
Domestic tasks	15 r = .246* χ^2 = 4.84*	11 r = .192 χ^2 = 2.96	3 -.020 χ^2 = .031	6 .190 χ^2 = 2.88
Cognitive ability	23 r = 387** χ^2 = 11.95**	6 r = -.280* χ^2 = 6.25*	4 -.050 χ^2 = .202	5 -.005 χ^2 = .002
Interpersonal problems	7 r = 039 χ^2 = .119	5 r = .025 χ^2 = .051	5 .289** χ^2 = 6.70*	2 -.009 χ^2 = .007

* Relations are significant at 0.05 level

** Relations are significant at 0.01 level

3.1.3 Activities

In total 160 activities were identified and scored on 10 different concepts. See table 8 for an overview of frequencies. Note that degrees of presence refer to the coding scheme, the number below each individual concepts presents the number of activities were the concepts could be aligned to.

The average number of activities done by each person was 2.25 (Range 1-4) and 422 Euro was spent (432 Euro for chronically ill, 346 Euro psychiatrics). This indicated that most participants used the full amount of money in order to fulfil activities. Moreover, the high amount of the budget enabled people to do more than just one activity.

Table 7

Overview over degree of presence of concepts (for 160 activities)

Concept	Weak presence N (%)	Medium presence N (%)	Highly present N (%)	Mean
Going out (N =157)	22 (14%)	12 (7%)	123 (77%)	2.5
Making new contacts (N = 144)	17 (11%)	5 (3%)	122 (76%)	2.4
Learning (N = 158)	21 (13%)	87 (55%)	50 (31%)	2.2
Duration (N = 159)	25 (15%)	82 (52%)	52 (33%)	2.2
Disease related (N = 150)	24 (15%)	62 (38%)	64 (39%)	2.1
Social Participation (N = 147)	39 (24%)	63 (39%)	45 (28%)	1.8
Physical (N = 158)	76 (47%)	52 (33%)	30 (19%)	1.7
Experiences (N = 158)		81 (50%)	77 (48%)	1.4
Mobility (N = 42)	32 (20%)		10 (16%)	1.3
Autonomous (N = 55)	40 (25%)	6 (3%)	9 (5%)	0.4

Dossier analysis revealed that most people did choose for activities that promoted establishing new contacts and going out, as well as making new experiences and those that were highly disease related. Given the loneliness of people this is an appealing finding, because it indicates that they are using the budget to fight their loneliness. Moreover, a lot of activities are completely or indirectly related to ones disease. Taken these two findings together, dossier analysis revealed a highly functional use of the happiness budget. The degree of social participation was quite balanced in all activities, with a tendency to participate in, but not joining an enduring social network. Every fifth person did choose for doing sports, while a third of the activities could be defined as physically not demanding.

The concepts mobility and autonomy frequently could not be assessed out of the dossiers, but when information about these dimensions was given in the dossiers, it displayed a tendency towards low presence of these concepts. Mobility was mostly needed for short time (taxi-service) only 10 per cent of all activities chosen enabled long term mobility. Autonomy was also low, which indicated that an activity that could be scored on this dimension was characterized by a high degree of help needed to execute the activity. Typically these were activities were a volunteer was needed for the realization.

To be able to correlate all concepts of the 160 activities, mean scores per concept for the 80 dossiers were computed. As can be seen in table 9, many correlations between constructs are positively significant. In fact, just one relation (autonomy and mobility) turned out to be significant and of these concepts frequently no information could be extracted from the profiles.

Table 8

Correlations between concepts assessed in dossier analysis (N = 80)

	Soc	Con	Phy	Exp	Go	Mob	Lea	Aut	Dis	Dur
Soc	1									
Con	**.73**	1								
Phy	**.41**	**.58**	1							
Exp	**.70**	**.92**	**.59**	1						
Go	**.70**	**.91**	**.59**	**.98**	1					
Mob	**.33**	**.28**	.26	**.29**	**.29**	1				
Lea	**.71**	**.92**	**.56**	**.97**	**.97**	**.27**	1			
Aut	.14	.03	.00	.17	.19	-.12	.20	1		
Dis	**.54**	**.65**	**.58**	**.74**	**.75**	**.37**	**.75**	.19	1	
Dur	**.70**	**.79**	**.41**	**.83**	**.83**	**.22**	**.86**	**.17**	**.70**	1

Significant correlations are displayed bold (p > 0.01)

Soc = Social Participation; Con = Making new contacts; Exp. = Making new experiences; Phy = Being physically active; Go = Going out; Mob = Mobility; Lea = Learning/Improving cognitive ability; Aut = autonomous; Dis = Disease related; Dur = Duration.

Second, there are many high, almost perfect correlations between the concepts. With respect to the purpose of social activation of these respondents a high concurrence between certain concpets, as for example making new experiences and contacts, as well as going out is appealing. Social Participation also was related to the concepts just mentioned. All these concepts were found to occur frequently and data suggests that most people chose one or more activities that can be identified by these factors. This does not necessarily mean that one activity can be defined to be "high" in learning and making new experiences, but that on the average of all chosen experiences, these concepts were frequently found. This fits the observation that most people need the full amount of money, in order to execute more than just one activity (on average 2).

3.1.4 Relations between activities and diseases / functional disabilities

The table below shows relations between the mean and value "high" of presence of the concepts of the activities and different disorders or functional disabilities for all 80 dossiers. This was done, because on average everyone executed more than one activity, which nearly always made a mean score above 1. So additionally the dimension "high" was added, to give a clearer picture. So the M (mean) in table 9 indicates the amount of dossiers that suffered from a special disease and executed at least one activity that could be related to that concept. H (high) stands for the number of dossiers with the disease that executed at least one activity that could be related to the property "high" of that concept. Chi Square tests with all concepts and disease / functional disabilities were executed to test for significance.

A linear regression that was executed previously with diseases and functional disabilities as independent and each activity as dependent variable did not yield significant results, except one interesting finding: psychological disorder was a strong predictor for choosing activities that were high in making experiences ($b = 0.503$, $p < 0.01$). Nearly all of the psychological cases had selected activities that were very high in the promotion of new contacts, going out and making new experiences. Interestingly, they also frequently wanted to learn new things and were the only group who had shown a significant dependence with (short-term) mobility.

Table 9

Relations between concepts and disorder

Concept	Neuro logical	Ortho pedic	Psych ological	Mob ilty	Domestic Tasks	Cognitive abil
Social Participation	M: 40 H: 23*	M: 29 H: 11	M: 12 H: 9	M: 53 H: 24	M: 18 H: 6	M: 27 H: 9
Making new contacts	M: 40 H: 33	M: 27* H: 24	M: 10 H: 11	M: 51 H: 45	M: 18 H: 14	M: 29 H: 24
Physical	M: 41 H: 13	M: 30 H: 10	M: 12 H: 6	M: 54 H: 17	M: 19 H: 8	M: 28 H: 10
Experiences	M: 43 H: 27	M: 31 H: 19	M: 12** H: 12*	M: 56 H: 33	M: 19 H: 11	M: 29 H: 20
Going out	M: 12 H: 10	M: 30 H: 22	M: 12 H: 10*	M: 55 H: 43	M: 19 H: 16	M: 29 H: 24
Mobility	M: 43 H: 6	M: 31 H: 5	M: 5* H: 1	M: 54 H: 17	M: 19 H: 2	M: 29* H: 2
Learning	M: 43 H: 19	M: 31 H: 15	M: 12 H: 11	M: 52 H: 26	M: 19 H: 9	M: 29 H: 13
Autonomous	M: 43 H: 5	M: 10 H: 1	M: 4 H: 0	M: 22 H: 6	M: 11 H: 1	M: 14 H: 3
Disease related	M: 42 H: 25	M: 30 H: 20	M: 12 H: 7	M: 55 H: 30	M: 18 H: 11	M: 29 H: 16
Duration	M: 43 H: 23	M: 31 H: 18	M: 12 H: 7	M: 56 H: 33	M: 19 H: 8	M: 29 H: 15

* χ^2 test significant at 0.05 level

** χ^2 test significant at 0.01 level

Analysis revealed that neurological disorders constantly opted for high social participation, thus joining a network; the dependence between these two concepts became significant. About 80 percent wanted to meet unknown people- given the high amount of people with neurological disorders in this analysis; this is a good finding, because it shows the will to end the status of loneliness.

About 50 per cent did activities that enabled them to do something for a longer period of time (more than one year), instead for making a lot of experiences in short time.

As with psychological cases, these findings clearly signal the motivation to stop being lonely and get back into social life.

A third of all orthopedic cases wanted to do sports, and join an enduring network, although nearly all decided to meet new people. The social component did seem to be present as in the former too.

In total, there are not many differences between the three disease groups concerning the selection of activities. This could indicate that not the disease, but the status of loneliness determines the choice for activities, or at least the underlying concepts are the same. They all share that they have a minimum of social contacts, which could explain the high preference for activities that facilitate the establishment of new contacts, pictures in mind and the termination of their lonely lives.

3.1.5 Conclusion

Dossier analysis was executed to be able to describe the population concerning disorders, functional disabilities and chosen activities.

A high prevalence of neurologic, orthopaedic and cardiologic disorders was found. Most prominent problems were mobility, cognitive tasks and fulfilling domestic tasks.

The second part of this study focused on different constructs of the chosen activities. On average more than 2 activities were executed per candidate, most activities were related to making new contacts and going out. The most constructs showed high intercorrelations, with some exceptions, as for example autonomy and mobility. Analysis done to examine the relation between disorders / functional disabilities and activities chosen revealed one significant predictor: psychological disorder had a strong predictive value for deciding to execute activities that could be rated “high” on making new experiences. Across all disorders certain activities were frequently chosen: getting in contact with unknown people, going out, opting for long-lasting and highly disease related activities. This is a pleasant finding, because it suggests that – independent of the underlying disorder- the participants of the happiness budget use it in order to fight against their diseases and the status of loneliness. All were completely free to choose what to do with the budget, and it can at least be concluded: the will to change their situation clearly is there.

An instrument to measure the effects of these activities that was still missing until today will be presented in the next section.

3.2. Study two: the Questionnaire

3.2.1 Description of study group

Table 10

Demographic Data of the study population (N = 12)

Male	2
Female	10
Mean Age	60 (44 – 79 y)

Table 10 shows that most participants were female and on average 60 years old. The study group was very small, what has serious implications for the following analyses: they are completely descriptive in nature and have to be read with respect to this small sample.

First the different subscales measured with the questionnaire will be presented, before its suitability for the population will be discussed. An overview over disorders, functional disabilities and activities chosen by the participants of this study will also be given, before relations of these variables with outcomes of the questionnaire will be (briefly) discussed.

3.2.2 Loneliness

Table 11

Results of the loneliness scale

Subscale	Minimum	Maximum	Mean (SD)
Emotional	0	5	3.4 (1.8)
Social	2	6	4 (1.4)
Total	2	11	8 (3)

Mean score on the loneliness scale (de Jong Gierveld and Van Tilburg, 1999) of this population was 8, which pointed out that participants were medium lonely. 33 per cent of this sample reached the highest score that was possible on the subscale social loneliness, and 75 per cent scored higher than 4 points on average, indicating high loneliness. Moreover 50 per cent indicated severe emotional loneliness. So a big part of this population is temporarily severe lonely and a part fulfils the criteria for loneliness.

The comparison with the cut off scores given by de Jong Gierveld and Van Tilburg (1999) clearly indicates that this population is more isolated than the average of 3.823

Dutch people. Chi Square test was executed to test whether the sample significantly differ, this turned out to be true at 0.01 level. These results do suggests, that this population is substantially lonely, but this has to be seen with respect to the great difference in sample sizes: while De Jong Gierveld and van Tilburg (1999) had 3.823 respondents, this study had just 12.

Table 12

Comparison of loneliness scores to cut-off scores

	Norms*	Present study	Difference
Scale0- 2: not lonely	68%	8%	
3 -8 medium lonely;	28%	42%	
9 -10 severe loneliness;	3%	17%	
11 loneliness	1%	33%	$p < 0.01$

Norms*: De Jong Gierveld &Van Tilburg (1999_2), N = 3.823

3.2.3 Mental Health

Table 13

Results of the mental health continuum

Subscale	Minimum	Maximum	Mean (SD)
Emotional	2	6	4 (1.1)
Social	1.8	5	3.3 (0.9)
Psychological	3	5	4 (0.7)
Total	2.4	4.9	3.8 (0.8)

Mean scores and deviations for the Mental Health Continuum Short Form are depicted in table 12. These results indicate that this population scores medium high on this scale. The subscales emotional and psychological well being show the highest mean scores, signalling that people are quite satisfied with their life's and their selves as they are. Lower values on the subscale social well being seem to fit quite well to a sample of lonely people. But these levels do not differ from to the values Keyes (2002) gave. The slight differences on the other scales did not reach statistical significance, see table 14.

Table 14

Comparison of mental health scores to norm scores

Subscale	Present study	Westerhof &Keyes (2008)*	p-value
Emotional	4 (1.1)	4.7 (0.9)	n.s.
Social	3.3 (0.9)	3.3 (1.0)	n.s.
Psychological	4 (0.7)	4.2 (1.0)	n.s.
	Present study	Keyes (2002)	p- value
Flourishing	33%	35%	n.s.
Languishing	8%	4.9%	
Moderately mentally healthy	58%	60%	

* N = 1.663

Moreover, Keyes (2002) found that 16 per cent people who could be defined as being languishing could be diagnosed as having a major depressive episode. Given the fact that only eight per cent in this study were categorized as being languishing, it does not seem likely that depression is a problem frequently occurring.

But again, readers should keep in mind that this is only true for the 12 participants in this small sample.

3.2.4 Participation and autonomy

Unfortunately no sum scores could be computed from this scale, because no entire scale was used. Mean scores of this scale will be used to measure mobility over time. Mean score of the whole scale was 2.9 (SD = 0.6). Given the range of this scale (0-4) this population scores medium strong on this scale, what means that the ability to participate and be autonomous was rather low. Highest values were reached on questions concerning the ability to visit family and going out to take day trips, which indicated the strongest disabilities on these areas. This clearly contributes to loneliness, because participants can not go anywhere on their own, they always need somebody with them. In sum, the ability to participate in daily and social life was found to be restricted due to physical disabilities.

Table 15

Results of the Impact on participation and autonomy scale

Subscale	Minimum	Maximum	Mean (SD)
Autonomy outdoors (3 items)	2	4	3.1 (0.9)
Autonomy indoors (2 items)	2	4	2.7 (0.7)
Total (5 items)	2	4	2.9 (0.6)
total	10	20	14 (3.4)

3.2.5Purpose in Life

Table 16

Results of the purpose in life scale

Scale	Minimum	Maximum	Mean (SD) whole scale	Mean per item
Whole Scale (20 items, 9 cases)	64	128	92.6 (18.9)	4.63
Selection (17 items, 11 cases)	55	129	83.5 (17.3)	4.91
Ebersole and dePaola (1998)*			117.6	5.88

* Study sample was N = 36

For the Purpose in Life test only 9 scores could be calculated, because some respondents could not answer specific questions of this test (see point III.II.IVII). Mean Score that was calculated from this 9 respondents was 92 (Range: 64 – 128), on average agreement with one question was 4.6. Because the questions that were not answered were specific ones, by dropping these items a mean score for 11 respondents without these questions (questions: 36, 37, 42) was computed. One respondent had problems in answering one question, but this respondent was the only one having trouble with that question. On the average people’s agreement with one question was 5.2, indicating that a quite high purpose in life.

Seemann (1991) stated that a score of 20 indicated a low purpose, whereas a score of 140 indicated a high purpose in Life. So the population can be characterized as having a present purpose, even if this purpose is not that strong. The idea behind this categorization of Seemann (1991) was to look at how strong candidates agree with the individual statements. Scoring a 7 indicates high purpose in life for every question, whereas scoring a 1 indicates virtually no purpose. Compared against the values used as norm scores against which this group was compared showed that they scored lower in this study. Unfortunately no standard deviations were given by Ebersole and DePaolo, so no tests for significance (t-test) could be computed. But obviously this sample does not have a strong purpose in life. Of course this is only valid for the 12 participants that took part in this study.

3.2.6Self rated health

Table 17

Results of self rated health

Scale	Minimum	Maximum	Mean (SD)
Whole Scale	1	7	3.8 (2)

Self rated health turned out to be exceptionally low. On a 10 point rating scale, the average rating varied between 1 and 5, which indicated that participants perceived their health status as insufficient. This goes in line with the finding that autonomy and the ability to participate were found to be low.

3.2.7Internal properties of the questionnaire

Results confirmed the high expectations, because chronbach’s alpha turned out to be high for every subscale, see table 18. The alpha for the whole scale turned out to be quite low: .348. This possibly could be explained by the different constructs measured by this questionnaire, table 18 depicts correlations between the different constructs used to design the questionnaire. As can be seen, the Impact on autonomy and participation questionnaire does not correlate high with the other constructs. Interpreted in the light of the content of the questions, this could mean that although people are seriously limited in their ability to move around and use their body, is not related to mental health or having a purpose in life.

Table 18

Inter-item correlation of the questionnaire

	N respondents	*N Items*	*α*
Loneliness Scale	*12*	*11*	*.760*
Mental Health Continuum	*12*	*14*	*.855*
Impact on Participation and Autonomy Scale	*12*	*5*	*.693*
Purpose in Life Scale	*12*	*20*	*.920*

* Significant at 0.05 level

** Significant at 0.01 level

Diversity of this questionnaire is high and thus it is not surprising that the alpha for the whole scale turned out to be low. Still the author can conclude that the questionnaire is a reliable instrument for the use within this population.

Table 19

Correlations between subscales of the questionnaire

	LS	MHC	IPA	PIL	SH
LS	1				
MHC	.827**	1			
IPA	-.318	-.090	1		
PIL	.605	.938**	.124	1	
SH	.631*	.463	-.555	.433	1

LS = Loneliness Scale; MHC= Mental Health Continuum Short-Form; IPA = Impact on Participation and Autonomy Scale; PIL = Purpose in Life Scale

* Significant at 0.05 level

** Significant at 0.01 level

Correlations between the different subscales are displayed in table 19. Mental health was related to seeing a purpose in life and loneliness. The Impact on Participation and Autonomy Scale was negatively related to most other constructs, which does not surprise, given the different nature of this scale. The negative relation to self reported health can be explained by the different scaling, high values on the IPA indicate high impairment, whereas high values on self reported health indicate low impairment.

This study served different goals, along with others it was intended to test whether the questionnaire was suitable to be used in this population. This is why participants were asked to read the questions aloud and indicate when they had problems answering a question. On average participants needed 28 minutes to fill in the questionnaire (SD: 13, Range: 10 – 55 minutes), which indicates that the questionnaire can be answered in a reasonable amount of time. Whether this is due to the selective sample can be questioned and will be discussed later.

They also were asked what needed to be changed to make the items more easy to answer, if (1) better explanation would be enough (phrasing was not understandable), (2) whether the question needed to be altered (content was not understandable) or (3) should be completely removed (question was too personal / respondents refused to gave an answer). Candidates made most comments on the questions 36, 37, 42 all questions of the Purpose in Life test. Comments were quite different for these three items. Question 36 was too personal and the formulation of response options too extreme for two respondents and they had chosen not to answer this question ("The points are too extreme for me to answer"; "9 lives would be too much, 1 surely is enough!", "This question is exaggerated!"). Questions 37 concerned what people wanted to do when they would get in old age pension. Asking this a person who is chronically ill and can not work poses obvious problems: "I would like to, but I can not go with old age pension since I do not work!" Question 42 was too difficult for some respondents to be answered; it should be formulated in a different way ("What does the world has to do with my life? I do not understand this question!"; "I think these are two different answers!"). Later analysis revealed that the participants who were not able to answer these questions suffered from a neurological disorder and cognitive problems.

Question 12 asked how often people felt "happy" and two respondents asked the researcher: "Happy... this is such a big word, what is ´happy´?"

Respondents sometimes took time to think about questions, but nearly all were able to answer them without explanation of the researcher, who waited whether they could figure out the answer for themselves. When they were not able to find an answer this was first noted and then eventual explanation was given. For example the Mental Health Continuum asks questions about the society (NL "samenleving", Questions: 15, 19) and community (NL "maatschappij" Question: 17) and nearly all participants stopped for a moment and had to think about these questions. It seemed that the item 17 was confusing to some participants, as it asked whether they felt that the society is getting better ("What does this mean? Society is getting better –Is it...? Oh is see! Okay!").
However, all were able to fill them in, without much explanation.

Some items of the purpose in life scale were quite personal, as for example item number 46, which asks whether participants had ever thought about committing suicide. Indeed some participants stopped and told the researcher that this question really was quite delicate, but they all answered it and no participant seemed to be really upset by it. Some even laughed, or told the researcher that they had thought about doing it in begin of their illness. But it can be concluded that although the purpose in life scale contains items that are asking questions about committing suicide, no participant refused to answer it, or seemed to be distressed.

Because different subscales were used in this questionnaire, the scaling of questionnaire frequently changed. For example, on the loneliness scale 1 indicated strong agreement and 5 strong disagreement with an item, whereas on the Mental Health questionnaire 1 indicated disagreement and 7 agreement. This is why the researcher had an extra paper with only the subscales on it, so that participants could lay the current scaling beside the questionnaire and always look it up. This was frequently used and appreciated by participants. Additionally the researcher always announced and explained the change of a scale, and all managed to handle the change, so that the different scaling were no threat to this questionnaire.

All in all, it can be concluded that the questionnaire is suitable for use within the population of chronically disabled, lonely people. Even the participants with the worst disabilities or highest age were able to answer nearly all questions without further explanation, only 3 of the 51 items seemed too difficult (36, 37, 42). The questionnaire could be filled in within a reasonable amount of time and no one seemed to be upset or hurt by any question.

3.2.8Disorders and Functional Disabilities

Table 20

Overview over distribution of disorders

Disorder	Whole population (% 30) (% 12)
Neurology	5 (16%) (41%)
Pain / Fibromyalgia	5 (16%) (41%)
Psychology	4 (13%) (40%)
Orthopaedic	4 (13%) (40%)
Balance	3 (10%) (25%)
Cardiologic	3 (10%) (25%)
Impaired hearing	1 (3%) (8%)
Diabetes	1 (3%) (8%)
COPD	1 (3%) (8%)
Total amount	30

Because the sample mainly resembles the findings made in study one, results are displayed but not discussed in much detail.

Participants in this study differed from the dossiers employed in study one. Although neurological disorder remained on the first place, fibromyalgia was as present as neurology. Orthopedic and psychological disorders again were frequently named in this sample, every fourth suffered from cardiologic problems. With the exception of the high prevalence of fibromyalgia the study population resembles the findings made in study one.

Table 21

Overview over distribution of functional disabilities

Functional disabilities	Whole population (% 30) (% 12)
Mobility	8 (26%) (66%)
domestic tasks	6 (20%) (50%)
cognitive ability	4 (13%) (40%)
interpersonal relations	4 (13%) (40%)
balance	3 (10%) (25%)
Execute tasks	2 (6%) (16%)
self care	2 (6%) (16%)
Communications	1 (3%) (8%)
Total amount	30

With respect to functional disabilities, the ranking found in study one reemerged. The high amount of interpersonal problems can be attributed to the high degree of psychological disorders in this study population.

3.2.9Activities chosen

24 activities were chosen by 12 respondents, so an average of 2 activities per participant. See table 22 for an overview over the distribution of dimensions of the concepts. Again the number standing below a concept stands for the number of activities that could be assigned to the concept.

Table 22

Overview over degrees of presence of 10 concepts.

Concept	Low N (%)	Medium N (%)	High N (%)	Mean
Going out (N = 24)	4 (16%)	1 (4%)	19 (80%)	2.6
Making new contacts (N = 24)	4 (17%)		20 (83%)	2.6
Physical (N = 25)	9 (37.5%)	6 (25%)	9 (37.5%)	2.1
Duration (N = 24)	4 (17%)	16 (66%)	4 (17%)	1.9
Experiences (N = 24)		19 (80%)	5 (20%)	1.8
Disease related (N = 24)	3 (12.5%)	13 (55%)	8 (33.5%)	1.7
Social Participation (N = 14)	3 (12.5%)	10 (41%)	11 (45%)	1.5
Learning (N = 24)	1 (4%)	10 (41%)	13 (54%)	1.4
Autonomous (N = 8)	5 (62%)	2 (28%)		0.8
Mobility (N = 7)	7 (100%)			0.5

In this sample the high preference for activities high in making new contacts and going out found in study one could be confirmed. About the half of all participants wanted to learn something, which was found in study one to be related to neurological and psychological disorders. The sample in this study again contains high amounts of these two disorders, what could explain this finding. In contrast to study one, the amount of activities that were high in making experiences, was only about 20 per cent.

The amount of people that opted for doing sports was a little higher than in study one.

The conclusion that was made in study one, that the findings suggests that the participants seem to use the budget to get to know new people, going out and fighting their diseases can also be drawn in this study.

3.2.10 Conclusion

Research question two asked how the sample could be described according to the outcomes of the questionnaire. This sample seemed to be severe lonely, but still quite mentally healthy. They were significant more lonely than proposed the Jong Gierveld and van Tilburg (1999). They saw a purpose in life; though to a lesser degree than proposed by the norm values (Ebersole en de Paola, 1989), but given the different populations (chronically ill, lonely against active married elderly) results do not seem astonishing. The ability to move around seemed quite low, like the self rated health. Scores on the Mental Health Continuum did not differ statistically from the norm values given by Westerhof and Keyes (2008). This means that this population can be characterized by a low standard of physical functioning but a quite good level of mental functioning (for example neurological and orthopedically disorders). In the introduction the question was posed, whether health or loneliness was more related to depression. The fact that most participants suffered from somatic disorder, but still were quite mental healthy is a sign that the effect from loneliness on depression is not necessarily mediated by health status, although bad health certainly plays a role.

In study one it was concluded that the budget was used to go out, make new contacts, learn and perform highly disease related activities. With a little lesser degree of disease related activities this was found to be true for this sample.

Because of the small sample results are only descriptive in nature and are thus not representative or valid. But they still suggest that the questionnaire can be used for longitudinal research within this sample, because respondents were able to understand and answer most questions. Only three items of the Purpose in Life test seemed to be too difficult for people with a neurological disorder. The questionnaire could be filled in within a reasonable amount of time and did not seem to upset or confuse participants.

4. Conclusion

This article evaluated a new program that aims at reducing social isolation within a sample of chronically disabled people, either physically or mentally. Two studies were executed, the first explored activities done and tried to establish valid categories that can serve as building blocks of activities executed with the happiness budget. Study two tested a questionnaire designed to measure changes in loneliness, mental health, autonomy and the physical ability to participate, purpose in life, and self rated health.

Objectives of this article were to evaluate the happiness budget, describe the population by the means of disorders, functional disabilities, chosen activities and outcomes of the questionnaire. The questionnaire was also tested within the population to see if it can be used for longitudinal research, and whether all questions could be understood by participants.

Both studies revealed that two groups of chronically disabled could be distinguished: in the group of somatically disabled three diseases always were highly prominent: orthopaedic, neurological, and cardiological disorders, whereas the psychiatric population was characterised by psychological disorder with somatic co morbidities. More than 50 per cent of the population suffered from neurological disorder, about 40 per cent from orthopaedic and 17 per cent from cardiologic disorder. Diabetes and psychological disorder were mentioned by about 16 per cent.

In study one, ten different concepts were set up with respect to the background of loneliness and chronic disease following the approach of grounded theory by Corbin and Strauss (1998). This was done to answer the question which activities were chosen and whether concepts valid for this project could be identified. Additionally the study tried to describe the population concerning diseases and functional disabilities.

The frequent occurrence of the concepts going out (77%), making new contacts (76%), making new experiences (48%), disease related (39%) and learning (31%) indicated two things: first participants frequently used the budget to leave the known environment and meet new people. They wanted to get new impressions, something to enjoy and talk about. This indicates that this is missing in their daily lives. It could also indicate that the happiness budget is used as a "fun-budget", but the high amount of disease and socially related activities signifies a functional, curative use.

Disease related activities were very popular, which indicated a highly functional use of the budget. For example one third of the people with orthopaedical disorder had chosen to do sports, and those with a neurological disorder frequently did cognitively demanding activities, such as learning a new language or how to use a PC. This functional use can also be noted with respect to the background of loneliness: most participants opted for activities that forced them to go out and make new contacts. It seemed that this population is willing to terminate their loneliness. Of course this would be a real good finding, because when the candidates are really motivated to use the chance that is given to them this enhances the possibility that this project can be successful in reducing loneliness. This is at least true if all participants completely chose for themselves. However, it could always also be that consultants make suggestions or advice participants to take certain activities. For example, simply through giving examples like: “many people decide to go swimming with a volunteer or join a dance club- what would you like to do?” could exert an influence on the final choice of the participants. Whether this is true can not be clarified in this study, but could be an object for further research.

Neurological disorder was significantly related to problems with cognitive ability and fulfilling domestic tasks. Although the relation did not reach statistical significance 70 per cent reported to have problems with mobility. The analysis also revealed that orthopaedic disorder was negatively related to cognitive problems, which rules out the possibility that orthopaedic and neurological disorder are often occurring together. Still this highlights that cognitive as well as physical problems contribute to social isolation as the main part of this sample suffered from one of these disorders.

In the introduction the author asked whether the impact that the happiness budget could be explained by positive psychology. Three assumptions were made: first happiness could be reduced by little interventions, second, by letting people free to choose whatever they want, and by the mere execution of these self-chosen activities self-esteem could be enhanced. People can rediscover and play on their strengths and experience positive emotion. Third, by completing activities a feeling of gratification and satisfaction could be reached, while happiness was enhanced (Seligmann, 2004; Peterson et al., 2005).

Of course no effects over time can be measured yet, still- relating to the findings from analysis it can at least be stated, that all activities that were most frequently chosen can contribute named above. Asking the chronically disabled, lonely “what would make you happy?”, and thus forces them to think about this question and about which activity to execute, should activate the discovery of strengths and things people like. After all, when someone chooses an activity that already is related to personal strengths then the (re-)discovery of these strengths is clear. Through executing the activity people would notice that they are really good in, for example, swimming, that they enjoy it, and can do it longer than they had thought. But, even when this is not the case, participants who start doing a patchwork course could discover that they are really talented and have fun doing this. But what happens when they discover that they are not talented and do not enjoy doing this? It surely sometimes happen that people do chose for the wrong activities, and then the question is what happens then. But following the assumption that people do know best for themselves what would make them happy it seems like that they do choose activities they enjoy. Additionally, being recognized as an individual person that can decide for themselves what to do should give back control and autonomy to people who are completely dependent on others. So, imagining what one wants to do and then having to execute it should lead to positive emotion and the pursuit of gratification after completing the activity (Route one and two). Maybe this could also be accomplished, even when the activity on itself is not enjoyable, but going on with it could produce to a feeling of satisfaction and gratification. Although it was not the most pleasant thing to do, they finished it (Second route to happiness). Seligmann (2004) stated that the feeling of gratification does not depend on whether someone liked the activity done, but that completing the activity is the crucial point. Keeping this in mind, one can question whether it would have negative consequences if a participant did not like the activity he has executed.

Additionally making new contacts surely give some higher instance to turn to, so a lot of people also follow take the third route of happiness proposed by Seligmann (2004) and Peterson et al. (2005). Additionally, as noted in the introduction, money was shown to be related to loneliness and life satisfaction (Rijken & Groenwegen, 2006). As the name "Happiness Budget" implies, money is given to people so that this already could be a factor that could contribute to possible success of this programme. Though money itself does not help in making people happy, it could help because it enables people to execute activities that they could not have done without it.

Though longitudinal evidence is missing, it seems that the happiness budget has the potential to enhance social participation, life satisfaction and in general- the level of happiness.

Study two was set up to test the questionnaires suitability as an instrument for longitudinal research and to describe the population. Results from this study were seriously limited by the small sample; only 12 cases remained for data analysis. The distribution of disorders and functional disabilities resembled the one found in study one. As they already have been discussed, this won't be repeated here. Additionally because consultants decided whether the candidates were asked if they wanted to participate and candidates self had to decide whether they wanted to, the final sample could be quite selective. This is an additional threat to the representative ness of the results of study two, because maybe only the mentally or physically healthiest people were willing to take part in this study.

Participants on average needed about 30 minutes to fill in the questionnaire, which was significantly less time than was expected in begin of the study. In begin it was assumed that about an hour to one and a half seemed to be required to fill in the questionnaire. This could indicate two things: the questionnaire is suitable for use and could be understood by all participants, or the population is healthier than thought in begin. Although some questions could not be answered, most participants did not indicate having trouble with the questionnaire. In fact some respondents had to think about an item but then were able to answer them without needing explanation. Maybe this can be attributed to the small selective sample, but it seems that the questionnaire is suitable for use within this population.

5. Discussion and implications for further research

This study suffers from some serious limitations.
Although it seems that the concepts that were established in study one are important with respect to the problems of the studied population, but not all information could be extracted out of the dossiers. Especially concerning the concept "autonomy" information was frequently missing, which is a serious disadvantage because literature suggested that autonomy was an important point for this population. They are completely dependent on third parties and maybe gaining or loosing autonomy could have added explanatory value to the results. One possibility to solve this problem would be to make more precise descriptions of the chosen activities, but the author suggests another way, that would also unravel another limitation of this study: the reliability of the concepts. Although inter rater reliability was computed and found to be satisfying, it still is a subjective judgment, made by a third person. It would add more informative value if the participants themselves were asked to evaluate the activities done with respect to the concepts. Then the picture would get much clearer, because having self made judgments could tell a lot more about the subjective impact of the activities. On the other hand, some categories are so objective in nature that also a third rater adds explanatory value. Maybe the best solution to this problem would be that a researcher could sit down together with the participants and let them tell what they did and how they experienced the activities and both could align the activities into the concepts. Then comprehensive (subjective and objective), more valuable information could be obtained, which would surely heighten the explanatory value of information about the concepts.

In study two no control group was employed against which the results from the questionnaire could be compared to. In order to have some standard, norm values of the subscales were taken, but although the author tried to look for norm groups that were similar to the sample of this study, this was another problem. The problem of chronically disabled people who are additionally lonely has not received much attention yet, and specifically the subscales of the questionnaire have not been used to study this population. This is why this paper has to be seen as the begin of and a foundation for longitudinal research. It still adds information about the population evaluates the happiness budget and gives valuable suggestions for further research.

The results of study two need to be replicated with more respondents in order to confirm the results made. The sample size was too small to execute statistical tests and to ensure the reliability of the observed results. Additionally as briefly mentioned in the conclusion, it could be that the participants of this study are different from the whole group receiving the happiness budget. This would additionally weaken the results. Study two still highlights that the intake procedure for this study did not work properly and should be altered. Of course the instances supervising this project have to decide whether and how to do this, but the author suggests that the questionnaire should be made part of the intake interview that is conducted by consultants and should be filled in by everyone participating in this project. Than it could be concluded whether the sample of this study was selective or whether the finding that the population is extreme lonely but still quite mentally healthy can be found in future studies. When the sample is found to be representative then a more worrying possibility has to be taken into account: does the happiness budget really reaches the most disabled, lonely people? Maybe they are so extremely disconnected from the social life that they are not enlisted in the municipality. Then social instances, as for example insurances need to be involved in the process.

But still this study is vital to research concerning this project, because it showed that participants were much more healthy and able to fill in such a questionnaire than was expected in begin, and it produced a valid instrument for longitudinal use.

6. Literature

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Appendix I: the questionnaire

Wilt u van elk van de volgende uitspraken aangeven in hoeverre die op u, zoals u de laatste tijd bent, van toepassing is? Omcirkel het antwoord dat op u van toepassing is.

1 = Ja! - Helemaal mee eens
2 = Ja - Mee eens
3 = Min of meer
4 = Nee - Mee oneens
5 = Nee! Helemaal mee oneens

1. Er is altijd wel iemand in mijn omgeving bij wie ik met mijn dagelijkse probleempjes terecht kan

Ja!	Ja	Min of meer	Nee	Nee!
☐	☐	☐	☐	☐
1	2	3	4	5

2. Ik mis een echt goede vriend of vriendin

Ja!	Ja	Min of meer	Nee	Nee!
☐	☐	☐	☐	☐
1	2	3	4	5

3. Ik ervaar een leegte om me heen

Ja!	Ja	Min of meer	Nee	Nee!
☐	☐	☐	☐	☐
1	2	3	4	5

4. Er zijn genoeg mensen op wie ik in geval van narigheid kan terugvallen

Ja!	Ja	Min of meer	Nee	Nee!
☐	☐	☐	☐	☐
1	2	3	4	5

5. Ik mis gezelligheid om me heen

Ja!	Ja	Min of meer	Nee	Nee!
☐	☐	☐	☐	☐
1	2	3	4	5

6. Ik vind mijn kring van kennissen te beperkt

Ja!	Ja	Min of meer	Nee	Nee!
☐	☐	☐	☐	☐
1	2	3	4	5

7.	Ik heb veel mensen op wie ik volledig kan vertrouwen				
	Ja!	Ja	Min of meer	Nee	Nee!
	☐	☐	☐	☐	☐
	1	2	3	4	5
8.	Er zijn voldoende mensen met wie ik me nauw verbonden voel				
	Ja!	Ja	Min of meer	Nee	Nee!
	☐	☐	☐	☐	☐
	1	2	3	4	5
9.	Ik mis mensen om me heen				
	Ja!	Ja	Min of meer	Nee	Nee!
	☐	☐	☐	☐	☐
	1	2	3	4	5
10.	Vaak voel ik me in de steek gelaten				
	Ja!	Ja	Min of meer	Nee	Nee!
	☐	☐	☐	☐	☐
	1	2	3	4	5
11.	Wanneer ik daar behoefte aan heb kan ik altijd bij mijn vrienden terecht				
	Ja!	Ja	Min of meer	Nee	Nee!
	☐	☐	☐	☐	☐
	1	2	3	4	5

De volgende vragen beschrijven gevoelens die mensen kunnen hebben. Lees iedere uitspraak zorgvuldig door en omcirkel het cijfer dat het best weergeeft hoe vaak u dat gevoel had gedurende de afgelopen maand.

1 =Nooit

2 = Een of twee keer (zelden)

3 = af en toe

4 = regelmatig

5 = Bijna elke dag (vaak)

6 = Elke dag

In de afgelopen maand, hoe vaak had u het gevoel…

12.	…dat u gelukkig was? Nooit Zelden Af en toe Regelmatig Bijna elke dag Elke dag ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6
13.	…dat u zin had in het leven? Nooit Zelden Af en toe Regelmatig Bijna elke dag Elke dag ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6
14.	...dat u tevreden was? Nooit Zelden Af en toe Regelmatig Bijna elke dag Elke dag ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6
15.	… dat u uw steentje hebt bijgedragen aan onze maatschappij? Nooit Zelden Af en toe Regelmatig Bijna elke dag Elke dag ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6
16.	...dat u deel uitmaakte van uw buurt, uw stad? Nooit Zelden Af en toe Regelmatig Bijna elke dag Elke dag ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6
17.	...dat onze samenleving beter wordt? Nooit Zelden Af en toe Regelmatig Bijna elke dag Elke dag ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6
18.	...dat mensen in principe goed zijn?

	Nooit	Zelden	Af en toe	Regelmatig	Bijna elke dag	Elke dag
	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6
19.	...dat u begrijpt hoe onze maatschappij werkt					
	Nooit	Zelden	Af en toe	Regelmatig	Bijna elke dag	Elke dag
	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6
20.	…dat u al met al tevreden was met uzelf en wie u bent?					
	Nooit	Zelden	Af en toe	Regelmatig	Bijna elke dag	Elke dag
	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6
21.	…dat u goed kon omgaan met uw alledaagse verantwoordelijkheden?					
	Nooit	Zelden	Af en toe	Regelmatig	Bijna elke dag	Elke dag
	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6
22.	...dat u warme en vertrouwde relaties met anderen had?					
	Nooit	Zelden	Af en toe	Regelmatig	Bijna elke dag	Elke dag
	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6
23.	...dat u werd uitgedaagd om te groeien of een beter mens te worden?					
	Nooit	Zelden	Af en toe	Regelmatig	Bijna elke dag	Elke dag
	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6
24.	… dat u zelfverzekerd uw eigen ideeën en meningen gedacht en geuit hebt?					
	Nooit	Zelden	Af en toe	Regelmatig	Bijna elke dag	Elke dag

	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6
25.	…dat uw leven een richting of zin heeft?					
	Nooit ☐ 1	Zelden ☐ 2	Af en toe ☐ 3	Regelmatig ☐ 4	Bijna elke dag ☐ 5	Elke dag ☐ 6

De volgende vragen gaan over uw mobiliteit en hoe goed u uzelf kunt bewegen. Wilt u bij elk item aangeven hoe goed of slecht u zich kan bewegen?

1 = Heel goed

2 = Goed

3 = Matig

4 = Slecht

5 = Heel slecht

26.	De mogelijkheid om mij in huis te bewegen *waar* ik wil				
	Heel goed ☐ 0	Goed ☐ 1	Matig ☐ 2	Slecht ☐ 3	Heel slecht ☐ 4
27.	De mogelijkheid om mij in het huis te bewegen *wanneer* ik wil				
	Heel goed ☐ 0	Goed ☐ 1	Matig ☐ 2	Slecht ☐ 3	Heel slecht ☐ 4
28.	De mogelijkheid om vrienden en familie te bezoeken wanneer ik wil				
	Heel goed ☐ 0	Goed ☐ 1	Matig ☐ 2	Slecht ☐ 3	Heel slecht ☐ 4
29.	Mijn mogelijkheid om te reizen (uitstapjes te maken)				
	Heel goed ☐ 0	Goed ☐ 1	Matig ☐ 2	Slecht ☐ 3	Heel slecht ☐ 4
30.	Mijn mogelijkheden om vrienden en familie te bezoeken zo vaak ik wil zijn.				

	Heel goed Goed Matig Slecht Heel slecht ☐ ☐ ☐ ☐ ☐ 0 1 2 3 4
Wilt u bij de volgende vragen gaan over zingeving in uw leven. Wilt u bij elk vraag aangeven hoe sterk u met de antwoorden eens bent op een schaal van 1 tot en met 7. De vragen worden gescoord op een schaal van 1 t/m 7. Deze beiden punten geven extreme uitspraaken weer. De bedoeling is dat u kiest met welke uitspraak u het meest eens bent, en in hoeverre u daarmee eens bent. Voorbeeld: Deze vragen zijn Moeilijk te Beantwoorden … Makkelijk te beantwoorden ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7	
31.	Ik ben normaal gesproken… overwegend verveeld … overwegend enthousiast ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
32.	Voor mij lijkt het leven… overwegend geroutineerd … altijd spannend ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
33.	Ik heb in het leven… helemaal geen doel … duidelijke doelen ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
34.	Mijn persoonlijke bestaan is… zin- en doelloos … zinvol en doelgericht ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
35.	Elke dag is…

	zoals elke andere dag altijd nieuw en anders ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
36.	Als ik zou kiezen zou ik … nooit geboren willen zijn 9 levens willen hebben zoals mijn huidige leven ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
37.	Als ik met pensioen ga wil ik.. de hele tijd luieren de dingen doen die ik altijd al had willen doen ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
38.	Mijn levensdoelen … heb ik helemaal nog niet bereikt zijn volledig bereikt ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
39.	Mijn leven is… leeg en hopeloos vol opwinding ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
40.	Als ik vandaag zou overlijden zou ik het gevoel hebben dat mijn leven… helemaal waardeloos is geweest volledig waardevol is geweest ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
41.	Als ik over mijn leven nadenk… vraag ik mij vaak af waarom ik besta vindt ik altijd een reden waarom ik besta ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
42.	De relatie van de wereld tot mijn leven

	is volledig verwarrend past volledig ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
43.	Ik ben een onverantwoordelijk mens zeer verantwoordelijk mens ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
44.	Wat betreft de vrijheid van de mens om zijn eigen beslissingen te nemen, denk ik dat de mens volledig is gebonden door de volledig vrij is alle beperkingen van zijn herkomst levensbeslissingen te nemen en omgeving ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
45.	Met betrekking tot de dood ben ik … onvoorbereid en angstig voorbereid en zonder angst ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
46.	Ik heb zelfmoord… ernstig als alternatief overwogen nooit in mijn gedachten op laten komen ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
47.	Ik ben … in staat om een doel of opgave in het leven te vinden Helemaal niet helemaal goed ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
48.	Mijn leven ligt… niet in mijn handen/ in mijn handen / ik heb de controle er niet over ik heb de controle daarover

	☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
49.	Het verrichten van mijn dagelijkse opgaven is een pijnlijke en saaie ervaring de bron van mijn vreugde en voldoening ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
50.	Ik heb… nóg een opgave nóg een doel in mijn leven ontdekt duidelijke doelen en een bevredigende opgave in mijn leven ontdekt ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7
51.	Welke cijfer geeft u uw gezondheid? ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1 2 3 4 5 6 7 8 9 10

Appendix II: Informed consent

GEÏNFORMEERDE TOESTEMMING

Ik, ……………………………………………………………..

Stem toe mee te doen aan een onderzoek dat uitgevoerd wordt door

Sarah Kedzia (Email: [redacted])

Ik ben me ervan bewust dat deelname aan dit onderzoek geheel vrijwillig is. Ik kan mijn medewerking op elk tijdstip stopzetten en de gegevens verkregen uit dit onderzoek terugkrijgen, laten verwijderen uit de database, of laten vernietigen. Dit kan door een email aan de onderzoekster te schrijven (aan bovenstaand email adres) of met de organisatie Arcon ([redacted]) te bellen.

De volgende punten zijn aan mij uitgelegd:

1. Het doel van dit onderzoek is het testen van een vragenlijst die de effecten van het PGB Welzijn meet.
   Deelname aan dit onderzoek zal meer inzicht geven omtrent de begrijpbaarheid van de vragenlijst.
2. Ik neem deel aan een langlopend onderzoek na de effecten van het PGB Welzijn. Ik weet
   dat dit interview alleen een eerste nulmeting is en dat er nog verdere onderzoeksmomenten zullen plaatsvinden. De deelname is geheel vrijwillig en ik kan deze op elk moment opzeggen.
3. Er zal mij gevraagd worden om de vragenlijst samen met de onderzoekster Sarah Kedzia in te vullen.
   Het hele onderzoek zal ongeveer 1-1.5 uur duren. Aan het einde van het onderzoek zal de onderzoeker uitleggen waar het onderzoek over ging.
4. Er behoort geen stress of ongemak voort te vloeien uit deelname aan dit onderzoek.
5. De gegevens verkregen uit dit onderzoek zullen anoniem verwerkt worden. De door dit onderzoek verkregen gegevens zullen op geen enkele wijze tot de persoon terug te leiden zijn.

6. De onderzoeker zal alle verdere vragen over dit onderzoek beantwoorden, nu of gedurende het verdere verloop van het onderzoek.

Handtekening onderzoeker: …………………………………… Datum: …………………..

Handtekening proefpersoon: …………………………………… Datum: …………………..