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# Benefits of Green Care for Youth with a Mental Health Diagnosis

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# Benefits of Green Care for Youth with a Mental Health Diagnosis

By

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MSW Clinical Research Paper

Presented to the Faculty of the School of Social Work  
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Master of Social Work

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The Clinical Research Project is a graduation requirement of MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine month timeframe to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the University Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

### **Abstract**

Green Care provides therapeutic interventions using both plants and animals. While common in Norway and Holland Green Care is just beginning to take hold in the United States. This research looks at the possible benefits of Green Care to youth who have a mental health diagnosis. This was done through a series of interviews with those providing Green Care services in the United States. Benefits identified include calming, self-confidence, independence, and empathy building. It was also noted that Green Care is a form of care that is adaptable and easily individualized making it a promising type of intervention for those who may have already tried more traditional types of therapy.

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### **Introduction and Purpose Statement**

Approximately 61.5 million Americans experience mental illness during any given year. Youth are particularly vulnerable to mental illness, where the prevalence is approximately 20% of those ages 8-15 years old (Demyttenaere, 2004). Mental illness has a large impact on our society and looking for new and creative ways to help people heal is not only progressive, but imperative as we learn how to better help people cope with the ever-increasing stressors of every day life.

Mental illness impacts not only the lives of those with a diagnosis but their friends and families as well. Mental illness can be invisible to the eye and is less understood than physical illness because of this. Treating mental illness is a multifaceted issue. While traditional therapy and medication can be beneficial, there is often a loss of a sense of worth and community, not only among those who are experiencing symptoms but with those they love as well. Isolation can become an issue and its impact can multiply the effect of the illness. Green Care provides a place for people to regain a sense of both self and community. Those in the field of social work should take a particular interest in the development and study of Green Care interventions as they simultaneously treat the person as a whole and as part of a community.

Green Care is a way of merging the benefits of animal assisted and horticultural therapy with the purposeful thought of therapy sessions. This allows for more people to benefit from the therapeutic use of horticulture and animals in the healing process. The United States is just beginning to realize the benefits of Green Care and how it could be implemented, while countries such as Norway and the Netherlands have offered Green Care interventions for quite some time. Learning from established programs could be beneficial to implementing such programs in the

U.S. It is important to look closely at the purpose behind Green Care activities as there is much more than meets the eye going on during each purposeful activity.

Social work students learn to diagnose and treat mental illness in their Master's work; as a part of this, looking at the person as an individual as well as at how they are part of a family, community, and society all help the practitioner know how to best plan for the treatment of the client. Green Care is a way of combining individual work with community building. Green Care can be used in either an individual or group setting, and this is especially important as social workers have a vested interest in how the individual is a part of family, community, and society.

Being a part of something larger than one's self offers a chance to increase self-esteem and self-awareness. Having a plant or animal in need of care from you naturally makes you feel needed, and having others involved in that process provides a common bond.

While stress itself is not a mental health diagnosis, it can exacerbate the symptoms experienced. Having an invested interest in something that cannot be rushed is therapeutic in and of itself. Social workers might take great interest in this notion of something that cannot be rushed. A plant growing or a chicken hatching takes a certain amount of time no matter what interventions are applied. In an age of managed care and short treatment expectations, being a part of a Green Care program may not be a widely accepted strategy; however, the benefits outweigh the costs. Few other treatment interventions have shown as much promise, not only for decreasing symptoms but for keeping them at bay over time.

The purpose of this project was to explore Green Care's benefits and opportunities. Of specific interest was the treatment of mental illness in children and teens. Early intervention for

children and teens with mental illness can set them up for a lifetime of success. This study investigated specific Green Care interventions that are the most beneficial in treating mental illness in youth. This research attempted to answer the question: What are the benefits of Green Care to youth with a mental health diagnosis?

## Literature Review and Research Question

### Overview of Green Care

The term Green Care is relatively new in the United States. Other countries have used this term along with the terms care farms, agritherapy, and therapy farms to describe sites that provide interventions for mental or physical health symptoms using plants and animals. Green Care is useful in providing a fluidity of techniques and interventions to those who participate (Haigh, 2012).

Green Care has two main components. Those components are horticultural therapy and animal assisted therapy. Horticultural therapy is the use of gardening as a therapeutic tool. This tool is used to promote wellness in the person as a whole; it can be particularly effective in helping those who have suffered a loss or been in an abusive situation (Haigh, 2012). Horticultural therapy can promote a feeling of being grounded and inspired in those who use it because it reconnects clients with a sense of being needed and being able to nurture. The history of this type of therapeutic intervention can be dated back to 1600s Egypt, when patients who could not afford their medical care took to gardening to raise money. Doctors noticed shorter recovery time in those participating in gardening activities (Oakley, 2015).

Engagement in activity is a major component of horticultural therapy. For example, a study was done to explore the effects of horticultural therapy on engagement and affect. This study used observation to determine if in patients with dementia including both horticultural therapy activities along with standard treatment interventions would show more benefits than the

standard interventions alone. The results supported the hypothesis that both engagement and affect were improved during horticultural therapy activities for these patients (Gigllotti, 2005).

Further looking at the benefits of horticultural activities as part of therapy, one study followed twelve participants in a horticultural therapy program to examine the benefits of the program. Participants were between ages 18-65 and were interviewed to document their levels of exploration, competency, and achievement in gardening. They were also asked to complete a scale to document the person, occupational, social, and physical aspects of the horticultural therapy program (Parkinson, 2001). The findings of the study were that benefits of horticultural therapy were directly linked to the interest of the participant. Those that were more interested were more invested and had better outcomes than those who were less invested in the interventions. As is commonly the case with most types of interventions, horticultural therapy interventions proved meaningful and beneficial for those who were invested in them (Parkinson, 2006).

Specific diagnoses studied in the benefits of horticultural therapy include depression and anxiety. Horticultural interventions decreased the severity of depression, anxiety, and stress. Not only did symptom severity decline during the intervention period, it was also reported to be decreased at the three month mark post completion of the program, giving evidence of the long-term positive effect of horticultural therapy (Gonzalez, 2001).

Research comparing horticultural activities such as potting plants to synthesized activities such as working with silk flowers shows that there is no comparison to the real thing. Working with living plants has its own unique set of benefits that are not replaced by doing similar activities with artificial flowers. Benefits were found both in participant report of feelings of

relaxation and in physical markers of relaxation such as heart rate and blood pressure (Lee, 2013).

Specific to children, horticultural therapy has shown to be a powerful tool in helping with mental health symptoms (Parkinson, 2001). This type of intervention gives the child a chance to be a caregiver. Interventions provide opportunities to work in a quiet setting and promote relaxation and problem solving. In doing so, significant improvements to symptoms of depression and anxiety can be seen. Communities, schools, and even hospitals are catching on to this effective way of helping children heal both physically and mentally (Oakley, 2015).

Although animal assisted therapy in the United States is primarily done with dogs or other pets, for the purpose of this review we will look at the use of farm or large animals in therapy. Participants completed a farm animal assisted intervention program on a dairy farm. This program lasted for twelve weeks and the participants attended the program on location at the farm twice a week. All participants had been diagnosed with depression and were adults. All participants reported this intervention to be a positive experience and three of them even deemed it a turning point in their recovery (Pedersen, 2012), proving farm animal assisted therapy to have positive implications for future use.

Specific use of farm animals versus use of pets provides interaction with animals and life cycles that differ from pets in size and often purpose (Hassink, 2010). It is important to look at the attitudes of farmers and staff toward this type of animal assisted therapy as this is often an indicator of success. In one such study, the main diagnoses of the participants were schizophrenia, affective disorders, and personality and anxiety disorders. They were asked about their knowledge of Green Care and attitudes about it. They were also asked to rate it in regards to other interventions and one-on-one human therapy. Sixty-five percent of therapists believed

that farm animals could contribute to increased skills and interactions with other humans to a large extent, on a scale from not at all to a very large extent (Berget, 2008).

Youth with a mental health diagnosis may be good candidates for animal assisted interventions. Children who have little to no power over their circumstances can learn from animals that are willing to listen to and take commands from them. This type of intervention is very empowering (Chandramouleeswaran, 2014). Animals often remember children after just one encounter and are excellent teachers of nonverbal communication skills and reading body language. Skills learned while working with animals often transfer to skills that can be used when interacting with humans. Widely studied is the use of pet assisted therapy for children, with benefits seen for those with grief and loss issues, physical disabilities, autism, and difficulty focusing or paying attention (Chandramouleeswaran, 2014).

In other countries, particularly the Netherlands, the practice of Green Care and care farms have a longer history. Various types of care farms give help to those with mental illness. Studies have been done to show the effectiveness of this type of intervention. Common themes that have been identified have included community life, attitude, freedom, the environment, the work, and returning to normal life. They found that the social aspect of therapeutic interventions on care farms had a normalizing tendency for people with mental illness, which helped them feel more a part of the community (Hassink, 2010).

An example of Green Care being implemented in the United States can be found at Forget Me Knot Farm in California. While there are many other sites doing Green Care work, this farm focuses specifically on helping heal youth who have experienced traumatic events such as abuse or the death of a parent. Participants work with plants and animals to assist in their healing process (Rossiter, 2006). This site, along with others, provides an intervention that helps

in the healing process for those who may not have access to nor responded to traditional interventions.

Green Care incorporates horticultural therapy and animal assisted therapy in very specific and intentional ways. The literature discussed showed benefits to both aspects of this type of intervention and the combination of them. Social workers know that not any one intervention will be successful for all clients; therefore, having many tools and options available is beneficial. Adding Green Care as an option for youth with a mental health diagnosis could be very promising. Further research in this area is needed to study specific interventions and benefits.

### **Benefits of Green Care**

New interventions such as Green Care are important in the mental health field. It is estimated that one in five youth ages five to fifteen years of age will experience a diagnosable mental illness during those years (Demyttenaere, 2004). Of the youth studied, prevalence for diagnosis was higher among girls than boys, as was the length of time required for treatment. The risk of reoccurrence of the disorder has also shown to be at a higher rate among this age population than in the general population (Costello, 2003).

Anxiety disorders are the most common disorders among this population and the next most common are mood and behavior disorders (Adelman, 2000). Studying the epidemiology of mental illness is important to establish prevalence and incidence. Looking into the risk factors for mental illness is important in not only determining who is at risk but also what effective treatment interventions may look like. A number of life situations and events have been found to increase the likelihood of youth developing a need for mental health services. Some of these

include maternal mental health, significant changes in home life, physical illness, and exposure to abuse situations (Merikangas, 2009).

Another reason Green Care is an important intervention is that it has the potential to reach a population that is underserved. Access to care, both preventative and for youth who already have a mental health diagnosis, is an issue in the care and treatment of those individuals. Access to care differs among socioeconomic populations. Children and teens living both in what are considered low and high income households have shown a better chance of receiving care for mental illness than those in middle-income households. Middle-income for this purpose was defined as over thirty-thousand dollars a year but below fifty-thousand dollars a year for a family of four (Cohen, 1993).

Access to care has also been shown to be limited for those living in a rural area. Youth living in an urban area were up to fifty-percent more likely to receive a diagnosis and follow up care for mental illness than those living in rural areas, making the most limited group studied those of a middle-income in a rural area. Youth in this category have a significantly lower chance of receiving mental health care than children in other populations (Cohen, 1993). Access to mental health care and the lack of it across populations is a definite problem in the United States. A gap between need and treatment availability exists in spite of a young person's right to health care. Basic human rights call for access to those who need or want care to be as available as physical health facilities. The appropriate access to mental health care to meet the needs of young people is not only well-established as clinically necessary, but is also mandated by ethical and moral principles as part of the right to health (Kutcher, 2009). Green Care sites are often located in rural areas and provide a resource that can reach youth living near them. This allows

for some filling of the gap in the availability of services provided to those in rural areas and in the middle-income range.

Another benefit of Green Care is that it can be combined with more common interventions. Current widely used interventions for this population include outpatient treatment, school based, community based, family based, and medically based interventions. All of these interventions have shown some success; among different diagnoses, some are more successful than others.

Outpatient treatment has long been an option for people of most ages who are seeking care for mental health issues. This is the most traditional way of obtaining therapy and can be very useful. Its limitations include travel to the site of care and cost of care (Demyttenaere, 2004). Also, among rural patients in particular, finding an outpatient provider who is taking new patients can be difficult (Hoagwood, 2001).

School based mental health services are becoming more common as schools are realizing that they are a way to reach children who need help with behaviors in the classroom as well as those for whom outpatient care would normally not be possible. Schools in states such as Minnesota are partnering with community based organizations to provide in-school care. Students benefit from these programs by learning social skills as well as having direct access to help for mental health issues. Teaching staff benefit from extra help in regards to classroom and behavior management. Limitations to this type of care might be limited time spent with each student, limited family interventions, and limited funding for these positions (Adelman, 2000).

Family centered or in home therapy and counseling have the benefits of working with the family as a whole, and often meeting in the convenience of their own home. Family centered

services can focus on lasting changes as they are able to see the family as a whole. Limitations include late hours for service providers, often failed appointments, and the need for investment from the family as a whole (Hammond, 2014).

Medical interventions, particularly psychopharmacology, are a very popular option for the treatment of mental health symptoms. Three and a half million clients under age eighteen are seen by medical professionals each year in the United States for the prescription of medications to modify mood and behavior (Demyttenaere, 2004). While these interventions can be successful and more immediate than others, there are limitations. These include the small amount of knowledge we have about the lasting effects of medications of this type for children, and the cost of medications (Hoagwood, 2001).

Green Care has many dimensions that can be beneficial on their own or in combination with the more traditional strategies utilized. Some of these dimensions include daily routine, meaningful activities, social interaction, skill development, and physical activity.

Growing numbers of people are becoming interested in many kinds of alternative treatments, often in combination with more traditional treatments. Alternative treatments offer a more personal reception with more time for individual attention and a more holistic approach that offers psychological and spiritual comfort. Similarly, interest is growing in the restorative effect of Green Care in the natural environment and the contact with natural and living beings such as plants and animals

Measurement of the type of experience gained at care farms has been researched. The experience was reported positive by the overwhelming majority of participants. Not limiting the experience to positive, participants reported increased social interaction, personal development,

and an increase in physical and mental health and wellbeing. Moreover, they also reported being more engaged with their environment on a daily basis. Engagement with the environment can be critical to changing one's own environment (Leck, 2015).

Having a daily routine or even a routine activity can be of much help to those suffering from certain illnesses, especially anxiety and depression. Participating in farm related activities can be an excellent way to model the predictability of nature while exploring what we do and do not control in life (Davis, 2008). This can be a difficult concept, especially with anxiety as there is often the need for control of the future and Green Care can help skill build in this area.

Participation in meaningful activities with others provides a boost in both self-esteem and social skills. The need to participate as part of a group to accomplish a goal sets a tone for community and taking pride in one's work. Taking pride in your work can also lead to a sense of self accomplishment and a feeling of self-worth.

Skills developed while working with a Green Care facility can include tending to animals, planting, watering, nurturing and harvesting fruits and vegetables, timeliness, utilization of resources, compassion, empathy, self-value, appropriate social interactions, and others. While the need for the development to skills varies by client, one of the main benefits of Green Care activities is that they can be tailored to build skills in many areas (Sempik, 2010).

### **Critiques of Green Care**

The use of the Green Care interventions are not for everyone. There is sometimes fear associated with injury caused by animals and fear of transmission of zoological diseases among clients. The need for professional animal handlers and Green Care sites, and the availability of docile, well-socialized, and healthy therapy animals could all be barriers to successful

interventions (Chandramouleeswaran, 2014). For participants who are allergic to certain plants or animals, care should be taken to avoid irritants or they must avoid Green Care all together, depending on the severity of the condition and the comfort level of the participant. Anyone with a traumatic history with an animal should also take caution and be advised about being forthcoming before starting the interventions.

Funding for this type of program would come mainly from grants and donations and this can be a barrier to the success of Green Care Programs. Once established, a therapist could bill for services at a Green Care site; however, the establishment of this type of site is very costly. The average site in well studied Holland costs approximately 65,000 United States dollars a year to operate (Davis, 2008),

Other issues facing the use of Green Care interventions for children and teens with mental illness could be health related issues such as allergies to plants or animals and lack of accessibility to some farm sites. No one intervention is best practice for everyone, and the same is true for Green Care.

Finally, no discussion of Green Care would be complete without answering the question, “Why Green Care?” A start to finding the answer is in gaining agreement on the social objective of Green Care. This can be a limitation to the implementation of Green Care because we do not yet have accurate documentation on its benefits versus the benefits of other interventions. Those who provide funding would say that Green Care should be supported if and only if it adds to the welfare of those participating and to society as a whole. Green Care can only be welfare-enhancing if the social benefits exceed the social costs of producing interventions that are equally as effective (Dessein, 2010).

### **Conceptual Framework**

Studying Green Care and its benefits relates closely to the Ecological Theory of Human Development. The Ecological Theory aims to change the form, power, content, and direction of objects and actions shaping one's world view (Bronfenbrenner, 1994). This theory fits well with studying the benefits of Green Care for youth with a mental health diagnosis because we are changing their environment during their care. As a child grows from infancy to adulthood, more and more complex interactions take place with people and objects in his or her environment (Bronfenbrenner, 1994). Providing a place to reconnect or connect with nature for perhaps the first time is one of the primary benefits of Green Care. Participants will find the change in environment and thus the Ecological Theory is beneficial in learning or reclaiming skills for coping and healing.

Providing an opportunity for a mesosystem to be formed between the Green Care site and the participant's home also allows for this fit with the Ecological Theory. A place where participants can come that is stable and safe while allowing for change and growth is imperative to Green Care. Green Care and its work with plants and animals follows a natural pattern for the life span of these tools. Seasons change yet are stable in their reliability and predictability to do so. With the seasons, plants change in the same manner. Animals have a natural life cycle that, while not always predictable, is like that of human life as well, and in that way Green Care benefits those that have been through trauma or loss by again providing an environment that is changing in a safe manner in which to learn.

## **Methods**

### **Research Design**

This study was a qualitative interview study in design. Interviews were done to look at the benefits of Green Care to youth with a mental health diagnosis. Prior to the interview an approved consent form was signed. The consent form was developed from a template approved by St. Catherine University and the Institutional Review Board (IRB) for review, and the final version was approved by the IRB (Appendix A). The subjects were informed of the length of the interview and responses will be used confidentially in this research project. They were informed that only the committee chair and this writer have access to the transcript.

### **Sample**

The sample was drawn from publicly available websites of individuals who work in Green Care. Only individuals with experience providing a combination of Horticultural and Animal Assisted Therapy were considered. Individuals from services that identify as Green Care, Agritherapy, or Care Farms will be considered part of this group. Facilities were recruited via phone or email to participate in this research. Snowball sampling was also used to locate additional individuals for interview.

In all eight, interviews were conducted over the phone after a signed consent form was collected. These interviews ranged in length from thirty minutes to one hour and fifteen minutes. The subjects were located in different states including California, Colorado, Minnesota, Iowa, Connecticut, and Montana. Subjects were primarily (7) female with one male participating. All subjects had more than one year of experience working in the field of Green Care.

### **Protection of Human Subjects**

There was little to no risk to human subjects participating in this research. Information collected will remain confidential and will be destroyed on June 1, 2016. Subjects signed a letter of consent (Appendix A). This letter was subject to the approval of the IRB. Subjects had the right to terminate the interview at any point, and had the right to retract their permission to be interviewed up until the date of the interview. Names of subjects and their place of employment were not released.

### **Data Collection Instrument and Process**

The interview was semi-structured and used a guideline of questions that were approved by the committee chair prior to the interview taking place (Appendix B). While all subjects had agreed prior to the start of the interview, and were informed of the confidential nature of the research, they had the option at any time to stop the interview. The interviews were recorded with an audio recorder and transcribed by the researcher using Word to store transcriptions. The transcriptions were coded and the data will be kept in a password protected laptop until the time of disposal, June 1, 2016.

### **Data Analysis**

Data from the interview were analyzed by coding the interview looking at both direct themes and those that pertain specifically to the research question. Data analysis was based in the Grounded Theory method of analyzing data to keep it as close to the meaning of the source as possible. Reoccurring codes were grouped into three categories and then broken down into nine themes to assist in the analysis of the data collected during the interview.

Coding was done to identify categories, themes, codes, and their reliability. The more simple and objective the categories, the higher chance of reliability (Monette, 2014). After categories were established, coding was continued to develop themes within these categories.

## **Findings**

Three major Categories were discovered in the coding of interviews for this study. These Categories will be discussed below and are: (1) “Psychosocial Benefits of Green Care,” (2) “Barriers to Success in Implementing Interventions,” and (3) “Expansion of the Use of Green Care.” From these categories, the following themes were observed: (1) Calming Effects, (2) Self Confidence and Independence, (3) Empathy Skills, (4) Individualized Care, (5) Partnerships are Complex, (6) Readiness of Clients, (7) Funding, (8) European Countries Serve as a Model, and (9) Expansion and Standardization.

### **Category 1: Psychosocial Benefits**

Each interview completed produced many responses to questions about the use of Green Care and benefits seen when using it with youth who have a mental health diagnosis. Within this category, the major themes of the calming effect of Green Care, empathy building, and individualized approach were found.

Key words that were found in the coding process relating to psychosocial benefits of Green Care were trauma, anxiety, calming, self, caring, empathy, independence, self-confidence, and results. Diagnoses mentioned were Depression, Anxiety, Post-Traumatic Stress Disorder, and undiagnosed stress related difficulties.

### **Theme 1: Calming Effects**

In addressing the theme of calming, one subject said, “The kids who use the farm are really from so many backgrounds, but many of them have experienced things like homelessness, abandonment, and abuse. These are things that you know they cannot control. This loss of control can lead to constant irritation and anxiety. We really see a connection with our animals

because most of our animals have experienced similar things as they are rescue animals. Somehow there is a connection between the kids and the animals because of similar distrust of humans that is so extremely calming.”

Interacting with animals, particularly, produced calming and empathy skill building in children working in these programs. Calming becomes necessary as animals are sensitive to human emotions and often will become skittish or angry when interacting with a human who is not maintaining a calm mannerism. Work with large animals such as cows and pigs requires a great deal of self-confidence as being near something that could easily hurt you and simultaneously needs you puts many youth in a place to experience the kind of power that is only usually felt by adults. Children who have been abused or neglected seem to respond particularly well to interactions with large animals as they often have felt a loss of power in their own lives. Another subject explained this by saying, “It’s amazing the way these kids who are so dysregulated come in and we can see their nervous system just start to slow down, petting and interacting with the animals when they have to be calm, and they just are because of a respect for the animals. It’s something that just can’t be accomplished through human to human interactions.”

Participants who were dealing with anger management issues were also seen as benefiting from Green Care interventions. Anger management issues and being calm are similar, but it was noted by one subject that, “With angry kids we often spend more time getting them ready to interact with animals and we likely start them with smaller animals. Goats in particular are a good place to start. There is something about a goat, they are ornery and yet so interested in the reactions of those around them. They do sort of push your buttons and it’s an amazing tool for kids with anger issues who often do similar things to those (humans) around them.”

When looking at the theme of empathy building, we can see that, socially, those involved in Green Care also saw some of these same benefits. Specifically, one subject reported, “When we get a new participant in a group we try to make sure they feel welcome. Many have had a lot of different types of interventions before they come to us and they have a bad attitude because these things have not worked for them. For many they find a place to fit in here with a group of their peers who may or of course may not be going through something similar.” Another stated, “When we watch the animals they can show us so much; we talk about their behavior and what it means, how to read their cues, like when a dog lays down it is showing you what? That it is ready for you to interact with it. Or when a turkey literally gets its feathers ruffled, it’s showing you that you should back away and give it space. It’s the same with humans; it’s just that somewhere along the way we have lost the ability or desire to respect each other in these ways.”

## **Theme 2: Independence and Self Confidence**

The use of horticulture also produced some of the same benefits; however, independence and self-confidence were the most represented in this type of work. It was noted that for youth who are not ready to start interventions with animals, horticulture interventions were something that anyone can be ready to try at any time. Growing plants can be therapeutic in many ways but in those most commonly reported, self-confidence grew from knowing you can and do have a way to grow your own food. One subject described this by saying, “It’s really just kind of so simple it seems unreal, we have in our culture gotten so far removed from where our food comes from that we take it so for granted. But a lot of our kids have had times in their short lives where food was an issue, either not having enough or not having any at all. So when they come here and see the small space we use to grow so much amazing, healthy, nourishing food, and when they get to be a part of that, we can see the spark lit inside of them.” Another stated, “There is

this innate need to learn to help ourselves and each other. Many of the kids we work with feel utterly helpless because of their circumstances. When we can work with them from seed to food, we see the same sort of transition in the kids themselves. They come to us as a seed who needs care and constant reassurance and slowly develop these skills and the self confidence that they can and are responsible for something that matters. And I think too that they are needed is huge. We will help them care for the plants, but if they are ditching out or not making an effort, the plants will lack progress and even die.”

The process is highly dependent on outside variables such as weather and seasons; however, the plants need someone to tend to them, to water them and protect them from disease and bugs. Giving the power over a living, growing plant to a child who feels powerless in life is an amazing thing. They learn that they can produce beautiful results independent of very much adult intervention. Working in the garden is a way to give youth independence while providing a safe space for them to learn. Often those who are not ready to work with animals are able to start with plants and build up confidence first.

### **Theme 3: Empathy**

Green Care activities build empathy for the animals, and for other humans. As one subject stated, “Often as you may have heard the saying, ‘Hurt people, hurt people,’ we have these kids that come to us who are extremely hurt; they are just broken, and many times they want to hurt others. We have to do some work to prepare them to work with the animals and much of that centers on empathy. When they start they don’t give a crap about anyone or anything, especially the feelings of anyone, but by the time they have finished the program they have built these bonds with the animals where they have to be gentle and kind and that shows through in their everyday life.”

The benefit of learning empathy skills through these interventions would be seen in all areas of the participant's lives. When explaining this, one participant said, "When we send kids out in to the world, even say over a weekend during the first part of our program, when they are just starting, we often hear about the trouble they were in during their break but as we go on further, if we can get them to stay and invest, we start hearing from parents and teachers, from therapists and so on, that these kids are growing in ways that show through in all aspects of life. They get in less trouble in school, are home more, are out of trouble with their parole officers or are at least working on it. It's, like, truly amazing."

#### **Theme 4: Individualized Care**

Finally, when talking about the benefits they saw to Green Care as a whole versus other types of interventions, the theme of individualized care emerged. Green Care provides a slow opportunity for growth at one's own pace. Even though funding can be a barrier to success, at the same time not having time limits dictated by billing can allow for more personal planning and slow but more permanent growth or change. Often people feel like insurance companies dictate level and timeliness of care, but the way Green Care is set up now allows for freedom and flexibility in the delivery of services. This is a benefit system wide over more traditional types of therapy. One subject expressed this point by saying, "We are able to use these tools with kids where other types of interventions have failed or have been completed and the issues are still there. We have a different mindset about what is happening. In a traditional therapist session there is an expert and a client; in our setting they are all experts, they have developed the skills to really put them in charge and sometimes those lessons really apply to other settings as well. Our type of care definitely provides the benefit of transitioning skills learned to real life application.

The students become the teachers, so to speak.”

## **Category 2: Possible Barriers to Success**

In this category the themes of partnerships, readiness of clients, and a lack of funding were found. Within these themes, code words of schools, understanding, education, staff, and payment were found. The findings in this section are important because they provide a realistic view of the process of Green Care and the barriers to successful programming.

### **Theme 5: Partnerships Are Complex**

While all were independent programs, three of the subjects were connected with partners such as schools or nursing facilities. Having the partnership was reported as beneficial and also reported as sometimes a barrier to success, primarily in the partner organization which had expectations of the Green Care intervention program without providing any funding or staff to implement services. One such experience was reported by one of the subjects saying, “The school we work with is wonderful. It provides us access to kids in need every day, but during the summer there is no one but the two of us to run everything. No one wants to see all the plants and animals die but we also have lives that require us to be away during the summer. Finding a better way to partner with another organization who wanted to utilize services during the summer would certainly be helpful.”

Lack of knowledge of services and benefits among other community members and mental health providers was also reported as a barrier. One subject expressed this by saying, “If people knew the amazing things that we see happen on a daily basis, or appreciated how amazing those things are, we would be on the news every night.” Although it was expressed that there are many benefits to this type of services, lack of knowledge by those who provide funding and

referrals was reported as a main barrier.

### **Theme 6: Readiness of Clients**

On an individual level, when asked about barriers to success for clients, it was reported that there are sometimes clients who are “not ready” for this type of work. That might mean that they have violent tendencies, are not interested, or are unwilling to participate. Organizations that partnered with others reported this being the case more than organizations who saw individuals or groups on a more voluntary basis. During an interview it was stated that, “This is something you cannot force; if someone is afraid, allergic, or whatever, the barrier is we will certainly try to make things work for them. If that means a lot of time spent in preparation before actually working with the animals, then that’s what we do. Sometimes there is just no interest or no way we are going to be beneficial to a student; in that case, there may be other types of interventions we can refer them to. We realize therapy is not a one size fits all kind of thing and that’s ok!”

### **Theme 7: Funding**

Of the eight interviews that were conducted, only three of them were able to bill insurance for part of their services. This means that the other five relied on some fee for service, but primarily relied on donations. When asked about how they collected donations, one organization mentioned media coverage as a benefit to doing so, “We were on the news a couple of years back and this seemed to bring some awareness to what we are doing, we got some donations in that way. Of course, we also got a lot of people wanting to drop off animals with us that they could no longer care for, so it’s kind of a catch-22 in the regard.” Another subject who relies on donations reported this regarding funding: “When we started, we were so blessed to get

a large grant for all of our buildings and land from a local hospital. Since then we have done our best to maintain what we have and utilize it to the maximum.”

Possibly because of the funding issue, being able to hire qualified staff also came up as a barrier to success. When asked what advice they would give to Master’s of Social Work students who were interested in the field of Green Care (to avoid barriers), one person said they would advise “taking a class in business.” Others noted classes in caring for animals or permaculture as things they would advise doing. Overall, many advised some type of education and none knew of any specific coursework in Green Care being provided in the United States.

While there is currently no specific training in Green Care necessary in the United States, some of the areas subjects had education in included Veterinary science, business, counseling, and education. The lack of structure and standards for this type of intervention was also noted as a barrier, as one subject stated, “There is no way of knowing what you are doing until you jump in and do it. You can learn about the components you need to provide services, but we are among the first to do this here and if we expect to get paid for it we need to organize and standardize some things to make it a safe and effective experience for as many kids as we can.”

### **Category 3: Moving Forward with the Use of Green Care**

In this category the findings were of two major themes. Those were models for European countries and standardization of practice. In those two themes code words of Norway, Holland, payment, education, and unification were found.

#### **Theme 8: European Countries Serve as a Model**

Every one of the participants in this research agreed that there is room for expansion of these types of services in the United States. Three subjects noted its use in other countries, with

one saying, “In Holland and Norway, the use of Green Care is commonplace for those with mental illness and those with other types of disabilities. It has proven so beneficial that the government willingly funds it and provides training and education for those who want to open up their farms or acreages to people.” Because farms are often smaller and the farm economy can be volatile, this also provides a small source of secure income for the farmers.

When we look at the models that other countries provide us it is also clear that there is a way to make funding for these services available. Much of the current research on this topic comes from the UK, Norway, and Holland, all countries that have current service models for providing Green Care interventions. Included in the barriers to success section was information about funding as a barrier; however, we know that this can be overcome because it has been done in other countries.

### **Theme 9: Expansion and Standardization**

When talking about what expansion of their programs would look like, or what they would do if money was not a barrier, some had more big ideas than others, but in all of the interviews they talked about what they would dream for their programs. These things included new and expanded physical ground or buildings, training, and more employees.

While staffing was also an issue mentioned in the barriers, it's important to note it in this section as well because many of the sites that are presently in operation do not have a therapist on site that can bill insurance. This is one of the ways that expansion of staff would lead to greater income being generated and programs becoming more sustainable. This type of personnel expansion would also lead to more specific baseline standards being developed. When asked what they would recommend or advise a group of social work students at the Master's

level, one subject said she would advise “taking a business class; you know, that’s not something most social workers think they will ever need, but if you want to work in this field I highly recommend it, because you never know someday you might want to start doing something independently and then you are going to need to know how to run a business.”

Much like in the beginning of any new type of intervention, there needs to be more research such as this to document the benefits and make sure they outweigh the risks. Much of this type of research has been done in the countries who benefit from established Green Care programs; however, the need for expansion is evident in the lack of research and standards in the U.S. One subject noted this, saying, “We know that what’s going on is some amazing work, but right now it’s not accessible by many. Either the location or the cost or both are barriers, and what we need in expansion is a centralized payer with standards and expectations to create more uniformity while maintaining creative and beneficial differences.”

When discussing looking past their own programs to a wider scope that includes all Green Care type programs in the U.S., one subject was quick to mention the need for a name as a starting place. “We all call ourselves something different; I am sure you have experienced this in even trying to find people to interview. Some are care farms, some are permaculture and rescue sites, some are nature therapy sites, others are just therapists that happen to have the land and opportunities to offer these services to kids. The first step in expansion is, in my opinion, to name this type of work collectively. If no one knows what you are talking about, no one is going to want to take the time to figure it out.”

The use of a collective term, and a centralized payer system that would likely require some standardization among practitioners, were the central codes when it came to expansion. One subject talked about this by saying, “It’s not that we are saying there is a right way or a

wrong way to do these things, you have to work with what you got, but we do need some form of standards about what kind of work we are doing or who is doing it if we expect to be taken seriously, or nonetheless paid for our work.” Another participant added, “The thing with, say, your work in social work is that you are bound to a code of ethics, and other professionals also have codes they have to follow. Here I don’t think anyone is trying to be neglectful but there just wouldn’t be any way of even reporting such a thing really unless it was abuse to animals or humans.”

The passion for the work they are doing was evident in every interview. The desire to expand not only their own practice but the field of Green Care was evident. From the more personal realms of facilities and personnel to the larger talks of uniformity and standardization, everyone agreed there is a lot of work to do to bring standards and practices that are in place in other countries to our services here.

## Discussion

This research's goal was to look at Green Care in the United States and determine if there were benefits of this type of service to youth with a mental health diagnosis. It is successful in doing so as, based on the coding of the interviews completed, there were indeed benefits to the use of Green Care. While this research stands alone in the specific benefits of Green Care for youth with a mental health diagnosis in the United States, the findings are comparable to the benefits found in studies done in other countries; for example, work that is being done in the Netherlands in this area (Hassink, 2010)

Past research had shown specific components and interventions, such as specifically horticultural or animal assisted therapies, to be beneficial (Davis, 2008). Green Care combines these in one and this is important to note because this provides for year-round opportunities to learn. This also includes opportunities to reach more clients; for instance, if there is an allergy or fear in one area.

As discussed in the literature review, previous research showed strong implications for the use of Green Care for anxiety and depression (Parkinson, 2001). This study correlates with that information in finding that there were benefits for youth with a mental health diagnosis who were able to access Green Care interventions.

This study also found that there is no consistent funding source for Green Care here in the United States. The discussion on how to advance the use of Green Care without such a funding stream is of high importance. While some programs are able to bill therapy, this was not the case with most of them. We can take other countries with established programs as an example, but it will be important for those providing Green Care here to begin the process of unification if any

advances in this area are to be made. This leaves a lot of youth who could benefit from Green Care unable to access services.

### **Implications for Social Work Practice**

The field of social work is continuously growing and changing to benefit society and individuals within the society. While other countries provide funding for Green Care, that is unlikely to happen here any time soon. Having a trained and licensed Social Worker on staff who could bill for their services would be one way to provide some funding to Green Care sites.

Green Care could provide a much needed alternative intervention. In both rural and urban areas, people, especially youth, are becoming more and more disconnected from the natural elements of life. Even family farms are becoming more automated and require less physical interaction with animals and horticulture than in the past. Kids are learning in different ways, through the use of technology and advancements in understanding the standardization of education. Students are receiving less outdoor time, and because of this some have lost touch with the key components Green Care provides.

While some technology is a great thing, the stress it adds to everyday life can be overwhelming. It requires most of us to be in front of a screen for much of our working day. Since the Industrial Revolution, the physical demands of life have gone down yet other types of stressors have risen. We have also seen a rise in the report of mental health issues among people of all ages (Demyttenaere, 2004) .

Green Care offers a way to provide therapeutic interventions for youth who have a mental health diagnosis. As mentioned in the findings, Green Care is not for everyone. There are those

who are not ready for or never will be ready for these types of interventions, but for many this may be a very underutilized and valuable resource.

Social workers know that a successful life is about connections that are meaningful and rewarding. Green Care interventions have been shown to have a normalizing effect during group activities, something that likely occurs because it is primarily a new setting for the participants. Social workers often plan goals with clients to reestablish bonds in a community and Green Care could play an important role in this. Youth with a mental health diagnosis who could utilize Green Care as a part of their social worker's plan for them would have the opportunity to reap all of the benefits found to be true in this study. The demand for social workers is expanding and so should the options for holistic and new kinds of care for clients.

### **Implications in Policy**

Much of the need for policy change around Green Care is the lack of funding. We can look to other countries in Europe to provide models of how the funding for this type of care can be effectively distributed and managed. This research has shown that providers are already looking to other countries to establish a model that works for Green Care here in the U.S.

Green Care is not in a place where it is recognized enough to even begin the petitioning of the government for funding on a national level. There is much work to be done in the organization, standardization, and collaboration of providers before this could move forward. Policy change at this stage needs to come from within organizations, and possibly through insurance companies.

In the current health care model in the United States, there is little opportunity for most who are doing Green Care to bill for those services. A select few with the proper training and

credentials are able to bill for the therapy they provide while doing Green Care. We need a more organized and informative, structured set of research that can be presented to advocate for the payment of a broader range of Green Care Services.

### **Implications in Research**

More qualitative analysis of the benefits of Green Care is needed. Research of this kind is imperative and should be continued as part of the process of unification and recognition of Green Care in the United States. Other topics to look at specifically would be colleges and universities working on teaching components of Green Care, how they are doing what they do, and to what benefit. This type of research would allow for a more comprehensive look at what is available as far as education for people looking to go into Green Care.

This study is just the beginning of what is needed to prove the benefits of Green Care and make them known in the United States. Quantitative verification of these benefits is lacking and would benefit the knowledge base on this subject matter.

Also of importance would be research on how to make Green Care affordable and sustainable. While much has been done in this area in other countries, we are lacking anything on that topic here in the United States. This research has shown that there are many benefits to the youth who have a mental illness and participate in Green Care interventions. Further evidence is needed as to what specific interventions produce good outcomes for certain types of symptoms. We now know that these interventions are helpful and needed, yet more work around the methodology and intentionality of specific processes is needed.

### **Strengths and Limitations**

The strengths of this research plan are that it allows for exploration of the way Green Care is already being used to benefit youth with a mental health diagnosis. Little to no research on this exact topic can be found pertaining to sites in the United States, so this research will also carry the strength of usefulness to those providing Green Care and those researching it. Subjects will be able to describe in their own words the beneficial uses of their interventions, allowing for an in-depth study of services from a select few interviews. Using a qualitative interview, knowledge will be obtained that is not generalizable, that allows for the discovery of concepts from the narrative, and that leads to the collection of common themes from those currently providing Green Care.

Limitations of this research are that there currently exists no comprehensive list of Green Care sites in the United States so it is possible that some opportunities for interview could be missed. Limitations of the method of qualitative interview research also include difficulty in making predictions for future use, time consumption in collection, and analysis of data and lower credibility.

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## Appendix A

### CONSENT FORM ST. CATHERINE UNIVERSITY GRSW682 CLINICAL RESEARCH PROJECT

#### Benefits of Green Care for Youth with a Mental Health Diagnosis.

I am conducting a research study that investigates what the possible benefits are to youth with a mental health diagnosis participating in a Green Care intervention. Please read this form and ask any questions you may have before agreeing to be in this study. This study is being conducted by Rebecca Nosbusch, B.A., a graduate student at the School of Social Work, St. Catherine University/University of St. Thomas, and is being supervised by Rajean Moone, Ph.D., LNHA.

**Background Information:** The purpose of this study is to gain knowledge on what concepts, interventions, and techniques are beneficial to those participating in a combination of Horticultural and Animal Assisted Therapy.

**Procedures:** If you agree to be in this study, I will ask you to participate in a face to face, or phone interview lasting approximately 45 minutes. The transcript from the interview will not be shared with anyone and I will conduct my own data analysis. Your name and any identifying information will be removed from the transcript.

**Risks and Benefits of Being in the Study:** This interview will focus on your personal experiences in providing Green Care interventions. This study has no direct benefits; however, information from this study may help professionals to understand the experiences of those providing Green Care interventions.

**Confidentiality:** The records of this study will be kept confidential. I will publish and present information acquired in the interview process. No identifying information will be disclosed in the publication or presentation. Research records, including the audiotape and transcript, will be kept in a locked file in my office for the duration of the research study. One or more members of my research committee may see your interview transcript, but I will delete all identifying information from the transcript. The audiotape, papers, electronic copies of the transcript, and data analysis paperwork documents will be destroyed by June 30, 2016.

**Voluntary Nature of the Study:** Participation in this study is completely voluntary. If you decide to participate, you are free to withdraw at any time without penalty. You may skip any questions you do not wish to answer. You may stop the interview at any time. Should you decide to withdraw before April 1, 2016, all written and electronic materials related to your participation will be destroyed and removed from the publication and presentation. Your decision to not participate in this study will not affect your future relations with any treatment or twelve step programs. Your decision not to participate will not affect your current or future relations with St. Catherine University (SCU), the University of St. Thomas (UST), or the SCU-UST School of Social Work.

**Contacts and Questions:** If you have any questions, please do not hesitate to contact me, Rebecca Nosbusch, at 507-350-1339 or nosb6630@stthomas.edu. You may ask any questions

you have now or at any point during the interview. You may also contact the faculty advisor responsible for overseeing this clinical research project, Rajean Moone, Ph.D, LNHA, at 651-235-0346. If you have other questions or concerns about the study and want to talk to someone other than the researcher and clinical research chair, you may also contact John Schmitt, Clinical Research Chair, St. Catherine University Institutional Review Board via telephone at 651-690-7339 or at jsschmitt@stkate.edu. You will be given a copy of this form to keep for your records.

Statement of Consent: I choose to participate in this research study. My signature indicates that I have read the previous information provided within this consent form and that my questions about this study have been thoroughly answered. I understand that I may withdraw from this study at any time during or after the interview and that information shared by me will be excluded from the study if I withdraw by April 1, 2014.

Signature of Study Participant \_\_\_\_\_ Date: \_\_\_\_\_

Print Name of Study Participant \_\_\_\_\_

Signature of Researcher \_\_\_\_\_

**Appendix B:**

## Interview Questions:

1. Please tell me about your role in providing Green Care services.
2. How would you define Green Care?
3. Did you have any experience with Green Care before coming to this position or had you received any specialized training?
4. What are some of the goals you set for clients who are participating in this type of intervention?
5. What are some of the benefits to using this type of Green Care?
6. Can you give me some specific examples of interventions you provide and how you see them being effective?
7. Would you please share a time when something didn't work well?
8. What would you say are the main barriers to providing this type of care?
9. How have you benefitted personally from providing this type of service?
10. Are there any times you feel that Green Care may not be an appropriate intervention?
11. How is your program funded?
12. If money was no object, what would you change about your services?
13. If you could share something important about your work with an MSW class, what would it be?

14. If there anything you would like to change or expand in your program?