Effects of care farms
Scientific research on the benefits of care farms for clients
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Does care farming help?

During their stay on a care farm, older people with dementia have a better nutritional status and take more fluids. Also, young people with difficulties show less behavioural problems after their stay on a farm. In some way, we are not surprised that living and working on a farm where there is fresh air, physical work and personal attention benefits people. We can say that care and agriculture did not meet each other by coincidence. Centuries ago, this was already the case. If we look at the European context, we see that the number of so-called ‘care farms’ are growing rapidly. For example, in the Netherlands, we see that the number of care farms now exceeds 1,000, and that the number of clients working or living on those farms is around 15,000. The development in the Netherlands is connected to other developments in the health and welfare sector, like a more active role in the daily life for people with disabilities - creating a living and working situation which empowers people and gives them the ability to participate in society.

Alongside the development of care farms in Europe, we see a broader evolution of activities that have a link with green care. And furthermore, a development of concepts and activities related to multifunctional agriculture - such as urban agriculture. Multifunctionality and civic engagement have given greater visibility to farming and have created opportunities for enhanced rural-urban interaction.

Recent study results
But what exactly are the effects of working or living on a care farm? Can we prove the influence on health and quality of life of people that stay on a farm? The scientific research on the effects of care farms is still at a relatively early stage particularly when compared to research conducted on interventions like cognitive behavioural therapy. However, the first insights into the effects of green care are emerging.

This report gives an overview of the recent scientific research on the effects of care farming. Some of the studies presented are more general, others look at the effects on specific client groups such as older people with dementia, young people with behavioural problems or people with a history of drug addiction.

It is important to have more evidence of the effects of care farming. Firstly, to prove that health care budgets are spent in a proper way. Secondly, to give clients more insight into the possibilities of having care or work on a farm. Lastly with the results of the research, the care farming sector can develop and professionalise.

This report was originally written for a Dutch audience. Because of questions and interest from other countries, it has been translated into English. Therefore, this report will often refer to the care farming sector and the context in the Netherlands.
Care farms are enterprises where farming and healthcare are being combined. These farms open their gates for people that need the care of a sheltered workplace in a natural environment.

1. Care farming

We see that the number of care farms in Europe is growing. As previously mentioned, the number of care farms in the Netherlands has grown to over 1,000. Also, in other European countries such as Norway, Italy, Belgium and the UK, we see a growth in the number of care farms.

‘The’ care farm does not exist. Most care farms come into being when an agrarian enterprise develops itself into a care farm. There are also care farms that start as a gardening project within a care institution. In the Netherlands, we see a number of care farms have grown into fully-fledged, certified health care institutions. The number of participants that take advantage of care on a farm differs. On some farms two participants will work with the farmer two days a week, on other care farms forty participants will find a suitable day-activity.

Care for different client groups

Care farms direct their services towards many different client groups from the health-care and welfare sector, such as people with learning difficulties, people with psychological problems or older people. In addition some care farms will take in people with addiction problems who, after finishing their ‘detox’ in a clinic, go working on a farm. Participants come to the farm for day-activity, a sheltered work project, therapy or a place to live. The people who participate, often have diverse reasons why, temporarily, they cannot participate in the regular workforce, or why they require respite care. An example of respite care provision are farms that give care to disabled children at the weekends. This gives the parents the opportunity to pay more attention to their other children or to do something else. The stay and work on the farm often has as a goal to repair participants’ self-sufficiency and to help them realize a dream of participating in society or the normal workforce.

Care farms differ from one another not only in the client group they provide care for, but also in their staff. Depending on the client group, the number of participants and the type of care farm, the guidance is in the hands of the farmer, the farmer’s wife, hired agriculture or care professionals, care professionals who come along from the care institution or volunteers. Many participants who come to a farm use their personal health budget to reimburse the care provided. (see textbox).

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1.1 A short history on the emergence of the care farming sector

Utilizing nature or agriculture in caring for people is historical. We know that in the Middle Ages prisons, hospitals and monasteries often had different areas which we would now classify as a ‘therapeutic outside spaces’. One of the oldest and most famous care farming programmes was founded around 1350 in Gheel, Flanders (Roosen, 2007). In a rural environment, care was offered to people who needed it. They worked alongside families from the village as part of a daily routine and structure, in which agricultural activities were paramount. The programme in Gheel is one of the first examples of what we would now call a therapeutic living and working community. To this day people with (learning) disabilities can seek refuge there.

In the previous century during the forties, more and more therapeutic living and working communities were founded, where nature was considered an important element in the therapy. In Ireland and the UK especially, these therapeutic communities caught on quickly through the influence of the Camphill movement.

1 Camphill is an heilvpedagogical movement that was founded in 1939 and has an anthroposophical basis. The Camphill communities offer mentally as well as physically challenged people the opportunity to live and work together with care providers and their families.
In the UK during the fifties and sixties, many horticultural projects were also founded aimed at people with disabilities. In these projects, mentors and therapists offer gardening as a specific day activity.

The Netherlands also saw the foundation of therapeutic communities where people with personality disorders received shelter and support. These communities often started out as a small-scale project with clear ideals and were. They were usually founded in protest at the giant care institutions (Ketelaars, 2001).

In the fifties and sixties, attitudes changed regarding patients in care facilities such as psychiatric hospitals working in the management of gardens and farms. It was considered unreasonable to let them take part in these activities without being paid and as a result many projects disappeared.

Recent developments
In recent years, interest in the relationship between nature, green environments and health has grown once more. According to some, this is partly to be credited to research done by the American researcher Robert Ulrich who discovered that patients recovering from an operation in a hospital with a view onto nature would recover more quickly when compared to patients whose view was limited to a stone wall (Ulrich, 1984).

The amount of farmers’ businesses that combine agriculture with care in the Netherlands has increased dramatically in the last decade. The estimated turnover of the sector lay at almost 50 million euro in 2008 (Roest et al., 2009).

Due to the strong growth in the sector, a need arose for it to professionalise itself.

As such, care farms have united in regional co-operative relationships. Some of these different regional unions have their own AWBZ-certificate. In 2009, some care farming cooperatives founded the Federation of Dutch Care Farmers. This federation represents the interests of the care farmers and took over the products and services formerly provided by the National Support-centre for Agriculture & Care that was founded in 1999 and received funding from both the ministries of Agriculture and of Healthcare.

The care sector is connected to the Federation of Dutch Care Farmers by way of the Council of Advice. In this council, healthcare insurance companies, client and consumer organisations and the ministry of Healthcare are represented.

A lot of attention has also come for ensuring the quality of the care services that the farms offer. In 2000, a quality system was put in place by the then Support-centre, that then was tightened on multiple occasions. In the last revision that took place in the beginning of 2011, a lot of emphasis was put on the opinions of the client and on the question as to what extent the care farm fits into his or her needs. How satisfied they are with their daycare or work, own roles and tasks on the farm? In order to measure the customer satisfaction structurally and to use the information for improving the quality of care, there is also a quality handbook and a customer satisfaction system initiated for care farms which are connected to the Federation.

In addition, there is also independent research in progress investigating the phenomenon of care farms and into the experiences of the care that they offer to different client groups. The following chapters give an idea of the results of these studies.

**Literature**


Green care: cure, care and health promotion in a natural environment

Offering care on farms is one of the forms of green care. Green care is the umbrella term for activities that relate to health promotion or care interventions in a natural environment. It can be about providing care on a farm for people suffering from addiction, but it can also include wilderness therapy for young people or facilitated walks for people suffering with depression. We use this term here because research has been done into multiple forms of green care activities. The mechanisms behind these different activities, that are responsible for their effects, often overlap. That makes those studies of interest for the care farming sector. The results of some of these studies have been included in this report for that reason.

The figure below shows how care farming sits alongside other green care activities. It shows that care farming not only offers care or day activity, but also is represented as an intervention that can contribute to health promotion, therapy and (work)rehabilitation.

In this figure, the researchers clearly show which green care activities there are. Firstly, they make a distinction in activities where participants are present in nature but do not make very active use of natural elements (experiencing natural environment). One example is a group of office workers who during their lunch break go for a walk in the park. By walking in the park, people recover from their work stresses but they do not have direct interaction with nature. The opposite is true for some activities where there is interaction with nature (interacting with natural elements), such as cultivating vegetables in a garden. Working in the garden is then a means for people to develop a work routine.

Participants can also interact with animals. There is a distinction made by the creators of this model between, on the one hand, having the animal as a means for therapeutic purposes, such as in equine therapy. We are then discussing animal-assisted therapy. If on the other hand the aim is to bring a client of a care institution into contact with animals, we are then discussing animal-assisted intervention. An example of this is the ‘pets corner’ in some nursing homes where the elderly can care for or pamper pets.

The figure clearly shows whether an activity makes a contribution to health improvement (health promotion), treatment (therapy) or work rehabilitation. On care farms there are activities present where participants can be both passively and actively involved with nature. These activities can offer a contribution to health promotion, therapy or work rehabilitation of the participants and therefore contribute to their general quality of life.

Literature
1.2 Developments in health-care and welfare sector

The services that care farms offer are consistent with different current developments and changes in the care and welfare sector in the Netherlands. They can be separated into two main trends: the stimulation of care recipients to participate in society; and the stimulation of their ability to stand up for themselves i.e. empowerment.

Stimulating participation in society

Socialization of care

Socialization means that people are stimulated and enabled to participate in society (De Wilde, 2002). The idea to have people with a demand for care remain independent and live among other citizens and have their care and guidance offered nearby, originated in the 1980s. The extramuralisation also came into vogue at that time (i.e. a shift from care provided in institutions to care provided at home). The development to socialize care takes this a step further. It refers to a conscious effort from clients, their friends and family, professionals and the society as a whole, to make space for the people who previously stood outside society (Kal, 2001).

Socialization has special relevance towards people with a mental, physical or psychological disability. The starting point for care is to look at people’s possibilities instead of their limitations. People are addressed as to where their talents lie, what they can do and where they have room for growth. Additionally, disabilities are approached differently because often, people can also learn from their limitations. Increasingly, people that experience(d) having a disability are being utilized. Making use of their own personal expertise has become an important point for many patients, clients and people with a disability (Van Haaster e.a., 2010).

Community care

Community care has as a goal that people with a disability can lead a life that is as normal as possible. They do not only receive support from care providers and care facilities, but also from other parties within society (Bouduin, 2002). The principle of community care is care in the community and care by the community (Kwekkeboom, 2010).

Rehabilitation approach

Rehabilitation is about improving the functioning of the client in different areas of life. That can be achieved by making clients more skilful and adjusting their environment in a way that they are functional with their own ability (Van Weeghel, 1995). Rehabilitation is a movement that aims to create possibilities for chronic psychiatric patients. The goal is to allow the patient to become a full citizen.

Different rehabilitation approaches exist but they each emphasize that the client plays an important role in his or her rehabilitation and that a long term approach is essential. In the last few years an idea has taken hold that rehabilitation programmes should primarily be aimed at strengthening the natural tendency of clients to grow. The approach is then not so much teaching skills or making the environment suitable, as supporting and stimulating the recovery process of the clients themselves (Boevink, 2006). The focus of rehabilitation, aside from areas of life residency and social contact, is mainly on work and useful daily activity from the view that working can have health-giving properties (Van Weeghel, 1995).

Empowerment and self-reliance

Recovery approach

Clients all have their own experiences. These need to direct the actions and interventions of care workers. This is the starting point for the recovery approach. This approach was introduced and developed by clients and consumer organisations in America (Chamberlin, 1997). Clients indicate that hope, empowerment and the deployment and use of their own experiences are key terms for their recovery and through recovery self-reliance.

In the late nineties, this concept was introduced into the Netherlands (Boevink e.a., 2006; Deegan, 2001). Interest in the approach increased greatly over the years. This was caused, in part, by the activities of the team Herstel-Dparenwerk-Empowerment-Ervaringsdeskundigheid (Recovery-Empowerment-Experience), the HEE-team. The HEE-team’s goal was supporting people with serious and enduring mental health problems to get themselves out of a position that they experienced as inferior. They learned to speak up for themselves as equals with respect to their aid workers. The HEE-team stimulated further thought inside the mental health sector about recovery oriented care. This form of care focuses on:

- The life story and the experience of the client alongside their medical history
- Strengthening the control and freedom of the clients (empowerment)
- Developing, formalizing and implementing the client’s own effort and experience
- Involving clients in their own care

Boevink (2005) argues that for the recovery of clients, it is important that care workers get to know them in their normal lives. Care workers must not cling to a treatment relationship but pursue a relationship that is aimed at co-operation and equality. Clients report that they find it important that care workers are not prejudiced and listen to them, accept them and are an involved interlocutor. Within the recovery- and empowerment-approach, a number of principles are used to strengthen the client’s own strength, principles such as focusing on integration into society and involvement of that society, to help them use their own power and make their own choices. Also, the recognition that recovery is possible is paramount, just like the recognition of the value of support from the environment and informal networks and the emphasis on the relationship between client and mentor.

1.3 Connecting care provision on farms with trends in health and social care

A care farm offers recipients of care a facility where they can experience essential elements from the previously discussed streams and developments (Hassink, e.a., 2011). Emphasis is laid in a very natural way on empowerment of the participants, on integration into society and support of informal social networks. The starting point on a care farm is the participation in normal work (Hassink, 2009). Participants receive a workplace outside of the regular care system. It is an environment that they experience as less stigmatising. Also, the emphasis is on the possibilities instead of on the limitations of the participant. The focus on the individual and being a part of the lives of the farmer, his family and a broader community, leads to empowerment and to socially embedded care.

Hassink and others (2011) indicate that in the long-term care the emphasis will be on putting the needs of the client as paramount. Care will increasingly have to be connected to the perception of the care recipient. The care offered on farms is often small-scale. This makes it easily possible to observe the individual needs of a participant. In the tasks that are offered to participants, it is the participant’s individual possibilities which are the highest priority.
Literature


2. Effects of care on farms for specific client groups

Over the last few years, various studies have been implemented on the effects of working and living on a care farm on different client groups.

2.1 Children and young people

Increasingly vulnerable young people find help and shelter on care farms. These ‘youth care farms’ offer care to children and young people between the ages of 2 to 18 years old. Some have special programmes in after school hours or weekends for young children with ADHD or with an autistic disorder. Other farms function as a crisis shelter for young people that need to be placed outside of the home environment for a certain period of time. Around this last client group, recent research has been done to map the effects and specific qualities of care farms.

Qualities of care farms for young people with behavioural problems

In co-operation with Wageningen UR, the Platform Jeugdzorgboerderijen (Platform Youth Care Farms) (2010), has researched which qualities of care farms offer support to young people with behavioural problems. These young people are often stuck in the home situation (arguments and aggression, runaway behaviour), school or work (they avoid going to school or work) or have the wrong friends and no positive way to use their leisure time (drugs, criminality).

Clarity and safety

The daily routine on the farm and the quietness of a rural environment, provide structure, clarity and safety to young people. These are required for their positive development. On a farm, structure is naturally in place, whereas in a different (care) environment, structure must be created.

It helps young people to get a handle on their lives again in a safe environment. There is also much less aggression on a farm than inside a school or a facility. There, young people may be in contact with other troubled individuals, which increases the likelihood of conflicts.

Continuity in the treatment

The farmer or the farmer’s partner is always present. When a young person arrives from school, they can share their story about the day. In regular facilities, young people have to deal with frequent changes in the support staff. Staff members have their own norms and values, as well as their own methods and ideas. This can be difficult for young people who are looking for clarity and stability.
Role model
The farmer can set an example for young people who are having trouble with their identity. In general, the farmer is proud of his business and what he has achieved. The farm life is his or her identity. This shows on the farmer. The farmer is a professional from whom young people can learn. Experience tells us that Moroccan youth that find a place to work on the farm, acknowledge the farmer’s authority more easily than they would with a youth care workers (Hassink, e.a., 2011).

The farm family members can also serve as role models. Youth care workers mention the importance of this family for the young person (Platform Jeugdzorgboerderijen, 2010). The young people themselves have indicated that they appreciate the contact with the farm family.

Involvement and responsibility
On the farm, the young person works together with the farmer. He or she is also part of the life of the farm family. This creates an atmosphere of equality. Through this co-operation and in some cases co-habitation too, the farmer and the young person are able to build a personal relationship.

Youth care farmers indicate that they find it normal to talk about their own lives and experience while working. In facilities, warnings are given about this: a relationship that is too personal is not professional and can lead to disappointment. Farmers indicate that they have the freedom to conduct matters in their own way, and therefore some of them dare to take more risks. They can explore the limits of the young people, which can stimulate their sense of responsibility.

From earlier research in youth care, it is evident that the attention of care workers - listening, being taken seriously, open and honest treatment, trust and doing normal things together - are very important to them (Meerdink, 1998).

Emphasis on what young people can do
The farmer usually doesn’t focus on the problem the young person has, but looks mostly at what he or she can contribute. This creates positive attention. Young people themselves feel like they are given the role of an employee on the farm, rather than that of a client. They can discover their qualities and utilise them.

Learning in real life
On a farm, no artificial situations have to be created for the young people in order to learn something. Youth care workers point out that a farm is part of real life. Dissatisfied young people who are alienated from society, can experience involvement again on the farm. Going ‘back to basics’ is a good alternative to alienation. The farm is also an environment full of life processes (births and deaths of animals, the cycle of the seasons, nurturing plants and animals) that can give young people insight into their own lives.

Affiliation to interests
Young people who drop out of school, often find the lessons at school too abstract. Attending animals and plants on the farm is very practical. It is clear why it needs to be done and animals react immediately. This stimulates a sense of responsibility. Young people often need an environment that is ‘unfinished’, where they can fill in the blanks for themselves. The farm offers this environment, which allows them also to use their own creativity. Boys find it especially fun to ‘tinker with things’ or doing artisan work. On the farm it often goes without saying there is space for this kind of activities.

Outside of their own environment
An advantage of staying on a farm is that it is often literally and figuratively far removed from the environment where the young people are from and where they got into trouble. Therefore, they are less tempted to ‘take the wrong turn again’.

Effect study on individual combined study-work programmes on farms for troubled young people between the ages of 16 and 20
Together with different organisations for youth care, Jan Hassink of Platform Research International (Wageningen UR) together with Praktikon (Radboud University) have researched the effects and benefits of care farms for troubled young people. One of the studies was performed by Topaze, a youth care provider in Schijndel, the Netherlands. Topaze offers young people individual work-and-stay programmes on a farm. These focus on learning through experience. On a yearly basis, around 25 young people are placed on 25 farms. In the last five years, roughly 100 young people have finished a work-and-stay programme on a farm. When they start, almost all of them have poor contact with their parents; often they have no daytime activity in the form of school or work and no useful leisure activity. They show behavioural problems, use drugs and have contact with the police. Their self-confidence is marginal.

The young people participating in the programme live in a residential unit on the farm, which is to be maintained by themselves, and they help with farm work. The young person eats a cooked meal with the farm family and lives on his or her own for the rest of the time. The programme takes one year, half of which is spent on the farm and the other half is spent in a post-support programme, during which the young people in most cases lives at home. Both the young people and their parents receive distance support.

Of the more than 100 young people who were signed up for the programme in 2009, 69% completed it as planned, 19% stopped prematurely and 13% decided ultimately not to start it. The young people who completed the programme were mainly boys (89%) and of Dutch nationality (90%).

The study investigated whether participating young people themselves saw improvements in the characteristic aspects of ‘learning through experience’: their daily functioning, self-appreciation and self-determination, the self-perceived behavioural problems, how they handle problems, stressful events and intense thoughts or feelings. The care workers from Topaze reported how the young people scored on contact with their own families, participation in school or work, their residence, contact with the police, debts, use of leisure time, alcohol and drug use, wellbeing, behavioural problems and self-worth.

The questionnaires were completed at the beginning and end of the farm programme, and at the end of the follow up programme. Control group data was used as a reference.

Results

> Reduction in behavioural problems
From the questionnaires that the young people themselves completed, it is evident that the farm programme has a positive effect on their behavioural problems and self-respect (table 1). These positive effects remain visible a year after finishing the farm programme. The effects on dealing with problems (coping behaviour) are minor.

Table 1. Changes after experiential learning on the youth care farm (percentage of young people with those problems)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internalisation</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>Externalisation</td>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>Self-respect</td>
<td>27</td>
<td>4</td>
</tr>
</tbody>
</table>

1 Internalising behaviour is behaviour focusing inward, expressing itself as anxiety, depression, withdrawal and physical manifestations.
2 Externalising behaviour is outward focused behaviour, such as aggression, rebellion, insubordination and rage.
Both the young people who follow an individual work-and-stay programme and those who receive temporary shelter on the farm, show a reduction in behavioural problems. The programme also leads to an improvement in the young people’s contact with their own family, their self-esteem and their wellbeing. In many situations, school performance improves or the young person is more likely to re-engage in school or work. For the older participants we see a strong decrease in substance abuse.

Employees from Topaze indicate that the farm programme causes marked improvements in contact with the family, school absence or work, police contact, use of drugs, use of leisure time, wellbeing, behavioural problems and self-confidence (table 2). After the follow up programme, these improvements normalise somewhat, but the percentage of young people who use drugs, come in contact with the police or experience behavioural problems, is significantly lower than at the start of the programme (table 2).

Table 2. Changes per performance-indicator (%)

<table>
<thead>
<tr>
<th>Performance-Indicator</th>
<th>Start %</th>
<th>Finish %</th>
<th>Follow up programme %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good contact with father</td>
<td>12</td>
<td>58</td>
<td>73</td>
</tr>
<tr>
<td>Good contact with mother</td>
<td>33</td>
<td>83</td>
<td>81</td>
</tr>
<tr>
<td>Daytime activity</td>
<td>14</td>
<td>85</td>
<td>77</td>
</tr>
<tr>
<td>Good use of leisure time</td>
<td>5</td>
<td>51</td>
<td>58</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>16</td>
<td>80</td>
<td>81</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>9</td>
<td>83</td>
<td>81</td>
</tr>
<tr>
<td>No police contact</td>
<td>22</td>
<td>95</td>
<td>81</td>
</tr>
<tr>
<td>No drugs</td>
<td>12</td>
<td>80</td>
<td>50</td>
</tr>
<tr>
<td>No behavioural problems</td>
<td>3</td>
<td>52</td>
<td>46</td>
</tr>
</tbody>
</table>

> Less aggression and conflicts
Young people report that on the farm they experience less stimulation and less aggression compared to a traditional (care) facility or at school. Also, there are fewer conflicts. In regular facilities, they mostly have contact with other young people who also have difficulties, so the chances of conflicts arising are greater.

> Respite care and prevention
Due to the accessible shelter provided by the farm, the need for more intensive care at a later stage can be prevented. With juveniles that receive day- weekend- or guest shelter, there is also mention of powerful unburdening of the home situation (Platform Youth Care Farms, 2010).

Literature
Nature and children with ADHD

An American study by Nancy Wells (Cornell University, 2000) has explored the relationship between nature and the prevention of ADHD in children. Children from 7 to 12 years old that moved to a greener environment as part of a programme, appeared to display fewer ADHD-symptoms after the relocation. In a different study, researchers performed an experiment with children diagnosed with AD(H)D in the same age group. They went for accompanied walks of twenty minutes in three different environments: a natural environment (city park) and two urban environments (inner-city and residential area). After each walk, an attention test was conducted. The results showed that the children could remember more numbers after walking through the park than after the walk through the inner-city or residential area (Faber, Taylor & Kuo, 2008). It must be said that all of the above mentioned studies have methodological shortcomings, therefore, the correlation between nature and AD(H)D should be treated with a degree of caution.

The research study ‘Nature as a therapy for ADHD’ (Van den Berg, 2011) also concludes that for children with AD(H)D, a natural environment is especially good for performing ‘difficult’ cognitive tasks that call on their ability to oversee and plan their work. A green environment is not the ultimate remedy, but can have a positive effect on certain aspects of their behaviour and wellbeing.

Literature


2.2 People suffering from psychological ill health and those suffering from drug and alcohol addiction

People with psychological or addiction problems attend care farms for different reasons. In many cases, they work on a care farm to have a useful occupation and by doing so add structure and routine to their week. Often, this daytime activity has as an underlying goal, such as resocialisation, rehabilitation or recovery. Some participants in this client group work on the farm as part of a labour integration programme whereby the ultimate goal is finding (regular) work. In this representation of research results regarding care on farms, people from psychiatric and addiction care are treated as one group. Research into the effects of care farms so far has mainly treated participants as a single group, without making any further distinction. Research shows that around 70% of the participants from the addiction care also have signs of psychological problems, i.e. a double diagnosis.

Qualities of care farms for people in psychiatric and addiction care

Plant Research International (Wageningen UR) in collaboration with the Trimbos Institute has studied which qualities on the care farm are important for people with psychological or addiction problems (2011). Wageningen UR conducted a comparable study jointly with the Louis Bolk Institute. In both studies, the researchers asked participants in focus groups or in-depth interviews to try a range of activities. It helps them to reflect on what interests and qualities they have.

For both the people in psychiatric as well as addiction care, the farm is a safe environment to integrate programme whereby the ultimate goal is finding (regular) work. In a quasi-experimental research study, she followed participants of both groups throughout one year. They filled out a questionnaire at the start of their engagement on a care farm or work project and at the end of the year. They also filled out a questionnaire containing the Addiction Severity Index (ASI) on two occasions.

Participants indicate that it is pleasant to be part of a community: the farm family, the care workers and their colleagues on the farm. They practice developing social contacts. Additionally, on the farm they not only come in contact with people who share the same fate, but also with very different people that attend or visit the farm.

Small-scale

Addiction care workers report that, in their experience, participants tend to show off in larger groups. This behaviour often leads to aggression or use of inappropriate language. On care farms, the groups are often small, which leads to such behaviour being less common. Care workers also report that the jobs on the farm foster a ‘we’-feeling, the feeling of accomplishing something together.

Attitude of the farmer and care workers

The appreciation that the farmer and care workers give to participants causes them to feel welcome and increases their self-confidence. This appreciation is intensified by the farmer opening his enterprise to them. They are welcome and accepted just as they are. This acceptance by ‘normal’ people is valued greatly by the participants.

Effect study on participants from psychiatric and addiction care working on care farms

In an effect study of people with a background of psychiatric and/or addiction care working on care farms, Marjolein Elings (2011) followed participants on care farms as well as other day care and work projects for this client group. The hypothesis of this researcher was that social functioning, the quality of life and the nutrition pattern of participants on care farms would improve and increase in comparison to participants of other work projects.

In a quasi-experimental research study, she followed participants of both groups throughout one year. They filled out a questionnaire at the start of their engagement on a care farm or work project.
A total of 149 participants completed the baseline questionnaire, 113 of whom worked on a care farm and 35 from other work projects. The second questionnaire, after half a year, was completed by 28 participants, with the majority of 21 participants from care farms and the remaining 7 from other work projects. The last questionnaire, after a year, was completed by 26 participants, with the majority of 21 participants from care farms and 14 from other work projects. The last questionnaire, after a year, was completed by 26 participants, with the majority of 21 participants from care farms and the remaining 7 from other work projects.

Quantitative results
>
> Quality of life
At the start of working on a care farm or work project, the scores of participants of both groups on the quality of life and social and psychological functioning were roughly the same. During the year that they were followed, neither the care farm participants nor the participants of other work projects showed any significant progress or regress in the different domains. No differences were found between the two groups. However, participants used addictive substances less frequently during the whole year and had less contact with caregivers or care facilities.

> Satisfaction
The satisfaction of participants on care farms was measured by translating the GGZ (Mental Health Care) thermometer for participants of care farms (Van Erp, 2004). The results show that participants who have worked for one year on the farm are very satisfied with the guidance received. The work got an average score of 7.8 whilst the guidance scored 7.9. The results of 45 participants who worked longer than a year on the farm show increased levels of satisfaction. They give work on the farm a score of 8.2 and guidance a score of 8.3.

The quantitative data from this study show that there is neither significant improvement nor significant deterioration of the quality of life, social and psychological functioning and nutrition patterns of participants on care farms. This could be due to the drop out of participants from the study, which made the number of respondents too small to show significant results.

Qualitative results
It is striking that the interviews with around 50 participants, care farmers and care providers, very clearly show the beneficial influence of care farms. The following effects of working on a care farm were noted:

> Improved condition
Participants feel fitter, build up muscular power and regain their energy. By not using substances, people with an addiction problem allowed their body to recover.

> Increased appetite
Working on a care farm leads to a better appetite. This is important for participants under addiction care as they have neglected themselves for longer or shorter periods of time. The care farm provides a clear structure of coffee, lunch and tea breaks. Thus, participants build up a normal eating regime again. This is further enhanced by participants cooking together on some care farms. Working in the open air also works up an appetite.

> Get more things done
Participants have to get used to the work rhythm on a farm, but afterwards, the care providers notice that participants become more productive. They learn to get on with working on their own, making choices and dividing their energy better so that they manage to keep working the whole day.

> Being restful
Participants report that the care farm helps them in settling down. Care farms provide a safe environment with sufficient space. Physical work in the open air makes participants tired; they go home satisfied and therefore sleep better.

> Increased self-esteem and self-respect
Self-esteem and self-respect of the participants increases by working on a farm. Appreciation and acceptance of the care farmer and care providers as well as achieving positive results through work, also contribute to this. The feeling of being meaningfully engaged and seeing the positive results of their labour gives participants a feeling of self-respect. They have a goal to achieve. The fact that outsiders such as family and friends look at them differently is also a contributing factor.

> Demonstrating more social behaviour
Care providers see changes in the behaviour of participants. Addiction care providers are familiar with the participants from consumption rooms or social lodgings. They observe that participants become more social on the farm and show more solidarity. Participants encourage each other to come to the farm. This is a big difference from their egocentric attitude in consumption rooms and social lodgings. Participants use a different language and talk about different topics on the farm. They take more account of each other and are better mannered.

> Increase of perseverance, engagement and responsibility
Perseverance increases as participants work longer on the farm. They learn to wake up on time, to keep their agreements and to build up a positive work experience. By undertaking specific tasks, they develop their sense of responsibility. Tending the animals and plants leads to an increase in engagement.

Conclusion
This research shows that participants from the client group of people with drug problems and people with psychiatric backgrounds feel more able-bodied and useful when they work together on a care farm. It is the combination of various factors that sets the care farm apart from other work or day care projects. Care farms are for many participants a pleasant and safe haven between their sickness and/or addiction and society in general and regular or voluntary work in particular.

4 Location where drugs can be used, i.e. to prevent drug-related litter in public spaces.
Literature


**Use of physical activities for mental health**

In his book *Pillen, praten en bewegen* (Pills, talking and exercising), Jaap van der Stel (2005) writes about the origins of the lack of exercise in many people’s current lifestyle. He describes what the consequences are for physical and mental health. He demonstrates that more exercise increases the physical condition of clients with psychiatric problems and that exercise leads to a reduction in psychological symptoms.

Physical activities, if applied correctly, he argues, provide benefits that people can also enjoy. Care in the form of medicines and ‘talking’, do not bring a similar sort of enjoyment and pleasure. The positive feelings that belong to exercising are often also the driving forces that motivate people to keep putting in the effort.

**Literature**


**Respite care: home care and prevention**

Caring for a relative or close friend with a serious psychological disorder is often a heavy burden for the care giver and for his or her environment. A study of the Dutch Expertcenter on Informal care (Expertisecentrum Mantelzorg) reveals that many people with psychological disorders show changes in personality, are easily irritated and lack insight into their illness. Many care givers, therefore, need respite care, but a large number of respite care facilities are not suited for this specific client group of mental health clients. The study indicates that care farms are an exception. The care farm is a small-scale, accessible facility that offers appropriate day occupation for many mental health clients. Thus, the care farm can offer an important contribution to respite of care givers.

**Literature**


Effect study on farm animals in the treatment of people with psychiatric problems

The Norwegian researcher Bente Berget undertook a study in 2008 into the effects of farm animals in the treatment of people with psychiatric problems. The most important diagnoses of the people were schizophrenia, affective disorder, anxiety disorder and personality disorder. During a period of 12 weeks, they visited a farm twice a week to spend 3 hours working with cows. This was in addition to their ‘standard’ treatment. The study measured change – it did a pre-measurement, a measurement at the end of 12 weeks and a final measurement 6 months later. The clients filled out a questionnaire which included aspects of anxiety, depression, coping mechanisms (tackling stressful circumstances), self-efficacy and quality of life. Alongside the questionnaire, video clips were made of contacts between the clients and the animals.

Results
The study revealed that the quantity of work undertaken and the quality of the work increased during the project. No significant decreases in anxiety or depression were found. Also, in terms of self-efficacy, coping mechanisms and quality of life, no statistically significant differences were seen between the treatment and control groups. The group of clients with affective disorder did indicate a positive change in terms of self-efficacy and quality of life. They scored higher than the control group. This group of clients appeared to benefit the most from contact with animals.

A literature review of the effectiveness of animal-assisted interventions with a broader client group shows that interventions with animals are effective for different groups. The effects found were improved quality of life, decreased stress, improved performance at school and intellectual skills, improved verbal and social skills and social interaction (Mansfeld, 2002; Janssen & Bakker, 2007).

A study by Enders-Slengers (2000) highlights the effects of domesticated animals such as dogs and cats on the client group of older people. One of the conclusions is that human-animal relationships can fulfil certain social needs where emotional and care aspects are primary. The study also shows that pets can, to some extent, have a protective effect in stressful circumstances.

Literature
B. Berget (2008) Animal assisted therapy: effects on persons with psychiatric disorders working with farm animals. Ass: University of Life Sciences of Ass, Noorwegen.


5 Disorders where the (long-term) emotional status of an individual becomes either more prominent or is underplayed. This can make people either very sombre (depressive) or very happy (manic).
2.3 Older people with dementia

An increasing number of older people with dementia can make use of care farms at many locations in the Netherlands. There are about 150 such care farms in total. Most of these care farms provide day occupation for this client group. A number of the farms also provide intensive forms of support such as supervised living. A characteristic of care services for older people on these farms is its small scale. They mostly cater for 6 to 10 participants.

Qualities of care farms for older people with dementia

The offer of care on farms expands the number of options for older people as to where to receive care. This increases the freedom of choice for the older people and their care givers. Daily care on a farm seems to appeal to a different group, mainly men, than regular day care.

Small scale

A study conducted by the Trimbos Institute and EMGO Institute (VU medical centre) (2007) revealed that small-scale care has a positive effect on older people with dementia. This client group needs a trusted and recognisable living environment with a homely atmosphere. A care farm offers such an environment. The small scale of the care provision does however sometimes make it more difficult to attract expert staff.

Normal life

Older people experience staying on a farm as a ‘normal’ life. They are involved in daily activities that they were used to doing at home, such as light cleaning tasks and cooking together. There is less space for these normal aspects in a regular care facility. There food, for example, is catered by a central kitchen. Sometimes, older people have a stigma attached to receiving care. A care farm can be an option for those older people who are wary of regular day care, to be involved in a day activity programme.

Effects of care farms on older people with dementia

Two studies have looked specifically at the effects of staying on a care farm on those with dementia. Simone de Bruin (Wageningen University, 2009) compared the development of 30 older people on care farms with 23 older people in regular day care. De Bruin followed the participants at the start of their engagement with the farm or regular care facility, and followed up after six months and a year later. The participants went to a farm 2 to 3 days a week on average and spent 6 hours a day there. Those in the comparison group spent the same time in a regular care facility. Hassink e.a. (Plant Research International, 2007) described in their study the value of care farms for different client groups, including older people with dementia.

These studies provide the following picture of the effects of care provided on care farms, in terms of the health and well-being of older people with dementia.

Nutrition

An important issue of attention in dealing with older people with dementia is the quantity of food and drink that they consume. Many older patients with dementia run the risk of being underfed and experiencing undesirable weight loss. The research of De Bruin reveals that older dementia patients who participate in day care on a care farm have a higher intake of energy (1.2 MJ per day higher), carbohydrates (39 g more per day) and fluid (441 g more per day) than their peers in regular day care. Their stay on a farm ensures a significantly better nutritional status. The Dutch prevalence measurement of care problems in 2005 shows that 1 in 4 hospital patients, 1 in 5 clients in homecare and 1 in 6 patients in nursing- and residential care centres, are in a poor nutritional state. Day care on a care farm can have a significant impact on prevention of dehydration, undesirable weight loss and underfeeding.

Varied activities

Care farms offer older people a more varied daily programme. This programme is tailored to suit the normal, familiar rhythm of the life of older people. The activities on offer can be undertaken individually or in groups, whilst many activities in regular day care facilities are mostly undertaken on a group basis. Older people on care farms are also more often outside in the open air.

More social contacts

Many older patients with dementia leave the house less frequently and thereby lose their social contacts. They can make new contacts on the farm. Older people find it easier to develop a trusting relationship with the farm owners while care providers in regular day care facilities tend to change frequently. On some farms, older people come in contact with people from the village. The farmer (or his wife), for example, takes them along when he or she goes out to do the grocery shopping.

Physical condition

Activities on care farms such as feeding the animals and raking leaves generally requires more physical effort than the activities in a regular day care facility. Such activities are also available more regularly and include watching, feeding animals, gardening, walking and helping to prepare the meals. Older people on care farms feel stimulated to stay active and do things together, which helps them to maintain their physical condition. In his book ‘Young in spirit’, Jan Auke Walburg (2010) mentions that different studies point to the fact that physical exercise decreases the risk of dementia.

Cognitive functioning, emotional well-being, behavioural problems

De Bruin notes in her research that the cognitive functioning, emotional well-being and behavioural problems by group of older people, both on the care farm and in regular day care, did not display any improvement after one year. Neither were any differences found in these domains among the two groups.

Conclusion

Care farms provide for older patients with dementia a more varied programme than regular day care. The stay on the farm stimulates their intake of food and water. No significant differences were noted in other domains of the research among patients on care farms and in regular day care. This could be due to the limited number of respondents. In addition, there are differences in the profile of those attending care farms (often married and relatively younger men) and those who go to regular day care (often widowed women).

Literature


Small scale living for older patients with dementia

The Trimbos Institute together with the EMGO Institute of the VU medical centre did a study on the effects of small-scale living for older people with dementia. The number of small-scale residential care facilities for older people has increased in the last couple of years. This is because of the growing awareness that traditional nursing homes do not satisfy the wishes or needs of people with dementia. Homeliness, familiarity and recognisability are often lacking in nursing homes because they find their origin in hospitals with large wards and long corridors.

19 small-scale residential care facilities took part in the research, with 7 traditional nursing homes forming the comparison group. 160 residents and their care givers were interviewed before intake as well as 6 months later, regarding the functioning and quality of life (resident), and health, the load of caring and satisfaction about the care given (care giver). In addition, 380 care givers were asked about the degree of autonomy, work requirements, social support of colleagues and managers.

The residents give a positive yet nuanced view of things. It appears that the residents of small-scale homes need less help for their daily activities than residents of regular nursing homes. They are also more socially engaged than residents of regular nursing homes. Furthermore, residents of small-scale housing enjoy their surroundings more and often have something to do. No differences were found in the areas of behaviour problems and the use of psychoactive drugs.

Care givers of residents in small-scale housing indicate that they are more satisfied with certain aspects of care, such as personal attention for both the resident as well as the care giver. Care providers are extremely positive about small-scale housing. The features of working in small-scale housing appear to be favourable: there is more autonomy, less work requirements and more social support of colleagues.

Literature
2.4 People with learning difficulties

From time immemorial, people with a learning difficulty have worked on farms. Villagers who were not able to get regular employment were often welcome on farms. Even now, the largest group of people who make use of care farms are people with learning difficulties. It is striking though that the effects of care on this particular group have been studied the least. It is perhaps due to the difficulties of such research, for example, a lack of appropriate questionnaires that can be filled out by people with learning difficulties.

Additionally, the changes expected from the care that is offered to this client group may be less easily measured than with other client groups. For many participants with learning difficulties, guidance towards regular work is too ambitious, for example.

Qualities of care farms for people with learning difficulties

Marjolein Elings (Wageningen UR, 2004) studied the specific value of a professional care farm for people with learning difficulties. She visited six care farms and interviewed participants, care farmers and the project care providers. The client group were very satisfied with the daily occupation on the farm. Elings identified 5 qualities that are important to make care a positive experience for this group.

The farmer as a role model
The presence of a ‘real farmer’ was of great importance to the participants. The farmer functions as a role model for them. He is the boss on the farm and has knowledge and skills about what needs to be done. In unexpected situations, regularly occurring on the farm, he is able to react and adapt in a creative manner. The farmer is by nature an entrepreneur. This entrepreneurship goes hand in hand with providing care, where often improvisation is required. An example of this is a care farmer who developed a system through which participants can independently feed the pigs.

Meaningful work
Working on a care farm which is involved in agricultural production, provides added value to participants. This is particularly true for those with a high level. Doing necessary and useful work gives them appreciation and satisfaction. For some participants, working on a care farm is a good step towards finding employment in a regular agricultural enterprise.

Small scale
The care provided on most care farms is small scale. Clients experience a lot of attention given to them personally, as well as close attention while they are working.

Social network
Participants come in contact with different people on a care farm. This expands their social network. The contact with the farmer’s family is of utmost importance. Many tasks on the care farm are carried out by participants jointly. This helps to bring about a feeling of solidarity between the participants, care farmer and the care workers. Participants find it a stimulating experience ‘to complete the task together’. Additionally, in working together, they learn from each other.

Many people with learning difficulties live and work in the same place, for example, in a care institution. During working hours on the care farm, participants are in a different setting; in their case living and working are separated. In this way, they come into contact with other people and for a while are away from their care facility and housemates.

Clients are addressed on the basis of possibilities
During their work on the care farm, participants are considered on the basis of what they can do, not on what they can’t do due to their disability. Some types of work bring about a certain work pressure. Participants experience this as challenging and pleasant. Completion of the task gives them self-confidence.

Care workers with knowledge of agriculture
Care farmers and care providers state that knowledge of agriculture is essential to provide appropriate guidance to people. This ensures that they can offer work to clients that fit their capacities. Having knowledge and experience in agriculture is also a condition for being flexible in unexpected circumstances.

Literature
Care farms have characteristic features or qualities that - as described in chapter 2 - have a strong influence on the health and well-being of their participants. In this chapter, we take an in-depth look at four of the most noteworthy of these qualities.

3. Qualities of care farms

3.1 Specific qualities of care farms

Interviews with clients, care providers and care farmers (Hassink, 2007) show clearly that they experience the care farm as a unique facility because it combines the following qualities:

- Personal engagement of the care farmer
- A safe social community
- Range of useful and diverse activities
- A green environment

These qualities provide an informal context, similar to that of normal life. Earlier studies show that these specific qualities could be important in the recovery process of participants.

Literature


3.2 Care farmer – client relationship

The relationship between the care provider and the client is an important theme in the research related to the treatment and care of people. Bachelor and Horvath (1999) refer to empathy, understanding, engagement, warmth and friendliness as being the most defining factors for both successful treatment and client satisfaction. Professor of psychotherapy Leyssen (2007) agrees with this. According to Leyssen, sincere interest, empathy and authenticity are of great importance in the contact between the care provider and the client. Research into the effectiveness of client treatment, shows that a therapeutic relationship and the extent to which the patient takes an active part in the treatment, largely determines whether treatment has a positive result (Verhaeghe, 2010). A review of several studies reveals that 30% of the effect of treatment is brought about by the relationship between the treatment provider and the client (Ketelaars e.a., 2001; Bohart, 2000; Lambart, 1992).

In addition, it appears that the relationship between the participant and the care farmer is important. In interviews, participants mention that they, in fact, value the role of the farmer as a non-care professional. So far, little research has been done on the role of non-care professionals in providing guidance to clients. Research does confirm that people with chronic psychiatric problems value volunteers for being good listeners, and for being reliable, friendly, respectful and supportive. Clients do not have preconceived negative views about non-professionals and are, therefore, more eager to cooperate with them. (Kendall, 1989; Piet e.a., 2006; Walter & Petr, 2006).

Literature


3.3 The farm as a social community

Working on a farm ensures that participants are part of a social community consisting of other participants, the farmer and his / her spouse and other care providers. The farm itself is again part of a larger community. Social relationships are essential for human beings. Sociologist Durkheim (1951) argues that people receive a certain role when they belong to a community and maintain connections with others. This role (or roles) defines their identity and the extent to which they feel socially integrated. In addition to physical protection, relationships provide emotional protection (Schachter, 1959).

The ‘social exchange theory’ (Vaux, 1998) proposes that social relationships are important because of their reciprocity. People complement each other and are a valuable resource for one another.

Additionally, developmental psychology places importance on safe and stable bonding relationships. Weiss (1973) suggests six fundamental interpersonal requirements that, to a certain extent, are fulfilled within relationships:

• attachment
• social integration
• reassurance of worth
• reliable alliance
• guidance (advice, information and protection)
• opportunity to be nurtured

According to Weiss, inability to meet these requirements can lead to psychological difficulties. Research reveals that safety and positive relationships reduce stress and speed up the recovery process (Caplan, 1974; Erikson, 1994; Kulik & Mahler, 1989; Winefield, e.a., 1990).

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Literature


3.4 Useful daily occupation and work

On care farms, participants work together on day-to-day activities, each according to his or her own capacities. Having a useful day occupation or work has a positive influence on the physical as well as psychological well-being of people (Bartley, 1994; Cable, e.a., 2008). In their studies, Van Weeghel (1995) and Boardman (2003) mention that work gives people a structure, an identity and an opportunity to develop themselves. It broadens their horizons, provides social contacts and gives them the feeling of belonging. Work is forcing people to be active, offering them the opportunity to become physically tired. In general this leads to better physical health.
Of course, not every work situation has such a positive outcome. People generally judge their work as being positive if it is useful and if it has a sufficient variation. Kielhofner (2002) notes that people have an inbuilt desire to be useful and occupied. Useful and meaningful activities provide structure and rhythm in life. In addition, such activities stimulate and improve the development of physical and social skills, giving people the feeling of being competent and knowledgeable.

Christiansen et al (2005) have developed a model that shows people’s identity and sense of usefulness is derived from their daily activities. This ‘person-environment-occupation-performance’ (PEOP)-model comprises of four elements:

- **Person:** the intrinsic factors of the person
- **Environment:** the factors of the surroundings
- **Occupation:** what a person likes to do
- **Performance:** the manner in which a person performs this

By building up meaningful and successful experiences, one can become more self-assured and develop a feeling of independence and being knowledgeable. These characteristics are necessary to deal with other challenges (Christiansen et al, 2005).

**Literature**


**3.5 Green natural surroundings**

One of the most fundamental characteristics of care on a farm is that people are ‘brought into contact with nature again’. The Dutch Health Advisory Board concluded in 2004 that people’s contact with nature decreases. At the same time, and perhaps not coincidentally, more and more studies are pointing out that contact with nature can lead to improved health and well-being. Here we state some of the key effects that nature or green spaces have on people, as mentioned in diverse studies regarding the subject. Below, we summarise three theories that may explain the mechanisms causing these effects.

**Results of research into nature and human health**

**A better mood**

Multiple studies provide strong indications that looking at pictures of nature as well as taking walks in nature improves people’s mood. Feelings of fear and anger are reduced while positive feelings are enhanced (Hartig, 2003; Ulrich, 1991; Hartig, 1991). The restorative effects happen both in natural spaces as well as in urban areas (such as parks and water-rich environments) and in natural forests.

**Improved concentration**

Studies indicate that having contact with nature has a significantly positive effect on people’s attention span and concentration. If people have a view of nature from their homes or if they have plants in their offices, it improves their cognitive functioning (Van den Berg, 2003). Studies by Kuo and Sullivan (2001) provide a similar picture. They undertook research in a low-income suburb of Chicago with identical apartment blocks. Their study revealed that having a view with more greenery improved the concentration of residents which in turn led to less aggression among them.

**Quick recovery**

Several researchers have studied the effects of watching nature videos and concluded that it leads to a lower heart rate, lower blood pressure and less facial tension (Laumann, 2003). Hartig (2003) studied the body responses of people when they were walking. This study showed that people’s bodies are restored when they walked in an area with natural amenities; whilst when walking in an urban area, their blood pressure rose.

**Healthier through exercise**

Contact with nature can positively influence the health of people because it stimulates them to be physically active (Dutch Health Advisory Board, 2004). Currently, there aren’t sufficient studies that focus on the connection between the physical environment and exercise. However, there are studies that focus on the environmental factors that stimulate exercise (Sallis, e.a., 1998). These studies, in general, reveal that a natural environment is more valued than an urban environment. Thus, the Health Advisory Board states that a natural environment is more inviting for exercise and therefore stimulates longer periods of exercise. The research undertaken by De Vries (2002), however, indicates that there is no hard evidence to support this notion.

**Literature**


**Stress recovery**

Several studies have looked at the impact of contact with nature on stress levels. Multiple studies have shown that contact with nature can reduce stress levels, leading to improved mood and reduced anxiety and aggression. For example, a study by Hartig et al. (1991) found that people who were exposed to nature had lower heart rates and blood pressure than those who were in urban settings. Another study by Kuo and Sullivan (2001) showed that people who had contact with nature had lower levels of aggression and violence.

**Exercise**

Contact with nature has been shown to improve physical health and exercise levels. A study by Sallis et al. (1998) found that people who lived in green areas were more likely to engage in physical activity than those who lived in urban areas. Additionally, a study by Hartig et al. (1991) found that people who were exposed to nature had lower levels of stress, which can lead to improved exercise levels.

**Improved concentration**

Contact with nature has been shown to improve cognitive function and concentration. A study by Hartig et al. (1991) found that people who were exposed to nature had higher levels of attention and concentration than those who were in urban settings. Additionally, a study by Kuo and Sullivan (2001) showed that people who had contact with nature had lower levels of aggression and violence.
Explanatory theories
How can the positive influence of contact with nature on health be explained? Researchers are of the opinion that being in nature helps people to recover from stress in particular (Dutch Health Advisory Board, 2004). The most important theories on how stress is released come from the Attention Restoration Theory (ART) of Kaplan and Kaplan (1989), the psycho-evolutionary model of Ulrich (1984) and the Biophilia theory (Wilson, 1984). These theories assume an evolutionary, innate basis for restorative effects of nature.

1. Attention restoration theory: nature restores overload of the mind
According to Kaplan and Kaplan (1989) people in nature are restored from attention exhaustion. Attention exhaustion is caused by doing cognitive tasks that require long periods of focused attention and active suppression of irrelevant information. Holding one’s attention focused on something for a long period of time can lead to overload. This reduces performance and creates irritation.

According to Kaplan and Kaplan, contact with a natural environment contributes in two ways to the restoration of attention fatigue. Firstly, nature provides an opportunity to take distance from routine tasks and thoughts (‘being away’). Secondly, nature catches one’s attention automatically without having to think about it (‘soft fascination’). Therefore, being in or being actively engaged in nature has a restorative effect on a human being.

Literature

2. Nature brings about faster restoration
The researcher Roger Ulrich (1991) bases his studies on a biological / evolutionary principle. He states that human evolution took place in a natural environment. Those who reacted positively to the natural and recovered more easily from stress were at an advantage from an evolutionary perspective. He came to this hypothesis after his famous hospital experiment in which patients who looked at greenery recovered faster than those who looked at a wall. In another study he discovered that the heart rate of people who watched a stressful thriller recovered faster if they watched a nature video thereafter rather than a video with images of traffic (Ulrich, 1983).

Literature


3. The Biophilia theory: the desire for nature is innate
The English researcher Edward Wilson (1984) developed the Biophilia hypothesis. This states that people have an innate desire for nature. They are naturally attracted to other living beings. Wilson concludes from his research that this innate attraction is defined biologically. This originates from the evolutionary process humans have undergone.

The researcher Charles Lewis has developed these ideas. He suggests that humans have grown out of an originally natural environment. Today, people live primarily in densely populated cities and their contact with nature has become scarce. Lewis argues that the environment has changed at a faster rate than the evolution of humans. According to Lewis, the lack of contact with nature can lead to different problems such as obesity and behavioural disorders.

Literature

Different mechanisms that play a simultaneous role

The effect that contact with nature has on people is the result of different mechanisms that operate alongside each other. A good example is making contact with animals. Many people find it pleasant to pet animals, to take care of them and to be in their company. Having animals often leads to other social contacts. The tasks of caring that come with having pets can lead to an improved self-confidence for the person providing this care. Caring for animals teaches people to care for others. It gives the person a task of caring that places him/her in a different role: caring for another instead of being cared for by him/herself. Thus, contact with animals can, in various ways, lead to an improved quality of life.

Literature

Greenery in the living environment and health

A study into the relationship between the quantity of greenery in the living environment and the health of residents shows that the quantity of greenery in the living environment has a relationship to how residents experience their health. People who live in an environment with more greenery feel healthier (Maas, 2009). This conclusion is in line with a study of De Vries et al (2003), indicating that people who have more green in their living environment experience less health-related complaints and better mental health. They note this positive effect on the population in general, and particularly among older people, housewives and people from low socio-economic groups. The researchers suggest that this comes from the fact that these groups of people spend most of their time in their living environment. The study by Maas also shows that people with more greenery in their living environment feel less lonely and are less prone to feel a lack of social support. This applies specifically to those people with a low socio-economic status. An earlier study by Vreke et al (2006) also shows a relationship between greenery in the living environment and prevention of obesity among children.

Literature

Client satisfaction system

In the spring of 2011, the Federation of Care Farmers in the Netherlands, as part of the obligatory quality system for the sector, developed a client satisfaction system. This system will provide new on-going data in the future about, among other things, the satisfaction experienced by participants on care farms and about the rate at which participants’ self-reliance grows. Several small-scale pilot studies of this satisfaction system have been undertaken among the client groups of older people, children/young people and people with psychiatric complaints. These studies confirm some of the qualities of care farms, also mentioned in other studies, such as providing people the opportunity to be out in the open and the contact with plants and animals. The pilot studies also show that learning new skills, doing things together, and having social contacts are some of the important aspects that care farms offer their participants.

Literature
It speaks to the imagination of many people: the farm as a small-scale location to receive care, where participants work in the open air with plants and animals in a natural rhythm where they can ‘bloom’. It is also important to look at the evidence base underpinning the effects of care on farms and to use the information to develop further (the quality of) the care being offered.

4. Conclusion

What does living and working on a farm provide participants with, in terms of recovery and improvement of their quality of life? In the end, this is what matters and an independent look at whether the approach and methods fit in with the professionalization process, is taking place in the care farming sector. This publication has described different scientific qualitative and quantitative studies that discuss the effects of the care being offered. It is not easy to draw definitive conclusions as the studies are still limited in size and comprise of a great diversity of client groups and types of care farms.

Naturally present

The studies show significantly positive results, such as better nutrition and fluid balance of older people with dementia on care farms, in comparison to regular care facilities; or the decrease of problematic behaviour and the increase of self esteem among young people who follow a path on a farm through the youth welfare institution Topaze.

Research data collected from different client groups give a strong indication that care farms have specific qualities that many participants can benefit from. These include the relationship between the farmer (male or female) and the client, being part of a social community and engaging in useful activities in a green environment. The fact that the farm provides an informal, non-care context is also experienced very positively by most participants. They value this way of taking part in ‘normal life’. With these key qualities, care farms provide a concrete approach to care giving that is currently in vogue: socialisation of care (participation), community care, and empowerment (strengthening of self reliance). A care farm provides community integration in a natural way, with emphasis on participants’ own strength, an individual approach and a consideration of the relationships involved.

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Sequel

The information in this publication invites all those engaged in the care sector – care providers, health insurers, care referral providers, clients and researchers - to critically reflect on their own professional practice. With the results in hand, they can look at what care on a farm can mean in the total spectrum of care and well-being. It provides a basis for further joint research to investigate how care farming can be improved and where there are new chances for cross pollination between farming and care. The results help entrepreneurs in care farming to reflect on their work and continue to add value to their services, without losing sight of the unique aspects offered by a care farm.

Care farmers can focus on their specific qualities, the client groups they serve and how they can set up work and care for these client groups in an optimal way. It may be interesting to see whether better nutrition and fluid balance of older people on care farms can also be obtained for clients in need of addiction care, a group that gladly come to care farms for recovery and reintegration.
Health insurers and the Ministry of Health can assess whether forms of care farming provide a good supplement to the approach of care in which increasing participation in society and/or flow from care into employment and education is paramount. It could also be assessed whether care offered on farms is appropriate for more client groups.

Client groups can use the findings to assess whether they receive the care they are looking for and how they can help to further develop adequate forms of care that care farms offer.

Finally, the collection of effect studies in this publication exposes the gaps in knowledge, which can be addressed through further research. A resource of new research data will be the client satisfaction system to be operationalised shortly by the Federation of Care Farmers in the Netherlands. This system will ensure continuous measurement of the satisfaction of customers regarding care on individual care farms.

“My feeling of self-esteem and self-confidence has grown enormously. Here, I have the opportunity to bring things to a successful end”

Participant of care farm ‘De Noorderhoeve’
Colophon

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Over the last years, the number of care farms has grown rapidly in Europe and beyond. Research was implemented to study how for example young people with behavioural problems or older people with dementia benefit from their stay on a care farm. And what are the effects of working or living on a care farm?

Research shows that care farms give people with disabilities a more active role in their daily live and create a living and working situation which empowers people and gives them the ability to participate in society. This report presents relevant facts and figures on the effects and added value of care farms. The report was originally written for a Dutch audience, but has been translated into English to meet the growing interest in this topic worldwide.

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