The Possible Effect of Changes in Health Insurance and Legislation on the Inflow of Clients and the Treatment Evaluation for Clients Receiving Psycho-Oncological Care at *De Vruchtenburg*

A.J.A. Vennix
S1709739
Master's thesis Health Psychology
Supervisor: Dr. A. Visser and Dr. M. van der Doef
Institute of Psychology, Leiden University & De Vruchtenburg, Rotterdam
July 31, 2016

Abstract

The aim of the present study was to examine the possible effect of changes in health insurance and legislation on the inflow of clients and the treatment evaluation of clients receiving psycho-oncological care at *De Vruchtenburg*. For this purpose, two groups of clients were formed based on the health insurance and legislation of those years. The two groups were clients receiving psycho-oncological care at *De Vruchtenburg* in 2012-2013 (N=334) and clients receiving psycho-oncological care at *De Vruchtenburg* in 2014-2015 (N=360). The data for the study were collected with a questionnaire developed by *De Vruchtenburg*, which was filled in after finishing therapy. In the study cancer patients and relatives of cancer patients could both participate. To analyse the data, ANOVA, Mann-Whitney and MANOVA tests were used. These tests showed that the inflow of clients has changed. Clients visiting *De Vruchtenburg* in 2014-2015 were more often women, were more often a relative, were older, were longer diagnosed with cancer and had more often received an unknown prognosis regarding their cancer. Besides changes in inflow, the treatment evaluation also differed on two aspects. Clients in 2014-2015 gave a poorer evaluation about the information provided about the therapy, their participation in the process of choosing a therapy, and about the counselling itself, for example the trustworthiness of the therapist. Almost identical results were found for the three most commonly followed therapies at *De Vruchtenburg*. The results of the present study might indicate that the psycho-oncological care became less easily accessible for some groups of clients. An effect that might be caused by the changes in health insurance and legislation.

Preface

The present study is conducted at *De Vruchtenburg*, a centre which offers psycho-oncological care to patients with cancer and their relatives. *De Vruchtenburg* supports patients with improving their quality of life, coping with the consequences of the cancer and the treatment of cancer, and improving personal resilience and strength (Vruchtenburg, n.d.). To achieve these treatment goals, *De Vruchtenburg* offers different kinds of therapies, for example individual therapy, group therapies, training cognitive behavioural therapy (training CBT) and art therapy (Vruchtenburg, n.d.).

1. Introduction

1.1 Cancer

Cancer is a disease in which there is uncontrolled growth and spread of cells. This uncontrolled growth and spread of cells can affect every part of the body, and starts with a single cell, which transforms from a normal cell in to a tumour cell (World Health Organization, 2016).

World wide, cancer is among the leading causes of morbidity and mortality (World Health Organization, 2016). In 2013, three percent of the Dutch population had cancer, and 101.848 people got the diagnose of cancer (Volksgezondheidenzorg.info, 2015). Of these new diagnoses, skin cancer (15% of the diagnoses) was most diagnosed in the Netherlands, followed by breast cancer, (14%) colon cancer (13%), lung cancer (12%) and prostate cancer (11%) (Volkgezondsheidheidenzorg.info, 2015). Overall, the incidence of cancer is increasing in the Netherlands. Expected is that the absolute incidence of cancer in the Netherlands will increase with 41% for men and 23% for women over the period 2013-2030 (Volkgezondsheidheidenzorg.info, 2015).

Treatment options for cancer are depending on the type of cancer. The most common treatment options for cancer are surgery, chemotherapy, radiation therapy, and/or hormonal therapy (Boyer & Paharia, 2008). These treatments have as primary goal to cure cancer, or to considerably prolong a patient’s life. Besides improving the life expectancy, improving the quality of life (QOL) of cancer patients is also an important goal of the cancer treatment (World Health Organization, 2016).

1.2 Consequences of Cancer

Having cancer results in physical and psychological consequences. As a result of the physical consequences of cancer symptoms, cancer treatment, side effects and everything else a cancer patient has to cope with, emotional distress could be expected in cancer patients (Boyer

& Paharia, 2008). The study of Zabora et al. (2001) showed that 35.1% of the cancer patients experienced distress. This experienced distress is in cancer survivors one of the most frequent complaints (Kaiser, Hartoonian, & Owen, 2010). When cancer survivors are compared to healthy adults and other patients with diseases, the prevalence of clinically distress is higher in cancer survivors (Kaiser et al., 2010). The main symptoms of this distress are mood swings, anxiety, depressed mood, grief, and fatigue (Valdes-Stauber, Vietz, & Kilian, 2013). When cancer survivors are experiencing limitations in daily life, this predicts the experience of more psychological distress (Valdes-Stauber et al., 2013).

Besides distress, cancer may cause a variety of psychosocial problems. One of these psychosocial problems is anxiety. Anxiety can occur on a continuum from normal to clinical levels in cancer patients (Boyer & Paharia, 2008). The study of Linden, Vodermairer, MacKenzie and Greig (2012) showed that 19% of the cancer patients had general anxiety levels in the clinical range, and 22.6% showed subclinical anxiety symptoms. Dinkel, Kremsreiter, Marten-Mittag, and Lahmann (2014) found in their study that 17.6% of the cancer patients had an anxiety disorder. The levels of anxiety of cancer patients younger than 50 years of age, and older than 70 years of age, were higher than the anxiety levels of patients between 50 and 70 years of age. Besides age, there was also an effect of gender on the levels of anxiety. Female cancer patients were twice as likely as male cancer patients to experience clinical levels of anxiety (Linden et al., 2012).

In addition to general anxiety, fear of recurrence is also common in cancer patients. Fear of recurrence is often defined as "*fear that cancer will return or progress in the same place or a different part of the body*" (Simard, Savard, & Ivers, 2010, p. 361). The study of Baker, Denniston, Smith, & West (2005) examined how many cancer patients experienced this fear. Their study showed that 68.1% of the cancer patients experiences fear about illness return, 59.8% of the cancer patients experiences fear about relapsing, and 57.7% of the cancer patients experiences fears about the future. The fear of cancer recurrence is still present in cancer survivors five years after the initial cancer diagnosis (Koch, Jansen, Brenner, & Arndt, 2013). The level of the fear of cancer recurrence in cancer survivors on the long-term is most commonly low or moderate (Koch et al., 2013). This level of fear or recurrences is comparable to the level of fear of recurrence in short-term cancer survivors, which implies that the level of fear of recurrence is stable over time (Koch et al., 2013). The fear of recurrence is not experienced constantly by most cancer survivors, but is most commonly triggered by specific situations and/or symptoms. For example, a medical check-up (Koch et al., 2013).

Besides anxiety, depression is also often seen in cancer patients. Linden et al. (2012) found that 12.9% of the cancer patients experienced symptoms of depression in a clinical range and that 16.5% of the cancer patients reported subclinical depressive symptoms. A large review study by Mitchell et al. (2011) showed that 16.5% of the cancer patients meets the criteria for a clinical depression and that 14.3% meets the criteria for a major depression. In the Netherlands, 69% of the cancer patients have a high score on depression (Garssen, Van Der Lee, Van Der Poll, Ranchor, Sanderman, & Schroevers, 2011). As for anxiety, female cancer patients are two times as likely to experience depressive symptoms than men (Linden et al., 2012).

The psychosocial consequences of having cancer named before, affect the health-related quality of life (HRQOL) of cancer patients. HROQL is the measurement of the impact of health on QOL (Bisseger, Cloetta, von Bisegger, Abel, & Ravens-Sieberer, 2005), and includes disease symptoms, treatment side effects, functional status in physical, mental and social domains, and life satisfaction (Cella & Stone, 2015). Anxiety, depression, and distress have a negative effect on the HRQOL of cancer patients (Brown, Kroenke, Theobald, Wu, & Tu, 2010). The study of Brown et al. (2010) shows that cancer patients who experience anxiety, but no depression, had a significantly higher HRQOL than cancer patients who experienced depression, but no anxiety. When a cancer patient experiences both, anxiety and depression, the HRQOL was the lowest (Brown et al., 2010). Besides anxiety and depression, the pain, fatigue, insomnia, and mood disturbance caused by cancer and the medical treatment of cancer, also negatively affect the HRQOL of cancer patients (Cheng & Lee, 2011).

But cancer does not only affect the patient, also their relatives are affected by the disease. Relatives also have to cope with the consequences of the cancer and the treatment of the cancer. Furthermore, relatives also have to face disruptions of daily life, anxiety, depressive symptoms, fear of cancer recurrence, and the fear of loss and death (Hagedoorn, Kreicbergs, & Appel, 2011). The review study of Girgis, Lambert, Johnson, Waller, and Currow (2013) showed that many relatives are satisfied with their caregiver role, but that many more relatives do experience significant burden with their physical and psychological well-being, economic circumstances, and social and personal relationships. More specific, the study of Alacacioglu, Tarhan, Alacacioglu, Dirican, and Yilmaz (2013) showed that 28.8% of the relatives experienced depression. For these psychosocial consequences, female relatives have a bigger risk for experiencing distress than male relatives have (Hagedoorn et al., 2011). Female relatives have a higher risk for developing depression and anxiety (Alacacioglu et al., 2013). Besides the effect of the cancer on the patient itself and their relatives, relatives and patients have to cope with the emotions and coping responses of the patient or relative (Hagedoorn et al., 2011).

1.3 Psycho-Oncological Care in the Netherlands

Cancer is a radical diagnosis, which is often followed by a severe treatment. The cancer survival rates are increasing, which means that more cancer patients need to process the cancer period and need to find balance in life again (Nagtegaal, Kooij, & Lammens, 2012). In the process of dealing with the cancer period and rediscovering of balance in life, many cancer patients make use of (specialized oncological) psychological care, also named psycho-oncological care (Nagtegaal et al., 2012). In the Netherlands, cancer patients and their relatives can receive psycho-oncological care for the psychological consequences they experience as a result of the cancer. The psycho-oncological care is focused on improving the QOL, and not on the medical aspects of cancer (IPSO, n.d.). The psycho-oncological care is available for patients and their relatives from the moment of the diagnosis of cancer until a long time after finishing the medical treatment (IPSO, n.d.). The effectiveness of the psycho-oncological care is studied by the institution of *Inloophuizen en Psycho-Oncologische Centra Samenwerking en Ondersteuning* (Walk-in Centres and Psycho-Oncology Centres Collaboration and Support) (IPSO). The IPSO found that during and after psycho-oncological treatment, the psychological complaints of cancer patients and their relatives decreased, and that their QOL and wellbeing improved (Garson et al., 2011).

1.4 Changes in the Psycho-Oncological Care

Despite the proved effectiveness of the psycho-oncological care, the government of the Netherlands makes large budget cuts in the psychological care. In the next sections, an overview of these changes is given. These changes will be described from 2008 until 2015 to give a total overview of the changes made in the past years, but the present study only focuses on the years 2012 until 2015. For a short overview of these changes, see table 1.

In 2008, the primary and secondary psychological care were part of the basic health insurance. This meant that clients got 8 sessions of primary care reimbursed each year. For the primary care, people had to pay a financial contribution of €10 per session (€80 per year). When clients got referred to the secondary care, the whole treatment would be reimbursed by the health insurance, and there was no own financial contribution. The own risk that all clients have to pay was €150 euros per year (Nagtegaal et al., 2012).

In 2012, the own financial contribution to the health care for the primary care increased and the number of sessions that would be reimbursed from the basic health care insurance decreased. Starting in 2012, people only got 5 sessions reimbursed, which was 8 sessions from

2008 until 2011, and the own financial contribution increased from €10 euro for each session to €20 euros each session (€100 per year) (Nagtegaal et al., 2012). For the secondary care, a client had to pay an own financial contribution of €100 for short treatments and €200 for long treatments. Besides the own financial contribution, the own risk of the the health insurance increased from €150 to €220 per year (Nagtegaal et al., 2012). The latest change in legislation introduced in 2012, is that the adjustment disorder would no longer be reimbursed for both primary and secondary care (Nagtegaal et al., 2012). In summary, in 2012 cancer patients receive less psychological care for which they have to pay more.

The changes made in 2012 affect many cancer patients and relatives. Especially the removal of the adjustment disorder from the health insurance. The effect of this removal is large because many cancer patients are suffering from an adjustment disorder (Nagtegaal et al., 2012). Which makes that the psycho-oncological care became less accessible for many cancer patients (Nagtegaal et al., 2012).

In 2014, the psychological care in the Netherlands was re-organized again. The psychological care was divided into basic mental healthcare (GGZ) and specialized GGZ (Ministerie van Volksgezondheid, Welzijn en Sport, 2015). In the new system, a patient is first seen by the general practitioner or the POH-GZZ (general practice assistant for mental health). The general practitioner takes care of the mild psychological problems, and if the general practitioner is no longer able to threat the patient, a patient will be referred to the basic GGZ of the specialized GZZ, depending on the possible presence of a DSM-IV diagnosis, severity of the problems, risks for the patient, and the course of the symptoms. A reference to the specialized GGZ will be made when the patient probably has complex psychological problems. Patients with less severe psychological problems will be referred to the basic GGZ (Ministerie van Volksgezondheid, Welzijn en Sport, 2015).

A reference to the basic GGZ or specialized GGZ has implications for the reimbursement by the health insurance. Receiving care from the general practitioner or the POH-GGZ is reimbursed for all patients because it is covered in the basic health insurance. Because this type of care is covered in the basic health insurance, it does not effect the mandatory own risk of patients (Zorg Instituut Nederland, n.d.). But when a reference is made to the basic GGZ or specialized GGZ, patients have to pay the own mandatory own risk of €375 (Zorg Instituut Nederland, n.d.). Besides, the health insurance companies in the Netherlands, only reimburse psychological treatment when the patient has a DSM-IV diagnosis (Ministerie van Volksgezondheid, Welzijn en Sport, 2015). This means that cancer patients and their relatives who need psycho-oncological care, need a DSM-IV diagnosis to get their treatment reimbursed. Before 2012, cancer patients who need psycho-oncological care could easily fit into the DSM-IV diagnoses such as adjustment disorder, relationship disorders, sexual disorders and work disorders (UMC Utrecht, 2015). But since 2012, the previously mentioned disorders are no longer covered by the health insurances because of cost-cutting considerations, and therefore not eligible for reimbursement by the health insurance (UMC Utrecht, 2015; Ministerie van Volksgezondheid, Welzijn en Sport, 2015).

Because the adjustment disorder, relationship disorders, sexual disorders and work disorders are no longer part over the covered mental health care since 2012 (UMC Utrecht, 2015), it is difficult for a large group of cancer patients and relatives of cancer patients to receive appropriate and adequate mental health care. It is difficult because they do not fit in one a DSM-IV diagnosis, which is needed for the reimbursement of the psycho-oncological care (UMC Utrecht, 2015). Cancer patients and their relatives still can receive psycho-oncological care in two ways. They either can pay the treatment themselves, or psychologists try to give the clients a DSM-IV diagnosis which is more severe than the actual problem of the client (Vruchtenburg, n.d.). In other words, the barrier to receive psycho-oncological care became higher due to the changes in legislation and health insurance.

Table 1

Total Overview of the Legislation and Health Insurance of Psychological Care

Year	Legislation and Health Insurance
2008-2011	Primary and secondary care both part of basic health insurance Primary and secondary care both part of basis health insurance Secondary care: completely reimbursed Own risk is €150
2012-2013	Primary and secondary care both part of basis health insurance Primary care: 5 sessions, contribution of €20 per session Secondary care: short treatment contribution of €100 and long treatment €200 Adjustment disorder no longer reimbursed Own risk is €220
2014-2015	Primary and secondary became basic and specialized First to GP or POH-GGZ, which refers to basic or specialized care GP or POH-GGZ: covered in basic health insurance Basic and specialized: only reimbursed in case of DSM-IV diagnosis Main therapist: checking DSM-IV diagnoses Own risk: €375

1.5 Psycho-Oncologial Care of *De Vruchtenburg*

From 2008 until 2012, the psycho-oncological care given by *De Vruchtenburg* was part of the secondary care. Nowadays, the psycho-oncological care offered by *De Vruchtenburg* includes basic GGZ and specialized GGZ. Therefore, clients visiting *De Vruchtenburg* also have to deal with the higher barrier to the psycho-oncological care (e.g. higher costs for the client). As a reaction to these changes, the *Kees de Ruiter Fund* started the *Fund Own Contribution*. This fund was created to keep the psycho-oncological care at *De Vruchtenburg* available for clients who experience difficulties with paying the own contribution by lowering the financial barrier to the care. Based on the income of the client, a client received €200 or €100 to help them pay the own financial contribution. Over the years 2012-2014, 238 clients made uses of the fund (Vruchtenburg, n.d.). The fund is still available for clients.

1.6 Research Questions and Expectations

The changes in legislation and health insurance for the psycho-oncological care, lead to the aims of the present study: examine what the possible effect is of these changes on the inflow of clients and treatment evaluation between the years 2012-2013 and 2014-2015 at *De Vruchtenburg*, based on the evaluation forms filled in by clients after finishing therapy. The research questions are:

1. Has the inflow of clients (gender, age, nationality, education level, months visiting *De Vruchtenburg*, treatment location, number of patients and partners, months having cancer, prognosis, and therapies followed) changed between the years 2012-2013 and 2014-2015?
2. Has the evaluation of the ‘Information and Participation’ given by the clients of *De Vruchtenburg* changed between the years 2012-2013 and 2014-2015?
3. Has the evaluation of the provided counselling given by the clients of *De Vruchtenburg* changed between the years 2012-2013 and 2014-2015?
4. Has the evaluation of the provided care given by the clients of *De Vruchtenburg* changed between the years 2012-2013 and 2014-2015?
5. Has the evaluation of the ‘Perceived Treatment Effectiveness’ given by the clients of *De Vruchtenburg* changed between the years 2012-2013 and 2014-2015?
6. Has ‘HRQOL’ score given by the clients of *De Vruchtenburg* changed between the years 2012-2013 and 2014-2015?

After answering these questions, the same research questions will be answered for the groups of clients following the three most common followed therapies. This will be done to see if the same effects are found for specific therapies.

Because there is no research done on the consequences of the changes in legislation and health insurance for the psycho-oncological care in the Netherlands, is it not possible to establish well-founded hypotheses and thereby the current study is explorative. But despite the explorative character of the current study, there are some expectations. Expected is that because of the higher barrier to the psycho-oncological care (Nagtegaal et al., 2012) and the higher costs, the education level will be increased in 2014-2015. This is expected because a higher education level is linked to a higher social economic status (SES) which gives more opportunities for clients to pay for the treatment themselves and thereby decreases the financial barrier to the psycho-oncological care (Duncan, Daly, McDonough, & Williams, 2002). Besides a higher SES, a higher education level also goes to getter with better cognitive skills, which ensure that higher educated individuals are better informed about the health care (Cutler & Lleras-Muney, 2006). Furthermore, it is expected that because of the higher barrier to the psycho-oncological care and the changes in legislation, the HRQOL of clients will be lower in 2014-2015. This is expected because the clients with less severe psychological complaints, and thereby a higher HRQOL, will receive treatment from the POH-GGZ and are not referred to *De Vruchtenburg*. Thereby, only the clients with more severe psychological complaints, and thereby a lower HRQOL, will be seen at *De Vruchtenburg*. The final expectation is that there will be less relatives visiting *De Vruchtenburg* because the removal of several DSM-IV diagnoses from the covered health care.

1.7 Scientific and Social Relevance

The current study is of scientific interest and socially relevant because the possible consequences of the changes in health insurance and legislation on the inflow of clients and the treatment evaluation are studied. Studying these possible effects is important because it gives insight in the effects of such changes in legislation and health insurance. These insights are important because they can be used in decisions about possible new changes in legislation and health insurance for the psycho-oncological care and to improve the psycho-oncological care for cancer patients and their relatives. Furthermore, the present study is of scientific interest and socially relevant because the possible effects of changes in legislation and health insurance on the psycho-oncological care have not been studied before.

2. Method

2.1 Setting & Participants

The present study was started in 2012 by *De Vruchtenburg*. The research used data from the questionnaire given to clients after finishing therapy. Clients participating in the present study could be cancer patients or relatives of a cancer patient, and were included in the study when they finished therapy at *De Vruchtenburg* and could write and read Dutch. Exclusion criteria were receiving very short therapy (only one or two sessions) and/or being to ill to participate. In these cases, the therapist decided not to give the questionnaire to the client.

2.2 Data collection

After finishing therapy, clients who met the inclusion criteria received a questionnaire from their therapist or by post. All clients could return the questionnaire by post. No reminders were sent to the clients. The questionnaire is developed by *De Vruchtenburg*, and measures demographic and clinical variables, general treatment information, and the evaluation of the received treatment.

2.2.1 Demographic, Clinical and Medical Information

The demographic information is collected by questions about the gender, age, nationality and education level of the participants. The clinical information gathered in the questionnaire consisted of type of cancer, type of cancer treatment, the number of months being diagnosed with cancer, and the prognosis. Questions about the general treatment information were covering the treatment location, duration of the treatment, and which types of treatments were followed (different kinds of treatments could be followed by one client).

2.2.2 Evaluation of the Received Treatment

The evaluation of the treatment is measured by calculating five subscales: 'Information and Participation', 'Counselling Evaluation', 'Care Evaluation', 'Perceived Effectiveness of Counselling', and 'HRQOL'. The subscale 'Information and Participation' consists of six questions with a four-point scale scale ranging from '1=yes, of course' to '4=no, not at all'. Example of questions are 'Did you receive enough information about the treatment and assistance opportunities provided by *De Vruchtenburg*?' and 'Did you receive the opportunity to participate in the decision making about which treatment you will receive?'. The subscale was calculated by counting up the scores from the 6 questions, with higher scores indicating a worse evaluation of the participation and information about the treatment.

The 'Counselling Evaluation' subscale consists of seven questions with with a four-point scale ranging from '1=yes, of course' to '4=no, not at all'. Example of questions are 'Did you think the therapist was giving enough structure to the therapy?' and 'Did you have enough trust in your therapist?'. The subscale was calculated by counting up the scores from the 7 questions. A higher total score represents a worse evaluation of the counselling.

The subscale 'Care Evaluation' consists of 3 questions with a four-point scale ranging from '1=yes, of course' to '4=no, not at all'. One of the questions was 'Was the treatment plan carried out as you wanted?'. The subscale was calculated by counting up the scores from the 4 questions. A higher total score indicates a worse evaluation of the provided care.

The 'Perceived Effectiveness' subscale consists of 24 statements with four answer options (1=yes, 2=no, 3=partially, and 4=does not apply to me). Examples of statements are 'Due to the treatment I gained more insight in how I cope with emotions and problems', 'Due to the treatment I learned to cope with the stress and emotions caused by the cancer', and 'Due to the treatment I found more rest and balance in my life'. Before counting up the answer options were recoded in to 1=yes, 2=partially, 3=no or does not apply to me. After recoding the subscale was calculated by counting up the scores from the 24 statements. A higher total score represents a lower perceived treatment effectiveness.

The last subscale from the questionnaire is 'HRQOL'. This subscale consists of two questions: 'How would you rate your overall health during the past week?' and 'How would you rate your quality of life during the past week?'. These questions are asked with a seven-point scale (1=really bad to 7=excellent). The score for 'HRQOL' is calculated by counting up the scores from these two questions. A higher total score indicates a higher HRQOL.

2.3 Statistical Analysis

After calculating the subscales, and before assessing possible differences between these two groups of years, the reliability of the subscales of the survey of *De Vruchtenburg* were tested with a Cronbach's test. Afterwards, an ANOVA test was used to determine if there are differences in inflow of clients (e.g. gender, age, education level, severity of problems etc.). In the case of violating the assumptions of the ANOVA, a Mann-Whitney test will be used.

Next, the 'Information and Participation', 'Counselling Evaluation', 'Care Evaluation', 'Perceived Effectiveness of Counselling', and 'HRQOL' subscales were compared between the years 2012-2013 and 2014-2015, controlled for the significant differences in inflow of clients. An MANOVA test was used for this purpose.

The last part of the analysis is comparing clients following the three most common therapies in 2012-2013 and 2014-2015 on the inflow of clients and treatment evaluation. The methods used for this research questions are the same as named above. The only difference is that groups of patients are selected based on the therapy followed.

3. Results

3.1 Reliability Subscales

The subscales ('Information and Participation', 'Counseling Evaluation', 'Care Evaluation', 'Perceived Treatment Effectiveness', and 'HRQOL') of the survey developed by *De Vruchtenburg* all have a high reliability (Field, 2013) (see table 2).

Table 2

Reliability of the subscales

	Number of participants	Number of items	Cronbach's Alfa
Information and Participation	666	6	0.98
Counselling Evaluation	635	7	0.99
Care Evaluation	651	3	0.88
Perceived Treatment Effectiveness	394	24	0.91
HRQOL	635	2	0.81

3.2 Inflow of clients

3.2.1 Description of the Total Sample

The number of clients following therapy at *De Vruchtenburg* in the years 2012-2013 was 2202 and 1639 in 2014-2015. The sample of the present study consists of 708 participants. In the years 2012-2013 341 clients of *De Vruchtenburg* participated in the study and in the years 2014-2015 376 clients participated. The sample consisted mainly of cancer patients (80.2%) and females (75.1%). The mean age of the participants was 54.0 years.

3.2.2 Examining Differences in the Inflow of Clients between 2012-2013 and 2014-2015

Before examining the possible differences in the inflow of clients between 2012-2013 and 2014-2015, the assumption of homogeneity of variance was tested. For some variables, this assumption was violated. For these variables a Mann-Whitney test, instead of an ANOVA test, was used (see table 3).

The ANOVA and Mann-Whitney test show that there are differences in the inflow of clients visiting *De Vruchtenburg* in 2014-2015 compared to clients visiting *De Vruchtenburg* in 2012-2013. In 2014-2015 relatively more women and partners visited *De Vruchtenburg* compared to 2012-2013, and the mean age of the clients was higher in 2014-2015. Beside, there are also differences found in the clinical and medical characteristics. Clients in 2014-2015 were longer diagnosed with cancer and more often received an unknown prognosis. Regarding the therapies followed, clients in 2014-2015 followed individual therapy and haptotherapy less often than clients in 2012-2013 did. For more details, see table 3.

Table 3

Descriptives of sample and differences in client inflow between 2012-2013 and 2014-2015

		2012-2013	2014-2015	F(df1,df2)	*p*-value
Gender	Women	238 (71.3%)	283 (77.1%)	**	0.032*
	Men	96 (28.7%)	77 (21.4%)		
		N_{total}: 334	N_{total}: 360		
Age		53.0 (±13.2)	55.0 (±12.5)	4.277(1,693)	0.039*
		N_{total}: 334	N_{total}: 361		
Nationality	Dutch	324 (98.8%)	350 (97.2%)	0.308(1,693)	0.579
	Other	4 (1.2%)	10 (2.8%)		
		N_{total}: 328	N_{total}: 360		
Education level	Primary school	16 (4.9%)	10 (2.8%)	0.028(1,686)	0.867
	Lower education	36 (11.0%)	39 (10.9%)		
	High school	129 (39.6%)	148 (41.2%)		
	HBO	93 (28.5%)	118 (32.9%)		
	University	52 (16.0%)	44 (12.3%)		
		N_{total}: 326	N_{total}: 359		
Mean months visiting *De Vruchtenburg*		4.5 (±1.7)	4.5 (±1.7)	0.187(1,684)	0.666
		N_{total}: 328	N_{total}: 358		
Treatment location	Straatweg	130 (43.2%)	169 (47.5%)	**	0.010*
	LeShan Leiden	59 (19.6%)	89 (25.0%)		
	Home visit	3 (1.0%)	4 (1.1%)		
	Rotterdam Zuid	62 (20.6%)	71 (19.9%)		
	LeShan Delft	10 (3.3%)	9 (2.5%)		
	Different/combination	36 (12.0%)	14 (3.9%)		
	Dirksland Hospital	1 (0.3%)	0		
		N_{total}: 301	N_{total}: 367		
Patient partner	Patient	290 (85%)	273 (75.6%)	**	0.002*
	Partner	51 (15.0%)	88 (24.4%)		
		N_{total}: 341	N_{total}: 361		
Months having cancer		14.6 (±19.9)	33.6 (±45.8)	**	<0.001*
		N_{total}: 210	N_{total}: 258		
Prognosis	Unknown	52 (22.0%)	120 (45.3%)	**	<0.001*
	Recovered	68 (28.8%)	69 (26.0%)		
	Good chance for recovery	72 (30.5%)	63 (23.8%)		
	Life-prolonging treatment	36 (15.3%)	11 (4.2%)		
	No treatment possible	8 (3.4%)	2 (0.8%)		
		N_{total}: 236	N_{total}: 265		
Therapies	Individual	288 (91.1%)	296 (81.8%)	**	<0.001*
	Haptotherapy	37 (17.1%)	21 (5.8%)	**	0.046*
	Recovery&Balance	23 (11.2%)	22 (6.1%)	**	0.153
	Art	29 (13.9%)	53 (14.6%)	0.063(1,566)	0.802
	Partner meetings	5 (2.5%)	7 (1.9%)	0.189(1,561)	0.664
	Training CBT	56 (24.7%)	61 (16.9%)	0.732(1,557)	0.392
	Life after cancer	8 (4.0%)	6 (1.7%)	**	0.153
	Cancer in perspective	4 (2.0%)	4 (1.1%)	**	0.628
	Dealing with loss	5 (2.5%)	4 (1.1%)	**	0.369
	Therapy for children	6 (3.0%)	4 (1.1%)	**	0.194

* α=0.05

** Mann-Withney test

3.3 Differences in Treatment Evaluation

The possible differences between the years 2012-2013 and 2014-2015 in the subscales 'Information and Participation', 'Counselling Evaluation', 'Care Evaluation', 'Perceived Effectiveness of Counselling', and 'HRQOL' were tested with an MANOVA test, controlled for the significant differences found in the ANOVA and Mann-Whitney tests. Before testing the possible differences, the assumptions of the MANOVA test were tested. These assumptions were violated and therefore the results have to be interpreted more carefully. The MANOVA test was significant (Wilks Lambda=0.824, F(5,169)=7.204, p<0.001) and showed that there are differences in the treatment evaluation given by clients visiting *De Vruchtenburg* in 2012-2013 and 2014-2015.

Controlled for the differences found in inflow characteristics (see table 3), the 'Information and Participation' (F(1,173)=33.31, p<0.001, η^2=0.161) and the 'Counselling Evaluation' (F(1,173)=22.75, p<0.001, η^2=0.116) differed significantly between the years 2012-2013 and 2014-2015 (see table 4). Clients following therapy in 2014-2015 are less satisfied with the information they received about the treatment options, the content of the treatment, the expected treatment outcome, and the extent in which they could participate in the decision about the treatment. Besides the provided information, clients in 2014-2015 are also less satisfied about the expertise, commitment, confidentiality, respectfulness, and interest of the therapist, and the level of insight and structure provided by the therapist. The overall grade clients gave to the therapy, the care evaluation, the perceived treatment effectiveness, and the HRQOL did not differ between 2012-2013 and 2014-2015 (see table 5).

Table 4

Means and standard deviations of the subscales and differences between 2012-2013 and 2014-2015 controlled for differences in client inflow

	2012-2013 M (±SD)	2014-2015 M (±SD)	F (df1,df2)	*p*-value	Effect size
Information and participation	8.2 (±3.0)	15.8 (±7.2)	33.31 (1,173)	<0.001*	0.161
Counselling evaluation	8.0 (±2.3)	19.0 (±9.9)	22,75 (1, 173)	<0.001*	0.116
Care evaluation	4.0 (±1.8)	4.0 (±1.7)	1.168 (1, 173)	0.281	0.007
Perceived treatment effectiveness	50.4 (±14.2)	53.0 (±15.1)	3.10 (1, 173)	0.080	0.018
HRQOL	11.1 (±2.0)	11.2 (±1.9)	0.475 (1, 173)	0.492	0.003

* α=0.05

Table 5

Overall grade given for the received treatment in 2012-2013 and 2014-2015

	2012-2013	2014-2015	F(df1,df2)	*p*-value
Grade	8.2 (±1.2) N_{total}: 334	8.2 (±1.2) N_{total}: 363	0.063(1,684)	0.801

3.4 Differences in the Inflow of Clients and Treatment Evaluation for Specific Therapies

Next, the inflow of clients and treatment evaluation were compared between the years 2012-2013 and 2014-2015 for the three most commonly followed therapies. These three therapies are individual therapy, training CBT and art therapy (see table 3).

3.4.1 Examining Differences in the Inflow of Clients and Treatment Evaluation for Clients Following Individual Therapy

Description of the Sample of Clients Following Individual Therapy

The sample of clients following individual therapy consisted of 580 clients. Of these clients, most clients were cancer patients (79%) and female (72.6%). The average age of all clients following individual therapy was 54.1 years. More descriptives and details about the sample of clients following individual therapy can be found in table 6.

Differences in the Inflow of Clients for Clients Following Individual Therapy

Before examining the possible differences in the inflow of clients following individual therapy between 2012-2013 and 2014-2015, the assumption of homogeneity of variance was tested. For some variables, this assumption was violated, and for these variables a Mann-Whitney test, instead of an ANOVA test, was used (see table 6).

The Mann-Whitney test and the ANOVA test show that in 2014-2015 relatively more women and less patients were following individual therapy compared to 2012-2013. Clients also differ on the months having cancer and the prognosis. The number of months having cancer was higher in 2014-2015 and clients more often received an unknown prognosis compared to 2012-2013. For more details, see table 6.

Table 6

Descriptives of clients who followed individual therapy and differences in client inflow between 2012-2013 and 2014-2015

		2012-2013	2014-2015	F(df1,df2)	*p*-value
Gender	Women	194 (68.6%)	223 (76.6%)	**	0.030*
	Men	89 (31.4%)	68 (23.4%)		
		N_{total}: 283	N_{total}: 291		
Age		53.3 (±12.5) N_{total}: 283	55.0 (±12.8) N_{total}: 292	2.493(1,573)	0.115
Nationality	Dutch	277 (98.6%)	283 (97.3%)	0.232(1,573)	0.630
	Other	4 (1.4%)	8 (2.7%)		
		N_{total}: 281	N_{total}: 291		

Education level	Primary school	15 (5.4%)	6 (2.1%)	0.058(1,567)	0.810
	Lower education	32 (11.0%)	35 (12.1%)		
	High school	105 (37.7%)	117 (40.3%)		
	HBO	77 (27.6%)	94 (32.4%)		
	University	50 (17.90%)	38 (13.1%)		
		N_{total}: 279	N_{total}: 290		
Mean months visiting *De Vruchtenburg*		4.6 (±1.7) N_{total}: 283	4.6 (±1.6) N_{total}: 294	0.001(1,575)	0.979
Treatment location	Straatweg	110 (41.7%)	117 (39.9%)	**	0.233
	LeShan Leiden	59 (21.2%)	87 (29.7%)		
	Home visit	3 (1.1%)	3 (1.0%)		
	Rotterdam Zuid	50 (17.4%)	65 (22.2%)		
	LeShan Delft	10 (3.5%)	9 (3.1%)		
	Different/combination	34 (11.8%)	12 (4.1%)		
	Dirksland Hospital	1 (0.3%)	0		
		N_{total}: 264	N_{total}: 293		
Patient partner	Patient	243 (84.4%)	215 (73.6%)	**	0.002*
	Partner	45 (15.6%)	77 (26.4%)		
		N_{total}: 288	N_{total}: 292		
Months having cancer		14.4 (±20.0) N_{total}: 174	36.7 (±50.7) N_{total}: 258	**	<0.001*
Prognosis	Unknown	39 (20.0%)	95 (45.2%)	**	<0.001*
	Recovered	58 (29.7%)	53 (25.2%)		
	Good chance for recovery	58 (29.7%)	50 (23.8%)		
	Life-prolonging treatment	33 (16.9%)	10 (4.8%)		
	No treatment possible	7 (3.6%)	2 (1.0%)		
		N_{total}: 195	N_{total}: 210		
Other therapies followed	Haptotherapy	29 (15.8%)	14 (4.7%)	**	<0.001*
	Recovery&Balance	13 (7.5%)	17 (5.7%)	0.546(1,468)	0.460
	Art	9 (5.2%)	21 (7.1%)	0.651(1,467)	0.420
	Partner meetings	4 (2.3%)	7 (2.4%)	0.001(1,466)	0.987
	Training CBT	40 (21.1%)	39 (13.2%)	**	0.022*
	Life after cancer	4 (2.3%)	4 (1.4%)	0.618(1,464)	0.432
	Cancer in perspective	3 (1.8%)	3 (1.0%)	0.456(1,463)	0.500
	Dealing with loss	4 (2.3%)	1 (0.3%)	**	0.045*
	Therapy for children	4 (2.4%)	2 (0.7%)	**	0.124

* $\alpha=0.05$

** Mann-Withney test

Differences in Treatment Evaluation for Clients Following Individual Therapy

The possible differences between the years 2012-2013 and 2014-2015 for clients following individual therapy on the subscales ‘Information and Participation’, ‘Counselling Evaluation’, ‘Care Evaluation’, ‘Perceived Effectiveness of Counselling’, and ‘HRQOL’ were tested with an MANOVA test controlled for the variables that differed significantly in the ANOVA and Mann-Whitney test. Before testing the possible differences, the assumptions of the MANOVA test were tested. These assumptions were violated and therefore the results have to be interpreted more carefully. The MANOVA test was significant (Wilks Lambda=0.811, F(5,153)=7.116, *p*<0.001) and showed that there are differences between on the subscales between the years 2012-2013 and 2014-2015 for clients following individual therapy.

Controlled for the significant differences in the inflow of clients, the ‘Information and Participation’ (F(1,157)=26.871, $p<0.001$, $\eta^2=0.146$), the ‘Counselling Evaluation’ (F(1,157)=24.149, $p<0.001$, $\eta^2=0.113$), and the ‘Perceived Treatment Effectiveness’ (F(1,157)=4.151, $p=0.043$, $\eta^2=0.026$) differed significantly between the years 2012-2013 and 2014-2015. Clients following individual therapy at *De Vruchtenburg* in 2014-2015 evaluated the ‘Information and Participation’, the ‘Counseling Evaluation’ and ‘Perceived Treatment Effectiveness’ poorer than clients following individual therapy at *De Vruchtenburg* in 2012-2013 did (see table 7). The subscales ‘Care Evaluation’ and ‘HRQOL’, and the overall grade given for the therapy did not differ between the years 2012-2013 and 2014-2015 (see table 7 and 8).

Table 7

Means and standard deviations of the subscales and differences between clients who followed individual therapy and differences in 2012-2013 and 2014-2015 controlled for differences in inflow of clients

	2012-2013 M (±SD)	2014-2015 M (±SD)	F (df1,df2)	*p*-value	Effect size
Information and participation	8.1 (±2.8) (N=276)	15.8 (±7.2) (N=281)	26.871 (1,157)	<0.001*	0.146
Counselling evaluation	8.0 (±2.4) (N=260)	18.9 (±9.9) (N=269)	24.149 (1, 157)	<0.001*	0.133
Care evaluation	4.0 (±1.8) (N=272)	4.0 (±1.6) (N=280)	0.668 (1, 157)	0.415	0.004
Perceived treatment effectiveness	50.1 (±13.7) (N=223)	52.8 (±15.5) (N=112)	4.151(1, 157)	0.043*	0.026
HRQOL	11.1 (±2.0) (N=250)	11.4 (±1.8) (N=270)	0.914 (1, 157)	0.341	0.006

* $\alpha=0.05$

Table 8

Overall grade given for the received treatment in 2012-2013 and 2014-2015 for clients following individual therapy

	2012-2013	2014-2015	F(df1,df2)	*p*-value
Grade	8.2 (±1.2) N_{total}: 284	8.2 (±1.2) N_{total}: 295	0.100(1,577)	0.752

3.4.1 Examining Differences in the Inflow of Clients and Treatment Evaluation for Clients Following the Training CBT

Description of the Sample of Clients Following the Training CBT

In total, 117 clients followed the training CBT in the years 2012 until 2015. Of these clients, 81.0% was female and 94.9% was a cancer patient. The average age of clients following the training CBT was 53.2 years.

Differences in the Inflow of Clients for Clients Following the Training CBT

Before examining the possible differences in the inflow of clients following the training CBT between 2012-2013 and 2014-2015, the assumption of homogeneity of variance was tested. For some variables, this assumption was violated, and for these variables a Mann-Whitney test, instead of an ANOVA test, was used (see table 9).

The Mann-Whitney test and the ANOVA test show that the ratio of clients and relatives has changed. In 2014-2015 relatively less patients were following the training CBT. Furthermore, clients following the training CBT in 2014-2015 are longer diagnosed with cancer and more often received an unknown prognosis compared to clients following the training CBT in 2012. For more details, see table 9.

Table 9
Descriptives of clients who followed training CBT and differences between 2012-2013 and 2014-2015

		2012-2013	2014-2015	F(df1,df2)	*p*-value
Gender	Women	43 (76.8%)	51 (85.0%)	**	0.373
	Men	13 (23.2%)	9 (15.0%)		
		N_{total}: 56	N_{total}: 60		
Age		53.2 (±9.7)	53.3 (±10.6)	3.127 (1,115)	0.080
		N_{total}: 56	N_{total}: 61		
Nationality	Dutch	56 (100%)	56 (91.8%)	**	0.083
	Other	0	5 (8.2%)		
		N_{total}: 56	N_{total}: 61		
Education level	Primary school	1 (1.8%)	1 (1.6%)	0.309 (1,115)	0.580
	Lower education	1 (1.8%)	2 (3.3%)		
	High school	23 (41.8%)	24 (39.3%)		
	HBO	18 (32.7%)	26 (42.6%)		
	University	12 (21.8%)	8 (13.1%)		
		N_{total}: 55	N_{total}: 61		
Mean months visiting *De Vruchtenburg*		4.8 (±1.5)	4.4 (±1.7)	**	0.348
		N_{total}: 54	N_{total}: 60		
Treatment location	Straatweg	29 (54.7%)	49 (81.7%)	**	0.004*
	LeShan Leiden	7 (13.2%)	7 (11.7%)		
	Home visit	0	0		
	Rotterdam Zuid	11 (20.8%)	2 (3,3%)		
	LeShan Delft	0	2 (3.3%)		
	Different/combination	6 (11.3%)	0		
	Dirksland Hospital	0	0		
		N_{total}: 53	N_{total}: 60		

Patient partner	Patient	56 (100%)	55 (90.2%)	**	0.047*
	Partner	0	6 (9.8%)		
		N_{total}: 56	N_{total}: 61		
Months having cancer		17.3 (±18.7) N_{total}: 44	26.8 (±19.5) N_{total}: 51	5.763 (1,93)	0.018*
Prognosis	Unknown	14 (27.5%)	30 (54.5%)	12.029 (1,104)	0.001*
	Recovered	12 (23.5%)	12 (21.8%)		
	Good chance for recovery	17 (33.3%)	11 (20.0%)		
	Life-prolonging treatment	5 (9.8%)	2 (3.6%)		
	No treatment possible	3 (5.9%)	0		
		N_{total}: 51	N_{total}: 55		
Other therapies followed	Individual	40 (85.1%)	39 (63.9%)	**	0.014*
	Haptotherapy	9 (16.1%)	4 (6.6%)	**	0.009*
	Recovery&Balance	2 (7.4%)	3 (4.9%)	0.212 (1,86)	0.646
	Art	5 (16.7%)	10 (16.4%)	0.001 (1,89)	0.974
	Partner meetings	0	2 (3.3%)	0.861 (1,85)	0.356
	Life after cancer	2 (7.1%)	3 (5.0%)	0.160 (1,86)	0.690
	Cancer in perspective	0	1 (1.7%)	0.438 (1,85)	0.510
	Dealing with loss	1 (3.7%)	1 (1.7%)	0.337 (1,85)	0.563
	Therapy for children	0	2 (3.3%)	0.876 (1,84)	0.352

* $\alpha=0.05$

** Mann-Withney test

Differences in Treatment Evaluation for Clients Following the Training CBT

The possible differences between the years 2012-2013 and 2014-2015 for clients following the training CBT on the subscales ‘Information and Participation’, ‘Counselling Evaluation’, ‘Care Evaluation’, ‘Perceived Effectiveness of Counselling’, and ‘HRQOL’ were examined with an MANOVA test, with as covariates the variables that differed significantly in the ANOVA and Mann-Whitney test. Before testing the possible differences, the assumptions of the MANOVA test were tested. These assumptions were violated and therefore the results have to be interpreted more carefully.

The MANOVA test was not significant (Wilks Lambda=0.820, F(5,28)=1.229, *p*=0.332) and thereby there are no differences in the scores of the subscales between the clients following the training CBT in 2012-2013 and 2014-2015 (see table 10). There were also no differences in the overall grade given to the therapy by clients following the training CBT in 2014-2015 compared to clients in 2012-2013 (see table 12).

Table 10

Means and standard deviations of the subscales for clients who followed training CBT in 2012-2013 and 2014-2015 (no significant differences between scores 2012-2013 and 2014-2015 on all subscales)

	2012-2013 M (±SD)	2014-2015 M (±SD)
Information and participation	8.2 (±3.6) (N=54)	16.0 (±7.1) (N=58)
Counselling evaluation	8.1 (±2.7) (N=53)	19.3 (±10.0) (N=58)
Care evaluation	4.3 (±2.0) (N=51)	3.6 (±1.4) (N=55)
Perceived treatment effectiveness	46.0 (±11.5) (N=43)	50.2 (±13.3) (N=27)
HRQOL	10.6 (±2.1) (N=50)	11.1 (±1.9) (N=59)

Table 11

Overall grade given for the received treatment in 2012-2013 and 2014-2015 for clients following individual therapy (non-significant)

	2012-2013	2014-2015	F(df1,df2)	*p*-value
Grade	8.4 (±1.4) N_{total}: 56	8.5 (±1.0) N_{total}: 61	0.141 (1,115)	0.708

3.4.1 Examining Differences in the Inflow of Clients and Treatment Evaluation for Clients Following Art Therapy

Description of the Sample of Clients Following Art Therapy

The total sample of clients following art therapy consisted of 82 clients. Of these clients, 92.5% was female and 85.4% was a patient. The average age of clients following art therapy was 52.5 years.

Differences in the Inflow of Clients for Clients Following Art Therapy

Before examining the possible differences in the inflow of clients following art therapy between 2012-2013 and 2014-2015, the assumption of homogeneity of variance was tested. For some variables, this assumption was violated, and for these variables a Mann-Whitney test, instead of an ANOVA test, was used (see table 12).

The Mann-Whitney test and the ANOVA test show clients following art therapy differ on two variables, age and prognosis. Clients following art therapy in 2014-2015 are older and more often received an unknown prognosis than clients following art therapy in 2012-2013 (see table 12).

Table 12

Descriptives of clients who followed art therapy and differences between 2012-2013 and 2014-2015

		2012-2013	2014-2015	F(df1,df2)	*p*-value
Gender	Women	25 (89.3%)	49 (94.2%)	0.631(1,78)	0.430
	Men	3 (10.7%)	3 (5.8%)		
		N_{total}: 28	N_{total}: 60		
Age		47.7 (±18.7)	55.0 (±12.7)	4.352(1,79)	0.040*
		N_{total}: 28	N_{total}: 61		
Nationality	Dutch	24 (100%)	51 (96.2%)	0.917(1,75)	0.341
	Other	0	2 (3.8%)		
		N_{total}: 24	N_{total}: 53		
Education level	Primary school	1 (4.2%)	1 (1.9%)	0.672(1,75)	0.415
	Lower education	0	4 (7.5%)		
	High school	9 (37.5%)	21 (43.3%)		
	HBO	12 (50.0%)	18 (34.0%)		
	University	2 (8.3%)	7 (13.2%)		
		N_{total}: 24	N_{total}: 53		
Mean months visiting *De Vruchtenburg*		4.8 (±1.6) N_{total}: 25	4.2 (±1.6) N_{total}: 51	2.156(1,74)	0.146
Treatment location	Straatweg	20 (90.9%)	45 (88.2%)	0.037(1,71)	0.849
	LeShan Leiden	0	2 (3.9%)		
	Home visit	0	0		
	Rotterdam Zuid	1 (4.5%)	4 (7.8%)		
	LeShan Delft	1 (4.5%)	0		
	Different/combination	0	0		
	Dirksland Hospital	0	0		
		N_{total}: 22	N_{total}: 51		
Patient partner	Patient	24 (82.8%)	46 (86.8%)	0.239(1,80)	0.626
	Partner	5 (17.2%)	7 (13.2%)		
		N_{total}: 29	N_{total}: 61		
Months having cancer		17.6 (±20.7) N_{total}: 18	25.5 (±18.0) N_{total}: 42	2.222(1,58)	0.141
Prognosis	Unknown	3 (14.3%)	20 (45.5%)	6.175(1,63)	0.016*
	Recovered	8 (38.1%)	12 (27.3%)		
	Good chance for recovery	7 (33.3%)	10 (22.7%)		
	Life-prolonging treatment	3 (14.3%)	2 (4.5%)		
	No treatment possible	0	0		
		N_{total}: 21	N_{total}: 44		
Other therapies followed	Individual	9 (42.9%)	21 (39.6%)	0.064(1,72)	0.802
	Haptotherapy	5 (25.0%)	4 (7.5%)	**	0.104
	Recovery&Balance	3 (15.8%)	7 (13.2%)	0.076(1,70)	0.784
	Partner meetings	0	0		
	Training CBT	5 (23.8%)	10 (18.9%)	0.222(1,72)	0.639
	Life after cancer	0	2 (3.8%)	0.648(1,68)	0.424
	Cancer in perspective	0	1 (1.9%)	0.318(1,68)	0.575
	Dealing with loss	1 (5.6%)	1 (1.9%)	0.648(1,69)	0.424
	Therapy for children	0	0		

* α=0.05

** Mann-Withney test

Differences in Treatment Evaluation for Clients Following Art Therapy

The possible differences between the years 2012-2013 and 2014-2015 for clients following art therapy on the subscales ‘Information and Participation’, ‘Counselling Evaluation’, ‘Care Evaluation’, ‘Perceived Effectiveness of Counselling’, and ‘HRQOL’ were examined with an MANOVA test, with as covariates the two variables that differed significantly in the ANOVA and Mann-Whitney test.

Before testing the possible differences, the assumptions of the MANOVA test were tested. These assumptions were violated and therefore the results have to be interpreted more carefully. After testing the assumptions, it was found that the MANOVA test was not significant (Wilks Lambda=0.868, F(5,24)=0.733, *p*=0.606) and thereby there are no differences in the scores of the subscales between the clients following the art therapy in 2012-2013 and 2014-2015. This means that clients following art therapy in 2014-2015 do not evaluate the treatment different from clients following art therapy in 2012-2013. The scores on the subscales given by the clients following art therapy can be found in table 13. Finally, the overall grade given to the therapy by clients following art therapy in 2014-2015 did not differ from the grade given by clients following art therapy in 2012-2013 (see table 14).

Table 13

Means and standard deviations for clients who followed art therapy in 2012-2013 and 2014-2015 (no significant differences between scores 2012-2013 and 2014-2015 on all subscales)

	2012-2013 M (±SD)	2014-2015 M (±SD)
Information and participation	9.0 (±3.6) (N=24)	14.4 (±6.6) (N=50)
Counselling evaluation	8.5 (±3.1) (N=22)	17.1 (±9.9) (N=49)
Care evaluation	4.4 (±2.2) (N=24)	4.3 (±2.1) (N=52)
Perceived treatment effectiveness	53.7 (±15.3) (N=19)	53.1 (±13.8) (N=20)
HRQOL	11.0 (±1.6) (N=22)	11.6 (±1.9) (N=51)

Table 14

Overall grade given for the received treatment in 2012-2013 and 2014-2015 for clients following art therapy

	2012-2013	2014-2015	F(df1,df2)	*p*-value
Grade	8.0 (±1.5) N_{total}: 28	8.0 (±1.0) N_{total}: 53	*	0.303

* Mann-Withney test

4. Discussion

The main goal of the present study was to examine the possible effects of the changes in health insurance and legislation on the inflow of clients and the treatment evaluation given by clients receiving psycho-oncological care at *De Vruchtenburg* in 2012-2013 and 2014-2015.

4.1 Inflow of Clients

The inflow of clients visiting *De Vruchtenburg* became lower between the years 2012-2013 and 2014-2015. In 2012-2013 2202 clients received therapy compared to 1639 clients in 2014-2015. Besides a lower inflow, clients receiving psycho-oncological care at *De Vruchtenburg* in 2014-2015 differed from clients receiving psycho-oncological care in 2012-2013. Clients visiting *De Vruchtenburg* in 2014-2015 were less often male, had a higher age, followed therapy more often at the locations *Straatweg* and *LeShan Leiden*, and followed less often individual therapy and haptotherapy compared to clients in 2012-2013. Medically, the clients in 2014-2015 were more often a relative, cancer patients were longer diagnosed with cancer, and had more often received an unknown diagnosis. When the inflow of clients of the three most commonly followed therapies at *De Vruchtenburg* was evaluated, it was seen that clients following individual therapy in 2014-2015 are more often female, are less often a patient, were longer diagnosed with cancer, and had more often received an unknown prognosis. When looked at clients following the training CBT, clients were less often a patient, were longer diagnosed with cancer, and had more often received an unknown prognosis. For client following art therapy, clients in 2014-2015 were older and had more often received an unknown diagnosis.

There were multiple differences found in the inflow of clients at *De Vruchtenburg*. First, there were less men receiving therapy at *De Vruchtenburg* in 2014-2015. This could be explained by the research of Linden et al. (2012), which found that female cancer patients are twice as likely to experience anxiety and depression as male cancer patients. When these results combined with the need of a DSM-IV diagnoses to get treatment reimbursed (UMC Utrecht, 2015), it could form an explanation why there are more women receiving therapy in 2014-2015.

The second difference found between clients visiting *De Vruchtenburg* in 2012-2013 and 2014-2015 was the higher age in clients visiting *De Vruchtenburg* in 2014-2015. This increase in age in contradiction with the existing literature. The study of Dinkel et al. (2014) found that the anxiety levels are lower between the ages of 50 and 70. This in combination with the small increase in age, only 2 years, and distribution of the ages found, the difference in age is not seen as a critical difference between the two groups of years.

Besides gender and age, clients visiting *De Vruchtenburg* in 2014-2015 were also more often a relative compared to the compared to clients visiting *De Vruchtenburg* in 2012-2013. This finding was not expected since the changes in health insurance and legislation made it more difficult for relatives to receive psycho-oncological care because of the removal of several disorders from the covered psycho-oncological care and the need of a DSM-IV diagnoses to get the care reimbursed (UMC Utrecht, 2015; Ministerie van Volksgezondheid, Welzijn en Sport, 2015). One possible explanation for the increase in relatives receiving psycho-oncological care at *De Vruchtenburg* in 2014-2015 could be that the psychological complaints of the relatives are severe enough to receive a DSM-IV diagnosis. This might be the explanation because according to Alacacioglu et al. (2013), 28.8% of the relatives is depressed.

The next difference is the increase in the time past since receiving the cancer diagnosis and the greater diversification of the time past since receiving the cancer diagnosis. Clients visiting *De Vruchtenburg* in 2014-2015 were longer diagnosed with cancer compared to clients in 2012-2013. This is an important finding because it might indicate that a delay has arisen in receiving proper specialized psychological care. Besides a delay, the greater diversification of the time past since receiving the cancer diagnosis might indicate that it is not longer obvious to look for specialized psychological care or that maybe more specific groups are reiving the specialized psychological care. An example of a specific group receiving psycho-oncological care could be cancer patients who do not experience the financial barrier to the psycho-oncological care.

These differences in the time past since receiving the cancer diagnosis might be caused by increasing the own risk and changing the care system by adding the POH-GGZ in 2014 (Ministerie van Volksgezondheid, Welzijn en Sport, 2015), which makes it more difficult to receive the psycho-oncological quickly. Increasing the own risk in 2014 and adding the POH-GGZ (Ministerie van Volksgezondheid, Welzijn en Sport, 2015) might be one of the reasons why the time past since receiving the cancer diagnosis is significantly increased in 2014-2015. According to Visser (2015) and Schrader (2015) clients remain with the POH-GGZ because of financial reasons, a reference to the basic of specialized GGZ goes together with more costs. For many clients, a reference to a psychologist in the basic or specialized GGZ is not covered in their health insurance, and/or a client has to pay his or her own risk. Because the care provided by the POH-GGZ is free for everyone and does not affect the own risk, clients remain with the POH-GGZ (Schrader, 2015). For the health insurance companies, this effect is favourable because the care given by the POH-GGZ is more profitable for them (Schrader, 2015). But a risk of having clients remaining with the POH-GGZ is that clients who need more specialized care are not referred, causing a delay in receiving the appropriate care (Schrader, 2015). In the case of cancer patients and their relatives, the increase in the months having cancer can therefore be explained by the fact that people first go to the POH-GGZ and it takes longer to start looking for more specialized care or are receiving a reference to a healthcare institution proving more specialized care, for example *De Vruchtenburg*.

A second factor that might have influenced the increase in months having cancer in clients visiting *De Vruchtenburg* in 2014-2015 can be found in the importance of having a DSM-IV diagnosis. Since the introduction of the basic and specialized GGZ in 2014, clients need a psychiatric diagnosis from the DSM-IV to receive care in the basic or specialized GGZ (UMC Utrecht, 2015). But since 2014, many DSM-IV diagnoses corresponding to the psychological problems of many cancer patients and/or their relatives, such as adjustment disorder, relationship disorders, sexual disorders and work disorders, are nog longer covered by the health care insurance (UMC Utrecht, 2015). The fact that these DSM-IV diagnoses are no longer covered, might have contributed to the increase in months having cancer because it might be the case that the psychological problems of cancer patients and/or their relatives first have to become more severe before they can be referred to the basic or specialized GGZ.

Based on the two factors named before (adding the POH-GGZ to the care system and the need of a DSM-IV diagnosis), it might be expected that the overall number of clients visiting *De Vruchtenburg* decreased because it became harder to receive specialized care since 2014. This expected decrease is seen in the number of clients reiving therapy at *De Vruchtenburg*. In 2012-2013 2202 clients received therapy compared to 1639 clients in 2014-2015. These number can indicate that it indeed became harder to receive specialized care and that there are groups of clients who are no longer able to receive the psycho-oncological care.

4.2 Treatment Evaluation

The present study shows that clients receiving therapy at *De Vruchtenburg* in 2014-2015 give a poorer treatment evaluation for the subscales ‘Information and Participation’ and ‘Counselling Evaluation’ as clients in 2012-2013 did. These results show that clients visiting *De Vruchtenburg* in 2014-2015 are less positive about the information given about the therapy and their participation in this process, and about the counselling (e.g. poorer evaluation of therapist expertise and involvement). But the perceived treatment effectiveness and the overall grade given for the therapy did not differ. In the three most often followed therapies, only clients following individual therapy differed on treatment evaluation between 2012-2013 and 2014-2015. Clients following individual therapy in 2014-2015 are less satisfied with the information given about the therapy and their participation in this process and the counselling, and are less positive about the perceived treatment effectiveness. The overall grade given for the therapy by clients following individual therapy did not differ.

There are two aspects of the results found that are remarkable regarding the treatment evaluation. The first remarkable aspect is that clients are less positive about the information given about the information and participation, and counselling in 2014-2015, but do not evaluate the therapy as less effective. The second aspect is that the diversification of the scores given by clients in 2014-2015 became greater, which indicates that clients are less agree with each other than clients in 2012-2013 about the evaluation of the treatment.

There could be multiple reasons why clients are less satisfied with two aspects of the treatment evaluation. A first possible explanation might be that clients are not familiar with how the new care system for the psychological care works. For example, clients might not know that the DSM-IV diagnosis given by the psychologist has to be checked by the main therapist and that they therefore have to tell their story again to the main therapist. This might cause that clients have the feeling that the psychologist underestimated their psychological complaints, which might negatively influence the evaluation of the information and participation and the counselling evaluation. This feeling does not have to affect the other aspects treatment of the treatment evaluation because independently of the information, participation and counselling, the actual treatment can still be good and thereby be evaluated well. A second explanation of the results found might be that there are processes changed in the organization of *De Vruchtenburg* which negatively affect the evaluation of the information and participation, and the counselling. For example, it might be the case that the therapists receive less time for doing an intake, in which the information about the treatment is provided, in 2014-2015 compared to 2012-2013, which causes a more negative evaluation of the provided information about the treatment and the participation in the process of choosing a treatment.

Besides the poorer evaluation of the information and participation, and the counselling in 2014-2015, there was greater diversification found in the scores given by clients. Which indicates that clients in 2014-2015 are less agree with each other than clients in 2012-2013 or that different groups are visiting *De Vruchtenburg*. There were more women and more relatives receiving psychological care at *De Vruchtenburg* in 2014-2015, and the clients were in general longer diagnosed with cancer and received an unknown diagnosis more often. Which might indicate that a different group is making use of the care provided by *De Vruchtenburg* and thereby it could be plausible that this difference caused the poorer evaluation of the two treatment evaluation aspects.

Prior to the examining the effects of the changes in health insurance and legislation on the HRQOL, it was expected that because of the higher barrier to the psycho-oncological care and the changes in legislation, the HRQOL scores given by clients would be lower in 2014-2015. This was expected because the clients with less severe psychological complaints, and thereby a higher HRQOL, will receive treatment from the POH-GGZ and are not referred to *De Vruchtenburg*. But in the present study, no difference in the HRQOL scores given by clients in 2012-2013 and 2014-2015 was found. This finding might indicate that the severity of the psychological problems of the group visiting *De Vruchtenburg* has not changed. Which might indicate that the changes in health insurance and legislation do not affect the severity of psychological problems of clients visiting *De Vruchtenburg*.

4.3 Limitations and Strengths

The present study has both limitations and strengths. The first limitation of the present study is that the assumption of homogeneity of covariance matrices was violated, which is decreasing the power of the present study. But because of the equal cell sizes and large number of participants, the results could be interpreted carefully. A second limitation is that the data gathered is only subjective since only self-report data was used. Self-report data could have the disadvantage of being more erroneous because of the measurement error and the possibility of conscious bias (Schoeller, 1995). An example of conscious bias is that the clients who filled in the questionnaire filled in the questionnaire more positive or negative than the reality. The third limitation of the study is that there was no data available about the clients visiting *De Vruchtenburg* in 2011 and about the severity of the psychological problems when starting with therapy. Having the data of clients visiting *De Vruchtenburg* in 2011 would be a valuable addition to the present study because in 2011 is was relatively easy to receive the psycho-oncological care needed. Thereby, the effects of the changes in health insurance and legislation made in 2012 and 2014 could be studied better. Besides that, having the data about the severity of the psychological problems would also have made the study stronger. If this data would have been available, the effect of removing DSM-IV diagnoses from the covered mental health care could have been studied better because changes in the severity of the psychological problems could have been studied. The final limitation of the present has to do with the measurement of the HRQOL. In the present study there was only one measure of HRQOL, and it would have been better if there would have been a measurement of HRQOL before starting with the therapy. In this way, the objective and perceived effectiveness of the therapy could have been compared with each other.

Besides the limitations named above, the present study also has strengths. The first strength is the number of respondents. In both groups of years there were many respondents, which is increasing the power and generalizability of the study. Because of the large number of respondents, it might be possible that the results found in the present study are generalizable for other cancer patients and their relatives receiving psycho-oncological care in the Netherlands. A second strength is using the significant differences in the inflow of clients between the years 2012-2013 and 2014-2015 as covariates when examining the possible differences in treatment evaluation between the years 2012-2013 and 2014-2015. Using these significant differences as covariates is a strength of the study because the differences found in the treatment evaluation are corrected for the possible effect of the covariates.

4.4 Scientific and Practical Significance

The results found in the present study are of scientific interest because they provide more insight in the possible effects of the changes in health insurance and legislation in the Netherlands for the psycho-oncological care, which was not studied before, and because based on the present study recommendations for further research can be made.

There are three recommendations for further research. First, a study in which the decrease in clients receiving therapy at *De Vruchtenburg* will be examined to see which groups of clients experience difficulties in receiving psycho-oncological care would be recommended. A second recommendation would be a study which examines the DSM-IV diagnosis given over the past years at institutions providing psycho-oncological care to cancer patients and/or their relatives. This would give more insight in how the psychologist react to the changes made in the health insurance and legislation. The final recommendation would be to further investigate the timeline in which cancer patients and relatives first visit the POH-GGZ or general practitioner with their psychological complaints until the moment they receive more specialized care, for example at *De Vruchtenburg*. Investigating this process could give more insight in why the there is an increase found in the number of months having cancer in 2014-2015.

The results found in the present study are of practical significance because they can be used for improving the psycho-oncological care for cancer patients and their relatives. The present study found that a different group is receiving therapy at *De Vruchtenburg* in 2014-2015 compared to 2012-2013. Clients were more often women and/or a relative, were older, were longer diagnosed with cancer and more often had received an unknown prognosis regarding their cancer. The other main result was that the clients gave a poorer evaluation about the provided information, the participation possibilities in the process of choosing a treatment, and the therapists. Both findings might be caused by the changes in the health insurance and legislation. Especially adding the POH-GGZ to the care system, the need of a DSM-IV diagnosis get the psycho-oncological care reimbursed, and adding a check of the given DSM-IV diagnoses seem to be important. These changes might have also caused the decrease in clients receiving therapy at *De Vruchtenburg*.

Based on these findings, one recommendation for improving the psycho-oncological care would be making the psycho-oncological care easier accessible for both cancer patients and relatives. One way in which this could be achieved is by reimbursing the psycho-oncological care again when a cancer patient of relative is suffering from adjustment disorder. By undoing this change in the legislation, cancer patients and relatives are better able to receive the psycho-oncological care they need, without receiving a more severe diagnosis or paying for the care themselves. This vision is shared with for example the government of the Netherlands. The government is nowadays admitting that the psychological care for patients is important, and they would like to have adaptations in the guidelines for the psychological care for patients (NOS, 2016). Besides that, the government of the Netherlands would also like to see that the psycho-social care will be more integrated in the medical care (NOS, 2016). A second recommendation to improve to psycho-oncological care would be adjusting the care to the new group visiting *De Vruchtenburg*, with thereby a focus on providing information about the therapy, and more involvement in the decision process about which therapy will be followed, and the manner of counselling (for example make sure that the therapists are trustworthy enough and provide enough structure to the therapy).

References

Alacacioglu, A., Tarhan, O., Alacacioglu, I., Dirican, A., & Yilmaz, U. (2013). Depression and anxiety in cancer patients and their relatives. *J BUON*, *18*(3), 767-774.

Baker, F., Denniston, M., Smith, T., & West, M. M. (2005). Adult cancer survivors: how are they faring? *Cancer*, *104*(S11), 2565-2576.

Bisegger, C., Cloetta, B., von Bisegger, U., Abel, T., & Ravens-Sieberer, U. (2005). Health-related quality of life: gender differences in childhood and adolescence. *Sozial- und Präventivmedizin*, *50*(5), 281-291. doi: 10.1007/s00038-005-4094-2

Boyer, B. A., & Paharia, M. I. (Eds.). (2008). *Comprehensive Handbook of Clinical Health Psychology*. John Wiley & Sons.

Brown, L. F., Kroenke, K., Theobald, D. E., Wu, J., & Tu, W. (2010). The association of depression and anxiety with health-related quality of life in cancer patients with depression and/or pain. *Psycho-Oncology*, *19*(7), 734-741.

Cella, D., & Stone, A. A. (2015). Health-related quality of life measurement in oncology: Advances and opportunities. *American Psychologist*, *70*(2), 175-185. doi:10.1037/a0037821

Cheng, K. K., & Lee, D. T. (2011). Effects of pain, fatigue, insomnia, and mood disturbance on functional status and quality of life of elderly patients with cancer. *Critical Reviews in Oncology/Hematolog*y, *78*(2), 127-137.

Cutler, D. M., & Lleras-Muney, A. (2006). Education and health: evaluating theories and evidence (No. w12352). *National Bureau of Economic Research*.

Dinkel, A., Kremsreiter, K., Marten-Mittag, B., & Lahmann, C. (2014). Comorbidity of fear of progression and anxiety disorders in cancer patients. *General Hospital Psychiatry*, *36*(6), 613-619.

Duncan, G. J., Daly, M. C., McDonough, P., & Williams, D. R. (2002). Optimal indicators of socioeconomic status for health research. *American Journal of Public Health*, *92*(7), 1151-1157.

Flied, A. (2013). *Discovering Statistics Using IBM SPSS Statistics: and Sex and Drugs and Rock'n'Roll*. London: SAGE.

Garssen, B., Van der Lee, M., Van der Pol, A., Ranchor, A., Sanderman, R., & Schroevers, M. (2011). Psycho-oncologie Helpt: Evaluatie Van Gespecialiseerde Psycho-oncologische Zorg in Nederland. *Instellingen Psycho-Sociale Oncologie*.

Girgis, A., Lambert, S., Johnson, C., Waller, A., & Currow, D. (2013). Physical, psychosocial, relationship, and economic burden of caring for people with cancer: a review. *Journal of Oncology Practice*, *9*(4), 197-202.

Hagedoorn, M., Kreicbergs, U., & Appel, C. (2011). Coping with cancer: The perspective of patients' relatives. *Acta Oncologica*, *50*(2), 205-211.

Inloophuizen en Psycho-Oncologische Centra Samenwerking en Ondersteuning (n.d.). Zorg en Ondersteuning Bij Kanker. Retrieved from http://www.ipso.nl/over-ipso/zorg-en-ondersteuning-bij-kanker on 27-12-2015.

Kaiser, N. C., Hartoonian, N., & Owen, J. E. (2010). Toward a cancer-specific model of psychological distress: population data from the 2003–2005 National Health Interview Surveys. *Journal of Cancer Survivorship*, *4*(4), 291-302.

Koch, L., Jansen, L., Brenner, H., & Arndt, V. (2013). Fear of recurrence and disease progression in long-term (≥ 5 years) cancer survivors—a systematic review of quantitative studies. *Psycho-Oncology*, *22*(1), 1-11.

Linden, W., Vodermaier, A., MacKenzie, R., & Greig, D. (2012). Anxiety and depression after cancer diagnosis: Prevalence rates by cancer type, gender, and age. *Journal of Affective Disorders*, *141*(2), 343-351.

Ministerie van Volksgezondheid, Welzijn en Sport (2012). Monitor Effecten Eigen Bijdrage GGZ. Retrieved from: https://zoek.officielebekendmakingen.nl/blg-186533.pdf on 10-01-2016.

Ministerie van Volksgezondheid, Welzijn en Sport (2015). Psychosociale Zorg bij Ingrijpende Somatische Aandoeningen. Retrieved from http://www.nvpo.nl/wp-content/uploads/2015/10/psychosociale-zorg-bij-somatische-aandoeningen.pdf on 27-12-2015.

Mitchell, A. J., Chan, M., Bhatti, H., Halton, M., Grassi, L., Johansen, C., & Meader, N. (2011). Prevalence of depression, anxiety, and adjustment disorder in oncological, haematological, and palliative-care settings: a meta-analysis of 94 interview-based studies. *The Lancet Oncology*, *12*(2), 160-174.

Nagtegaal, T., Kooij, A., & Lammers, C. (2012). Miljoenenbezuinigingen in de GGZ treft zorg voor kankerpatienten. *Psychosociale Oncologie*, *20*(1), 14-15.

NOS (2016). Coalitie wil meer aandacht voor psychische problemen bij ernstige ziekte. Retrieved from http://nos.nl/artikel/2111399-coalitie-wil-meer-aandacht-voor-psychische-problemen-bij-ernstige-ziekte.html on 25-06-2016.

Pitceathly, C., & Maguire, P. (2003). The psychological impact of cancer on patients' partners and other key relatives: a review. *European Journal of Cancer*, *39*(11), 1517-1524.

Schoeller, D. A. (1995). Limitations in the assessment of dietary energy intake by self-report. *Metabolism, 44*, 18-22.

Schrader, W. (2015). Lasten en risico's van wijzigingen GGZ-zorg. *Huisarts en Wetenschap*, *58*(3), 141-141.

Simard, S., Savard, J., & Ivers, H. (2010). Fear of cancer recurrence: specific profiles and nature of intrusive thoughts. *Journal of Cancer Survivorship*, *4*(4), 361-371.

UMC Utrecht (2015). Visie Psychosociale Oncologische Zorg op Maat: Kansen en Knelpunten. Retrieved from: https://www.umcutrecht.nl/nl/Ziekenhuis/Afdelingen/Cancer-Center/Patientenparticipatie/Visie-PSOZ-op-maat-2015.aspx on 27-12-2015.

Valdes-Stauber, J., Vietz, E., & Kilian, R. (2013). The impact of clinical conditions and social factors on the psychological distress of cancer patients: an explorative study at a consultation and liaison service in a rural general hospital. *BMC psychiatry*, *13*(1), 226.

Visser, S. (2015). Generalistische basis GGZ. *Psychopraktijk*, *7*(6), 1-1.

Volksgezondheidenzorg.info (2015). Kanker. Retrieved from https://www.volksgezondheidenzorg.info/onderwerp/kanker on 27-12-2015.

Vruchtenburg (n.d.). Missie en Visie. Retrieved from http://www.devruchtenburg.nl/visie-en-missie on 27-12-2015.

Vruchtenburg (n.d.). Psychologische Zorg Bij De Vruchtenburg. Retrieved from http://www.devruchtenburg.nl/begeleiding-bij-de-vruchtenburg on 27-12-2015.

Vruchtenburg (n.d.). Voor Verwijzers. Retrieved from http://www.devruchtenburg.nl/voor-zorgverleners/ on 27-12-2015.

World Health Organization (2016). Cancer Fact Sheet. Retrieved from http://who.int/mediacentre/factsheets/fs297/en/ on 27-12-2015.

World Health Organization (2016). Cancer. Retrieved from http://who.int/cancer/en/ on 27-12-2015.

Zabora, J., BrintzenhofeSzoc, K., Curbow, B., Hooker, C., & Piantadosi, S. (2001). The prevalence of psychological distress by cancer site. *Psycho-Oncology*, *10*(1), 19-28.

Zorg Instituut Nederland (n.d.). Huisartsenzorg. Retrieved from https://www.zorginstituutnederland.nl/pakket/zvw-kompas/huisartsenzorg on 27-12-2015.