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Depression, Well-Being, and St. John's Wort

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A Abstract Presented to the Faculty of the Graduate School of
Lindenwood University in Partial Fulfillment of the Requirements for the
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Abstract

The following paper examines the relationship of depression, well-being, and St. John's wort. Information and studies are reviewed concerning depression, well-being, antidepressants, and St. John's wort. A survey was given to thirty people varying in age and gender. The survey compared people taking St. John's wort to those not taking it and their sense of well-being. A favorable relationship was found with a person's sense of well-being, between individuals taking St. John's wort and those not taking it.

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Dedication

I dedicate this work to my husband, Charles, and my whole family, thanks to all of you, it is complete. Without your support none of this would have been possible.

To Jim, and my other friends, who helped me pull this all together, thank you for the help and support. It's because of your efforts that this work is what it is.

Table of Contents

Chapter 1

Introduction

Depression is one of the most common mental illnesses. "Since World War II, the annual prevalence rate of depression has been increasing and while the disorder is more common among women, it is becoming increasingly common among young men" (American Family Physicians, 1997, p. 249). It has been estimated that the lifetime prevalence of depression in the United States is 17%, and that approximately three times as many women as men are treated (Linde, Ramirey, Mulrow, Pauls, Melchart, & Weidenhammer, 1996; Woelk, Burkart, & Grunwald, 1994).

Symptoms of depression can be mild to severe, and range from uncompleted bereavement to severe psychosis (Morris, 1996; Woelk et al. 1994). Depending on the severity and cause of the depression, most individuals will seek treatment from their primary care physician (Woelk et al. 1994). Due to this and general physicians not being trained in mental illness treatment, the depression is often misdiagnosed. With treatment being given in this setting, both patients and practitioners are reluctant to use antidepressants for treatment as well (Linde et al. 1996).

With primary care physicians not being specialized in neurology or psychiatry, we can account for an increase in both the misdiagnosis of depression, and a reluctance to use antidepressants in treatment (Woelk et al. 1994). However, due to the greater use of medical services, patients

with symptoms not severe enough for a diagnosis of depression still have impaired working and social lives, along with many unexplained physical symptoms (Hale, 1997). Although mental symptoms can mask physical illness, it is important that physical illness be excluded before mental illness be explored (Gold, 1996). "To reduce misdiagnosis and mistreatment of Depression and other mental disorders, a complete physical, neurological, and endocrinological examination should be performed by a physician who is fluent in both psychiatry and internal medicine" (Gold, 1996, p. 93).

There is a philosophy that sees human function as being divided into three separate components of body, soul, and spirit (Westgate, 1996). With this system of belief, illnesses seen in one component can be treated without looking at the others (Westgate, 1996). This belief is where a person's sense of well being comes into play in relation to depression. Taking this into account, when evaluating different domains of one's self, there can be both positive and negative experiences or beliefs (Showers & Ryff, 1996). "The individual has to be able to identify different domains of the self as distinct from one another, to assign unique improvement value to each, and make use of these important assignments in responding to evens" (Showers & Ryff, 1996, p. 448).

Current trends in the study of depression not only examine a person's symptoms of depression but also the sense of well being as far as one's self-acceptance, positive relations with others, mastery of

environment, and purpose of life (Showers & Ryff, 1996). According to Sherbourne and Wells (1995);

> Studies of depression patients have focused on clinical outcomes such as the number of depressive symptoms, remission, relapse, and disorder states. But, increasingly, investigators have begun to assess outcomes in terms of comprehensive models of functional states and well being that are more commonly used in general health services and policy studies. (p. 345)

What this has meant is that a person's well being is seen as an absence of illness and a sense of harmony with one's self, nature, and general health (Morris, 1996; Pyne, Patterson, Kaplan, Gillen, Golchan, & Grant, 1997). Well being is represented by a person's ability to function in work and social settings. Positive relations with others, and social supports give a person a better sense of well being and, therefore, depression is not seen as a problem (Jung, 1997; Ryff & Singer, 1996).

Spiritual well being is thought of as an individual's finding meaning and purpose to life. This does not really happen when depression is present (Westgate, 1996). Therefore, when a person does not have a good sense of well being, depression may set in.

Today, many people experiencing depression and a low sense of well being are turning to alternative forms of treatment for help (Miller, 1997). St. John's Wort is a natural herb used to help with these concerns (Lipp, 1996). A shrub-like plant with golden-yellow flowers, St. John's Wort grows about three feet in height (Lipp, 1996). Threads running through the middle of the plant yield blood and juices when bruised.

Small black oil glands on the leaves have a distinctive odor and bitter taste.

St. John's Wort's genus is Hypericum perforatum. Its extract, which is used to treat depression, is called Hypericum. "Hypericum perforatum has been known since Greek and Roman times. Its medicinal virtues were described by Dioscoridies (1st century, AD), Galen (2nd century, AD), and Pliny in Book XXIV of his Historiarum Mundi." (Gormly, 1996, p. 24). Currently, research into St. John's Wort is focused on its antibacterial, antibiotic, anti-inflammatory, antidepressant, and antiviral properties (Lipp, 1996; Tyler, 1994). Gormely (1996) stated that, "in 1557, P. Mattioli wrote about Hypericum in his Discorsi, in which St. John's Wort was indicated as a diuretic, emmenagogue and antimalarial. It was especially recommended for the treatment of scalds and burns," (p. 24).

St. John's Wort had been found to be effective in treating mild symptomatic reactive depression, anxiety, nervous unrest, insomnia, nervous headaches, and migraines (Bloomfield, Nordfors, McWilliams, 1996; Lipp, 1996). "The extract of St. John's Wort is licensed in Germany for the treatment of anxiety, depression, and sleep disorders" (Linde et al. 1996, p. 253). In the United States, St. John's Wort is seen as an herbal remedy for depression, anxiety, and mood disorders. It is not, however, licensed by the Food and Drug Administration and, therefore, is not sold

by prescription, and does not have any standardization regarding its potency.

Stated Purpose

The purpose of this study is to examine the relationship between St. John's Wort, depression, and well being. Since St. John's Wort has gained such popularity through TV ads, word of mouth, and other media outlets, it seems important to examine its effectiveness. Using the Affect Balance Scale, 30 men and women were surveyed and ranged in age from 21 to 58. The positive and negative affect scores were compared using a T test for each group (group 1: taking St. John's Wort and group 2: not taking it). The research hypothesis is that subjects taking St. John's Wort have no significant difference in their sense of well being as compared to those not talking it. The alternate hypothesis is that subjects taking St. John's Wort have a significantly better sense of well-being than those not taking it.

Chapter 2

Literature Review

Depression is a mental illness that has been known to exist for centuries. It has a wide range of meaning as well as severity. Depression can mean normal unhappiness, persistent ways of thinking and feeling, and even psychosis (Hale, 1997). "In recent community surveys, 2% of the population suffered from pure depression (evenly distributed between mild, moderate, and severe), but another 8% suffered from a mixture of anxiety and depression" (Hale, 1997, p. 43).

People who have impaired social and working lives, as well as those with unexplained physical symptoms, but do not qualify for a diagnosis of either anxiety or depression, seek use of medical services (Hale, 1997). According to Morris, (1996);

> Depression varies across the life span. Younger people who experience depression typically present with a pervasive sad affect, where as older clients more often complain of pain, chest problems, sensory disturbances, and somatic delusions, and are often hypochondriacal, a major depressive episode manifest as sustained all-pervasive sad affect or a loss of interest or pleasure, with at least four or more of the following symptoms: fatigue, indecisiveness, suicidal ideation, or a change in weight, sleep pattern, or mobility. (p. 446)

Mild to moderate forms of depression manifest as an inability to experience pleasure or happiness, and can be accompanied by feelings of low self-worth and helplessness (Tyler, 1994).

Over the past few decades, a rather broad concept of major depressive disorder has developed. A pronounced impact on the

epidemiology of the mood disorders and some surveys, now suggests lifetime prevalence rates of 15% for men and 25% for women (Payk, 1994). Due to the high rate of treatment for depression, it is one of the most common psychiatric disorders and is the primary objective of the psychiatric field (Payk, 1994).

Symptoms and Causes of Depression

Symptoms of depression can vary from person to person, and so can the severity and length of time that the symptoms persist. Hale (1997), found that "many patients present initially with physical symptoms (somatisation), and some may show multiple symptoms of depression in the apparent absence of low mood ('masked' depression)", (p. 43).

Some symptoms associated with major depression are slow movements, marked delayed response to questions, and drawn-out speech (Bratman, 1997). Hidden symptoms of depression can be excessive shyness, over sensitivity to rejection, and inability to take risks (Bloomfield et al. 1996).

According to the Diagnostic and Statistical Manual of Mental Disorders (1994), symptoms of depression can include any of the following:

- Lack of assertiveness
- Poor concentration
- Persistent sad or "empty" mood
- Irritability
- Loss of pleasure in ordinary activities (including sex)
- Loss of appetite and weight gain or loss
- Feelings of guilt, worthlessness, or helplessness
- Thoughts of death, suicide, or suicide attempts

- Excessive crying
- Decreased productivity
- Chronic aches and pains that don't respond to treatment
- Decreased energy, fatigue, or feeling "slowed down"

Depression can manifest itself as a lack of pleasure rather than a presence of pain (Bloomfield et al. 1996, p. 33). For some individuals the idea of having fun can become hard work and therefore not an activity to be enjoyed (Bloomfield et al. 1996). Characteristics of depression find the person with feelings of emptiness, gloominess, helplessness, and seeing life as meaningless (Westgate, 1996). For these individuals, everyday activities become a struggle to complete where as without depression the activity would be seen as being worth completing (Westgate, 1996). Sherbourne, Hays, and Wells (1995), stated that, "the relationships between stressful events and the onset of depression or psychological distress is not strong, however, the degree to which the occurrence of life events can be separated from the symptoms of depression is often unclear", (p. 345).

Many professional counselors, psychiatrists, physicians, and psychologists have ideas and reasons for what causes a person's depression. Through insights, these professionals have shown us that lingering effects of sexual, physical, and emotional abuse suffered during childhood can be causes for adult depression (Bratman, 1997; Hale, 1997; Sherbourne et al. 1995). Most often depression has a triggering event, especially with the first episode (Hale, 1997).

Depression is also associated with changes in the levels of neurotransmitters, in particular, serotonin and moradrenaline (Thiede & Walper, 1994). A resulting combination of influences, such as a traumatic childhood, biological anemia, negative self-talk, repressed memories, and unrecognized brain chemicals can all lead to depression (Bratman, 1997; Thiede & Walper, 1994). Social psychologists have found that poverty, lack of social supports, external stress factors (unemployment, low socio-economic status), and no confiding relationship play an important role in poor mental health and the development of psychopathology (Bratman, 1997; Sherbourne et al. 1995).

Defining Well being

A person's sense of well being can be many things to different people. It also can range from positive to negative to indifference. Ryff and Singer (1996) said that;

> Well being has been defined as the absence of illness and has the following characteristics as part of good psychological health: 1) a sense of self acceptance, 2) positive relations with others, 3) autonomy, 4) a mastery of environment, 5) purpose in life, and 6) personal growth, (p. 15).

A person's well being can be influenced by the individual's responses to a particular domain of his or her life. With this, a person must be able to identify different domains and assign values to those which can influence the sense of well being during changes (Showers & Ryff, 1996). "The positive relationship between life meaning and hope

implies that lower levels of existential well being may correspond to high levels of depression," (Westgate, 1996, p. 29).

Other factors, such as a person's support network and self-aspects, are also a part of well being. People who provide more support than they receive across their social network might have a higher sense of well being, and show less depressive symptoms (Jung, 1997). Just as a person's self-concept is at the center of importance with regards to depression, when a person regards him/herself positively, depressive symptoms are at a minimum (Beck, 1994). A positive self-concept is marked by seeing one's self as attractive, having ingenuity, talent, and understanding. The depressed person's self-concept will be that he/she see him/herself as devoid of positive attributes and possessing only weaknesses and vices (Beck, 1994).

Evaluating different domains can be positive or negative to one's self-concept and, therefore, may represent ways of either accentuating compensating one's experiences or beliefs. "The balance of support to well being depends on factors such as the type of support, level of hassles, and gender" (Jung, 1997, p. 84). All of these are what people will use to define their sense of well being. Experiences help to shape a person's self-concept. If an experience is unpleasant, then the response is unpleasant (Beck, 1994). When depression is present, however, the experience is unpleasant, and the response is negative (Beck, 1994).

Bradburn (1969) described psychological well being as one very important variable in life and defined it as happiness. Happiness, according to Bradburn (1969), is viewed as being adjusted and having mental health, whereas unhappiness is viewed as being maladjusted and having mental illness. In examining well being, a "well-adjusted" person is said to have a more positive affect than negative affect, and a "mentally-ill" person is said to have a more negative affect than positive (Bradburn, 1969). This leads to a person's happiness or well being in terms of pleasure predominated over pain in the individual's life (Bradburn, 1969). Positive affect, then, is related to factors concerning the individual's involvement with social contact and active interest in the world around the person (Bradburn, 1969). Negative affect, then, is related to difficulties with marriage and work adjustment, interpersonal tensions, anxiety, and other "traditional mental illness" factors (Bradburn, 1969).

Defining St. John's Wort

St. John's Wort (Hypericum perforatum) is one of Europe's classic medicinal plants, but its effectiveness against depression has been neglected, until about 10 years ago. Now, clinical efficiency and tolerability studies are in the foreground, while pharmacological investigations are conducted only supplementary (Harris & Schulz, 1994). "St. John's Wort has been popular for almost 15 years in Europe as a natural remedy for depression" (Miller, 1997, p. 20).

In Germany, physicians prescribe about 66 million daily doses, which is about 25 times the number of Prozac prescriptions. (DeSmet & Nolen, 1996; Miller, 1997). It has been found that the golden-yellow flower that releases red sap when pinched, which is St. John's Wort, has been suspected to have a "healing touch" since the days of Hippocrates (Walsh & Munson, 1995). According to Bloomfield, Nordfors, and McWilliams (1996), "Long before depression was isolated as an illness by traditional western medicine, the symptoms of depression - worry, nervous unrest, sleep disturbance, and others - were treated by folk medicine with St. John's Wort", (p. 54). This weed, found on sun-exposed slopes and in dry grasslands, pastures, and spare woods is widely disturbed in Europe, Asia, Northern Africa, and the United States for one fourth the cost of Prozac (Bratman, 1997; Quinn, 1997).

The name St. John's Wort is believed to come from Christian tradition, in that Saint John represented spiritual light coming to earth (Bloomfield et al. 1996; Bratman, 1997). The word 'wort' is an old English word for plant or herb (Bratman, 1997; Lipp, 1997).

Treatments for Depression

There are many different ways to treat depression. Depending on the exact type and severity of the depression, a variety of treatments may be used such as: psychotherapy, electroshock, or the administration of drugs, particularly the tricyclic antidepressants or monoamines oxide (MAO) inhibitors (Tyler, 1994). Historically, tricyclic antidepressants

have been used to treat depression. However, their use had been limited due to severe side effects (American Family Physicians, 1997; Tyler, 1994). Approximately one-third of all the people with bipolar and psychotic depressions are treated with some type of pharmacological therapy, and the remainder of the cases are treated with psychotherapy (Thase, 1997; Payk, 1994). "Modern psychotherapies emphasize more active interventions that can be tailored to the symptomatic needs of the individual patient, much like pharmocotherapy" (Thase, 1997, p. 1).

Cognitive therapy and interpersonal therapy rely on working with a client in reshaping the clients' thinking, perception, and worldview (Bloomfield et al. 1996). This is done because it is believed that one's view, one's cognition of the world, relationships, and one's self is the underlying cause for depression. Therefore in changing the view, depression is lessened (Payk, 1994). However, when cognitive and interpersonal therapies seem to fail, people turn to antidepressants for help. Payk (1994) found that;

> The anatomist and psychiatrist, Reil (1759-1813), who was the first to use the term "psychiatry," warned against the indiscriminate administration of drugs and instead emphasized the use of psychology, occupation, playing music, and his therapy program Rhapsodies on the application of emotional cures on ruins of the mind (p. 54).

A person's style of coping has been found to be of most importance with regard to mental health. This idea goes back to talking with the person to find the cure. Coping strategies such as talking to a professional to become more informed about a problem, or reminding

oneself things could be worse and making a plan of action has been strongly related to improvements in mental health over time (Sherbourne, Hays, Wells, 1995). Limited data exists to show that general practice counseling prompts better self-image through better coping skills in dealing with mood changes and therefore reduces the need for psychotropic drugs (Boot, Gillies, Reubin, Wilkins, and Gray, 1994).

Antidepressants and Side Effects

"The field of pharmocotherapy currently embraces a broad range of around 40 commercially available thymoliptic antidepressants within the major groups" (Payk, 1994, p. 55). Many of the antidepressants, today, tend to have adverse effects and, therefore, research is needed to develop drugs with fewer side effects. Due to this need, plant-based drugs are receiving a heightened interest.

What antidepressants and plant-based antidepressants do is interfere with the brain levels of amines such as serotonin, noradrenaline, adrenaline, and dopamine (Gormley, 1996). Monoamines oxidas (MAO), a scavenger enzyme, controls the levels of biological amines, and, when taken, will cause amine levels to rise; leading to a goal of high enough levels to combat depression (Bratman, 1997).

Prozac was the first antidepressant developed, followed by Zoloft, Paxil, and Serzone (Bratman, 1997). These drugs are often associated with the following side effects: dry mouth, restlessness (akisthesia), insomnia, nervousness, and loose stool and diarrhea (American Family

Physician, 1997; Bratman, 1997). Effexor is an antidepressant that is often tried when Prozac, Zoloft, and Paxil fail to work. Effexor's side effects are nausea, and an increase in energy (Bratman, 1977). It has been found that some of the most troubling side effects with antidepressants are: reduced sexual drive, adverse interactions with alcohol or other drugs, and headaches. None of these have been reported with St. John's Wort (Bloomfield, 1996).

St. John's Wort and Its Side Effects

St. John's Wort has been found to work in much the same way as Prozac, only with fewer side effects. Sommer and Harren (1994), stated that, "the hypericum extract (St. John's Wort) is a low risk antidepressant treatment for mild and moderate depression with the advantage of reliable antidepressant efficiency and minimum side effects (p. 510).

Both pure hypericum and hypericum extract inhibit MAO activity, which lessens serotonine and noradrenaline levels and, therefore, are responsible for the breakdown of amines, leading to decreased depression (Gormely, 1996; Theide & Walper, 1994). "Unlike classic antidepressants which bind neurotransmitters, hypericum extract might "block" the entry point, leading to an increased level of neurotransmitters and therefore, an antidepressant effect" (Muller & Rossal, 1994, p. 564). Hypericum extract does not pass through "blood-brain barriers," so the primary site of action is related to the release of corticotrophin hormones (Thiele, Brink, & Ploch, 1994).

St. John's Wort has been found to have a general stimulating effect, and may not be helpful for severe depression (Bricklin, 1996). The precautions to take with St. John's Wort are: a) not exceed 300 mg at one time, and not to exceed 900 mg a day, and b) due to a photoreactive effect, not to sunbathe after taking it (Bloomfield et al. 1996; Bratman, 1997; Bricklin, 1996). The most common side effects associated with hypericum are gastrointestinal symptoms, fatigue, phototoxicity, and restlessness (Bender, 1996; DeSmet & Nolen, 1996). When it comes to the toxicity of St. John's Wort, it is seen as safer than aspirin. "The only fatal toxicity known is in certain light-skinned animals, such as sheep, who died not from ingesting large quantities of St. John's Wort while grazing, but from exposure to sun after" (Bloomfield et al. 1996, p. 62).

In Germany, and many other studies, the experience of St. John's Wort users has seen no reports of adverse side effects, and those reported were usually of mild consequence (Bratman, 1997; Harren & Schulz, 1994). Of those mild side effects the most common were stomach discomfort, tiredness or restlessness, and skin itching or rush which all dissipated after four weeks of use (Bratman, 1997). Some of those reporting experiencing side effects, reported later that all side effects disappeared after a few weeks of regular use (Bratman, 1997; Harren & Schulz, 1994).

Research on St. John's Wort

The research done to date on St. John's Wort is numerous. Most of the studies, however, have been produced in Europe where St. John's Wort is commonly prescribed. However, today studies continue to be produced due to the common nature of St. John's Wort in current herbal supplements.

"In roughly two out of three patients with mild forms of depressive symptoms like fatigue and disturbed sleep, were helped with Hypericum extract in carefully controlled European studies" (Bricklin, 1996, p. 16). Positive results were found when questioning the efficiency of treatment using the Hamilton Depression Scale (Woelk, Burkard, & Grunwald, 1994). Patients taking the Hypericum scored between 60% to 70% improvement while those taking a placebo scored only 30% improvement (Woelk, et al. 1994). Bender (1996) stated that "in thirteen studies comparing Hypericum to a placebo, 55.1% (225) of the patients receiving the herb were improved compared to 22.3% (94) responded to the placebo" (p. 2).

After two weeks of treatment (one group taking Hypericum and the other group taking a placebo) significant improvement in depressive symptoms were seen in the group taking Hypericum (DeSmet et al. 1996; Hubner, Lande, & Podzuweit, 1994; Sommer et al. 1994). After four weeks taking Hypericum, the group continued to have improvements

while the placebo group did not (DeSmet et al. 1996; Hubner et al. 1994; Sommer et al. 1994).

Harren et al. (1994) stated that, "the results of comparing treatment with LI 160 (Hypericum extract) and maprotiline on the Clinical Global Impression Scale showed the Hypericum product was better (in terms) of patients 'very much improved' and 'no longer ill'" (p. 27). Vorbach, Hubner, and Arnoldt (1994) found that "the efficacy of LI 160 (Hypericum) in 26 patients was significantly better than in 25 patients on imipramine, both with regards to Hamilton total scores and therapeutic effects and changes in severity in the Clinical Global Impression Scale" (p. 21). Evidence of specific affects of Hypericum in improving depressive symptoms using the Depression Scale were in the areas of well being, anxiety, and cardiovascular symptoms (Hansgen, Vesper, & Plock, 1994).

Both German and American researchers who reviewed 23 European studies on St. John's Wort concluded that it appears to work as well as some of the older prescription antidepressants with fewer side effects when treating mild to moderate depressive symptoms (Blake, 1997). Research continues to be done and St. John's Wort and positive results continue to follow.

Summary

To summarize, depression can be anything from simple unhappiness, to an inability to experience pleasure, to psychosis. True depression is serious business and should be evaluated by a licensed health-care practitioner, but for those "feeling the blues" St. John's Wort is safe nonaddictive natural antidepressant (Quinn, 1997). When individuals have prior episodes, or a history of depressed symptoms, sometimes drug treatments like Prozac can mask physical, psychological, or nutritional causes and St. John's Wort can assist until these changes can be made (Quinn, 1997; Showers and Ryff, 1996).

An individual's sense of well-being can be defined as positive when he/she has an attitude of "I am capable", or "I can get what I want," and negative when the attitude is one of "I am weak," or "I am inferior," (Beck, 1994). The depressed individual's affect will be associated with thoughts of desertion, inferiority, or dereliction and represented with feelings of loneliness or guilt. The nondepressed individual's affect will be associated with euphoria, pleasure, or happiness and represented with themes of anticipation or excitement (Beck, 1994).

The research completed on St. John's Wort has shown that it acts as an antidepressant and is effective in treating mild depression (Bratman, 1997). Bratman (1997), stated that "the only safe conclusion is that we really do not know how St, John's Wort works in treating depression. However, this only puts St. John's Wort in the good company of all other

antidepressants, whose methods of functioning remain unclear as well" (p. 79). It is therefor this researcher's hypothesis that subjects taking St. John's Wort will have no significant difference in his/her sense of well-being compared to those not taking it. For the alternate hypothesis there will be a significant difference in the sense of well-being between those taking St. Jon's Wort and those not taking it.

Chapter 3

Methods

Participants

For this study 30 adults of various ages and both males and females volunteered to participate in a survey on St. John's Wort and its effect on their sense of well being. Volunteers ranged in age from 21 to 58. Two groups were formed; those taking St. John's Wort (group 1) and those not taking it (group 2). The mean age for group 1 was 33 years old, with a maximum age of 51 and a minimum age of 21. The mean age for group 2 was 34 years old, with a maximum age of 58 and a minimum age of 23. Participates were chosen through contacting individuals who were referred to the researcher by a network of friends and acquaintances and asking each if they would be interested in participating in a graduate thesis project on this subject. The participates, taking St, John's Wort, were not asked what brand or what amount they were taking. These individuals stated they were taking it to either help improve their general out look on their lives or to help with depressive symptoms. Those individuals not taking St. John's Wort stated they did not feel any need to take it to help their sense of well-being.

Materials

Materials used for this study are the Affect Balance Scale by Bradburn and Noll (1996), which is a 10 item instrument designed to measure psychological well being. It should be given to individuals on a

voluntary basis and written, as well as, scored as shown in Appendix 1. Participates taking some form of St. John's Wort Should be doing so for depressive symptoms or to improve their general out look on their life. St. John's Wort should be taking for at least 4 weeks prior to participating but the brand and amount are not taken into consideration. Participates not taking St. John's Wort should not feel the need for improvement of their sense of well-being.

Procedure

The Affect Balance Scale, by Bradburn and Noll (1996), was given to each participating group member either by phone or in person upon agreeing to participate (this was done at various times and days depending on individual's availability). Data was collected on how the individual scored on the Affect Balance Scale according to if they were or were not taking St. John's Wort. Individuals taking St. John's Wort, had been doing so for a minimum of 4 weeks.

For this study 15 individuals taking St. John's Wort and 15 individuals not taking St. John's Wort, completed the Affect Balance Scale. The individual's age should be of that of an adult (adult age was considered to be over 21 years) and gender could be either male or female.

The individual, upon agreeing to participate, was then given the survey as shown in Appendix 1 but without the scores listed. This then had some surveys completed by phone and some in person. When done in person, the individual was handed the survey and upon completing it gave

it back to the researcher. The researcher then scored the survey based on the number value given for each question. Odd numbered questions added together gave the negative affect score; for example question 1 an answer of yes scored 3, question 3 an answer of yes scored 9 and so on. Even numbered questions added together gave the positive affect score; for example question 2 an answer of yes scored 6, question 4 an answer of yes scored 3. The individual surveys were then divided into two groups: those taking St. John's Wort and those not taking it.

Reliability and Validity

Reliability and validity for the Affect Balance Scale has been shown to been very consistent with a number of studies according to Measurements for Clinical Practices (1996). It has been correlated with other predicted directions such as the Depression Adjective Checklist, reports of levels of activity and response to illness among elderly, life satisfaction, and social interaction (Measures for Clinical Practice, 1996). The Affect Balance Scale has shown good to excellent internal consistency in number of studies with an alpha that consistently exceed .80 (Measures for Clinical Practice, 1996).

Chapter 4

Results

Thirty surveys were completed and divided into two groups, with group 1 being those taking St. John's Wort and group 2 being those not taking it. Each group had 15 individuals in it. There were 9 females in each group and 6 males in each group (Table 1). The mean age for group 1 was 33 years old, with a maximum age of 51 and minimum age of 21 (Table 1). The mean age for group 2 was 34 years old, with a maximum age of 58 and a minimum age of 23 (Table 1).

Table 1

	# Females	# Males	Age Range	Mean Age
Group 1:	9	6	21 to 51	33
Group 2:	9	6	23 to 58	34

A standard T-Test was run using each group's negative and positive affect scores. For the negative affect scores the mean in group 1 was 25 and in group 2 the mean was also 25 (Table 2). A score of 25 for the negative affect is considered to be in the middle and therefor either high negativity or low negativity is attributed to a person's sense of well-being. Standard deviation for the negative affect in group 1 was 1.83 and in group 2 it was 1.70 (Table 2). The T-Test score for the negative affect scores between group 1 and group 2 was .759 and thus showing no significance at the .05 alpha level of significance with 28 degrees of

freedom (Table 2). Overall, this indicates that neither group has a negative sense of well-being.

Table 2

	Group1 Negative Affect	Group 2 Negative Affect
Mean:	25	25
Standard Deviation:	1.83	1.70
T Test Score:	.759	.759

For the positive affect scores the mean in group1 was 29 and in group 2 it was 29 also (Table 3). A score of 29 for the positive affect is considered to be high and therefor a person's sense of well-being is highly positive. Standard deviation for the positive affect in group 1 was 1.19 and in group 2 it was 1.04 (Table 3). The T-Test score for positive affect scores between group1 and group 2 was .423 and thus showing no significance at the .05 alpha level of significance with 28 degrees of freedom (Table 3). Overall, this indicates that neither group has a high sense of well-being.

Table 3

	Group 1 Positive Affect	Group 2 Positive Affect
Mean:	29	29
Standard Deviation:	1.19	1.04
T Test Score:	.423	.423

These two T-test scores, showing no significant difference between the two groups, indents that the null hypothesis is accepted. Taking St. John's Wort has no significant difference to a person's sense of well-being as compared to those not taking it. The alternate hypothesis would be rejected because taking St. John's Wort does not produce a significantly higher sense of well-being.

Chapter 5

Discussion

The result of this study showed no significant difference in an individual's sense of well-being between people taking St. John's Wort and those not taking it. This would then lead us to accepting the research hypothesis that people taking St. John's Wort have no significant sense of well being than those not taking it. It was the intention of this research to show that St. John's Wort had some positive effect on those using it. Because of the fact that there was no significant difference between the two groups and their sense of well being, St. John's Wort appears to have some type of positive effect. This positive effect is due to there not being a high score on the negative affect scale. However, it could also be said that St. John's Wort had a zero effect on a person's sense of well-being due to the no significant scores for both the positive and negative affect.

Limitations

Factors that may have effected this study are: a person's age, where they are at in life (e.g. getting married, having a baby, etc), what brand of St. John's Wort they were taking, and the amount they were taking. Due to the nature of self-rating scales, how a person's day was and the time they answered the survey could have also affected the out come. One other disadvantage to this survey is the group of individuals for whom it is difficult to distinguish avowed happiness. Bradburn (1969) stated, "By relying on a number of items rather than a single one, one would hope

that various errors of measurement would cancel each other out and leave us with a more 'valid' measure" (p. 69).

True depression is a serious business and should be evaluated by a licensed health care practitioners, but for those "feeling the blues," St. John's Wort is a safe, non-addictive natural antidepressant (Quinn, 1997). In some cases it can be helpful to use until physical, psychological, nutritional, and other lifestyle changes can be made (Quinn, 1997). Although we don't know how St. John's Wort works exactly, the research and studies completed on it show that it is in good company with other antidepressants (Bratman, 1997). As discussed in the literature review, mid depression and feelings of low self-worth have many causes but appear to be relieved with St. John's Wort (Tyler, 1994; Payk, 1994). A person's sense of well-being also has many factors that affect it and when well-being is low St. John's Wort can assist with being more positive (Bradburn, 1996).

In looking at all the studies completed and the media attention given to St. John's Wort, it is no wonder so many people today are turning to it for help in dealing with the everyday life stresses. Knowing that it is safe and somewhat effective, can be a relief to individuals trying to decide weather it would be right for them to try or not. Since all data collected on St. John's Wort to date has shown very little side effects or other difficulties in taking it, and has shown it to be effective in treating mild forms of depression, its place in today's society is set.

Appendix 1

This survey is being conducted for a graduate thesis. All information collected will be kept confidential and will not be used for any other purpose. Your participation is strictly voluntary and greatly appreciated. Please answer the following question with regard to how you have felt over the past few weeks by circling "Yes" or "No."

Age:_____ Sex: Male Female

Yes No Are you currently taking St. John's Wort?

If yes, circle the closest reason why you are taking it?

Stress Depression "Feel Better of life" Other

How long have you been taking St. John's Wort? 0-2 weeks 2-6 weeks 6 or more

During the past few weeks, have you ever felt:

Yes (3) No (2) 1) Particularly excited or interested in something?

Yes (6) No (5) 2) So restless that you could not sit long in a chair?

Yes (6) No (5) 3) Proud because someone complimented you on something you had done?

Yes (3) No (2) 4) Very lonely or remote from other people?

Yes (6) No (5) 5) Pleased about having accomplished something?

Yes (9) No (8) 6) Bored?

Yes (3) No (2) 7) On top of the world?

Yes (6) No (5) 8) Depressed or very unhappy?

Yes (9) No (8) 9) That thing were going you way?

Yes (3) No (2) 10) Upset because someone criticized you?

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