



# **INTEGRAL ECOPSYCHOLOGICAL INVESTIGATION OF BONSAI PRINCIPLES, MEANING AND HEALING**

**CAROLL HERMANN**

**2013**

A thesis submitted in fulfilment of the requirements for the degree Doctor of Philosophy in  
the Department of Psychology at the University of Zululand

**SUPERVISOR** : **PROF. J.D. THWALA**  
**CO-SUPERVISOR** : **PROF. S. EDWARDS**

## DECLARATION

I, **CAROLL HERMANN**, declare that **INTEGRAL ECOPSYCHOLOGICAL INVESTIGATION OF BONSAI PRINCIPLES, MEANING AND HEALING**, is my own work and all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Caroll Hermann

Signature: \_\_\_\_\_

## **FOREWORD**

I am where and who I am because of some people and in spite of others. I am grateful to each and every one of them.

To the Shadows in my Bonsai-en and the Silence that can be heard within!

Bonsai is not a way of life. It is my life.

## ACKNOWLEDGEMENTS

*“To those whose passion burned them with the truth and made them prey to the beasts of their thoughts”*

Philippe Julien

First and foremost, I would like to thank Professor Steve Edwards for the idea, inspiration and motivation. Without his vision and encouragement, this thesis would never have seen the light of day.

Professor J.D. Thwala for his unwavering support and trust.

Charles Ceronio, who has been one of my biggest mentors, Louis Nel (R.I.P), whose narratives were inspirational. Dot Henegan for her support with the thesis and magazine, although we did not always agree. Tannie Dot, jy sal altyd iemand wees wat ek probeer nastreef. Dankie vir al die lekker koek as ek n draai kom maak oppad Johannesburg toe.

Budi Sulistyو for his words of wisdom, you planted the seed that Prof Edwards watered.

Robert Baran, for giving me access to his statistics. Steve Moore, thank you for your humorous emails that kept me motivated. Harry Harrington, whose bonsai friendship has come a long way, a far-away friend, whom I hope to meet one day.

Bill Valavanis, for sharing his amazing stories with me. Walter Pall, for all the information and for allowing access to the blogs and web sites. All the participants of the survey who gave selflessly of their time, their comments and their follow-up emails and to my many bonsai friends all over the world.

Melodie Callow – My music teacher in the 70’s, you made me believe that I can do anything.

Ken le Roux for his selfless editing and re-editing of this thesis.

Dr. Adriaan van der Wart for his long-time friendship and thought-provoking book that restored my Faith.

No dedication is ever complete without thanking one's family. A special thanks to my husband, Steve, for cooking and cleaning and fetching and carrying and editing. Thank you for all the times you stepped in to give me the freedom to complete my years of study. I don't know of any other man that will climb a tree to get that last elusive seed, dig trees, move heavy pots, make space for *more*, and never complain! My sons, Ryan, Nolan & Reevin: hopefully you will no longer hear: "...just now. Let me just finish this first...", for sharing my passion for trees; and for always leaving treasures of seeds, collected on the playgrounds, hidden in their pants pockets. My mother, who instilled a love for gardening in me and ALWAYS believed in me, no matter what.

Lastly, I would like to dedicate this to my father, who never saw the completion of this thesis. This one's for you, Dad!

## **ABSTRACT**

Art therapy is very popular amongst therapists, and Bonsai art adds another dimension to the intervention stratagem. One aspect of an intervention strategy is to reduce the burden of mental illness and related conditions. Bonsai as an intervention combines meditation, spirituality, responsibility and the ability to express oneself through this timeless art. An international study was conducted of the habits, health and spirituality of 253 bonsai practitioners. Participants completed the Spirituality Scale, Patient Health Questionnaire and the Quality of Life Scales, as well as a questionnaire about their interest in Bonsai. Results indicated that although the participants were not necessarily healthier than the general population, they experienced peace by being actively involved in Bonsai. Bonsai is proposed as a new expanded category of supportive therapeutic mechanism, along with an elaboration of expressive therapeutic mechanisms such as when working in groups, such as hospitals, old age homes and prisons.

**Keywords:** intervention, silence, spirituality, Bonsai, well-being, psychotherapy.

## Table of Contents

Declaration.....	i
Foreword.....	ii
Acknowledgments.....	iii
Abstract.....	iv
<b>Chapter 1.....</b>	<b>1</b>
<b>Introduction to the Research.....</b>	<b>1</b>
Introduction.....	1
Motivation for the study.....	2
Aim of the study.....	3
Methodology.....	3
Limitations of the study.....	4
Definition of Terms.....	5
Background to the study.....	6
History of Bonsai.....	9
Bonsai Masters.....	18
Methods of collecting tree material.....	20
Collecting from Nature.....	20
Growing from seed or cutting.....	21
Bonsai Rules (Appendix 7) .....	22
Use of soil.....	23
Christianity.....	23
Buddhism.....	24
Resume.....	26
<b>Chapter 2.....</b>	<b>27</b>
<b>Literature Review.....</b>	<b>27</b>
Introduction.....	27
Integral Psychology.....	27
Ecopsychology.....	32
The Gaia Hypothesis.....	33
Integral Psychology.....	34
Integral Ecology.....	43
Bonsai as transitional object from the perspective of the Psychoanalytical tradition.....	44
Theory of Hope.....	48
Inner Spaces and Shadows.....	50
Silences.....	53
Rehabilitation prospects.....	55
Resume.....	57

<b>Chapter 3</b> .....	58
<b>Methodology</b> .....	58
Introduction.....	58
Research Question.....	58
The aim of the study.....	59
Significance of the study.....	59
Statement of the problem and limitations.....	60
Methodology.....	60
Research design and Data Collection.....	60
Sample.....	62
Instruments.....	62
1. Spirituality questionnaire.....	62
2. Health questionnaire.....	66
3. Quality of Life questionnaire.....	67
4. Bonsai activity questionnaire.....	68
5. Interviews.....	68
Data Analysis.....	69
Subjective correlative analysis of content.....	69
Limitations.....	74
Ethical Considerations.....	74
Resume.....	75
<b>Chapter 4</b> .....	76
<b>Results</b> .....	76
Introduction.....	76
Results and Analysis of Quantitative Data.....	76
General Information Questionnaire.....	76
Age Distribution.....	76
Living Arrangements.....	78
Number of trees owned and quality of trees.....	79
Styling of own trees.....	80
Participants adhering to the rules of bonsai.....	81
Hours spent working on trees.....	82
Hours spent enjoying trees.....	83
Formal club membership, attendance at workshops.....	84
Calming effects and mood.....	85
Results of the Spirituality Scale.....	86
Quality of Life.....	93
Overall Quality of life of all participants.....	95
Patient Health Questionnaire.....	95
Results of Qualitative Analysis.....	99
Thematic Analysis.....	106

Theme One: (I Reflection) Bonsai is irrefutably connected to a love of all things in Nature.....	106
Power.....	106
Harmony & order – Bonsai rules, traditions and rituals.....	107
Respect for Nature and conservation.....	107
Behavioural component.....	108
Theme Two: (Reflection) A deep seated Spirituality is involved in practicing the art.....	109
Pleasure.....	109
Contentment.....	109
Inner Spaces and Shadows.....	109
Silence.....	110
Spirit Guide.....	111
Theme Three: (We Reflection) A balance needs to be maintained between what the Bonaist feels toward the tree and the innate need to create.....	111
Competence.....	111
Respect.....	112
Connected to life cycles.....	112
Reflection.....	112
Theme Four: (Its Reflection) There is a lack of social affinity amongst artists.....	113
Belonging.....	113
Social component.....	114
Resources.....	114
Personal gain.....	114
Social gain.....	114
Physical health.....	115
Resume.....	115
<b>Chapter 5.....</b>	<b>116</b>
<b>Discussion of Results.....</b>	<b>116</b>
Introduction.....	116
Discussion of results.....	116
Theme One: (I Reflection) Bonsai is irrefutably connected to a love of all things in Nature.....	119
Power.....	119
Harmony & order – Bonsai rules, traditions and rituals.....	120
Respect for Nature and conservation.....	122
Behavioural component.....	123
Theme Two: (Reflection) A deep seated Spirituality is involved in practicing the art.....	125
Pleasure.....	125

Contentment.....	126
Inner Spaces and Shadows.....	127
Silence.....	128
Spirit Guide.....	130
Theme Three: (We Reflection) A balance needs to be maintained between what the Bonsaist feels toward the tree and the innate need to create.....	131
Competence.....	131
Respect.....	133
Connected to life cycles.....	134
Reflection.....	134
Theme Four: (Its Reflection) There is a lack of social affinity amongst artists.....	135
Belonging.....	135
Social component.....	135
Resources.....	137
Personal gain.....	138
Social gain.....	139
Physical health.....	140
Limitations.....	142
Resume.....	143
<b>Chapter 6.....</b>	<b>144</b>
<b>Recommendations.....</b>	<b>144</b>
Introduction.....	144
Recommendations.....	144
Resume.....	152
<b>Chapter 7.....</b>	<b>153</b>
<b>Conclusion.....</b>	<b>153</b>
Conclusion.....	153
Recommendations for further study.....	154
<b>References.....</b>	<b>155</b>

## Table of Figures

Figure 1 (Wilber’s AQAL Model).....	36
Figure 2 (Wilber’s Methodological Zones).....	38
Figure 3 (Thematic Network for Bonsai Themes).....	73
Figure 4 (Social skills component).....	124

## Table of Tables

Table 1 (Spirituality Scale).....	64
Table 2 (SS - Summary of Cronbach Alpha and related statistics) .....	92
Table 3 (Quality of Life Index) .....	93
Table 4 (Overall Quality of Life) .....	95
Table 5 (QoL – Cronbach Alpha and related statistics) .....	96
Table 6 (Anxiety Scale – Cronbach Alpha and related statistics).....	97
Table 7 (Depressive Scale – Cronbach Alpha and related statistics) .....	98

## Table of Graphs

Graph 1 (Age Distribution).....	77
Graph 2 (Total Bonsai) .....	77
Graph 3 (Living Arrangements) .....	78
Graph 4 (Number and Quality of Trees) .....	79
Graph 5 (Styling of own trees) .....	80
Graph 6 (Rules of Bonsai) .....	81
Graph 7 (Working Hours per week) .....	82
Graph 8 (Hours spent in Bonsai-en) .....	83
Graph 9 (Club Membership and participation) .....	84
Graph 10 (Calming Effect and Mood) .....	85
Graph 119 (Search for Self).....	87
Graph 12 (Seeking Relationships) .....	88
Graph 13 (Eco-Awareness) .....	90
Graph 14 (Overall Spirituality) .....	91
Graph 15 (Quality of Life) .....	94
Graph 16 (PHQ – GAD Comparison) .....	97

## **Appendices**

Appendix 1a (Spirituality Scale) .....	165
Appendix 1b (Spirituality Scale Scoring Sheet) .....	167
Appendix 2 (Patient Health Questionnaire) .....	169
Appendix 3a (Quality of Life Index) .....	171
Appendix 3b (Quality of Life Index Scoring) .....	175
Appendix 4 (Bonsai Questionnaire) .....	177
Appendix 5 (Bonsai Interview Questionnaire) .....	179
Appendix 6 (letter of Informed Consent) .....	180
Appendix 7 (Bonsai Rules) .....	182
Appendix 8 (Permissions) .....	186

# BONSAI NO KOKORO

(Spirit of Bonsai)

## CHAPTER ONE

"If one is to be happy all of his life--first plant a garden."

Chinese Proverb.

### **Introduction**

Bonsai has been a part of the author's life for more than 31 years. On reflection, it started off with a tree in a pot (which strictly speaking is still a bonsai) and has culminated in a life passion. It has become a means of escape from daily life, stressful work, personal issues as well as a celebration of life and death. It has involved moments of pure joy with friends and other bonsai artists to instants of despair when a tree dies.

At a local conference in Bloemfontein in 2008, Louis Nel, a respected South African artist, narrated a story of what he thought had happened through the life of the tree he was busy styling. This started a notion that every tree must tell a story and changed the outlook for the author. The seed was planted. In Cape Town in 2010, during another conference, an international Master spoke of his trees as if they were alive, had character and could tell a story. His tale stayed with the author and the little tree started to grow.

Through the years, and many relocations, trees died, were given away or returned to a garden, but everytime, it would start again with a seedling or a small tree found in the veld.

This chapter discusses the main theme of this thesis. It focuses on the history of Bonsai with reference to Bonsai's standing in South Africa. It also briefly touches on various

important aspects of the art and what it means to the author. The chapter furthermore provides the motivation, research question, aim and methodology for the study.

The purpose of this study is to determine whether there is a link between the art of Bonsai, and Spirituality and mental well-being. This study hopes to provide some plausible explanation for the impact that being engaged in Nature as well as activities in and around Nature might have on the capacity of a person to adjust to negative life events. More explicitly, it attempts to determine whether or not being engaged in Nature leisure activities can have direct and indirect influences on mood and spirituality.

### **Background to the study**

Since the Beginning of time gardens have fascinated people. Man has always been preoccupied with gardening, and working with plants or soil. Bonsai is a form of artistic gardening. This Eastern art form has fascinated the West for centuries. Its myriad of philosophies and meanings have lured, intrigued, and held many an artist, hobbyist and admirer captive for hours.

There is an ancient Japanese saying that “tears are dried, pain disappears and heartaches mended when one is pulling weeds or watering a flower”. In ancient Japanese culture, the spiritual rebirth by Nature is contained in the peaceful cultivation of Bonsai. “Bonsai No Kokoro” means the “Spirit of Bonsai” (Kato, 1983, p. 1).

In this study, the work of Ken Wilber as well as many other theoretical frameworks along the line of Integral and Eco-psychology will be investigated to see how best Bonsai and its mystic healing powers can assist in mental well being of modern man.

Wilber focuses on an integrated wholeness of human existence (Adams, 2006, p.55) as well as concerning himself with its apparent diversity. Adams (2006, p.56) stated that

psychology and art are reciprocal complementary disciplines that are dedicated to reveal this apparent diversity and that through art, the discipline of psychology has long since offered an appreciation of the arts whereas the arts have served as a cradle of understanding regarding human psychology. Wilber makes a good argument in his description of a van Gogh painting, that art can change a person's perception, health and being, just by viewing it (Adams, 2006, p.57).

Wilber refers throughout his work to the "Four Quadrants" of existence (Wilber, 1997, p.71). These quadrants (Intentional; Behavioural; Cultural and Social) are a summary of facts examined through various developmental and evolutionary fields, involving hierarchies within each quadrant, thus claiming that humans are far more than just individuals acting alone. Humans cannot exist in isolation and as such must draw power, healing from their environments. He stated that many researchers focus only on only one quadrant and ignore the rest and only when all four quadrants are treated as a whole in an "All Quadrant, All Level" approach, will true consciousness be understood (p.75).

Wilber (1997), claims that the 'interior dimensions' of human beings are composed of a "spectrum of consciousness", fluctuates from "sensation to perception to impulse to image to symbol to concept to rule to formal to vision-logic to psychic to subtle to causal to nondual states". This spectrum of consciousness can also range from "subconscious to self-conscious to superconscious; from prepersonal to personal to transpersonal; from instinctual to mental to spiritual; from preformal to formal to postformal; from instinct to ego to God" (Wilber, 1997, p.75).

### **Motivation for the study**

Whilst there are a myriad of psychotherapeutic modalities, only a few focus on the healing power of Nature. The ones that do, only make use of animals and none focus on the

use of trees (or gardening) as an instrument. It is envisaged that the development of such a modality may assist in improving the mental health of those that get involved in the artform. It is also proposed that a relationship exists between Spirituality and a love for Nature, and mental well-being.

Psychotherapeutic interventions are important in the development of mental health programmes and in general health promotions in developing countries such as South Africa. As a motivating factor, the bonsai-assisted therapy tool can not only improve mental well-being, but also improve social skills and psychological well-being in community settings, hospitals, places of safety and prisons.

Rehabilitation of mental challenges, including Traumatic Brain Injury (TBI) seldom reflects on the role of the avocational interest of a person. Often, the return of a mental health care user to leisure pursuit, is neglected (McDaid, 2008, p. 3). This study intends to investigate using bonsai as a possible psychotherapeutic tool.

Ethnobotany, on the other hand, is described as the study of complex relationships between plants and cultures (Chaudhary, Singh, & Pillai, 2008, p. 38). Tending a “living thing” is in itself therapeutic and, in conjunction with art therapy, could be used to improve a person’s mental well-being. The emphasis of ethnobotany is on how plants are being used, managed and perceived in modern civilisation.

Humans do not only use plants for food and therefore the relationship between plants and human cultures is not limited to sustenance, clothing and cover only. Plants are also used often during religious ceremonies, or used as ornaments and in health care. No study has ever been conducted on the psychological impact of botany as psychological therapy. Ethnobotany is a multi-disciplinary activity that can be described as a study of the relationship between plants and people.

Wilson's (as cited in Mayer, Frantz, Bruehlman-Senecal, & Dolliver, 2009, p. 610) biophilia hypothesis is founded on the principle that our connection to Nature and the significance of us in Nature stems from the possibility that individual survival was partially dependent on signs from the ecosystem that would signify safety or threat. There is a biological need to associate and feel connected to the larger environment. The biophilia hypothesis proposes that these thoughts of belonging and closeness can in turn generate a condition where personal change and healing can become possible.

Bonsai No Kokoro can be described as a combination of the affection for gardening and enlightenment through Nature. One cannot practice the art of Bonsai if not called to it. This vocation is similar to that experienced by people who are drawn to religion. Only when the artist is ready, will Bonsai welcome him or her into its soul. This spirit is not cultivated overnight but over a period of time and requires devotion, self-control and frequent attention. It demands that silence be listened to and that the unspoken is heard. Bonsai lends itself to one's design which enables it to take the shape of the tree, but the lesson that one learns comes from the art that has been created (Kato, 1983, p. 1).

Aten (2004, p.254) calls on clinicians to take a reflective look at the modality of psychology and find a way to "bridge the gap" between integrating disciplines and practice. This thesis attempts to integrate the spirit, the brain, the mind, the body and mental health.

### **Aim of the study**

The aim of this study is to discuss whether bonsai art can have a holistic benefit on the psyche of the artist and whether it could possibly be used as a rehabilitation tool. The broader intention involves expanding the theoretical framework for understanding and

informing the close link between spirituality, healing and the arts. It reflects on aspects of integral and eco-psychology and focuses on developing new strategies in the field of psychology.

The study of integral eco-psychology can be a learning paradigm (Mahoney, 2002; Wilber, 1997) in the field of psychology to augment the existing theories, approaches and interventions of mental health. The researcher is therefore of the opinion that this study will add value to therapeutic approaches unfamiliar, untried and untested. This approach relates to the holistic promotion of mental and physical health. It is envisaged that the information gained during the study will assist in preventing mental illness and possibly aid in mental health rehabilitation to a certain extent. Research finding will be distributed to relevant health professionals and will encourage further research in the field.

Oneness in being and Nature, consciousness and body and soul is important for being healthy, both physically and mentally. If one is not in harmony with all surrounding forces, it can lead to both mental and physical ill health and exhaustion (Wilber, 2012, p. 17).

### **Limitations of the study**

The art of bonsai is specifically targeted in this study and not ‘working in a garden’ or gardening. Specific principles, as with any art, is important and should be a guide for the participant to be successful. The purpose of bonsai is firstly observation and scrutiny by the observer and secondly, the pleasing practice of skill, effort and creativity for the grower. What separates it from traditional gardening is that its sole intention is to please. It is the long-term cultivation and shaping of one or more small trees in a container. It is not intended for the production of food or creation of gardens and landscapes (Chan, 1987, p. 72).

The study will be limited to serious bonsai growers (artists) and will not include bonsai collectors and bonsai appreciators.

## **Methodology**

The research question central to this study, is: *Please describe in full detail the influence that bonsai has on all aspects of your health and wellbeing. Please ensure that you include all aspects, such as physical, mental, social, spiritual, ecological, etc. Please include all your experiences with regard to all aspects of health and wellbeing that you can think of.*

A qualitative research method will be adopted and meaning will be given to the data by means of interpretation. Ethnographic semi-structured interviews will be conducted with focus groups. From this qualitative study, quantitative measures will be developed because of lack of existing measures and the minimal data available. Concepts such as validity and reliability will be avoided for unstructured and demographic questionnaires, except specific measuring instruments (Delaney, 2005) where terms such as “trustworthiness”, “dependability” and “credibility” will be used.

The international community of bonsai is a relatively small and intimate society. Members who are considered to be masters as well as members who are revered by their peers will be asked to complete questionnaires. Therefore a method of purposive convenience sampling will be applied to a cohort study group of at least ten (10) well-known and respected Master artists, as well as forty (40) senior growers will be conducted.

In depth interviews will be conducted with ten (10) Master artists participants via Skype. Time zones and locality will be taken into consideration. Further data collection will be via an online secure website to enable the researcher to reach as many participants in the

shortest, easiest manner possible. Participants will also be required to complete the Spirituality Scale Questionnaire (Delaney, 2005), Patient Health Questionnaire (Spitzer, Williams, & Kroenke, n.d.) and the Quality of Life Index (Kimura & da Silva, 2009).

Data will be analysed using MS Excel and WESSA, as well as a subjective correlative analysis of the content.

### **Definition of Terms**

1. **Biophilia Hypothesis:** The belief that there is an innate bond between human beings and other living systems (Gullone, 2000, p. 293).
2. **Bonsai:** Tree in a pot (Harrington, 2004, p. 1).
3. **Bonsai artist:** would refer to the person owning, working or styling a tree in a pot or a client in need of therapy using bonsai as a tool.
4. **Bonsai-en:** an enclosure to keep and permanently exhibit or grow Bonsai (Hill, nd, p. 1)
5. **Bonsaist:** A lover of small trees and a person who spends his or her time working on trees.
6. **Bonsai Principles:** Sets of rules for the art form of Bonsai (Harrington, 2004, p. 1).
7. **Data corpus:** All data collected in the research, such as questionnaires, interviews and autobiographies read (Braun & Clarke, 2006, p. 82).
8. **Data sets:** all the individual sets, such as questionnaires or interviews or autobiographies provided (Braun & Clarke, 2006, p. 83).
9. **Eco-psychology:** An integration of our psychological selves and the natural world (Davis, 2006, p. 1).
10. **Goshin:** Japanese word meaning “Protector of the Spirit” (Baran, 2010a, p. 1).
11. **Happi coat:** Happi coats are loose-fitting traditional Japanese coats that are traditionally worn by craftsman or workers most commonly during festivities and special events

(Buckton, 2009, p. 1).

12. **He:** He shall refer to any gender, male or female.
13. **Integral Psychology:** An all-encompassing psychological theory that in its approach encompasses science, religion, spirituality, self, culture and Nature. (Wilber, 2012).
14. **Jin:** a part of trunk that has been stripped bare of cambium (Harrington, 2004, p. 1).
15. **Meditation:** a spiritual practice to evoke a relaxation response and to venture inward and search for God or a god (Wilber, 1991, p. 76).
16. **Nature:** Refers to all trees that the artist works with.
17. **Nebari:** Rootage (Naka, 1973, p. 18) often exposed (Harrington, 2004, p. 1).
18. **Noh:** Type of Japanese theatre (Baran, 1992).
19. **Spirituality:** Being open towards the un-ordinary perceptions which includes life and Nature (Wilpert, 2001, p. 1).
20. **Vendanta:** philosophical custom concerned with the self-realisation by which one understands the definitive Nature of reality (Deutsch, 1973, p. 3).
21. **Wabi sabi:** Japanese philosophy of finding beauty in imperfection and simple things in Nature (Cheshire & Norman, 2011, p.41).
22. **Yamadori:** Collecting Bonsai in the wild (Hall & Haw, 2008, p. 168).

### **History of Bonsai**

Kato (1983, p.1) states that, by connecting to your Bonsai and the guiding principles of a life well lived, with symbolically strong roots and a unique formation and expansive contribution to humankind, the art form and its benefits can be learned.

Saburo Kato died in 2008, at the age of 93 and was one of the supreme Bonsai masters of our time. He encouraged his followers to build a dedicated relationship with Nature, Bonsai and with fellow Bonaists. His greatest desire was to inspire a world of peace and Bonsai No Kokoro in all that are blessed to know this living spiritual art form involving

Nature (Fukumoto, 1988, p. 1).

Bonsai is an art form practised by people all over the world. It skilfully blends a love of art, Nature and people together. There are three types of 'Bonsai' people: The Artist, The Collector and The General Public (Adam, 2010). For the promotion of the art, all three are needed. Some people join clubs and some prefer the solitary enjoyment of their passion. It has long been thought that people living close to Nature (Schipperijn, 2012) are happier and healthier. In a society where our urban wildernesses are gradually disappearing (Rossler, 2008, p. 149) due to residential, commercial and industrial development, it might be an option to revert back to traditional Eastern practice of having smaller, portable gardens to surround human beings.

No tree in Africa personifies the Spirit of Africa with its vast empty planes and big trees more than the baobab with its bulging branches and smooth grey bark. Also known as Africa's 'Upside Down Tree' or "The Tree of Life" (Pakenham, 2004, pp. 1 - 10), the baobab is celebrated in African culture for different reasons.

In Ancient times kings, leaders and townspeople would gather under huge baobabs to deliberate on matters of great importance. The trees are not only known for providing shelter. The tribes also believed that the Spirit of the Baobab would always help them make wise decisions (Pakenham, 2004, pp. 11 - 14).

The Bushmen from the Kalahari believed that the Baobab had offended God and that, in a fit of rage, He planted the tree upside down. When winter comes the Baobab does resemble a tree with its roots pointing towards the sky instead of being underground. It has been associated with many myths and is alluded to in many African mysteries and folklore. The Myths are reinforced by the fact that the flowers even bloom at night and only for

twenty four hours. Bushmen believed that the Spirits lived in the flowers and any person who plucked the flowers would be torn apart by lions. Drinking water, in which Baobab seeds have been soaked, is believed to serve as protection from crocodiles. It is also believed that the drinker will become powerful (Wickens, 1982, p. 193).

Bonsai in South Africa started around the 1950's after Becky Lucas returned from a visit to Japan. She reportedly had very little literature to follow and had to depend on experimenting with different species on her own. She was amongst the founding members of the Bonsai Society of South Africa and she soon started teaching other interested people. Her collection today is housed at the Stellenbosch Botanical Gardens (Hermann, 2010).

It has been recorded that Egyptians grew trees in pots cut from rock. In a temple illustration Frankincense trees were transported from Punt on the Somali Coast to Egypt. This recording illustrates the importance of the project. Pharaoh Rameses III had potted olives, date palms and other plants in his gardens which he donated to temples (Koreschoff, 1984, p. 1).

Some artists believe that the origins of Bonsai lie in the Hanging Gardens of Babylon. Bonsai literally means a tree in a pot or tray and if looking back this history can be dated back to a time of cultivating trees in containers as far back as Babylon (Heath, 2005, p.1).

The Hanging Gardens of Babylon also known as the Hanging Gardens of Semiramis were presumably built by King Nebuchadnezzar II approximately around 600 B.C. This pre-dates any other documentation of plants being grown in containers that comprised of domed terraces raised one above another, and sitting on columns. The pillars were hollow and filled with soil so that trees of the all sizes can grow in them (Heath, 2005,

p. 1).

In India “Vaamantanu Vrikshaadi Vidya” also known as the “art of dwarfing trees” began for a totally different reason and as opposed to the Japanese’s impression of decorative art, the art of dwarfing trees was a very important ancient Hindu art of healing the sick (Koreshoff, 1984, p. 2). Ayurvedic physicians used trees like the Banyan, Tamarind and Acacia for the purpose of curing humans. Due to the Ancient Hindus who had an empire covering the earth, these physicians had to be able to carry their medicine cabinets with them for medical emergencies.

Most people agree that Bonsai originated in China over a thousand years ago, but that it would be impossible to conjure a specific date (Koreshoff, 1984, p. 2). It was then known as pun-sai, which is loosely translated to mean “the practice of growing single specimen trees in pots” (Hubik, 1997, p. 1). Early Bonsai trees often resembled animals, fierce dragons or birds, which is still evident in Chinese trees today as Koreshoff (1984, p.xi) stated a passage in her book:

“Hidden in the caverns of inaccessible mountains, the dragon awaits the time when he slowly rouses himself to activity. He unfolds himself in the storm clouds; he washes his mane in the blackness of the seething whirlpools. His claws are in the forks of the lightning, his scales beginning to glisten in the bark of rain-swept pine trees. His voice is heard in the hurricane which scatters the withered leaves of the forest and quickens the new spring. The dragon reveals himself, only to vanish”.

Chinese tradition involves various ceremonies and customs throughout the Chinese year that require flowers and fruit. It is speculated that it would have been easier to keep these plants in containers, to make for easier transportation. Thus the start of Bonsai. Manipulating plants and flowers to coincide with specific ceremonies, such as displaying a

flowering apricot in your house at the Chinese Lunar New Year, became extremely important (Koreschhoff, 1984, p. 1).

The Zen Buddhists apparently introduced bonsai to Japan during the Kamakura period at around 1185 to 1333. But it was the Japanese artists that developed the art fully. Later on, it was not exclusively the Buddhist monks who practiced the art, but it also became a status symbol for the aristocracy. According to Hubik (1997) the ideals and philosophy of Bonsai evolved over the years to represent a combination of solid ancient philosophies with Eastern beliefs that embraces the coherence between man, his soul and Nature.

A recently discovered ancient Japanese scroll composed in Japan around the Kamakura period, translated to say: "To appreciate and find pleasure in curiously curved potted trees is to love deformity", which is the principal of wabi sabi.

The concept of Wabi-sabi characterises a broad Japanese concept or aesthetic, based on accepting transience and flaws. The visual part is sometimes defined as one of beauty that is "imperfect, impermanent, and incomplete." The concept is derived from the Buddhist philosophy of the three marks of being, including the thoughts of impermanence, suffering and emptiness (Ando, nd, p. 1).

Features of the wabi-sabi charm include "asymmetry, asperity (roughness or irregularity), simplicity, economy, austerity, modesty, intimacy and appreciation of the ingenuous integrity of natural objects and processes" (Ando, nd, p. 1).

"Wabi-sabi is the most conspicuous and characteristic feature of traditional Japanese beauty and it occupies roughly the same position in the Japanese pantheon of aesthetic values as do the Greek ideals of beauty and perfection in the West". "If an object or expression can bring about, within us, a sense of serene melancholy and a spiritual

longing, then that object could be said to be wabi-sabi. Wabi-sabi nurtures all that is authentic by acknowledging three simple realities: nothing lasts, nothing is finished, and nothing is perfect" (Ando, nd, p. 1)

It is difficult to translate the words “wabi” and “sabi” directly. Wabi initially signified the loneliness of living in Nature, in isolation and far away from civilization; whereas sabi meant "chill", "lean" or "withered". It is only later, at around the 14th century that these connotations began to take on a more positive meaning. Wabi implies “rustic simplicity”, “freshness or quietness”, and can be related to all things natural, and human-made objects. It refers to minimalistic style in Bonsai. Sabi means magnificence or serenity that eludes youth or anything new. It’s beauty comes to light when the life of the tree and its impermanence are shown by it being tarnished as well as its exhibiting wear or in any visible scars and repairs (Ando, nd, p. 1).

For many years, the artistic and Buddhist impact on Chinese Bonsai designs were included in Japanese trees, before wabi-sabi could eventually evolve into a definitely Japanese model. The connotations of wabi and sabi eventually altered through time to become more carefree and optimistic. Amongst the Japanese nobility, the understanding of emptiness and imperfection was respected as synonymous with the first step to *satori*, or “enlightenment”. More recently, the meaning of wabi-sabi is often condensed to "wisdom in natural simplicity" and art books refer to it as "flawed beauty" (Ando, nd, p. 1).

Later, as Bonsai became more accessible to the broad Japanese community, an increased demand for the small trees that were collected from the wild, established the art form securely within the culture and traditions of the Japan (Hubik, 1997).

Bonsai began to take on unusual shapes as it developed into more diverse styles.

Artists started implementing different features in their Bonsai creations such as using rocks, accompanying and/or accent plants, now known as *kusamono*. In the art of *bon-kei*, small buildings and people were introduced and miniature landscapes were reproduced, often referred to as *sai-kei*, which further developed the assorted range of artistic potentials and expressions for Bonsai.

During the 1870's to 1880's when overseas trade was set up in Japan, more and more foreigners became enamoured with the artificial styles of miniature trees and started buying them. As Bonsai became more popular, an export trade was set up and techniques and styles were improved. This then marked the beginning of "modern Bonsai" (Koreshoff, 1984, p. 8).

It is reported that the first Bonsai exhibition was held in 1892 and Bonsai became less of a hobby for the wealthy and more accessible to the public. In 1928 a major show was organised to honour the Emperor's accession to the throne when trees from all over Japan were brought to the exhibition. In March 1934, the first Kokufu-ten Bonsai exhibition was held at the exclusive Ueno Park in Tokyo and this gave Bonsai a new elite status (Koreshoff, 1984, p. 10).

After years of being cut off from the world, Japan opened its doors to the rest of the world and one of its main attractions was the miniature trees mimicking aged, mature, tall trees in Nature, grown in ceramic bowls which (Hubik, 1997; Harrington, 2004). Japan is also considered to be the connecting link between China and the West in terms of Bonsai art (Koreshoff, 1984, p. 11).

After World War II, it became evident that some sort of instruction was necessary. In the past, Bonsai was passed on from one generation to the next by observation of masters at work, but it was considered that very few students actually understood what was

done to the trees and that very few of those who did, actually had artistic flair (Koreshoff, 1984, p. 11).

With the practice of Bonsai, came the rituals which are so intrinsically interwoven in its rich symbolism, culture and tradition. In Japan today, the New Year is celebrated by placing a blossoming prunus tree in the *tokonoma*, which is a special nook that every Japanese home has. These *tokonomas* are used for the showing of ornaments and valued possessions. Previously Bonsai was only reserved for the upper-class but is now a delight for one and all (Hubik, 1997).

There are several early references to Bonsai and one of the earliest was made by Kenko Yoshida who wrote in 1333 that “to appreciate and find pleasure in curiously curved potted trees is to love deformity” (Koreshoff, 1984, p. 25). Around the 14<sup>th</sup> century, Zeami (Long, 1931, p. 266), a Japanese playwright, wrote a story telling of a destitute samurai who used his last three dwarf potted trees as firewood in order to provide warmth for a monk travelling through the area. The monk was actually a government official who later rewarded the samurai by giving him land in return for the trees sacrificed.

By the 17<sup>th</sup> century, the Japanese started using the concept of Bonsai in their plays. Hachi-No-Ki (The Potted Trees) is a *Noh* play by Zeami Motokiyo (1363–1444) and tells the story of Okubo Hikozeemon, a councilor to the shogun. He threw one of Iemitsu's favorite trees away in the garden as a way to try and dissuade him from spending so much time and attention on these trees. But in spite of the helper's efforts, Iemitsu never turned his back on his beloved art form (Baran, 1992, p. 1).

At the end of the 18th century, the Bonsai culture was quite prevalent and in the Tenmei era (1781–88), an exhibition of traditionally dwarf potted pines was held every

year in Kyoto. Artists from all over the provinces and neighboring areas would each bring some trees to the show in order to be judged by the visitors. It was around this time that the western world began learning about Bonsai along with many other Japanese art forms and culture (Elias, nd, p. 3).

Bonsai Masters from Japan, Yuji Yoshimura and Toshio Kawamoto realised that for the West to understand bonsai principles, they would need a different teaching method as Western cultures learned by being told and shown what to do as opposed to Japanese culture where mere quiet observation was sufficient. To explain the difference between container grown trees and Bonsai, he took examples of famous specimens and divided them into groups according to the general shape of their trunks and distribution of the main branches. Hence the 'rules' of Bonsai that some in the West still follow to this day (Koreshoff, 1984, p. 11). It is said that these rules helped Westerners to develop Bonsai rather than "bushy plants" (p.12) but that some people consider the rules too "rigid and unbendable" and that those same trees lacked character. Koreshoff (1984, p. 12) states that the artist should learn to compromise between the rules and the characteristics of the tree for the tree to become a master piece.

Koreshoff (1984, p. 12) also states that "to follow the path of (a) Bonsai's development from its earliest influences ..... to its present form, is a fascinating journey". Perhaps the lure of Bonsai lies in the total care and dependency on the artist. Trees in Nature can remain small, but still have ample opportunity to receive nutrients from decaying leaves, etc., whereas the tree in a pot needs to be fed, root trimmed, styled, watered and maintained by the artist. If not, it will slowly become pot bound, stop growing and die (Koreshoff, 1984, p. 14).

## **Bonsai Masters**

John Yoshio Naka (1914 – 2004), an American Bonsai master is to this day considered to be amongst the five most influential Bonsai artists of all time. Naka is remembered mainly for his seven-tree forest of Junipers ( *J. chinensis* var. *foemina* ). John wanted to copy a *Cryptomeria* forest near a shrine in Japan with his seven-tree forest. When he had collected the seven trees he required for this sculpture, John arranged the group in an oval tray. He was encouraged by friends to name the design. John remembered the feeling of the forest near the shrine that had inspired him to create the group, namely “venerable, holy, solemn, and sublime” (Baran, 2010a, p.1). The name he chose for this exceptional planting was Goshin ("goh-sheen," protector or guard of the spirit).

As narratives go, the initial forest had seven trees only. At the time John only had seven grandchildren and was as delighted with his grandchildren as he was of his forest.

John's oldest grandchild wanted to know which tree represented him. John replied, he may not be happy because the oldest one is the smallest one. John had always taught his grandchildren that the two most important trees in any forest are the smallest and the largest. Later on John's family grew and he was blessed with more grandchildren, so he continued to add more specimens to complete the Goshin with a total of eleven trees to symbolise each of his eleven grandchildren (Baran, 2010).

Charles Ceronio is South Africa's only Master Bonsai artist, having studied in Japan. One can only become a Master if one has studied the art with another master. He started growing Bonsai in 1968 and was the co-founder of the Pretoria Bonsai Kai; one of the first Bonsai clubs in South Africa. He later met and studied under John Naka (Hermann,

2008, p.4).

In 1980, at a local South African convention, Ceronio introduced the South African Bonsai enthusiasts to six new African styles used in local bonsai. The Baobab style, the Pierneef or Umbrella shaped style, which is a well-known sight on the planes of Africa and represents the Thorn trees of Africa, the Flat Top Acacia style, the Wild Fig style, the Bushveld style and the Elbow style are all uniquely South African styles. These styles became very prevalent in Southern Africa and even in countries with comparable plant shapes and species like Brazil and Pakistan (Hermann, 2008, p.4).

Ceronio has been invited to many international conventions as guest speaker and demonstrator. In 2004 he became the principal Bonsai Master for Pakistan. He has also taught Bonsai in Karachi, Islamabad, Rawalpindi and in Lahore.

In 1999 he published his book on “Bonsai styles of the world”. Various minor publications also appeared such as a Beginners Guide to Bonsai, as well as books on several indigenous tree species suitable for Bonsai in Southern Africa. It was also during May 2005, that he represented South Africa at the Sixth World Bonsai Convention in Washington DC. He introduced the world’s Bonsai leaders to the uniquely South African styles which he created in 1980. Two of his trees were selected amongst the hundred best trees in the world, during a competition which was held under the auspices of the Nippon Bonsai Association in Japan in 2000. He won a golden award in 2007 at the Penjin Convention organised by the Chinese Bonsai Association with his *Celtis sinensis* group, consisting of 50 trees. He is a passionate Bonsai Master and for him Bonsai is a life long passion and a wonderful hobby (Hermann, 2008, p.4).

The author herself, designs and pots a tree for celebration of life and death of loved ones. From the birth of her children to the passing of her brother, father and grandmother.

These trees are symbolic of the joy, hurt and passion of the person. She started doing Bonsai in 1984 after a terminally ill friend gave her his baobab to look after. At that stage, she was told by other Bonsai experts that it was not possible to Bonsai a baobab and not having enough information about caring for it, killed it by overwatering the baobab.

This gift started a life long all consuming passion that has led to searching and finding peace, love and happiness within this hobby.

### **Methods of obtaining tree material**

#### **Collecting from Nature**

Many centuries ago, as stories go, a man was hiking through a mountainous terrain of China admiring the almost vertical cliff-face soaring above him when he saw what to him, was an old and beautiful tree, clinging uneasily to the rock. The man immediately fell in love with the plant and knew that he had to have it. He climbed up the cliff and pulled it out with as much root system as possible.

At home, he potted it into an ornamental container that his family had owned for many years, tended it daily and put it where he could admire it when he sat quietly in the cool evenings. Sometimes his grandchildren would play around him and many times he would describe the risk he took of collecting his prize. The stories were elaborate “The cliff-face”, he would tell them, “was like a perpendicular sheet of glass and its head was hidden in a shroud of swirling mist” (Koreschhoff, 1984, p. 16). The tree grew more beautiful each year.

The job of the old professional collector is difficult, dangerous and deeply imbued with superstition and ritual. For days the collector may wander amidst sheer cliffs and gorges, scanning the crevices, with keenly trained eyes, for a likely specimen, as it is done

today. When a tree has been spotted high up and perched between rocks, a place is made at the foot of the cliff where he will sleep for the night. One writer (Koreshoff, 1984, p. 16) described an ancient Eastern ritual of this particular collector as having to draw a circle of about 3 meters in diameter, standing on the edge of it and placing his *Happi* coat in the circle, opposite him. The coat is substituted for his Deity or Divine Being. He offers grains of rice before praying solemnly, "I am a dwarf tree collector by profession. Please let me rent the spot for the night". This would protect him from being attacked by evil monsters and long nosed goblins.

Collection would take patience with courage, as well as faith. These old collectors firmly believed that if they omitted just one part of the ritual, or if they didn't make an offering or pray to the Deity beforehand, an evil and mischievous goblin could sneak up and untie the supporting rope.

Then would come the important part of choosing the correct specimen and preparation of removing the tree safely and successfully even if it took years. This type of collection is not only restricted to the wild and untamed outdoors. Even friends' gardens are not left alone.

### **Growing from seed or cuttings**

At times, Bonaists are young enough to start stock from seed and sometimes they are optimistic enough to start it from seed, even if they are advanced in years and may not experience the finished product in their life time. What is understood, is that all propagation techniques are imitations of processes of Nature (Koreshoff, 1984, p. 17).

Of all the methods of growing Bonsai, starting from seed gives the most control. As the tree grows, buds in desired positions are allowed to develop while others are rubbed off,

minimising ugly scars. Certain species allow for better control in certain strains, such as Zelkovas, and sometimes, it is the only way to obtain much sought after styles (Koreshoff, 1984, p. 17).

### **Bonsai Rules (Appendix 7)**

In order to accept the spiritual gift of *Bonsai No Kokoro* one must adhere to the three principles of Bonsai cultivation, namely a strong basis of roots, unique development of the trunk and a spread of branches to bear fruit. Added to this, is creating space between the branches (Naka, 2006, pp. 149 - 152) to simulate the vastness of land or to “let birds fly through” (Harrington, 2004, p. 1).

The abovementioned principles are different from the technical aspects of shaping a plant to emerge as a Bonsai. It is expected of the artist to search for deeper sense to understand the true meaning of the principles in relation to Nature, the Self and God or the Universe (Kato, 1983, p. 1).

Textbook rules for Bonsai are derived from essential notions of “artistry and aesthetic principles of visual art” (Stevens, 2006, p. 1). It is well known that the aesthetic basics of visual art involve line, shape, colour, texture, arrangement, dimension elements, perspective and balance. It is therefore important to understand these concepts to enable the artist to spontaneously create and transform the tree. It is also important that horticultural theories and rules of Nature are understood so that the Bonsai artist can mimic natural phenomena in a believable manner.

Bonsai rules can easily be explained according to basic aesthetic principles. These should however be treated as rudimentary guidelines rather than unconditional rules, and

should be regarded as “Individual artistic aims”; rather than thoughtlessly applied to all Bonsai (Stevens, 2006, p. 1). It can be said that Nature is always perfect in its imperfection whereas imperfection in creation of a Bonsai is usually due to limited understanding by the artist, rather than to natural phenomena. Therefore, when a Bonsai is created, all of these aspects should be taken into account. The artist should aim to create a “soulful and beautiful Bonsai rather than a "correct" Bonsai” (Stevens, 2006, p. 1).

Solistyo (2013, p.1) believes that the artist should have a good formal grounding in rules but that once experience has been gained, individual expression should prevail, and in that, lies the growth of the artist.

### **Use of soil**

"From dust we are created and to dust we return "

**Christianity:** There are numerous references to soil and working with soil in the Christian Bible. In the Story of the Sower (Matthew 13:3-8, 19-23; Mark 4:3-9, 14-26; Luke 8:4-8, 11-15 The New Testament & Psalms), where Jesus tells a story using three features, namely the sower, the seed, and the soils to describe how to live a good and productive life.

This parable explains what occurs after the seed is sown on the diverse types of soil on which it falls and also the subsequent effects. According to the story a farmer (in our instance, the Bonsaist) places seed in the earth so it will grow and bear fruit (or flower). Some of the seeds fall on firm ground which has not yet been ploughed. The hard ground will not allow the seed to germinate and take root so the birds easily find and eat it.

Some of the seeds fall in rocky places, where there is not enough or no soil for the roots to take in adequate sustenance for the plant (such as Yamadoris). In the beginning,

they seem to grow faster because, with less soil to grow through, it does not take them as long to reach the surface. In harsh summer conditions, the shoots wither away due to poorly developed root systems.

Seeds that fall in a part of the field which has not yet been cleared properly and is over crowded, shaded, and obstructed by weeds and thorns also do not grow well. The seeds that fall on fertile and rich soil yield a much better harvest. This illustrates the importance of taking care with the soil for your Bonsai.

**Buddhism:** In Buddhism, soil represents the fertile ground of the Buddhist Mind. Deep Roots Need Good Soil. With an encouraging sangha (group or assembly), it's easy to sustain bodhicitta (striving to awaken the mind) (Bodhi, 2010 - 2013, p. 1; Bullit, 2005 - 2013, p. 1). The basic idea is that if you don't have anyone who understands you and supports you in the practice of the living dharma or law of Nature, guidelines or rules for the building blocks of reality (Society, 2012, p. 1), your desire to practice may decline. The sangha, which could be family, friends and or other Bonaists, is the soil, and the person/Bonsai artist is the seed. No matter how spirited the seed is, if the soil does not provide sustenance and nutrition, the seed will die (**Hodus, 2003, p. 1**).

A story was once told of a Chinese gardener who tilled his little slab of land, as his father did before him. He worked from sunrise to sunset every day except on those days when they had to bring gifts to the gods who provided and protected them from demons. His five year old son was always with him, and now that he was growing up, he was beginning to ask questions: "Why do you do this or that to the soil? Why do you look at the swelling buds on the trees before you start sowing corn? Why and how do the wind and clouds tell you about tomorrow's weather?" The old man always answered the same: "My

father did so. He told me that the Sun and the Earth are the two most bountiful deities! They are the givers of Life!” (Koreshoff, 1984, p. 96)

The old man believed that Earth is the mother of all. She gives to people as much as they deserve. If things are done correctly and people observe the way she guides things around in different seasons, then the reward for labours will be a good harvest. Earth is a kind mother but she is stern too with those who do not want to learn what she teaches.

The old man told his son that Earth demands love and diligence from men. The soil is not only the means of livelihood, it is the “Way of Life. In life you cannot take all the time ... you should give back too. If you don’t. , you will end (up) with nothing” (Koreshoff, 1984, pp. 96 - 97)

In Japanese gardens, rocks are thought to be the "skeleton" of the earth and therefore also of a garden and are often placed within the Bonsai creation. Rocks are often the first components which are placed in a garden or Bonsai landscape design around which the artist works. Soil (as part of this arrangement) has a specific relational contrast meaning in Bonsai so as to represent the infinite Nature of sand and rocks as opposed to the short-lived quality of human life, as seen in the Bonsai tree (Cheshire, 2011, pp. 164 - 172).

This leads to the expression "Zen garden" that was created in the 1950s to signify the conceptual rock and sand gardens that was established at Zen Buddhist sanctuaries in Japan. Most of these gardens are prepared exclusively of gravel or sand beds and often include arrangements of rocks and stones. The dry sand in this garden is raked using a special rake, in patterns characterising waves, ripples or rice paddies with much attention and care, the same as if it were a Bonsai garden. It is not unusual to see patterns which are conceptual and simple, but follow the course of the garden (Cheshire, 2011, p. 196).

All Bonaists must be familiar with the growing conditions for their plants before placing them in a pot. Part of this understanding is the careful preparation of the soil in advance. Each artist has his or her own “recipe” which is as ritualistic in its preparation as preparing the Bonsai tree is (Cheshire, 2011, p. 62). Once this is all clear in the mind, the artist can begin to enjoy the creating aspect of the art.

## **Resume**

This chapter focused extensively on the history of bonsai as well as the personal journey of the author. The next chapter will provide a review of the literature from an integral, eco-psychological point of view as well as incorporate the field of psychodynamics.

## CHAPTER TWO

“It is not things, but opinions about things that have absolutely no existence, which have so deranged mankind.”

Nietzsche!

### **Introduction**

This chapter reviews Ken Wilber’s Integral Theory, which is central to this research. Marquis (2007, p.164) states that the biological structure, cultural worldviews, selfhood and social systems which makes up the gist of Wilber’s “All quadrants, all levels” (AQAL), are all critically important at all levels of a person’s life. This basis of thinking endeavours to appreciate completely any phenomenon. The purpose of Wilber’s Integral Theory is to nurture appreciation for all interrelated facets of reality as we know it, therefore honouring harmony in diversity.

Further theories linked to this study include ecopsychological theories, and suggest that there is a link with some traditional psychodynamic elements.

### **Theoretical Framework**

#### **Integral Psychology**

Wilber focuses on the integrated wholeness of human existence (Adams, 2006, p.55) as well as its apparent diversity. Adams (2006, p.56) stated that psychology and art are reciprocal complementary disciplines that are dedicated to revealing this apparent diversity. The discipline of psychology has long offered an appreciation of the arts whereas the arts have served as a cradle of understanding regarding human psychology. A van Gogh painting can change a person’s perception, health and being, just by viewing it (Adams, 2006, p.57).

Wilber refers throughout his work to the tetra-arising of consciousness in interior and exterior individual and collective perspectives or quadrants (Wilber, 1997, p.71). These quadrants (Intentional; Behavioural; Cultural and Social) summarise evidence examined through various developmental and evolutionary fields. Hierarchies exist within each quadrant, recognising that humans are in continued environmental interactions. Humans cannot exist in isolation and as such must draw power and healing from their environments. Wilber's integral theory emphasizes that only if all four quadrants are treated as a whole in an "All Quadrant, All Level" (AQAL) approach, will true consciousness be understood (p.75).

This model allows for diverse perspectives to supplement and balance, rather than to contest with and oppose each other (Marquis, 2007, p. 165). Wilber's theory of development (p. 168), states that a person progresses from one stage to another through a general process of transcendence.

Wilber uses "levels" to describe the basic stages of consciousness development, "structures" to show cohesiveness between the stages and "waves" to underline the flexibility with which the stages flow into each other (Marquis, 2007, p. 168).

Levels or stages of consciousness are typically holarchical development. The more highly developed in a specific line or stage people are, the more advanced they are. Integral theory is a metatheory of theories. Wilber's model is based on a number of existing theories of developmental psychology, such as Piaget's theory of cognitive development, Kohlberg's stages of moral development as well as being founded on Maslow's hierarchy of needs. It merges Erikson's stages of psychosocial development with that of Loevinger's stages of ego development (Wilber, 1998, pp. 123 - 128) finally culminating in his Integral Psychology.

It simplifies matters if we distinguish between integral theory (metatheory), philosophical approach (concerned with orienting generalizations), AQAL model and integral

methodological pluralism. Wilber's (1997, 2000, 2007) integral theory of consciousness has sufficient height, depth and breadth to frame various research designs and/or psychological interventions. The theory is based on an integral approach to science, a post-metaphysical, post-postmodern epistemology and integral methodological pluralism (Wilber, 2007, p.33). The approach includes and transcends theoretical, paradigmatic perspectives such as positivism, interpretivism and social constructionism. It postulates an all quadrants, all levels (AQAL) model (Wilber, 1997) integrating behavioural, intentional, social and cultural perspectives, with their respective objective, subjective, inter-objective and inter-subjective validity claims of truth, truthfulness, functional fit and mutual understanding.

Wilber (1997), claims that the 'interior dimensions' of a human being are composed of a "spectrum of consciousness" which develops from "sensation to perception, to impulse, to image, to symbol, to concept, to rule, to formal, to vision-logic, to psychic, to subtle, to causal, to non-dual states". This spectrum of consciousness can also range from "subconscious to self-conscious to super-conscious; from pre-personal to personal to transpersonal; from instinctual to mental to spiritual; from pre-formal to formal to post-formal; from instinct to ego to God" (Wilber, 1997, p.75).

Wilber (1997) differentiates between stages of consciousness and states of consciousness, and claims that, "states" describe those characteristics of consciousness that are historical, short-lived, experimental, and extraordinary. One could equate this phenomenon to the first time a novice Bonsaist styles a tree to perfection by accident. States become enduring stages through experience and practice. Similarly established stages of Bonsai consciousness are earned or "worked for" and cannot be attained by accident or "for free".

Following Vedanta, Wilber identifies a variety of states such as states of being awake, dreaming, and sleeping. During these states of being awake and dreaming, there are unique states which happens from within the person, when “bodily sensations, emotions, mental ideas, memories, or inspirations” are experienced. From outside the person, sensorimotor inputs, such as seeing, hearing, touching, smelling and tasting (Marquis, 2007, p. 174) can be observed. These primordial perspectives refer to the eight (refer Fig. 1) spaces or zones which are inhabited by a person. Wilber (Wilber, 2006) further explains that these zones are not mere perspectives, but a concrete set of actions in a real world zone. Another category of states, the one of altered states, can further be divided into two groups: Exogenous or induced states, which are purposely generated from outside or influenced by exterior impacts such as mind- and mood-altering and other drug-induced states which can also include hypnotic states and hypnotherapy, common psycho-therapeutic techniques, psycho-drama, voice-dialogue techniques, gestalt therapy, biofeedback states and forms of guided imagery. It is in this state that Bonsai healing can take place.

Endogenous or trained states, are purposefully generated from inner or from interior inspirations such as various performance enrichment techniques in meditative teachings which work on relaxation, calming, breathing, mental imaging and visualization meditation.

A final category of states refers to naturally arising or climatic states which involves unintentional or unconscious shifts of awareness from fundamental states of consciousness (Wilber, 2006, pp. 71 - 84). The Bonsai artist would experience and create his or her art from all four states described above.

Wilber’s integral theory includes the Vedanta, which equates being awake with “gross” or uncultivated mindfulness, and dreaming with “subtle” or elusive mindfulness, whereas sleeping compares with “causal” or amorphous mindfulness.

Marquis (2007, p. 174) raises the question of the connection between states of consciousness and counselling and illustrates that episodes of depression, mania and or psychosis are typically states of consciousness; claiming that people often pass in and out of these states. During a therapeutic session clients are more amenable to certain interventions due to their present state of consciousness; however this not only applies to the client, but to the therapist as well (Marquis, 2007, pp. 174 - 175).

Spirituality is understood as the immanent ground of all four quadrants, interior, exterior, individual and collective (Spirit), as well as transcendent goal towards which consciousness evolves (spirit). This type of Spirituality forms the ground and goal of all practical theology. The four quadrants also may be conveniently collapsed into first, second and third person or "I", "we" and "it" perspectives, with "I" representing the upper left, "we" the bottom left and "it" or "its" representing the upper and lower right quadrants respectively (Edwards, 2012a, p. 2).

Esbjorn-Hargens and Zimmerman (as cited in Edwards, 2012a, p. 4) have labeled such levels as "eco-guardian", "eco-warrior", "eco-manager", "eco-strategist", "eco-radical", "eco-holist", "eco-integralist" and "eco-sage". The terms are self-explanatory. For example in the case of an ecological crisis, guardians experience crises of balance between good and bad forces, warriors become involved with power relations, managers are concerned with Nature management, strategists perceive a crisis of resources, radicals are alarmed by the loss of biodiversity, holists perceive the impact of multiple factors on regional and global systems, integralists recognize the truth of all these perspectives, and sages, though deeply committed, recognize that in an absolute sense, there is no crisis- things are perfect as they are, planets will die and be born.

## **Eco-psychology**

Eco-psychology is a study of the connection between human beings and Nature through ecological and psychological philosophies, values and ideologies. The discipline strives to create and appreciate ways of increasing the emotional relationship between individuals and Nature by encouraging persons to develop sustainable existences and resolve disaffection with Nature. Theodore Roszak is considered to be the father of eco-psychology along with Mary Gomes and Allen Kanner (as cited in Roszak, 1993, p. 1).

The key principle of ecopsychology is that, though the human mind is shaped by the contemporary social world, it can be altered to fit the natural environment from which it evolved. According to the “biophilia hypothesis” of biologist E.O. Wilson (as cited in Gullone, 2000, p. 293), human beings instinctively feel emotionally united with Nature, especially those aspects of Nature that Bowlby has termed the “environment of evolutionary adaptiveness”, the natural conditions that man inhabits (Hagen, 1999 - 2002, p. 1).

Further principles of eco-psychology suggest that fundamentally the mind is not conscious of ecological matters. The matters of the ecological unconscious embody to a degree the living documentation of cosmic evolution (Roszak, 1993, p. 1): such as the Bonsai being the living documentation and that most of its creation lies within the unconscious.

Current theories propose that existence and awareness arise from this evolutionary trend; concluding in such natural systems within the subsequent sequence of “physical, biological, mental, and cultural” systems as "the universe".

The goal of eco-psychology is to awaken the intrinsic appreciation of the environmental interchange which lies inside the ecological unconscious. Whilst other therapies strive for healing within oneself, between person and person, person and family,

person and society, eco-psychology seeks to rebuild the essential disaffection between the person and the natural environment (Roszak, 1993, p. 1).

According to Roszak (1993, p.1) the ecological or conservational ego develops ego develops an appreciation of moral accountability toward the planet which is similar to our ethical responsibility to other people.

The Gaia hypothesis, suggests that systems interrelate with their lifeless surroundings on Earth to regulate themselves through a compound system which contributes to the support of pro-active conditions for life on this planet. The biosphere and the progression of life forms affect the constancy of universal temperature, oceanic salinity, breathable oxygen in the atmosphere and other environmental variables which affect the viability of life on Earth (Lovelock, 2006, p. 1).

Lovelock (as cited in Barrotta, 2011, p. 97) claims that although Gaia, the Earth, is alive, then further argues that whilst Gaia is not a "goddess or some sentient being", she obviously cannot reproduce; neither has she a sense of purpose or a free will. Lovelock's argument emphasizes that "life" in this instance, is a "highly theoretical concept". He suggests a definition capable of stressing the fact that it is a self-regulating system which "is able to keep its internal conditions constant, despite changing external conditions".

For instance, Gaia is able to maintain both thermostasis (temperature regulator) and chemostasis (bacterial culturing device). Furthermore, Gaia is able to demonstrate a metabolism of her own by taking in free energy from the environment and producing waste and low-grade energy. She is able to change, and self-heal.

Lovelock sees Gaia, our Earth, as a "biogeochemical" system with an extremely assimilated hierarchical structure, capable of self-regulation and preservation. Many of these

processes in Gaia's surface which are vital to the conditions of life, are subjected to the successful interaction of all living forms. Lovelock also suggested that universal biological feedback mechanisms could develop gradually by natural selection. He stated that organisms which are able to improve their environment for their own survival, do better than those which damage their environment (Barrotta, 2011, pp. 100 - 102).

Lovelock simplifies the Gaian Principle by likening it to a giant redwood tree. The tree is undeniably alive, yet 99% of its surface is of no good use to the tree. This magnificent tree is an ancient pinnacle of dead-wood (a creative effect often used in Bonsai), consisting of lignin and fiber created by processes in the thin layer of living cells included its bark. Without the "dead-wood", the tree would collapse; thus it is an integral part of the tree. The central theme in Lovelock's theory focuses on the difference between a terrestrial environment, which could be the collective consequence of countless autonomous life forms co-evolving and sharing the same principle host and one which is, in the end, created by many different life forms to achieve the single purpose of the larger being (Miller, 1989, p. 1). The Gaia principle may be conceptualised within Wilber's lower right inter-objective or social systemic quadrant.

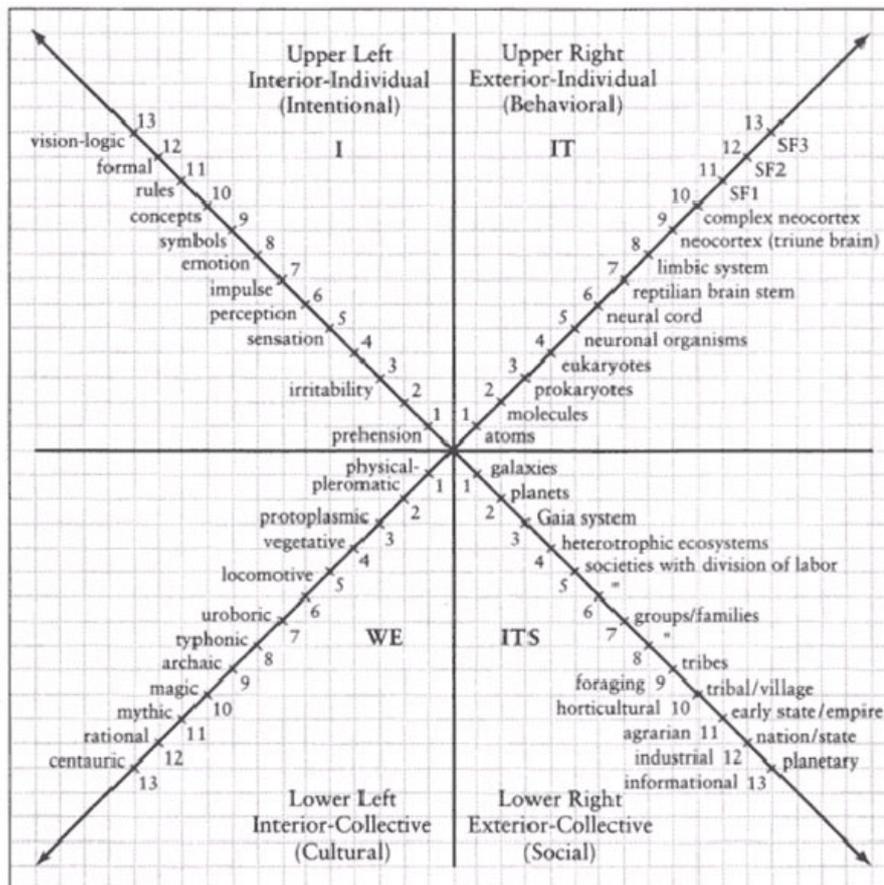


Figure 1. Wilber's AQAL Model (Sørensen, 2009).

Wilber conceptualised a map denoting “All Quadrants, All Levels” (AQAL) or “holons” and the main interpretation of his map is that each “holon” can rise above itself or improve on the previous level, thereby introducing newer and greater levels or contexts. There are four quadrants, linked to the classical ways of understanding the world from the point of view of both Eastern and Western philosophy. Western philosophy, since the time of the ancient Greeks, has been divided into the true (dispassionate truth); the good (moral truth) and the beautiful (artistic truth). In the East, Buddhism has a comparable philosophy in the form of the Buddha (individual truth), the dharma (dispassionate truth) and the sangha (collective truth). For the purposes of this paper, dispassionate truth is parallel to science. From an individualistic and collective point-of-view, as depicted in the two quadrants on the right above in Figure 1., personal truth corresponds with art, which is the internal point-of-

view of any holon as depicted in the upper left quadrant in Figure 1. Moral truth is epitomised in ethics and culture, the internal collective point-of-view of any holon, as in the lower left quadrant (Wilpert, 2001, p. 44) in Figure 1.

In Table 1, the upper left quadrant, Wilber (as cited in Esbjörn-Hargens & Zimmerman, 2009) refers to the Interior individual or 1st person. The interior of an individual or entity is scrutinised and judgment made on the integrity of the person or object. Interior events occur in “states of consciousness”, not in “objective states of affairs”. The Bonsai artist may or may not be a good artist, thus may be misrepresenting and may or may not be aware of it.

The lower left quadrant refers to the Interior collective or 2nd person. Wilber claims that the "subjective world" would be located in an intersubjective space, a “cultural space... without this cultural background” where the Bonsai artist would be unable to interpret his own thoughts to himself. In this quadrant the claim is not an “objective propositional truth”, or “subjective truthfulness”, but rather an “intersubjective fit”. This cultural background (the larger Bonsai community) will stipulate the common background against which the artists own interior thoughts and beliefs will have some sort of meaning. The validity principles of this quadrant involve the "cultural fit" of the Bonsai tree within this background.

The upper right quadrant refers to the Exterior individual or 3rd person. Propositions are checked to see if it fits or corresponds with the facts and whether it accurately reflects the “real or exterior territory.” It is a reflection of the “objective states” (Esbjörn-Hargens & Zimmerman, 2009).

In the last lower right quadrant, the Exterior collective or 3rd person, the key validity claim is “functional fit”. It looks at how entities fit together in a system. The system is described in purely objective exterior terms from “without”. The fourth quadrant is not

concerned with how collective values are “intersubjectively” shared in mutual understanding. It looks at how it functionally fits in the overall system.

Wilber (as cited in Esbjörn-Hargens & Zimmerman, 2009) claims that all four quadrants are valid forms of knowledge, because they are grounded in the realities of the nature of every holon. And therefore all four of these truth claims can be confirmed or rejected by a ‘community of the adequate’ which in this case would be those competent in Bonsai knowledge. They each have a different validity claim which is there to carefully guide on the quest for knowledge.

	<b>INTERIOR</b>	<b>EXTERIOR</b>
<b>INDIVIDUAL</b>	<p><b>Upper Left (UL)</b></p> <p><b>Interior Micro (Individual)</b></p> <p><b>SOLIPSISM</b></p> <p>(Only individual artists' experiences)</p> <p><b>I</b></p>	<p><b>Upper Right (UR)</b></p> <p><b>Exterior Micro (Individual)</b></p> <p><b>ATOMISM</b></p> <p>(Only atoms (the Bonsai tree))</p> <p><b>IT</b></p>
<b>COLLECTIVE</b>	<p><b>WE</b></p> <p><b>RELATIVISM</b></p> <p>(Only the social construct of reality)</p> <p><b>Interior Macro (Collective/Communal)</b></p> <p><b>Lower Left</b></p>	<p><b>ITS</b></p> <p><b>HOLISM</b></p> <p>(Only parts interwoven into systems)</p> <p><b>Exterior Macro (Collective/Communal)</b></p> <p><b>Upper Right</b></p>

*Table 1* Wilber's methodological zones (Esbjörn-Hargens & Zimmerman, 2009, p. 249).

Wilber's Basic Moral Intuition theory touches on Integral Politics which involve a spiritual orientation extending beyond conventional rationality. Wilpert (2001, p.1) claims that spirituality refers to an openness towards the unexpectancies of life and Nature's miracles. Integral Politics (which is interrelated to spirituality) requires instinctiveness. This capacity to see things as a whole also includes an openness to realms outside the simply lucid through reflective practices such as meditation.

Integral Politics personifies the full spectrum of consciousness, from “body to emotion to mind to soul to spirit” (Wilpert, 2001, p. 1)

Ecopsychology further embraces a synergistic relationship between environmental and personal well-being. According to Roszak (1993, p.1) "synergy" as a concept is selected intentionally for its conventional theological implication which believes that the human spirit and the divine Spirit are linked voluntarily in pursuit for salvation. The present ecological translation of this term could be translated as “the needs of the planet are the needs of the person, the rights of the person are the rights of the planet” (Roszak, 1993, p. 1).

Roszak proposed that people’s connectedness to Nature can assist in increasing the self-value of their interpersonal relationships and emotional welfare. Central to this modality is the person and the therapist who endeavor to conduct interventions outdoors. According to the principles of ecopsychology, being outdoors, in forests, parks or gardens can be refreshing, because it is different to conventional norms. Psychologists such as Ulrich, Kaplan, Kuo and others have studied the healing effects on the human psyche of living in natural settings or even just looking at pictures of landscapes (Charles & Wheeler, 2012, p. 1)

More evidence of ecopsychology’s principles is that initiatives involved in accepting and noticing Nature, such as hunting for “yamadori” or recognising potential Bonsai can sharpen the senses and assist the cultivation of new skills. Noticing the style that a tree is growing in and emulating it in the art of Bonsai sharpens the senses and brings the person in touch with new undiscovered pathways (Roszak, 1993, p. 1).

Ecopsychology investigates the process of developing emotional bonds with Nature without judgment, allowing the participant to explore sensations of harmony, balance, timelessness and constancy (Roszak, 1993, p. 1).

A wide variety of traditional wisdoms have histories which embrace Nature, such as Buddhism and Hinduism. Lessons learned from these traditions, include the ability to fully enjoy life while maintaining ecological balance within an environment. The self-sacrifices needed to abide within and honour the natural boundaries, and those that allow the environment to regenerate, as it is seen in ancient Japanese cultures led to the introduction of Bonsai. Moreover, certain indigenous cultures have developed methods of psychotherapy involving trees, rivers, and cosmic bodies, also known as ecotherapy (Roszak, 1996, p. 1).

Nature connectedness is the extent to which an individual integrates Nature into their identity or self-realisation (Glasser, 1997, pp. 73 - 74). It includes a deep comprehension of Nature in its totality, even the unpleasant fragments. Nature connectedness could further be equated to those components of personality traits which represent enduring loyalty over time and through different situations. The value a person places on the environment play a role in their perception as part of or separate from Nature. Nature is described as purely a reflection of a person's beliefs and desires (Vining, Merrick, & Price, 2008, p. 2).

According to Schultz (2002, p. 62 – 78) there are three mechanisms that form part of the Nature connectedness construct:

- The cognitive component is the essence that makes up Nature connectedness and is significant inasmuch a person believes that Nature is part of their cognitive self .
- The affective component is an individual's moral discernment in the care of Nature. A person's emotions and feelings of intimacy between two people can also occur in the human-Nature relationship.
- The behavioral component is an individual's dedication aimed at guarding the natural environment and motivation to act in the best interest of Nature (Perrin, 2009, pp. 18 - 19).

The foregoing components constitute Nature connectedness and are necessary for a mutually beneficial relationship with Nature.

The construct “Nature connectedness” has been described by other researchers in a simpler manner. It can be thought of as a love of Nature or referred to as an emotional affinity toward Nature. It can also be defined as the extent to which people believe that they are at one with Nature (Kals, Schumacher, & Montada, 1999, pp. 178 - 202) or feel emotionally connected with Nature. Although Nature connectedness is considered to be a stable personality trait, it can be influenced by a person’s experience with Nature. Feelings of connectedness at a state level have numerous benefits such as more regular positive moods and less negative mood swings (Schultz, 2002, pp. 62 - 78).

Nature connectedness is intensely associated with the subjective welfare and other measures of positive performance in actions such as the resolution of a challenge in one's life. In order to measure well-being, participants gave details of how often they experienced positive emotions. This is defined as an affective assessment; how often they experienced negative emotions (also defined as an affective assessment) and how satisfied they were with their lives at a given time, which relates to a cognitive assessment as in the Spirituality Scale by Delaney (2005, p. 1). Individuals with increased levels of well-being would typically indicate that they are content with their lives, feel added positive emotions and feel less negative emotions (Schultz, 2002, p. 70).

On a broader level, the concept of trait/personality-Nature connectedness is related with being healthy (Howell, Dopko, Passmore, & Buro, 2011, pp. 166 - 171). Persons who live in close proximity to Nature report higher psychological well-being and comfortable acceptance of the self. They are reportedly also socially more integrated. Emotional well-being, positive emotions and life satisfaction, are less consistently related to Nature connectedness. Characteristics of Nature relatedness suggest correlation with psychological

well-being and its six aspects of autonomy, environmental mastery, positive relationships with others, self-acceptance, determination in life, and personal growth (Seifert, 2005, p. 1).

Ryff's multidimensional model of psychological well-being vary in significant ways related to personal characteristics including age. Springer, Pudrovska & Hauser (2009, p. 392) assessed the direction and magnitude of life-course changes in psychological functioning related to aging and maturational processes, and examined the extent to which the six dimensions exhibited different age profiles and the degree to which methodological variations (positive/negative item phrasing) can affect age variations using three life-course transitions: from adulthood to early midlife, from early midlife to late midlife, and from late midlife to old age (Springer, Pudrovska, & Hauser, 2011, pp. 393 - 394).

Lastly, Nature connectedness is connected to mindfulness. Howell, et al, (2011, p. 166 – 171) propose that mindfulness is linked to a “person's awareness in Nature and experiences in Nature but not to the person's choice of whether to accept those experiences or not.”

There are also numerous benefits to be derived from feelings of being connected to Nature at the state-level (also referred to as the mood at the time of interaction). It could be argued then that the person turns to Nature as a healing power. State-Nature-connectedness can also relate to both physical and mental energy (Cohen, 1993) and increasing positive or optimistic affect. Being exposed to Nature also relates to other manifestations of positive performance such as ambitions and goals. It increases intrinsic ambitions such as personal growth, intimacy, and an involvement in community and at the same time decreases extrinsic aspirations such as financial wellbeing, image and fame at a state-level (Weinstein, Przybylski, & Ryan, 2009, pp. 1315 - 1320). Weinstein, et al (2009, p. 1315- 1316) imply that intrinsic objectives relate to well-being whereas, the accomplishment of extrinsic

objectives relates to ill-being. Nature connectedness and self-sufficiency were found to facilitate the connection between Nature experiences and intrinsic/extrinsic objectives.

Lastly, the effect of subtle Nature manipulations, as in the case of Bonsai styling, can increase well-being or other gauges of well-being.

Although Nature relatedness implies a feeling of being connected to Nature and is purportedly a stable individual trait, it is essentially effected by a person's own experience with Nature. This means that the person would feel more connected and therefore have a natural concern for Nature, after being exposed to certain influences. There are benefits attached to being close to and feeling an affinity with Nature. It may be beneficial to keep this in mind when creating settings for patients at hospitals or in therapy sessions (Frantz, Bruehlman-Senecal, & Dolliver, 2009, p. 607). Increasing exposure to therapies involving Nature and the creation of green spaces in your own backyard may increase the psychological wellbeing and ecological awareness of individuals and therefore promote mental health. Exposure to Nature can have "humanizing effects; fostering greater authenticity and connectedness and, in turn, other versus self-orientations which enhance appreciation of and generosity toward others" (Weinstein, et.al., 2009, p. 1328).

of and generosity toward others" (Weinstein, et.al., 2009, p. 1328).

### **Integral Ecology**

Wilber (as cited in Esbjörn-Hargens & Zimmerman, 2009, p. 147) explains that both phenomenological and systemic interconnections are important and an integral approach makes room for each. Wilber claims (Esbjörn-Hargens & Zimmerman, 2009, p. 149) that to have sustainable economies we have to live in harmony with eco-systems and that human beings must have interior levels of development which can maintain ecological consciousness. Furthermore, there cannot be sustainable exterior development without

correlative interior development. No exterior landscape can be developed without an interior landscape which is capable of holding it.

The Systems Theory described by Wilber (Esbjörn-Hargens & Zimmerman, 2009, p. 149) is designed to eliminate subject-object dualism by reducing all subjects to objects in the holistic system, by giving them a subtle reductionistic form. The universe needs to be expanded from individualistic behaviour to that of complex systems, including interiors (the artist) and exteriors (the Bonsai). See Table 1, lower right quadrant.

### **Bonsai as transitional object from the perspective of the Psychoanalytical tradition.**

Great artists (Weissman, 1971, p. 1) whose art achieves lasting recognition, such as Solisty, Ceronio, Kato, Naka, etc. are more recognisable through their enduring association with the objects of their aesthetic creation, such as Bonsai, than with children they have procreated. Weissman, (1971, p.1) stated that Shakespeare is more remembered for Hamlet than for his son Hammet. This said, it does not mean that the renowned artist's creations (objects) had a more enduring meaning to him than that of his personal relationships. The collective group of aesthetic onlookers transpose their interest in the artist and his created objects to the extent that they tend to assume that the artist would share their admiration of his created objects (Weissman, 1971, p. 1).

The creative person has binding relationships with individuals throughout his life including constant relationships such as parents, siblings and friends; sexual objects and children. This additional factor of relationships with created objects is expected to complicate relationships with his personal objects (Weissman, 1971, p. 1).

Psychoanalysts regard the relationship between the artist, such as John Naka and Harry Harrington and his created objects as an inseparable cathectic depiction. Others could emphasize the artist's relationship with his created object as a manifestation of his love affair

with the world. Regarded as inseparable or ubiquitous, the relationship between artist and created object could be further clarified if we understood more about the Nature and developmental origins of the created object, i.e. how it was obtained (Weissman, 1971, p. 1).

The creative state (and its concomitant created objects) will be considered as episodic and represents a shift in cathexis away from personal objects to more impersonal objects such as the Bonsai tree. Jacobson (Weissman, 1971, p. 1) explains the artist's intense commitment to creative work in terms of transformation of object relations. The construct by Greenacre and Jacobson (Weissman, 1971, p. 1) on the development of object relations in people who are creative, requires that an unusual departure from ordinary object relations development is needed.

Weissman (1971, p. 1) argues that there is an enduring relationship between an artist and/or the created object's aesthetic achievement. It can be said that the artist will always be known by his created tree, even if it is sold. However, it becomes gradually decathected, and loses its original meaning for the original artist while being internalised by subsequent artists in much the same way as famous paintings change owners.

Rituals often interconnect at non-conscious levels. Rituals (Davis, 2000) form part of our personal and cultural character. By performing these ritualistic acts we celebrate Christmas, Eid, Passover, etc. This is how praise is given, strangers are welcomed, forgiveness is sought and the dead are buried. In the performance of such ritualistic acts people announce who they are and, in the sharing and re-enactment, are bound to one another (Chandler, 2010, p. 1).

Art is widely appreciated as one of the great achievements of humanity. To a great extent virtue is derived from the mysterious way in which art affects, informs, and influences us and, in a sense, allows us to re-create ourselves in conversation with it. Segal, (Brody,

2001, p. 370) has observed that there is “often a feeling, both in the artist and in the recipient, that the artist not so much creates but reveals a reality. ... part of the aesthetic experience has to do with a feeling of revelation of some half-perceived, apprehended truth, which is discovered not invented” (Brody, 2001, p. 369).

Brody (2001, p.370) used the simile of the tree that an artist (Paul Klee) had studied and compared it to the artistic processes of the artist. The analogy he uses is that the sap flows to the artist from the root, through his veins and to his eye. As the artist stands, his body resembles the trunk of the tree. As the flow of nutrients strengthens or weakens, the artist can mould his vision into his work. Then the crown of the tree unfolds in glorious greens and spreads in time and in space, for all to see; as will the artist’s work. The roots do not reflect the crown of the tree and between above (the crown) and below (the roots) there can be no mirrored reflection. Although the example reflects the work of an artist who used paints and canvas, much the same can be said of the three dimensional art of Bonsai.

The work of art that emerges from this process partakes of both the inner and outer realms while not belonging wholly to either of them. Those who refuse to allow the artist the departures from Nature described by Klee fail to appreciate the Nature of this intermediate realm of experience. It is through the artists struggle with the disparity between the inner and outer realms of experience that he engages in what has been described as “potential space.” (Brody, 2001, p. 369).

Winnicott uses the general principle of “potential space” in referring to the transitional area as "that which lies between fantasy and reality". Specific types of potential space include the play space or the “Bonsai-en”, the area of the transitional object (the tree and the pot) and phenomena, the analytic space, the area of the cultural experience, and the area of creativity. Although potential space has its origins in a (potential) physical and mental area between mother and infant, it later develops possibly, in the course of normal development

for the individual infant, child, or adult, to develop his own ability to generate potential space (Brody, 2001, p. 369).

It is within art's potential space that the artist depicts, contains, lives with and forms his experience of primitive levels of anxiety. Klee described his experience as an “in-between world”, where the world of Bonsai has unlocked a space which not everybody can perceive, even though they too are of Nature and in Nature. Perhaps it's really true that only children, madmen and savages” see into the realm of the unborn and the dead, the realm of what can be, might be, but need not necessarily be. An in-between world exists between the worlds the senses have perceived, and absorbed inwardly to the extent that they can be projected outwardly in symbolic correspondences (Brody, 2001), such as in the art form of Bonsai.

One aspect of art as therapy has to do with the relationship of the artist to his public. A full psychoanalytic account of the creative process includes not only the internal regulations of the artist's psyche—the artist's unusual dynamic, structural, economic and genetic plight—but also his adaptational plight (Kaplan, 1972, p. 1). A clinical analogy here is that of the primary and secondary gains of a neurotic symptom, which, like the work of art, is also formed for internal (sometimes called primary) and adaptational (sometimes called secondary) gains. In the creative process, the adaptational gain involves the ultimate success of the work of art with a public.

Eissler (as cited in Kaplan, 1972) also addresses the relationship of the artist to the viewing public. The psychoanalytic interpretation of the creative process does not only include the “internal regulations” of the Bonsai artist's psyche, but also the artist's unique “dynamic, structural, economic and genetic” attributes. He likens them to the primary and secondary gains of a neurotic symptom which, like a work of art such as the Bonsai tree, have to be formed for internal (or primary) and external adaptational (or secondary) gains. When used in the creative process, the adaptational gain requires acknowledgment of the

displayed work of art by the general bonsai viewing public.

Eissler' often questions the Bonsai artist's relationship to the viewing public. He feels that “the genius has a primary need to evoke certain responses of a positive nature in his social environment in order to be protected, by such responses, against a breakdown of his mental functioning”. The Bonsai artist needs a viewing public as much as he needs to satisfy his desire to create an art object. He further states that the artist's desire for success is not a reduction of the authenticity of his creativity, but an integral part of his need to be creative.

Eissler (as cited in Kaplan, 1972) states that any artistic design can lead to the solution of an inner battle for primary gain, as well as secondary gain, such as external reward (and fame). There is little doubt that the secondary gain is of enormous importance to some. The main objective in studying the impact of Bonsai on the psyche of the participants (The primary gain) was to determine whether or not the artist could use creation to resolve inner conflicts.

Eissler stated that the artist's demand for fame did not automatically involve acknowledgment from a greater peer group, such as the Bonsai community. “Wherever artistic creation takes place, the idea of a public exists, though the artist may attribute this role only to one real or imaginary person. ... [The artist's] quest need not be for approval of the many but for response by some. The acknowledgment by response, however, is essential to confirm their own belief in their work and to restore the very balance which the creative process may have disturbed.” (Kaplan, 1972).

### **Theory of Hope**

The Bonsai artist works in hope. Every tree that is removed from Nature, every seed that is planted, brings forth hope that it will grow and live. The eternal hope that exists in planting seeds, taking cuttings, making something grow, implies a conceptual pillar of

“fortigenic focus on human resilience, strengths, resourcefulness and life skills” (Edwards, 2011, p. 2). Hope may be investigated from transpersonal and spiritual perspective of the subject-object (the self vs. the tree); being-nonbeing (keeping your live art from dying), body-mind vs. ego-shadow levels and other artists acceptance of one’s own perceived brilliance.

Edwards (2011, p. 2) further claims that the integration of all of the above will lead to levels of pure pre-reflective consciousness that might lead to further, often elusive experiences of tangible hope. He maintains that states of consciousness and experiences of trust, faith, integrity and love (as experienced during Bonsai activities) can communicate hope, especially if this has its foundation in and is directed by spiritual practises.

O’Hara & O’Hara, (2012) state that early studies of hope focussed on the nature of hope and its importance in therapeutic change. Their study highlighted the importance of hope in the therapist and the use of strategies in therapy to encourage the growth of hope in patients. Bonsai offers an inspiring symbol of the hopes of both the artist and the therapist. In their study they found that the nature and source of hope includes positive expectancy, positive feelings and the promise of positive change which all came from internal and external sources.

Bonsai as a therapy tool can instill hope both “in” the client, and “for” the client, as well as “in” the counselling process and “in” life (O’Hara & O’Hara, 2012).

O’Hara & O’Hara’s (2012) study also found that there are many blockages and difficulties in maintaining hope, such as mental illnesses, traumatic experiences, grief and unfronted aspects of the Self. They identified three “hope-focussed” strategies; namely relationship-focussed, Task-focussed and Transpersonal and Transcendent-focussed startegies.

Relationship-focussed strategies included relationship-based and encouragement-based strategies; where the therapist listens to the story which the client has to tell (while working on the bonsai tree), self disclosure or being witness to the client's pain or suffering. Alternatively the client may prefer to think this through in solitude with his tree (O'Hara & O'Hara, 2012).

Task-focussed strategies include cognitive, goal or future-focussed, psycho-education and psychosocial strategies (O'Hara & O'Hara, 2012). Cognitive functioning may well be advanced during planning and execution when styling the tree.

While executing Transpersonal and Transcendence strategies, the focus lies mainly in Spirituality and seeking meaning in actions. During this process mindfulness, meditation and breathwork is of utmost importance (O'Hara & O'Hara, 2012). All of these can be practiced during the styling of Bonsai trees.

### **Inner Spaces and Shadows**

Pringle (2005, p.141) states that spatial manipulation relates to the history of perception, and that the analysis of a society's recreations (read Bonsai) can offer insights into its fundamental shifts and disturbances.

Jung refers to the shadow or "shadow aspect" as the sum of the unconscious, or the non-conscious characteristic of the personality that the conscious ego seldom acknowledges in itself. The person is seldom aware of the least desirable aspects of his or her personality, and therefore, the shadow is mainly undesirable, nevertheless, there may also be positive aspects, which remain unseen in the person's shadow (Thomä & Kächele, 1987, p. 1). When the Shadow is experienced without forewarning, it can be emotionally unbalancing, often worsened by depressive states, fear and despair. Being prepared for this unbalancing effect is to cushion the shock of surprise and to accept the revelation that the dark features of the

personality form part of the general human condition (Assagioli, 1974, p. 88).

Jung labeled the shadow as a defensive projection, where a person unconsciously refuses to accept his or her own undesirable characteristics by attributing them to objects or persons outside of their realm. Consequently, projection and the linked projective identification moderate anxiety by allowing the unconscious appearance of the unwanted unconscious instincts or longings through displacement. In this instance, it could be the tree that flies against all Bonsai rules on purpose. Jung's "projection" is a psychological defense mechanism whereby one "projects" undesirable or unacceptable thoughts, motivations, desires, and feelings onto someone else. In this study, it creates the opportunity for a therapeutic situation that is a prerequisite for gaining insight into unconscious psychic connections. Freud stated that the essence of therapy is not to improve anything, but merely to alter something (Thomä & Kächele, 1987, p. 1).

The associated defense of projective identification with the tree, differs from projection in the psychological sense, in that the impulse or desire represented by an external object does not seem alien and distant from the ego because the self sustains the connection with that which is projected (Baumeister & Dale, 1998, p. 1090). Projection refers to the tendency to see one's personal traits in other people but, in this instance, projection would be the Bonsai tree which is being created by the artist. Alternatively one could perceive others as having traits which are absent in oneself.

Valliant (1992) states that projective identification refers to unacceptable impulses or affects that the client projects onto another person. It involves the designation of an image so that the entire object is perceived and reacted to in a distorted light. Further mention in Baumeister and Dale's (1998, p. 1090) study is the effect of false consensus. False consensus is defined as an inclination to assume that others are comparable to one self. False consensus, in this instance, would be the tendency to assume that others (trees) are similar to

oneself and would follow or disregard the same rules.

This effect has both cognitive and motivational impacts and is found more with positive, desirable traits than with bad traits, especially shown with competitiveness and jealousy. Most people want to regard their virtuous traits and skills as unusual. Sherwood, (as cited in Baumeister & Dale, 1998) claims that when one can attribute one's bad traits to someone who is viewed as a Master (and revered in Bonsai) then they can be linked to higher self-esteem and lower depression (Baumeister & Dale, 1998, pp. 1091 - 1092).

Opposing the Freudian idea of the "Shadow", which Jung compares to the Id, the Jungian Shadow frequently refers to every part that lies "outside the light of consciousness", and may be positive and beneficial or negative and damaging (Frager & Fadiman, 2005, p. 56). Jung stated that everyone carried a shadow, which, if it is not personified in the individual's conscious existence, the darker and heavier it is. He linked it to the more primitive animalistic instincts embodied in the Spirit, which are replaced during early childhood by the conscious mind.

Jung described the instinctive and irrational Shadow, as disposed to begin represented by a particular inferiority into a perceived moral deficiency in someone else. If these representations are unrecognized as the Shadow and given a free hand, it can realize its object or bring about some other situation characteristic of its power. These projections can shield and cripple individuals at the same time, by forming an ever thicker fog of illusion between the ego and the real world (Frager & Fadiman, 2005, p. 56).

Jung also believed that "in spite of its function as a reservoir for human darkness, or perhaps because of this, the shadow is the seat of creativity." So for some, it may mean: "the dark side of his being, his sinister shadow...represents the true spirit of life as against the arid scholar" (Jung, 1983, p. 262).

The Shadow is also not purely negative, but can be the source of vitality and creativity, which corresponds partially with Freud's "id" in the sense that it is regarded as a "vital energy" (Meyer, Moore & Viljoen, 1989, p. 82).

The study of the unconscious is symbolically considered to be a descent into the chasms of the human being or the "underworld of the psyche." Jung's fundamental principle of "Depth Psychology" is that man must fearlessly become conscious of all the shameful and ambiguous aspects of his being, "the shadow," and then integrate them into his conscious personality. By recognising and including this, one becomes humble, yet powerful at the same time, thereby achieving spiritual victory (Assagioli, 1974, p. 272).

### **Silences**

Bonsai is traditionally an art form that is practiced in silence and solitude. Silence is believed to strengthen and stabilise the wholesome self-awareness of the Bonaist. It is sometimes necessary to have stages of inner silence, in order to create a void in the space of consciousness to enable creativity to step in. (Assagioli, 1974, p. 39).

As with meditation, whilst doing Bonsai, silence must be observed. It is important that during this time, not only outer, but also inner silence be observed. According to Assagioli (1974, p. 98), to be observant, is to become aware that something from within the unconscious is constantly speaking. Thus, outer silence is not sufficient in itself, but the inner noise must be silenced as well.

In the absence of any envisioned idea of the Bonsai, inspection emerges as a state of perfect calm and inner silence. Assagioli (1974, p. 99) stated that then the typically super-conscious region can be reached in full consciousness and various psycho-spiritual qualities and activities, which influence the super-conscious, may be experienced. These qualities are not somewhat abstract, vague and evanescent, but are described as something alive, intense,

diverse and vibrant, which can be perceived as more realistic than ordinary experiences, both inner and external.

According to Wilber, (Wilber, 1996, p. 86), the “ultimate nature” of reality is called *sunyata*, which can be described on the one hand as an “emptiness or nothingness” and on the other as “not vacant absence”. Wilber argues that until one awakes to the Spirit and continually seeks substitutes in Space (on earth and in objects) and time, life (and art) will be fruitless (p.9). Conze, (as cited in Wilber, 1996, p. 62) believed that once “everything” is empty, identification can take place. Once identification has been visualised, one can identify with the object of faith.

Assagioli (1974, p. 99) describes this as a state characterised by a perception of light or enlightenment on problems and situations which are then understood; their significance revealed. Peace is felt as independent of any external circumstance; joy and happiness, harmony, beauty and power can be felt.

Assagioli (1974, p. 114) illustrated this state by using Wagner's symbolic epic of the Grail. Titurel, the knight, climbs the mountain, with much hard work and courage. Having reached the summit, the knight spends the night in prayer, asking for a vision, and waits in silence. Angels, symbolising the superconscious, appear, and bring him the Cup/Grail, a symbol of transpersonal Love, and the Sword, symbolizing Spiritual Power and Will. This story is essentially sequenced into the “active” phase, and then the “receptive” phase. The knight as the symbol of the "I", first misidentifies from all personality purposes and facets. Through the knight's own will, he ascends as close as he can toward the Self. At the peak he takes on a receptive, contemplative attitude, through the techniques of “meditation, contemplation, and silence”. This can lead to the inflow of the superconscious. One must first "reach the top", then assume the appropriate inner attitude, before becoming silent at all levels of the personality. This period where the stimulus ceases and the outer expression

starts, can be used for quiet "brooding" in silence (ibid, p. 148).

### **Rehabilitation prospects**

It is reported by Loy, Dattilo and Kleiber (2003, p. 232) that a person who actively engages in life activities, relationships and social situations, and has a general interest in recreational projects, often subjectively alludes to general mental health wellbeing after spinal cord injuries. The study by Loy, et al, (2003, p.232) describes how continuing with existing activities or adjusting leisure activities can have an effect on spinal cord injury (SCI) adjustment throughout the rehabilitation procedure and in community convalescence after leaving the rehabilitation context. Loy, et al (2003) reported on the effected persons' experience of these modifications and how it improved identity development and self-concept improvement. This study demonstrated that leisure in general is important for adjustment to SCI (or any injury). It did not distinguish the "qualities or components" of leisure involvement that impact on the modification and the "processes" by which leisure commitment produced change in self- perceptions and general satisfaction with life over a period of time. To date (Loy, et al, 2003, p. 233) no investigations have been done to determine how different leisure types such as sports, traditional art, etc., affect SCI patients' self-perceptions and consequent regulation of mood and mental health to normal life. General daily functional activity stresses are higher amid people with SCI or other disabilities than the non-disabled population. Limited daily living opportunities for people with disabilities may lead to monotony, stress, and depression (Loy, et al, 2003, p. 232).

Psychologists describe coping as a method of dealing with psychological stress produced by a frightening event (Loy, et al, pp. 232 - 233), where stress is hypothesized as either a stimulus brought on by difficulties of every day life or a major adjustment in a person's life or a reaction such as psychological or physiological arousal. From the perspective of an ailment, disorder or incapacity, the word "stressor" is frequently used to

denote to the illness or disability and “stress” is used to indicate the social response (Services, 1999, p. 285). Stress is perceived as a cognitive-affective explanation of the implication of a hostile or threatening instance, which frequently produces a physiological response that involves an arousal of the sympathetic nervous system, the parasympathetic nervous system and the neuromuscular nervous system. The imbalance that requires “coping” to sustain an anticipated level of physiological and psychological motivation is generated by this arousal (Loy, et al, 2003, p. 233).

According to Lazarus and Folkman (Loy, et al., p. 233) “Coping is as much a colloquial term as a scientific one”. It would be difficult to test the theoretical sense of coping through empirical and theoretical procedures as coping performs many functions for the person with chronic illnesses, mental disorders and disabilities. Coping includes resources for decision making, preserving independence and freedom that require meeting social and environmental stresses, regulating the significance of potential stressors before they develop into a threat, and circumventing negative self-evaluation (Loy, et al, 2003, p. 233).

Recreational activities sustain coping purposes and serve to stimulate future engagement in the activity (Hutchinson, Loy, Kleiber, & Dattilo, 2003, p. 154).

According to Livneh and Antonak, (as cited in Loy, et al, 2003, p. 234), adjustment can be viewed as a product of coping. Adjustment is described as the purpose of the similarity between the subjective observations of the individual with debility and the external background. When adjustment is achieved, a state of cognitive restructuring is reached and the person is able to adapt the self toward the external environment. This is characterized by the incorporation of the practical boundaries associated with the complaint and his or her self-concept (Loy, et al, 2003, pp. 234 - 235).

Loy, et al’s (2003) study is based on a theoretical background that accentuates the

potential of behavior to stimulate levels of cognitive functioning. This framework states that age-related degeneration in cognition does not nullify the view that behavior can augment cognitive functioning. In fact, the progression of normal aging creates the opportunity for a zone of potential functioning, which reflects person-specific legacies and age-related limitations. Individuals determine where they function in either the higher or lower ranges of this zone by consciously engaging in or refraining from constructive intellectual, physical, and social activities (Hertzog, Kramer, Wilson, & Lindenberger, 2009, p. 1).

Recent research in neuroscience reveals neural plasticity in numerous aspects of central nervous system functioning, neurochemistry, and architecture related to positive change. This is in contrast with other views of static human potential conceptions of cognition in the older population; where decline in skills is fixed and its course cannot be slowed. Furthermore, a distinction is made concerning basic cognitive mechanisms and skills such as working-memory competence and the practical use of cognition to attain purposes in specific situations. Furthermore, available evidence implies that older adults can effectively engage specific knowledge and expertise and can gain fresh knowledge when it is required (Hertzog, Kramer, Wilson, & Lindenberger, 2009, p. 1).

## **Resume**

This chapter provided a review of the literature and the next chapter will describe the methodology, implementation and evaluation of the design, measuring instruments used, data collection and analysis, as well as the ethics of the research.

## CHAPTER THREE

“Woe to the thinker who is not the gardener but only the soil of the plants that grow in him!”

Nietzsche

### **Introduction**

The research question and objectives are founded on years of personal experience with bonsai trees; the author being a member of clubs and serving on the national body in South Africa as well as having international travels to Bonsai conventions and exhibitions.

This chapter discusses the methodology pertaining to this study, including the design, measuring instruments, data analysis techniques and the ethics.

### **Research questions**

The research theme of this study addresses the following issues:

“What influence does the practice of Bonsai art have on the holistic health and well-being of the Bonsai artist? Could Bonsai possibly be used as a rehabilitation tool?” Central to these questions is the need to determine whether Bonsai has a beneficial effect on the psyche of the Bonsai practitioner. This theme and issues led to the research questions to this study, asking of the Bonsai practitioner:

“Please describe in full detail the influence that Bonsai has on all aspects of your health and wellbeing. Please ensure that you include all aspects of physical, mental, social, spiritual, ecological influences, etc. Please include all your experiences with regard to all aspects of health and wellbeing that you can think of.” (Appendix 5)

### **The aim of the study**

The aim of the study was to attempt to address the research question as an untapped source of benefit. The broader intention involved expanding the theoretical framework of Integral Psychology and Eco-Psychology for understanding and forming a close link between spirituality, Nature, healing and the arts. It reflects on aspects of integral and eco-psychology and focuses on developing new strategies in the field of psychology.

The foundation of this study was to explore the outcome and consequences of spiritual belief, and/or practice for mental health, in conjunction with the involvement of the leisure activity of Bonsai. In this study, quantitative and qualitative evidence was identified and investigated relative to a number of mental health concerns. It was expected to find some factors that influenced, facilitated or contributed to the relationship between mental health and spirituality and the leisure activity of Bonsai, that were explored before the limitations of the evidence were identified.

A further aim of the study was to explore the possibility of using the art form, Bonsai, as a rehabilitation or intervention tool or preventative measure for mental health illness.

### **Significance of the study**

Integral eco-psychology can provide a learning paradigm (Mahoney, 2002; Wilber, 1997) in the field of psychology to augment the existing theories, approaches and interventions of mental health. The researcher was therefore of the opinion that this study would add value to existing therapeutic approaches. The study treads on unfamiliar, untried and untested ground. It was considered that research could have some key implications for individuals and services with an interest in spiritual, rehabilitative and mental health care and would relate to the holistic prevention of mental and physical health issues. It was envisaged that the information gained during the study would assist in preventing those issues and possibly aiding mental health rehabilitation to a certain extent. Research finding, which will

be distributed to relevant health professionals and rehabilitation facilities will hopefully encourage further research in the field.

### **Statement of the problem and limitations**

Oneness in being, Nature, consciousness, body and soul are all important to being healthy, both physically and mentally. If one is not in harmony with all surrounding forces then mental and physical ill-health and exhaustion can occur. Very little study had been done on the benefits of leisure activities on mental health (Hertzog, Kramer, Wilson, & Lindenberger, 2009, pp. 15 – 17; Loy, Dattilo, & Kleiber, 2003, p. 234).

As distinct from “working in a garden” or gardening, the art of Bonsai is specifically targeted in this study for its spiritual connotation and skills requirement as well as a disciplined commitment to the art form. Specific principles, as with any art, are important and should be a guide in order to ensure success for the participant.

The purpose of Bonsai is firstly observation and scrutiny by the observer and secondly, the pleasing practise of skill, effort and creativity for the grower. What separates it from traditional gardening, is the fact that its sole intention is to please. The art requires the long term cultivation and shaping of one or more small trees in a container. It is not intended for production of food or creating of gardens and landscapes (Chan, 1987).

### **Methodology**

#### **Research Design**

A pragmatic approach was adopted with mixed qualitative and quantitative methods being used as both were suited and complimentary to the research problem (Cresswell & Plano-Clark, 2007; Terre Blanche, Durheim & Painter, 2006).

Initially a general interest questionnaire which was designed to establish demographics and broad interest in the art, was sent to participants. Likert-type

questionnaires were then sent to the same group (Bonsai) to measure attitudes to spirituality, quality of life and physical health, with the aim of carrying out statistical analysis. From there, the findings were used to construct a questionnaire that informed the qualitative part of the study. Based on responses by the participants, questions were devised for the qualitative part of the study. Participants were sent two to five questions in the first email. Based on their responses, ongoing email communications resulted in extensive interviews being conducted with some participants.

Whilst it is possible, but not necessary to transform qualitative data into quantitative data and vice versa, both methods were used in this study. Using different approaches has the benefits of enabling triangulation. Triangulation is a common feature of mixed methods studies. It includes the use of an assortment of data sources (data triangulation), including individuals, clubs, commercial and general artists. Only one investigator was used, so there was no investigator triangulation. Theory triangulations were used in the sense that multiple perspectives were adapted to interpret the results, such as Integral Psychology, Eco-Psychological theories, and psychoanalytical approaches (Creswell, 1998).

Both, qualitative and quantitative methods were used simultaneously. The qualitative study involved in-depth interviews and focus group discussions on the Internet to obtain information, which was then used to provide the development of a general measure hereafter referred to as the “Bonsai activity questionnaire”. Attitude scales were employed and the results will be analysed statistically.

During the qualitative research meaning was given to the data by means of thematic analysis. From this qualitative study, quantitative measures were developed because of lack of existing measures and the scarce available data. Concepts such as validity and reliability will be avoided for all questionnaires, except measurement instruments, such as the Spirituality Scale (Delaney, 2005) and the PHQ-12 (Spitzer, Williams, & Kroenke, n.d., p. 1)

and terms such as trustworthiness, dependability and credibility were used, owing to the mainly qualitative orientation of the approach.

## **Sample**

The international community of Bonsai is a relatively small and intimate society. According to Baran, (2012, p. 1) there were approximately 654,000 active Bonsai members world wide. It was therefore estimated that a sample size of 255 respondents with a confidence level of 95% and a confidence interval of 6,1% would be sufficient for the purpose of this study. Members who are considered to be masters as well as members who are revered by their peers were selected for personal interviews and completion of the questionnaires. Therefore a method of purposive convenience sampling was applied to a cohort study group of three hundred (300) well-known and respected Master and senior Bonsai artists. Two hundred and fifty five (255) artists or growers responded to the questionnaire. Of the 255, forty (40) were interviewed via email or telephone. Non-responses were mainly due to participants feeling uncomfortable answering the questions posed by the Spirituality Scale and language barrier issues.

## **Data Collection**

The following questionnaires were offered to potential respondents for completion.

**Spirituality questionnaire:** The (SS) (Delaney, 2005) (Appendix 1a) consists of a 23 item psychological tool used to measure the human spiritual aspect which includes: beliefs, intuitions, lifestyle choices, practices and rituals and is scored based on three sub scales (Appendix 1b). Spirituality is regarded as a multi-faceted phenomenon which integrates three dimensions: self-discovery (a search for meaning), the experience of relationships and eco-awareness (a connection to the environment and cosmos). The SS is

intended to measure spirituality, adopting a method which may be used to monitor spiritual mediations (Delaney, 2005).

The operative definition of spirituality for the instrument used is encompassed in its multidimensional Nature. It refers to a phenomenon that is commonly experienced as part of socially construction as well as individual development during the life span of the participant. Spirituality involves a subjective, relational, and trans-personal (social) environment consisting of four interconnected spheres such as belief in a higher Power or Universal Intelligence that could, but doesn't not necessarily include formalised religious practices. Secondly, it involves self-discovery as a spiritual journey that begins with internal deliberation in pursuit of meaning and purpose. Thirdly, it implicates relationships as in Wilber's (1997) integral connection to others with a profound admiration and respect for life and is known and experienced within relationships. Lastly, an eco-awareness dimension is important as spirituality includes an integral connection to Nature based on a deep respect and reverence for the environment and a belief that the Earth is sacred (Ehman, 2005, p. 1).

FACTOR	ASSESSMENT ITEMS
<b>Self-Discovery</b>	<ul style="list-style-type: none"> <li>- I find meaning in my life experiences.</li> <li>- I have a sense of purpose.</li> <li>- I am happy about the person I have become.</li> <li>- I see the sacredness in everyday life.</li> </ul>
<b>Relationships</b>	<ul style="list-style-type: none"> <li>- I believe that all living creatures deserve respect.</li> <li>- I value maintaining and nurturing my relationships with others.</li> <li>- I believe that Nature should be respected.</li> <li>- I am able to receive love from others.</li> <li>- I strive to correct the excesses in my own lifestyle patterns/practices.</li> <li>- I respect the diversity of people.</li> </ul>
<b>Eco-Awareness (including Higher Power/Universal Awareness)</b>	<ul style="list-style-type: none"> <li>- I meditate to gain access to my inner spirit.</li> <li>- I live in harmony with Nature.</li> <li>- I believe there is a connection between all things that I cannot see but can sense.</li> <li>- My life is a process of becoming.</li> <li>- I believe in a Higher Power/Universal Intelligence.</li> <li>- The earth is sacred.</li> <li>- I use silence to get in touch with myself.</li> <li>- I have a relationship with a Higher Power/Universal Intelligence.</li> <li>- My spirituality gives me inner strength.</li> <li>- My faith in a Higher Power/Universal Intelligence helps me cope during challenges in my life.</li> <li>- Prayer is an integral part of my spiritual Nature.</li> <li>- I often take time to assess my life choices as a way of living my spirituality.</li> <li>- At times, I feel at one with the universe.</li> </ul>

*Table 2 Spirituality Scale (Ehman, 2005, p. 1)*

The SS is a practical instrument in that it attempts to be inclusive of spiritually diverse groups. It is extremely user-friendly in employing language at an easy reading level and a format of a six-point Likert response scale that will allow participants to complete the questionnaire within ten minutes (Ehman, 2005, p. 1). The SS may also be used as a semi-structured interview to encourage dialogue to allow personalised spiritual assessment, care, and evaluation of suggested outcomes with the interventions.

The Spirituality Scale is a standardized 23-item 'holistic assessment instrument that focuses on the beliefs, intuitions, lifestyle choices, practices, and rituals that represent the human spiritual dimension, and ...that can be used to guide spiritual interventions" (Delaney, 2005, p.146). Spirituality was defined as a multidimensional universally experienced phenomenon, encompassing a personal, interpersonal, and transpersonal context consisting of four interrelated domains: (a) higher power or universal intelligence--a belief in a higher power or universal intelligence that may or may not include formal religious practices; (b) self-discovery—the spiritual journey begins with inner reflection and a search for meaning and purpose; ... (c) relationships--an integral connection to others based on a deep respect and reverence for life and is known and experienced within relationships...; and (d) eco-awareness--an integral connection to nature based on a deep respect and reverence for the environment and a belief that the earth is sacred (Delaney, 2005, p.152).

In the initial psychometric standardization of the scale with 224 American participants, the Cronbach alpha coefficient for the total scale was .94. Factor analysis yielded three main factors labeled eco-awareness, self-discovery and relationships, with alpha coefficients ranging from .81 to .94. The finding of three, not four, factors as expected was explainable in terms of the collapsing of the two transpersonal dimensions of higher power or universal intelligence and eco-awareness into a single main factor. As eco-awareness was described as the highest level of spirituality, this label was retained for items previously

subsumed under the two dimensions. Test-retest reliability yielded a very acceptable Pearson correlation coefficient of .84. Reliability analysis on the Spirituality Scale with the present sample of 77 participants similarly indicated a very acceptable Cronbach alpha coefficient of .83 and test–retest reliability Pearson correlation coefficient of .72.

The scale was standardized with a South Africa sample of 302 participants and a short 12 item version (SS-12) of the scale was developed (Edwards, 2012c). Reliability analysis for the SS-12 as a whole indicated a very satisfactory total scale alpha coefficient of 0.82. Responses to items were scored on a one to four point Likert rating system graded from strongly disagree to strongly agree (Edwards, 2012c).

**Health questionnaire:** The Patient Health Questionnaire (PHQ) (Appendix 2) is a self-administered questionnaire that was developed and validated in the early 1990’s (Spitzer, Williams, & Kroenke, n.d., p. 1).

The PHQ was originally developed to identify the following disorders, namely depression, anxiety, and somatoform and was the rationale behind using the PHQ-9 screener.

Since the questionnaire relies on patient self-report, the responses should be verified by the clinician during an interview and a definitive diagnosis made on clinical grounds. The responses by the participants were not taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient and no final diagnosis was made.

An important characteristic of a severity measure is its sensitivity to change through time. It would measure now declining or rising scores on the measure reflecting improving or worsening depression in reaction to effective therapy (Kroenke & Spitzer, 2002).

Kroenke & Spitzer (2002) consider a decline of at least 5 points in the PHQ score necessary to qualify as a clinically significant reaction to depression intervention and management. They base this on the fact that each 5-point change on the PHQ-9 corresponds with a moderate effect on multiple domains of health related quality of life and functional status, but would still need clinical evaluation of each individual patient.

The diagnostic algorithm for the PHQ modules (at the bottom of each page) were used to derive severity scores of the depression, anxiety and somatoform modules of each participant.

A cut point of 10 was used to indicate a “yellow-flag” or possible indication of a disorder and a cut point of 15 was considered to be a “red flag” or a manifestation of a disorder on all 3 measures for the purpose of this study (Spitzer, Williams, & Kroenke, n.d., p. 1). See Appendix 2.

**Quality of Life Questionnaire:** The Quality of Life questionnaire (QLI) (Appendix 3a) was developed by Ferrans and Powers (as cited in Hagel & Westergren, 2006, p. 868) to measure participants’ quality of life in relationship to their satisfaction with life. The QLI gauges satisfaction and its importance concerning several aspects of a person’s life.

Ratings of Importance were used to weight satisfied responses, so that scores reveal satisfaction with the facets of life that were deemed important to the individual. The QLI produces five scores such as overall quality of life and four separate fields; namely health and functioning, psychological/spiritual domain, social and economic domain, and family (Hagel & Westergren, 2006, p. 868).

The QLI was administered during interviews or emailed to and completed by the participant. The responses (satisfaction and importance) were measured on a 6-point Likert type scale, ranging from 1 (very dissatisfied / very unimportant) to 6 (very

satisfied / very important). Five scores were generated with totals and four individual areas on a 0 - 30 scale (Hagel & Westergren, 2006, p. 868).

According to Hagel & Westergren, (2006, p. 868) life satisfaction is described in terms of the apparent consistency between goals and achievement. This involves an evaluation of the existing state against a certain standard of comparison with the degree to which the participant considers him or herself able to achieve his/her goals. Close relationships were anticipated between total QLI scores and life satisfaction. See Addendum 3a.

**Bonsai Activity questionnaire:** A general questionnaire (Appendix 4) was designed to gather demographic information, as well as to determine the participants' level of involvement and commitment to the art of Bonsai. Twenty questions were asked regarding age, gender, amount of trees and time spent in the Bonsai-en as well as level of commitment and the effect Bonsai has on the participant's well being. (See Appendix 4).

**Interviews:** Email correspondence was introduced whenever logistical obstacles interfered with telephonic or personal interviews. (Appendix 5) Some artists allowed the researcher to use biographical data contained in their publications.

DiCicco-Bloom and Crabtree (2006, p. 314) state that qualitative interviews are categorised in a diverse way with many current authors differentiating between unstructured, semi-structured and structured qualitative interviews. For the purpose of this study, unstructured and semi-structured formats were used due to the diversity of participants. A focus group of Master Bonsai artists was also interviewed.

Interviews can never be conducted on a strictly unstructured basis. They are therefore more accurately described as guided conversations (DiCicco-Bloom & Crabtree, 2006, p. 315). Unstructured interviews originated from the ethnographic custom of anthropology.

Data was gathered by observing the participants and field notes were recorded as actions were perceived from the side-lines. Activities in which participants were involved were also studied. During the course of this exercise the researcher identified certain “key informants” (ibid, p. 315) to confer with on a continuing basis and short notes were taken while observing during past workshops and studied.

According to DiCicco-Bloom and Crabtree, (2006, p.316) key participants are selected, first and foremost, for their knowledge first and foremost. The role these key participants play in a setting and their ability to serve as translators, teachers, mentors or commentators for the researcher adds to the value they offer. The interviewer constructs data about the meaning of behaviours, communications and rituals, with questions emerging over time as the researcher learns more about the evidence presented.

Semi-structured interviews followed the foregoing observation stage and progressed to a set of pre-determined, open-ended questions and others arising from the interchange between researcher and participant. Semi-structured in-depth interviews are used extensively for qualitative research with an individual or in groups (DiCicco-Bloom & Crabtree, 2006, p. 315).

## **Data Analysis**

**Subjective correlative analysis of content:** Data collected during interviews was transcribed and all other written communication was saved in an easy encodable format. A frequently used approach to analysis requires the use of codes or the establishment of themes using a codebook; tagging segments of text and sorting segments with similar content into separate categories for final refinement into major themes. The process can be described as a “template approach” as it involves applying types based on prior research and theoretical perspectives (DiCicco-Bloom & Crabtree, 2006, p. 318).

“Thematic analysis”, according to (Braun & Clarke, 2006, pp. 87 - 90) is a process of labeling, analysing, and reporting patterns and/or themes set in the collected data in rich detail. It not only identifies, but also interprets several facets of the research topic.

Thematic analysis is commonly used during research, but Braun & Clarke (2006, p. 81) stated that no collective method is used amongst researchers. Apparently Thematic Analysis does not exist as a formally acknowledged tool in the reliable manner provided by other methods; such as narrative analysis or grounded theory. It is often referred to as “subjected to qualitative analysis for commonly recurring themes” (Braun & Clarke, 2006, p. 85).

Their study stated that it is important for evaluation of research to know how analysis was done and what assumptions informed their analysis. Their paper is therefore an effort to provide clarity with regard to thematic analysis (Braun & Clarke, 2006, p. 85).

In this study, the body of the data (Braun & Clarke, 2006, p. 82) consisted of demographic, spiritual and health questionnaires and interviews or email correspondence. Autobiographical information of the participants was obtained with permission from web sites, forewords and emailed curriculum vitae. Rubin and Rubin (as cited in Braun & Clarke, 2006, p. 84) asserted that analysis becomes exciting when themes are discovered and notions are found to be rooted in the interviews.

Thematic analysis is different from other analytic approaches that attempt to describe commonalities across qualitative data such as “thematic” discourse analysis, or thematic decomposition scrutiny, interpretative phenomenological analysis (IPA) and grounded theory. IPA and grounded theory attempt to find patterns in the data, but are contextually bound to theories.

According to Braun & Clarke (2006, p. 81) IPA is broadly a phenomenological

epistemology which relies on the participants' everyday experience of reality in order to gain an understanding of the phenomenon or "theme" in question (Fereday & Muir-Chochrane, 2006, p. 1). Grounded theory loosely revolves around generating or discovering a theory from data that was obtained from social research (Glaser & Strauss, 1967, pp. 1 - 2).

The term "Thematic discourse analysis" denotes a diverse variety of pattern-type data investigation, fluctuating between thematic analysis inside a "social constructionist epistemology" and forms of analysis similar to the interpretative repertoire form of discourse analysis (Braun & Clarke, 2006, p. 81). Thematic decomposition analysis is a type of "thematic" discourse analysis which identifies patterns, themes or stories within data, and speculates that language is an essential part of meaning in a social context.

According to Braun and Clarke (2006, p.81 – 82), these diverse methods all share a quest for specific themes or patterns throughout a complete data set, as opposed to within a data item, such as a single interview or interviews. All imply some form of thematic analysis. Thematic analysis does not require the meticulous theoretical and technological evidence needed of methodologies such as grounded theory and Discourse Analysis.

In this thesis, thematic analysis was used in an essentialist or experimental manner, to report experiences, significances and the reality of participants. Braun and Clarke (2006, p. 82) stated that it could also be used as a "contextualist" method, utilizing the two poles of essentialism and constructionism. This latter method is characterised as critical realism by Willig (as cited in Braun & Clarke, 2006, p. 82) who recognises the ways in which individuals can make sense of their experience and how the incorporated social situation imposes on those meanings, whilst they attempt to retain focus on the sensible and other boundaries of "reality". Consequently, thematic analysis is a process in which summative objective reality is revealed whilst the surface of the participant's realities is being unpicked or unraveled (Fereday & Muir-Chochrane, 2006, p. 1).

A theme encapsulates an important idea around the data, relative to the research question and embodies some level of recognisable response or significance within the data set. It would be up to the researcher's judgment to select the different patterns or themes and decide on the occurrence in terms of space within each data item and data set (Braun & Clarke, 2006, p. 83). A thematic network has to be established by starting from "Basic Themes" working inwards toward a "Global Theme".

Basic themes are the lowest order of themes resulting from the qualitative data (Attride-Stirling, 2001, p. 388). Statements are anchored around a principal concept and contribute toward the meaning of the super-ordinate theme. The "Global Theme" of the study is the concept of "Bonsai".



*Figure 2* Thematic Network for Bonsai Theme

## **Limitations**

The study will be limited to serious Bonsai growers and will not include Bonsai collectors and Bonsai appreciators.

Although the subject of Nature connectedness is a popular area of research today, there are still limitations such as:

- Correlations used in several of the studies do not mean causation. Therefore, just because two variables are linked, does not imply one causes another.
- Many of the environmental scales available gauge an individual's intention to participate in environmental behaviours. The intention is not always converted into behaviour and therefore, may or may not fully represent their actual behaviours. Future research should investigate how environmentally friendly intentions transfer into behaviours by further investigating the validity of self-reports (Hagel & Westergren, 2006, pp. 873 - 874).
- Much of the research focused on revered Bonsai artists who may or may not transfer to the general population of Bonsai artists.

## **Ethical Considerations**

- Permission was obtained by the researcher from The Research Ethics Committee & Faculty Board at the University of Zululand by submitting a formal proposal setting out methodology and instruments to be used in the study.
- Informed consent was obtained from test developers of the Spirituality Scale, the Quality of Life Scale and the Patient Health Questionnaire, in a letter detailing research requirements and the need for instrument.
- Written informed consent was obtained from all participants, after clearly explaining the purpose of the study to the participants, who either signed the original document or, where this was not possible, indicated their consent by email.

- Confidentiality and anonymity was assured by keeping all identifying information and data secure and coded at all times.

Dissemination of results was enabled by ensuring the participants' right to access the research study.

- The health and wellness of participants will be monitored by maintaining a link between them and the research above and beyond the boundaries of the study.

## CHAPTER FOUR

“The aim of art is to represent not the outward appearance of things, but their inward significance”

Aristotle

“and the way it resonates with our spirit”

Mozza Littletree

### **Introduction**

This chapter provides the results of the research based on the various measuring instruments used. Data was analysed using Microsoft Excel package, as well as packages supplied by the developers of tests such as the Quality of Life Index (Appendix 3b). Online statistical software was used for statistical analysis.

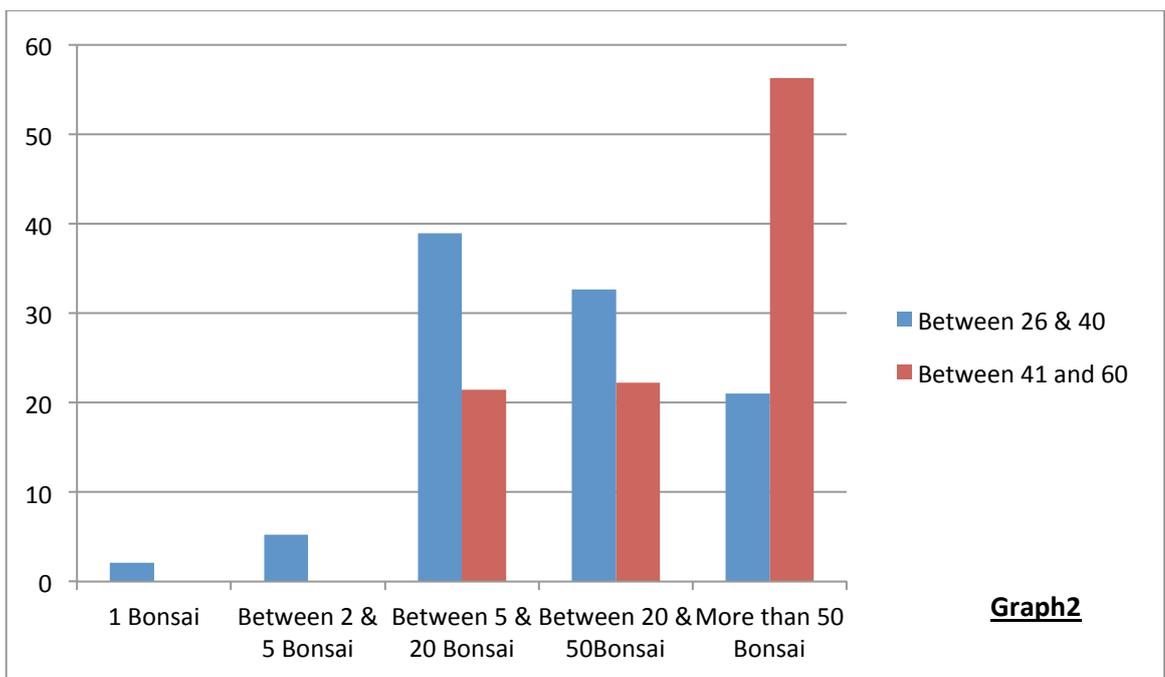
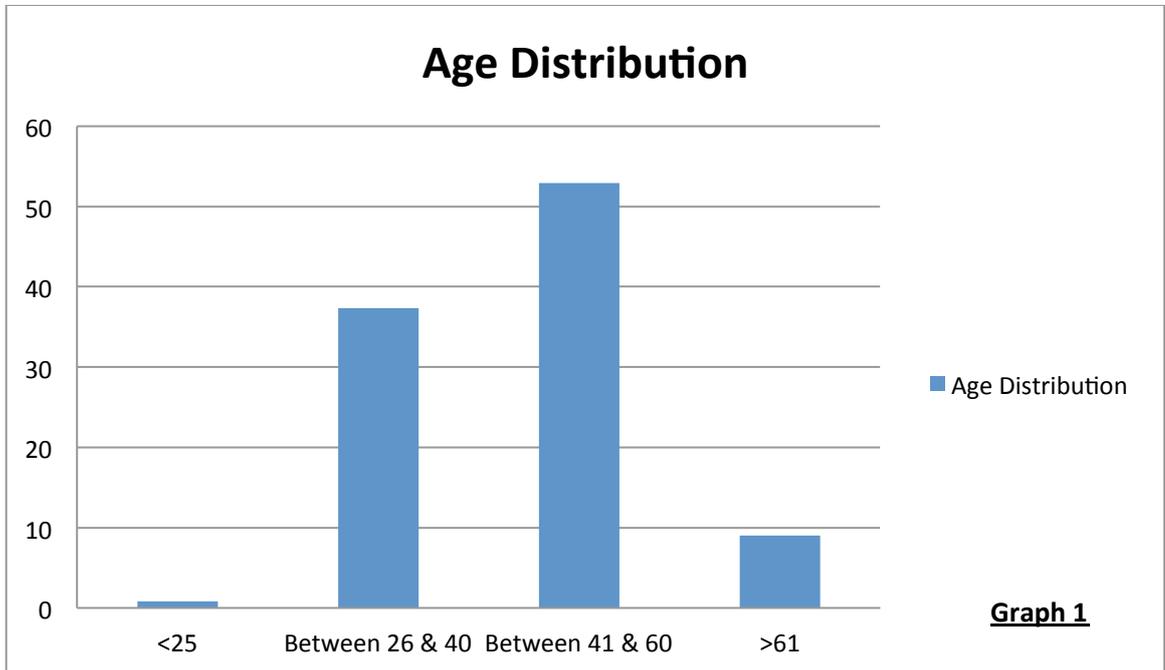
### **Results and Analysis of Quantitative Data**

#### **General Information Questionnaire**

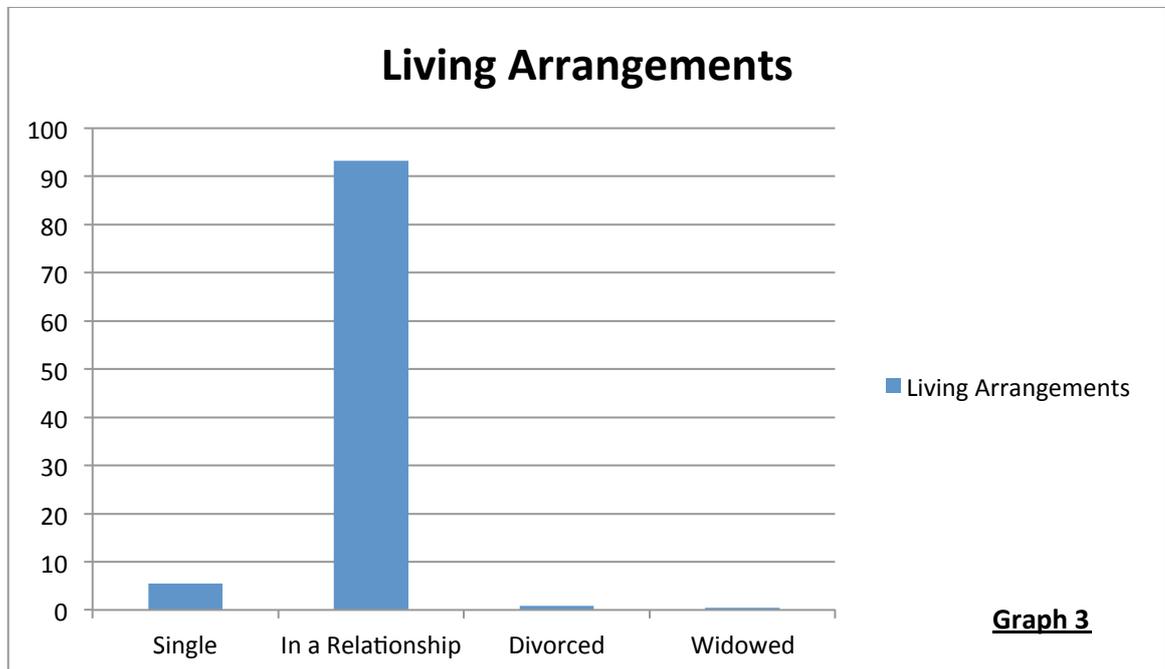
**Age distribution:** Of the 255 total respondents (n), (Graph 1) 201 were male and 54 were female. A relatively equal number of males and females were invited, but fewer females responded. Of the group, 0, 8% respondents were below the age of 25, and 37, 3% between the ages of 26 and 40, whereas 52, 9% were between the ages of 41 and 60 and 9% above the age of 61.

In Graph 2 the number of respondents younger than 25 was insignificant for interpretation purposes as most young people start out with only one or two trees. This corresponds with what is observed at club and national level at conventions. The fact that respondents over the age of 61 account for just 9% is significant in that most Masters fall within this age group and would therefore own the most trees. The One-sample Chi-square

value was 50, 211 with a Degrees of Freedom (DF) of 4. In the next age group of between 41 and 60, none had 1 or between 2 and 5 Bonsai. No respondents claimed to have less than 5 bonsai, but of the 135 respondents, 56, 30% claimed to have more than 50 Bonsai. The One-Sample Chi-square value for this group was 32, 044, with a DF of 2.



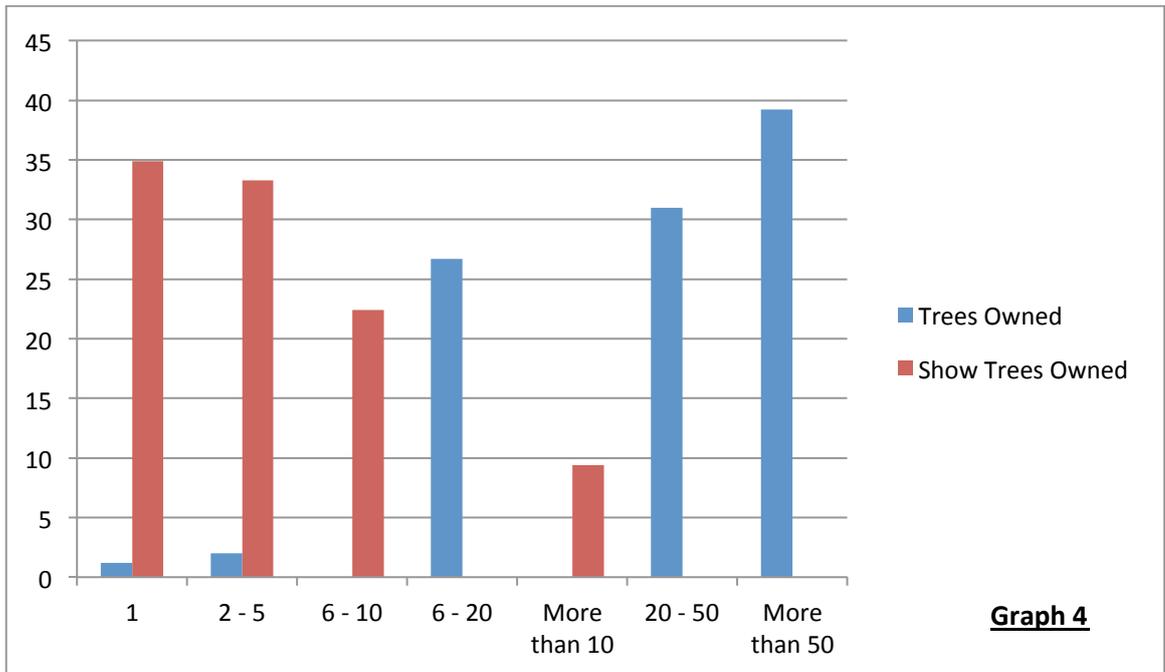
**Living Arrangements:** A small minority in Graph 3 of 5, 5% of respondents were single, where as 93, 3% stated that they were married, in a relationship or living together. Divorced participants constituted 0, 8% of the respondents and 0, 4% of respondents stated that they were widowed.



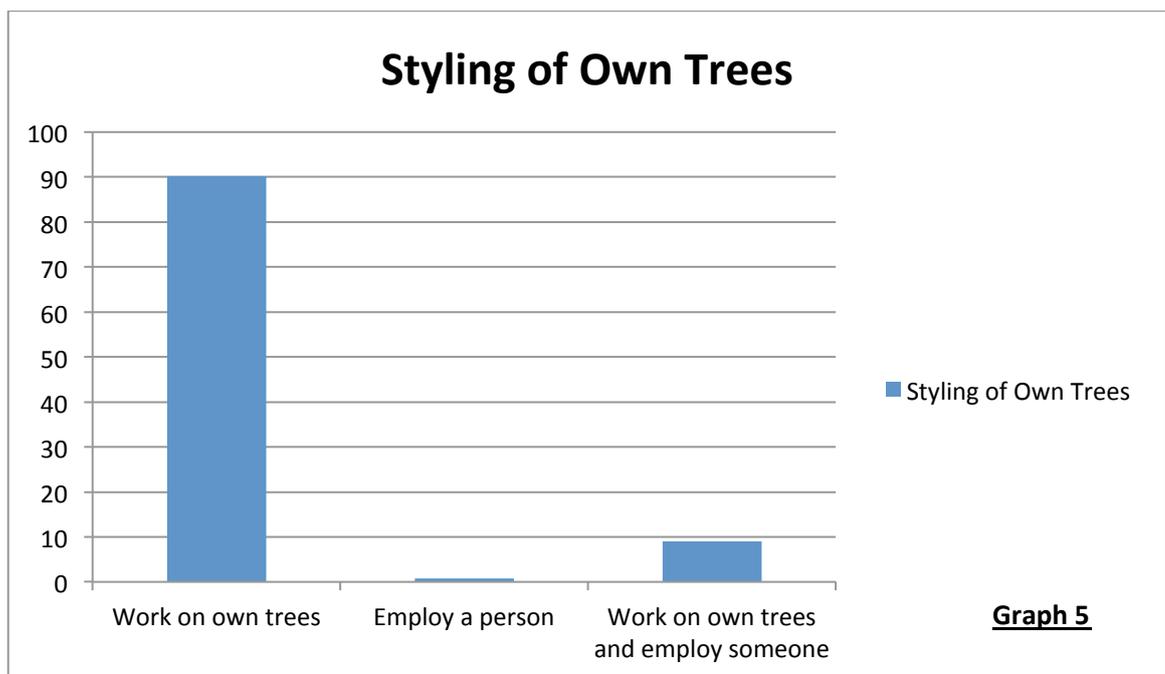
**Number of trees owned and Quality of Trees:** Participants that owned one tree which they called a Bonsai, made up 3, 2%, whereas 1, 6% owned between 2 – 5 Bonsai. 19, 0% owned between 6 and 20 trees, 39, 7% owned between 21 – 50 and 36, 5% owned more than 50 Bonsai. As per Graph 4, it is evident that participants who owned only 1 show tree, also did not have too many trees to work with. They stated that they preferred one quality tree as opposed to too many mediocre trees.

Participants were asked about the quality of their trees and whether they would consider showing any of them. Almost half, at 41, 1% stated that they had at least 1 tree which was of sufficiently good quality to exhibit. 28, 6% felt that they had between 2 – 5

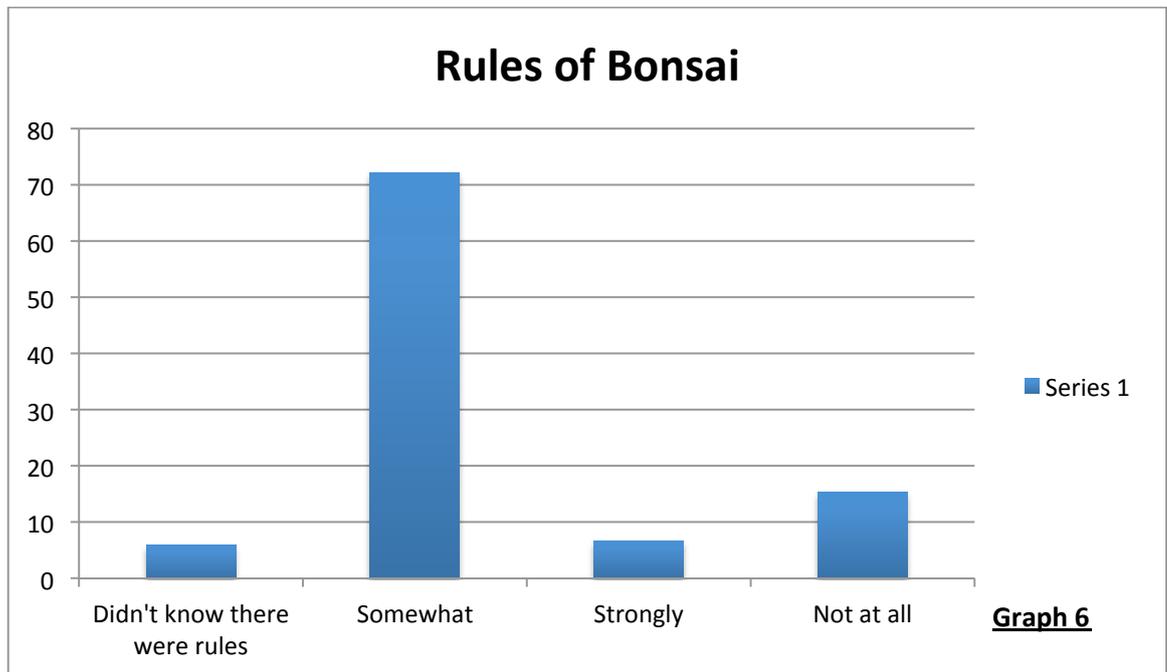
show trees, 19% had between 6 – 10 trees and 15, 9% had more than 10 trees of show quality which would withstand the scrutiny of their peers.



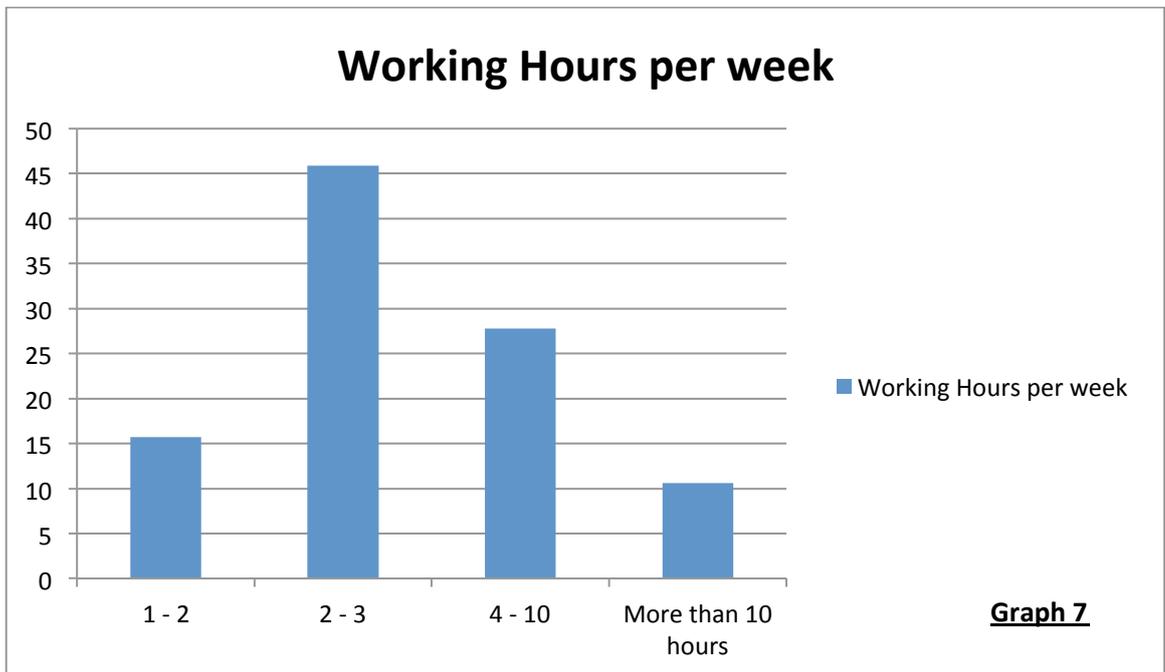
**Styling of own trees:** Most respondents (90, 2%) work on their own trees, whereas 0, 8% employed someone to do the work on their behalf and 9, 0% worked on the trees themselves but employed someone to assist with weeding, watering and moving trees and pots. Assistance was generally confined to watering under supervision in an effort to train young Bonsai artists. Most artists who employed someone to help, were commercially involved in Bonsai and offered trees for sale.



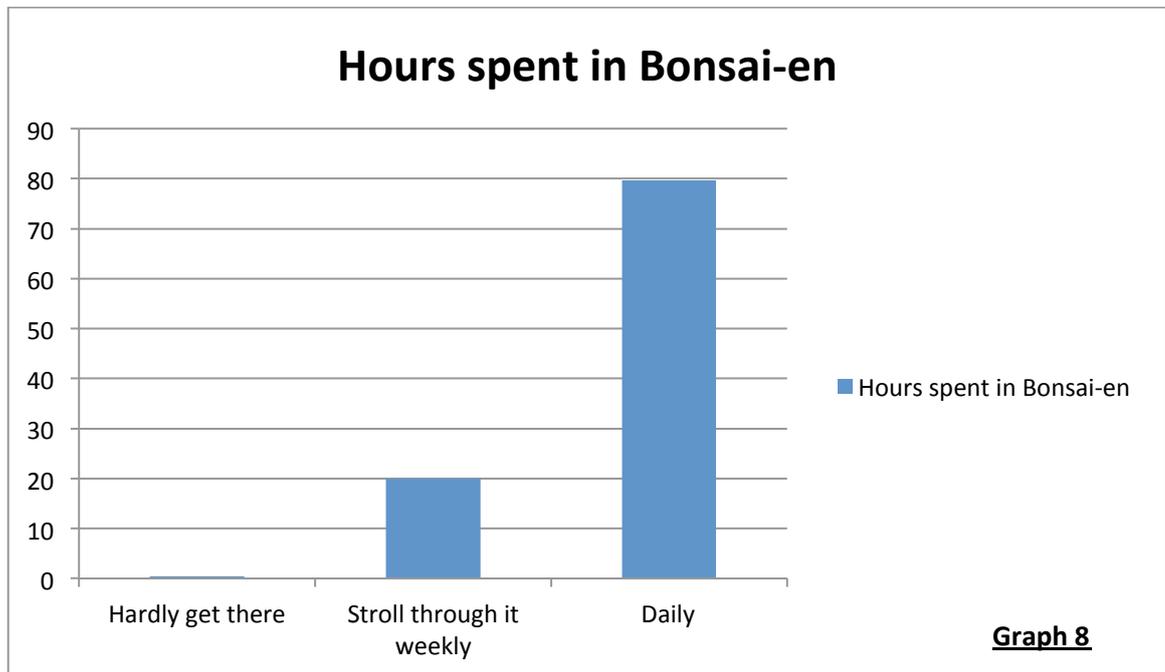
**Participants adhering to the rules of Bonsai:** Graph 6 indicates a small percentage, just 5, 9% of participants who had never heard of Bonsai rules. 72, 2% claimed that they followed Bonsai rules to a certain extent, whereas 6, 7% stated that they follow the rules to the letter. A relatively large proportion of participants (15, 3%) did not follow the rules at all.



**Hours spent working on trees:** Bonsai artists need to spend sufficient time working on their trees as it is a living art. 15, 7% stated that they spend 1 – 2 hours per week with their trees, where 45, 9% stated that they spent 2 – 3 hours per week. 27, 8% spend between 4 – 10 hours and 10, 6% spend more than 10 hours a week styling, feeding and looking after trees.

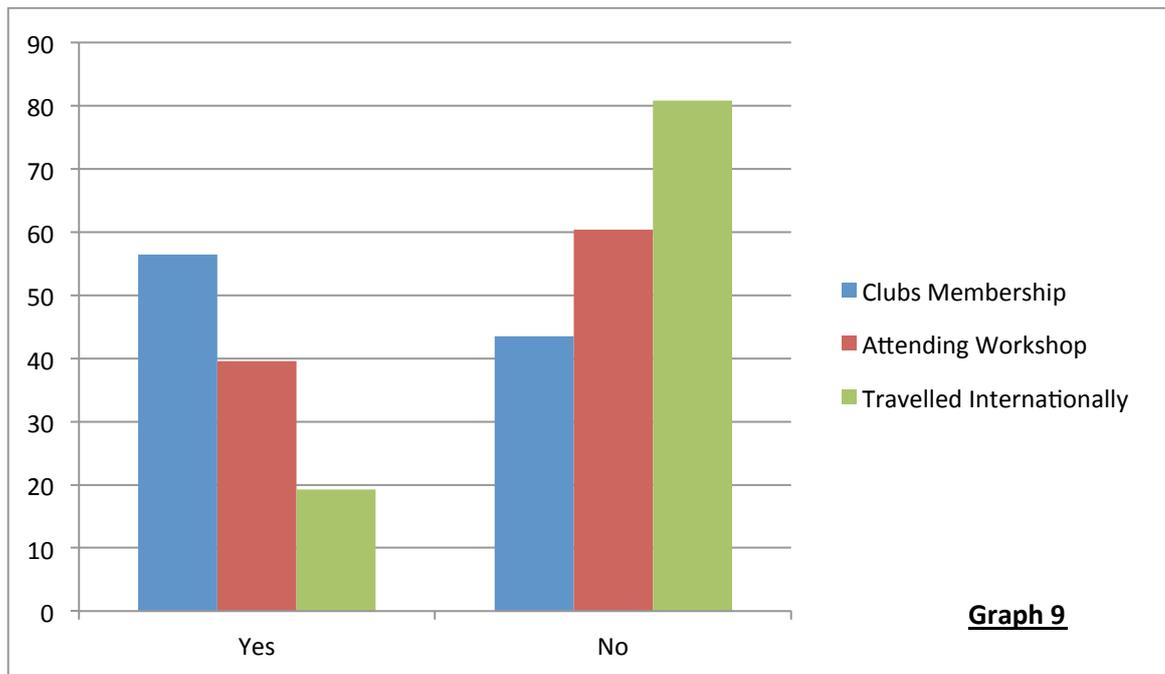


**Hours spent enjoying trees:** The need to spend time with Bonsai is evident in the length of time people spend viewing or admiring their trees as opposed to working on them. It was surprising to find that 1, 6% declared that they hardly get to the Bonsai-en because of the busy lives they lead, and 6, 3% stated that they stroll past them once a week. Most participants at 92, 1% felt a need to walk among the Bonsai-en daily.



**Formal Club membership, attendance at workshops:** Just over half, 56, 5% of the respondents belonged to a formal Bonsai club which held regular meetings, exhibits and

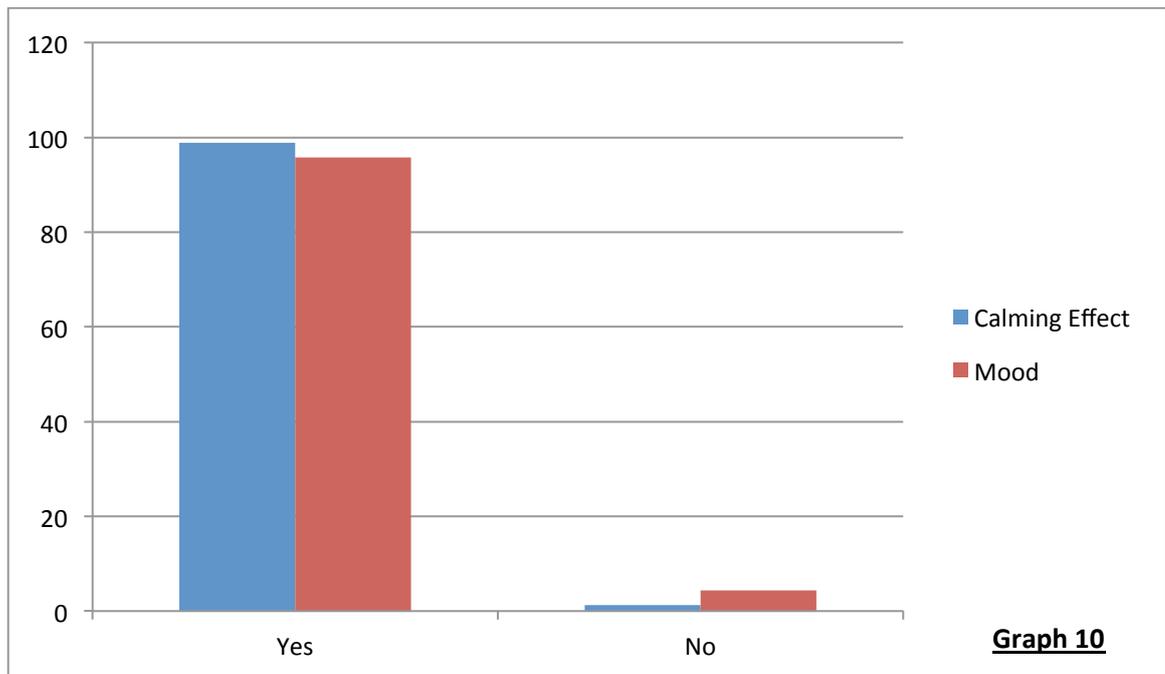
training opportunities, whereas 43, 5% did not belong to a club and preferred to work on their own.



Contrary to expectations, less than half of the people interviewed attended workshops or conferences. 49, 2% liked to attend and 50, 8% did not attend. It would appear that club membership and the act of socialising was not important to most participants.

**Calming Effects and Mood :** The majority of respondents, 98, 8% replied positively to the question of whether being able to work with Bonsai has had a calming effect on them

and 95, 7% felt that not being able to work on their trees, for whatever reason, affected their mood.



### Results of the Spirituality Scale

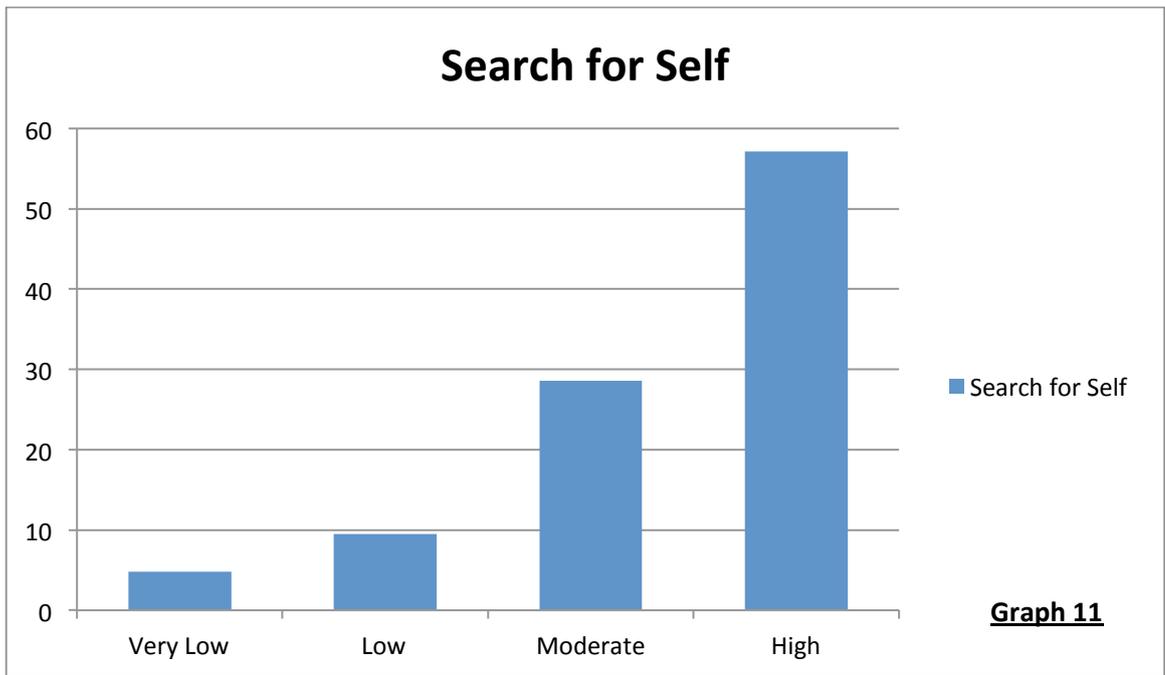
The Spirituality Scale (SS) reports on three different sub-scales. The highest possible score that can be obtained on the total scale is 138 and the lowest 23. Scores between 23 – 60 indicate very low levels of spirituality, 61 – 91, low spirituality, 92 – 117 moderate spirituality and 118 – 138 high levels of spirituality. The SS also reports on Self-discovery inasmuch as people search for meaning and purpose in their lives (Delaney, 2005, p. 152). Another sub-scale focuses on connection to other people and also a connection to Nature and the cosmos (Wong & Torres, 2005, p. 170).

A description of the three factors is as follows (responses to items are scored on a one to six point Likert rating system, responses being: Strongly disagree, disagree, mostly disagree, mostly agree, agree and strongly agree).

**Factor 1: A personal factor labeled Self-discovery:**

1. I find meaning in my life experiences.
2. I have a sense of purpose.
3. I am happy about the person I have become.
4. I see the sacredness of everyday life (Ehman, 2005, p. 1)

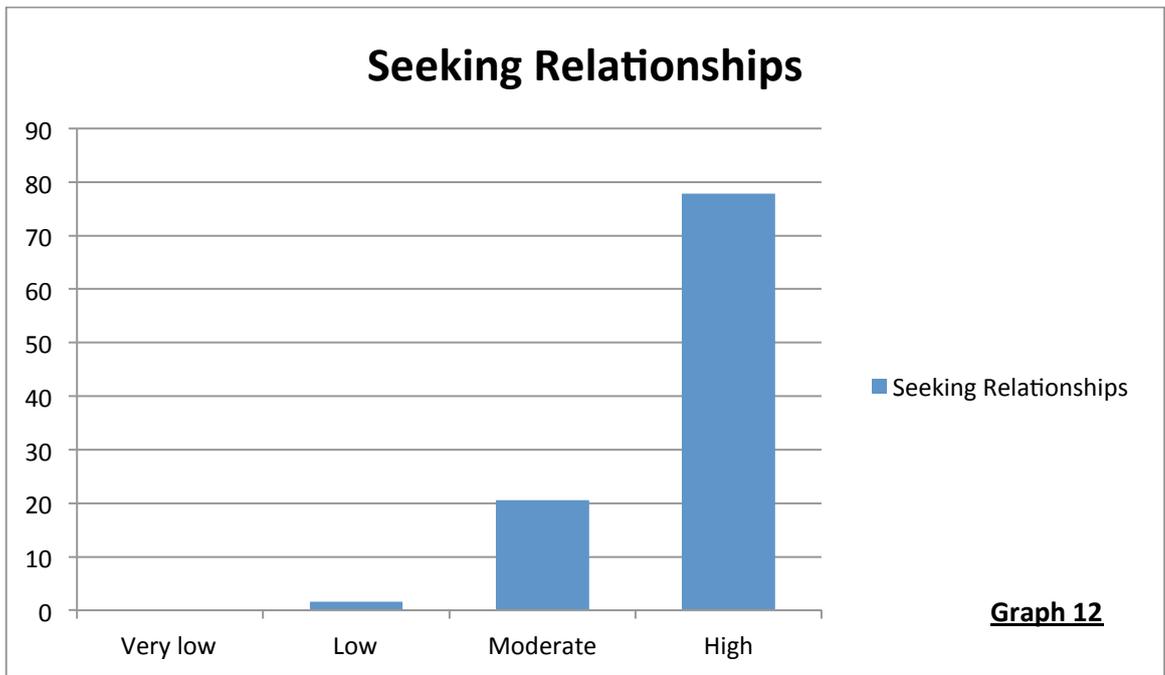
Based on the foregoing, the participants in this study had a mean of 19, 2, which indicates a high level of involvement in a journey of discovery of the ‘self’. ‘Discovery’ can be described as a series of events wherein people endeavour to determine their feeling regarding spiritual issues or the significance thereof. For the purposes of this paper, the following criteria were used: scores of 4 – 10 were deemed to be “Very Low”; 11 – 15 “Low”; 16 – 20 “Moderate” and 21 – 24 “High”.



**Factor 2: An interpersonal factor labeled Relationships**

- 5. I believe that all living creatures deserve respect.
- 6. I value maintaining and nurturing my relationships with others.
- 7. I believe that Nature should be respected.
- 8. I am able to receive love from others.
- 9. I strive to correct the excesses in my own lifestyle patterns/practices.
- 10. I respect the diversity of people (Ehman, 2005, p. 1).

Mean = 31, 6. There were no “Very Low” scores. For the purposes of this paper, the following criteria were used: scores of 6 – 15 were deemed to be “Very Low”; 16 - 25 “Low”; 26 – 30 “Moderate” and 30 - 36 “High”.



### **Factor 3: A transpersonal factor labeled Eco-Awareness**

11. I meditate to gain access to my inner spirit.

12. I live in harmony with Nature.

13. I believe there is a connection between all things that I cannot see but can sense.

14. My life is a process of becoming.

15. I believe in Higher Power/Universal Intelligence.

16. The earth is sacred.

17. I use silence to get in touch with myself.

18. I have a relationship with Higher Power/Universal Intelligence.

19. My spirituality gives me inner strength.

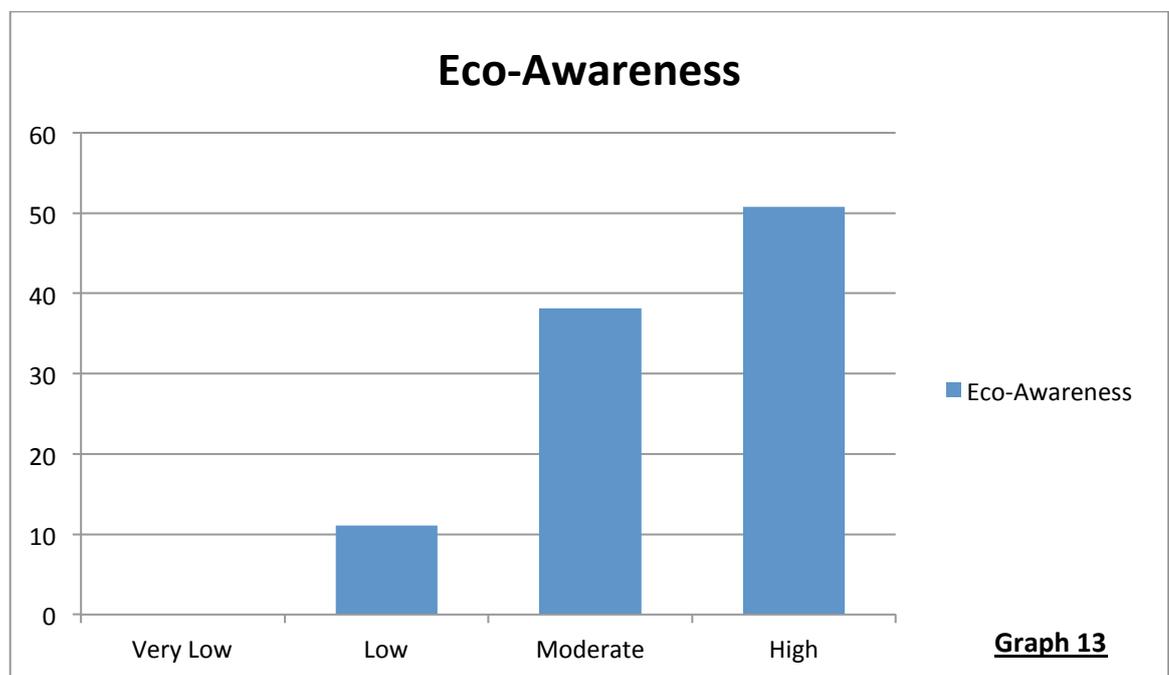
20. My faith in Higher Power/Universal Intelligence helps me cope with challenges in my life.

21. Prayer is an integral part of my spiritual Nature.

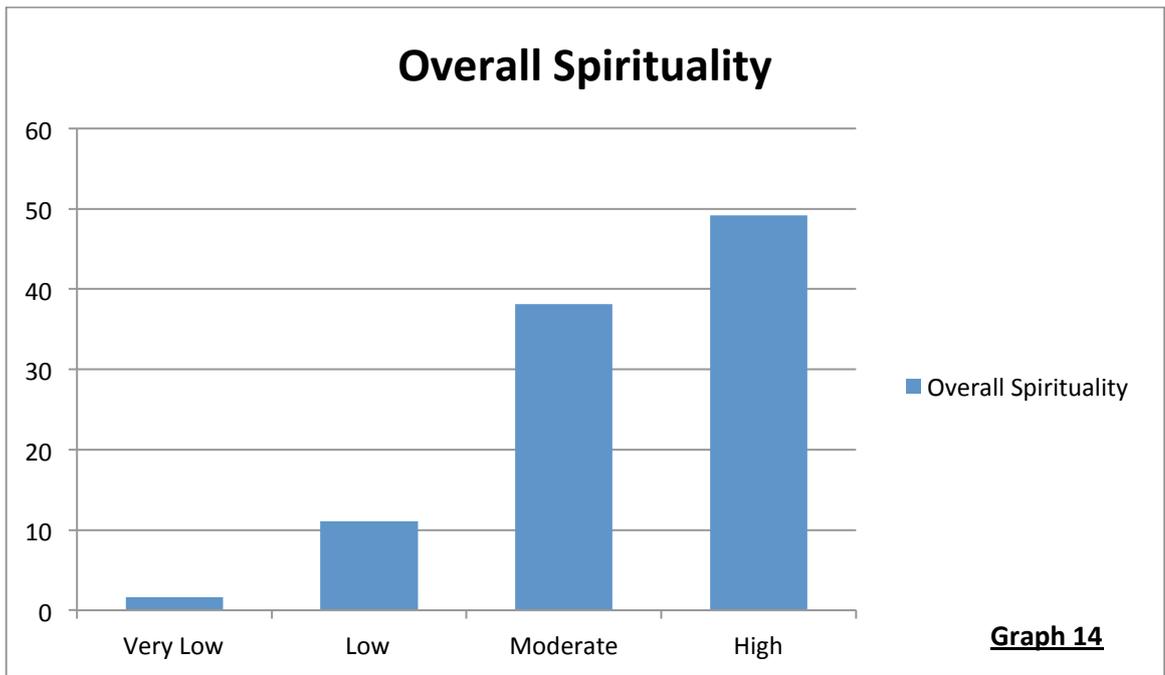
22. At times, I feel at one with the universe.

23. I often take time to assess my life choices as a way of living my spirituality  
(Ehman, 2005, p. 1).

Eco-awareness mean = 61, 2. There were no “Very Low” scores. For the purposes of this paper, the following criteria were used: scores of 4 – 10 were deemed to be “Very Low”; 11 – 15 “Low”; 16 – 20 “Moderate” and 21 – 24 “High”.



**Total Spirituality Scale:** Total Spirituality Scale scores, according to Delaney (2005) “Very Low” spirituality is indicated by scores of between 23 and 60. Scores of 61 – 91 indicate “Low” spirituality, 92 – 117 “Moderate” and 118 – 138 “High” levels of spirituality.



Edwards (2012b, p. 591) stated that the original psychometric standardization of the Spirituality Scale, yielded a Cronbach Alpha of 0,94 with three main factors labelled eco-awareness, self-discovery and relationships, with alpha coefficients ranging from 0,81 to 0,94. The present study yielded a Cronbach Alpha of 0,907.

Summary of Cronbach Alpha and related statistics (Wessa, 2013).

<b>Cronbach Alpha and Related Statistics</b>				
Items	Cronbach Alpha	Std. Alpha	G6(smc)	Average R
All items	0.7425	0.805	1	0.5079
TOTAL excluded	0.3412	0.6216	0.5758	0.3538
SELFDISCOVERY excluded	0.7544	0.7448	0.9358	0.4931
RELATIONSHIPS excluded	0.806	0.8563	0.9727	0.6651
ECO-AWARENESS excluded	0.4467	0.7645	0.7057	0.5197

## **Quality of Life**

People who have described a high quality of life have been positively linked with measures of spirituality, such as a professed relationship with the divine and private religious practices. Konopack and McAuley (2012, p. 1) proposed that spirituality may benefit quality of life that is not reliant on other factors. Other research concentrated on a link to spirituality with explicit health outcomes rather than with universal measures of quality of life. Self-efficacy is considered to be a quality which has been advocated as an arbitrator in the connection between spirituality and well-being. This research contends that spirituality enables people to have a perceived sense of control over their lives (Konopack & McAuley, 2012, p. 4).

Research conducted by McAuley, Konopack, Motl, Morris, Doerksen, and Rosengren (as cited in Konopack & McAuley, 2012, p. 1) validated a model in which self-efficacy facilitated physical activity's effects on quality of life. Research by McAuley et al. (Konopack & McAuley, 2012, p. 2) confirmed that mental status and physical health are gauges of comprehensive quality of life. It was found that the expressed relationship between physical activity (Bonsai gardening) and health status was reduced when self-efficacy was presented into the model, thereby demonstrating intervention by self-efficacy. Consequently, evidence exists to support self-efficacy as a reliable mediator of physical activity's influence on quality of life and for self-efficacy as a facilitator of both physical activities and spirituality's consequences on quality of life, but this relationship has yet to be explicitly verified (Konopack & McAuley, 2012, pp. 4 - 5).

<b>HEALTH AND FUNCTIONING (13 Items)</b>	<b>SOCIAL AND ECONOMICAL (8 Items)</b>	<b>PSYCHOLOGICAL/ SPIRITUAL (7 Items)</b>	<b>FAMILY (5 Items)</b>
1. Health	13. Friends	27. Peace of mind	8. Family health
2. Health care	15. Emotional support from people other than your family	28. Faith in God	9. Children
3. Pain	19. Neighbourhood	29. Achievement of personal goals	10. Family happiness
4. Energy (fatigue)	20. Home	30. Happiness in general	12. Spouse, lover or partner
5. Ability to take care of yourself without help	21/22 Having a job/Not having a job	31. Life satisfaction in general	14. Emotional support form family
6. Control over life	23. Education	32. Personal appearance	
7. Chances for living as long as you would like	24. Financial needs	33. Self	
11. Sex Life			
16. Ability to take care of family responsibilities			
17. Usefulness to others			
18. Worries			
25. Things for fun			
26. Chances for a happy future			

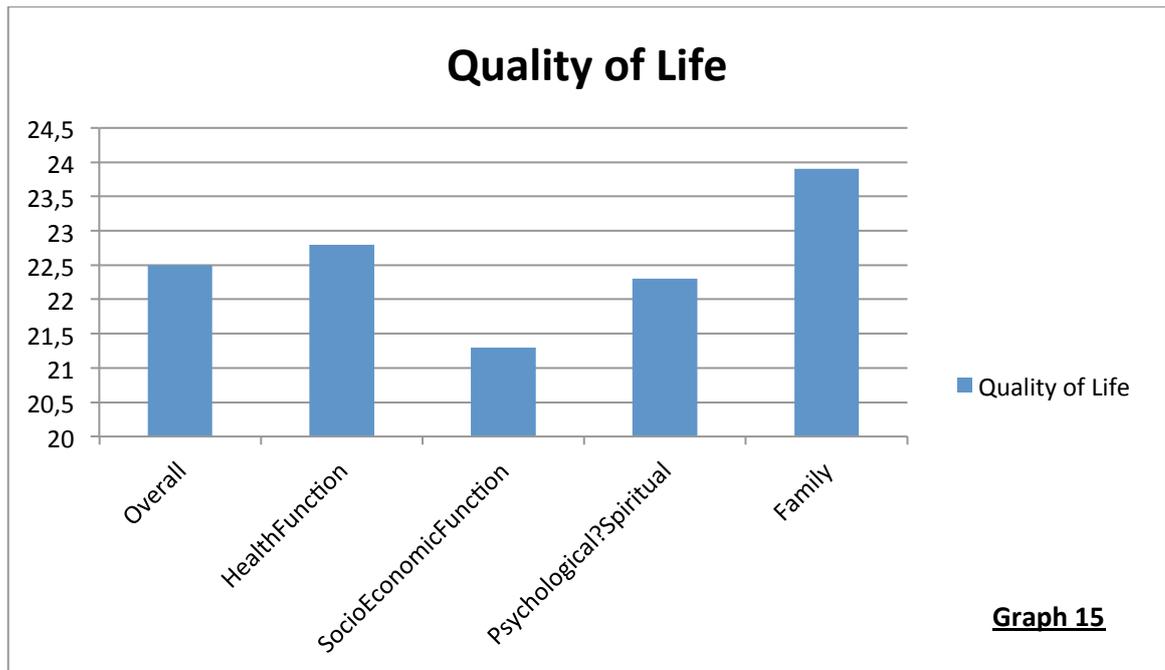
*Table 3* Quality of Life Index (Kimura & da Silva, 2009, p. 1).

Review of the literature revealed six key themes which are inherent to the quality of life theory. The six key themes that are important, are: The ability to live a normal life, the

capacity of living a socially beneficial life (social utility), natural capabilities (physical and mental capabilities), accomplishment of personal goals (success), happiness/affect and finally, satisfaction with life (Kimura & da Silva, 2009, p. 1).

The subjective/biased awareness of the degree of happiness and satisfaction towards the varying aspects of life is reflected in the ability to make a “positive or negative” judgment of the subjectively perceived quality of life. Kimura and da Silva (2009, p.1) state that “happiness” and “satisfaction with life” are similar but not identical perceptions. Happiness can be described as an affective occasion and implies a brief feeling of joy or euphoria. Satisfaction, on the other hand, is a cognitive experience and infers a more lasting, long-term judgment about the person’s life conditions. Furthermore, the prominence that participants assigned to different aspects of life was deliberately taken into consideration in the definition of quality of life proposed by the authors: “a person's sense of well-being that stems from satisfaction or dissatisfaction with the areas of life which are important to him/her” (Kimura & da Silva, 2009, p. 1).

### Overall Quality of Life of all participants.



The authors' scoring programme (Ferrans & Powers, 1985b) was used to determine the various scales.

The Quality of Life Questionnaire (Ferrans & Powers, 1985a, p. 21), had high internal consistency reliability across 24 studies. In these studies, the Cronbach Alphas ranged between 0,70 and 0,96. Based on the four sub-scales in this study, it was found that the Cronbach Alpha was 0,91 for all items, indicating a strong internal consistency. The Mean was 22,49, with a Median of 23,30.

### Patient Health Questionnaire

All 255 participants also completed the Patient Health Questionnaire – 15 (PHQ-15). On the Somatic Scale, 9% of respondents reported no somatic complaints, compared to 52% with mild symptoms, 17% with moderate and 22% with severe symptoms. According to the developer (Spitzer, Williams, & Kroenke, n.d., p. 1), scores of “11” indicate “Yellow Flags” or the potential to develop symptoms of a somatic disorder. Based on the above, 4,3% of

respondents had raised Yellow Flags. Only 1 respondent (Or 0,4%) indicated a score of 15 and therefore raised a “Red Flag”, which constitutes a possible manifested somatic disorder.

Cronbach Alpha and Related Statistics				
Items	Cronbach Alpha	Std. Alpha	G6(smc)	Average R
All items	0.8008	0.7707	0.8555	0.2719
Stomach Pain excluded	0.7515	0.7172	0.8001	0.2407
Back Pain excluded	0.7812	0.7487	0.835	0.2714
Arms & Legs excluded	0.8249	0.7889	0.8616	0.3184
Feeling Tired excluded	0.7218	0.6885	0.796	0.2165
Sleep excluded	0.7627	0.7233	0.824	0.2463
Sexual excluded	0.741	0.7104	0.8088	0.2347
Headache excluded	0.8113	0.7901	0.8562	0.32
Chest Pain excluded	0.815	0.803	0.87	0.3375
Dizziness excluded	0.7804	0.7393	0.8217	0.2617

(Wessa, 2013).

Participants followed a similar trend on The Anxiety Scale (GAD-7), with 30% reporting no anxiety symptoms, 58% reporting mild, 7, 5% moderate and 4, 3% severe symptoms. There were no raised Yellow Flags but, disproportionately, there were raised Red Flags (3, 9%), indicating a possible manifested DSM-IV classified Anxiety Disorder (American Psychiatric Association, 2000).

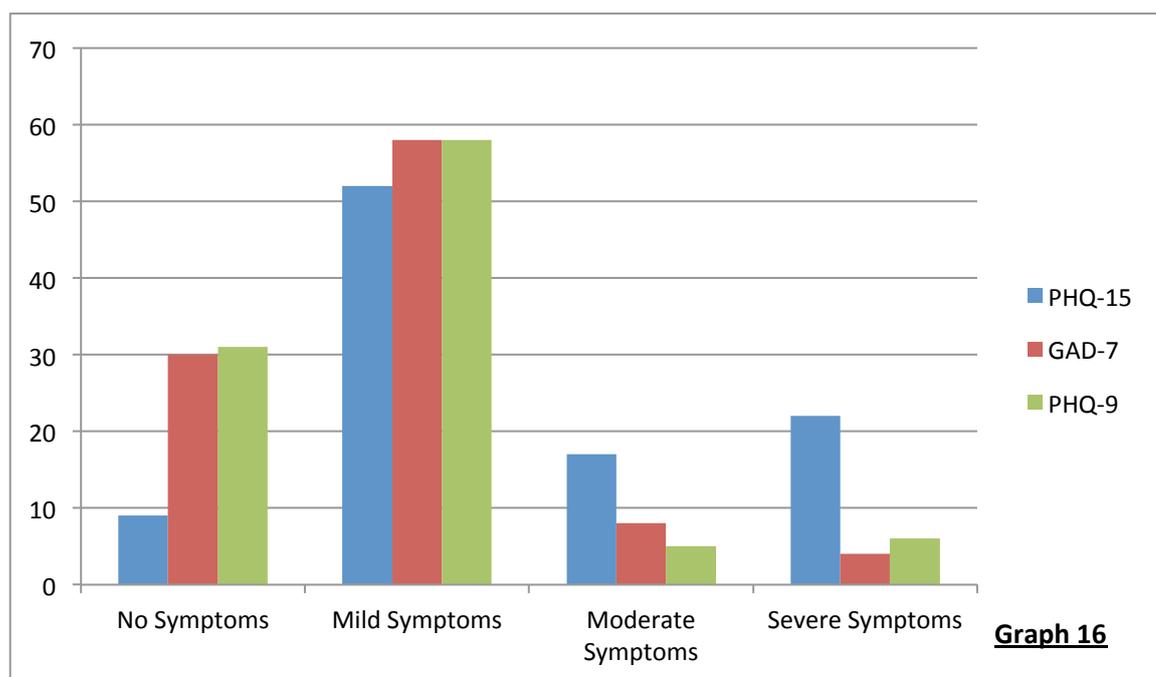
Cronbach Alpha and Related Statistics				
Items	Cronbach Alpha	Std. Alpha	G6(smc)	Average R
All items	0.8841	0.9097	0.9245	0.5901
Nervousness & Anxiety excluded	0.8702	0.9044	0.9176	0.612
Worry excluded	0.8487	0.8868	0.8871	0.5662
Worry about Different Things excluded	0.8497	0.8857	0.8968	0.5636
Trouble Relaxing excluded	0.8619	0.8934	0.9123	0.5827
Restless excluded	0.8702	0.8952	0.9022	0.5875
Easily Annoyed excluded	0.9103	0.9235	0.9358	0.6679
Being Afraid excluded	0.8584	0.8804	0.8932	0.5509

(Wessa, 2013)

On the Depressive Scale (PHQ-9), 31% reported no depressive symptoms, 58% reported mild symptoms, 4, 7% moderate and 6, 3% severe symptoms. There were no raised Yellow or Red Flags.

Cronbach Alpha and Related Statistics				
Items	Cronbach Alpha	Std. Alpha	G6(smc)	Average R
All items	0.6638	0.6524	0.7513	0.2114
Feeling Down excluded	0.525	0.5089	0.6225	0.1473
Poor Appetite excluded	0.4935	0.498	0.6344	0.1419
Little Energy excluded	0.5354	0.5111	0.6292	0.1484
Feel like a Failure excluded	0.5523	0.5322	0.6527	0.1594
No Concentration excluded	0.6757	0.6816	0.7556	0.263
Speaking Slow excluded	0.7607	0.7274	0.7889	0.3078
Fidgety excluded	0.7258	0.7315	0.7934	0.3123

(Wessa, 2013).



Participants were asked to list their known illnesses or illnesses perceived by them.

Noteworthy was the fact that there were 7 participants who listed Autism Spectrum Disorder.

## Results of Qualitative Analysis

According to Attridge-Stirling (2001, p. 391) and Fereday & Muir-Chochrane, (2006, p. 1) thematic analysis consists of three stages, Stage 1 is an analytical stage that consists of coding material, identifying themes and constructing thematic networks. In Stage 2 thematic networks are explored and described as well as summarized. The final stage is an integration of the exploration where patterns are interpreted.

In stage 1, codes were devised along the lines of Wilber’s (as cited in Paulsen, 2007, p. 368 & 372) quadrants to organise the segments of similar or related text and assist in interpretation. Devising such a framework is of utmost importance for the credibility of the study, according to Attride-Stirling (1998, p. 390 – 395).

### Step 1 - Developing Codes

Code 1	Interior-Individual or “I” (Wilber, 2000a, p. 65).
Label	Intentional (Wilber, 2000a, p. 65).
Definition	Characterises the subjective facet of consciousness or individual awareness (Wilber, 2000a, p. 65) and a first person account of the consciousness (p.66).
Description	Code 1 includes Phenomenology, interior aspects of Freudian psychoanalysis, of people's inner experiences and focuses on the "I". It describes the thought as from the perspective of the individual who is thinking it. It could include imagery, internal vocalization, a remembered smell/feel of previously "designed" Bonsai-experiences, and/or a set of emotional interpretations about the meaning of the thought "Bonsai", re-living in the conscious experience of the individual who is thinking the thought. It is central to the person, and cannot be acknowledged unless the person decides to share their internal experience through particular means of communication. It is private, and cannot be measured without the frank sharing of the individual (Wilber, 2000a, pp. 60 - 65).
Code 2	Exterior-Individual or “IT” (Wilber, 2000a, p. 65).
Label	Behavioural (Wilber, 2000a, p. 65).

Definition	Characterises the objective correlations of the interior states of consciousness (p.66).
Description	Code 2 includes B. F. Skinner's behaviourism, which confines itself to the observation of the behaviour of organisms and considers the inner experience, judgment or desire of the Bonsai as a “black box” (Wilber, 2000b, p. 89), and which with the fourth code emphasises the Bonsai as a specimen to examine, or "It". Quadrant III, also refers to the cultural stance. This is what “thought” looks like from the inner circle of a group of individuals who share a shared set of interpretive and narrative frames of “making meaning”. It includes opinions about various cultural styles of Bonsai, reveal a cultivated set of rules, including a specialised vocabulary to define the quality of the tree to others. There is a clear set of standards as to the world standing of styling one's own tree and preparing one's own soil. This is the context in which the individual exists and from which they study and understand the meaning of the Bonsai experience. It is the traditional understandings and judgments invented by and referred to through the language of the Bonsai artist, club and societies (Wilber, 2000a, p. 65).
Code 3	Exterior – collective or “ITS” (Wilberb, 2000, p.65)
Label	Social (Wilber, 2000a, p. 65).
Definition	Characterises the social systems including institutions, clubs and groups (p.66).
Description	Code 3 includes the Marxist economic theory which focuses upon the behaviour of a society as functional organisations as seen from outside or the exterior/collective or social stance. The thought from the exterior of a group of individuals who share a common infrastructure and set of social institutions, is embodied in this. It includes a network of commercial relations between the nursery, Nature and thousands of companies which produce pots and other objects of needed to produce the Bonsai art piece (Wilber, 2000a, p. 65).
Code 4	Interior – Collective or “WE” (Wilber, 2000a, p. 65).
Label	Cultural (Wilber, 2000a, p. 65).
Definition	Characterises the inner values, meaning and ethics as shared by the collective group of Bonaists (P. 66).
Description	Code 4 includes Gadamer's hermeneutic philosophy which tries to decode the communal consciousness of a society, and focuses on the "We". The thought has a different “look” from the exterior of the group who is thinking it. This

	is the somatic connection to the interior experience of having the thought (Wilber, 2000a, pp. 60 - 65).
--	--

Step 2 – Identifying themes

During Stage 2, the transcribed texts were screened for abstract themes from the coded text segments.

Theory driven code	Data from interviews and correspondence
“I” or Inner experiences	Purpose driven life
	Resources
	Reflection
	Physical Health
	Harmony
	Transference
	Spiritual
	Connection to life cycles
	Shadows
	Silence
	Loneliness
“IT” or exterior experiences	Reputation
	Source of admiration
	Demonstrations
	Reverence
“ITS” or exterior social experiences	Clubs

	Support system
	Social gatherings
“WE” or Bonsai culture	Rules
	Traditions

### Step 3 – Construct thematic networks

Research Question	Summary of responses
“I” Reflection - What influence has Bonsai had on your physical well-being?	Way to keep busy Replacement for failed marriage Form of artistic expression Connection to Nature Extension of self Sacrifice
“I”/“IT” Reflection - What influence has Bonsai had on your mental well-being?	To bring joy to loneliness Relaxation Meditation Sacrifice
“WE” Reflection - What influence has Bonsai had on your social well-being?	Engine to make friends Teacher/Pupil Sharing and giving Connection to global village Being friends with people although they have never met Opportunities to publish
“I” “IT” Reflection - What influence has	Gaining focus and insight after a difficult day

Bonsai had on your spiritual well-being?	Connection to the Creator
“ITS” Reflection - What influence has Bonsai had on your ecological well-being?	The ability to “see” Nature from a different perspective The ability to conserve trees Increasing carbon footprint Preservation of endangered species

#### Step 4 – Applying template of codes and additional coding

Name of theory driven code	Interior-Individual or “I” (Wilber, 2000a, p. 65)
Explanation of code	First account individual awareness
Bonsai artist	The Bonsai artist creates as a way to de-stress and relax. Some artists relates stories of filling in loneliness or replacing lost loved ones.
Bonsai family	One artist described the ability to do Bonsai enables him to have a loving relationship with his wife. The ability to cope with socialisation stresses.
Bonsai Community	In this, the Bonsai artist, displays narcissistic tendencies with a need for admiration and acceptance by the peer group.
Bonsai culture	Artists follow strict rules. Artists have no regard for rules. Artists are balanced in following rules or outright rejecting rules.
Name of theory driven code	Exterior-Individual or “IT” (Wilber, 2000a, p. 65).
Explanation of code	First account exterior awareness
Bonsai artist	Artists need to belong to clubs
Bonsai family	Family participate and is supportive of hobby and passion.
Bonsai Community	Artists reject clubs, demonstrations and workshops.

	Artist is accepted by clubs and societies.
Bonsai culture	Artist is invited to share knowledge and skill with others.
Name of theory driven code	Exterior – collective or “ITS” (Wilber, 2000, p.65)
Explanation of code	Collective community thoughts
Bonsai artist	Value and popularity of the artist Value and popularity of his work
Bonsai family	Participation in club and society activities
Bonsai Community	Attendance of the artist workshops and demonstrations Purchasing of books by the artist, etc. Value and participation of online forums
Bonsai culture	Naming of styles, etc.
Name of theory driven code	Interior – Collective or “WE” (Wilber, 2000a, p. 65).
Explanation of code	Culture dictated thoughts
Bonsai artist	Coherence and loyalty to group
Bonsai family	Artist includes family in activities
Bonsai Community	Artist credits community such as club and society.
Bonsai culture	Production of books and other material

Step 5 – Connecting the codes and identifying themes

Basic	Psychical/Emotional	Theory
Power	Integration	Nature connectedness (I Reflection)
Bonsai rules		
Bonsai traditions		
Respect	Commitment	
Conservation		
Behavioural component		
Pleasure	Gratification	Spirituality (It Reflection)
Contentment		
Shadows	Intrinsic motivation	
Silence		
Primary gain	Harmony	
Spirit guide		
Competence	Balance	Coherence (We Reflection)
Respect		
Connected to life cycles	Reverence	
Reflection		
Belonging	Benevolence	Affinity (Its Reflection)
Social component		
Resources		
Personal gain	Identity formation	
Social gain		
Physical health		

Step 6 – Corroborating and legitimating coded themes

First-order theme	Clustered themes	Second-order theme
Happiness	Meaning	Bonsai
Favourite tree	Trees	
Favourite species		
Favourite style		
Family	Self	
Spirituality		
Health		
Workshops	Community	
Clubs		

**Thematic analysis**

**Theme One: (I Reflection) Bonsai is irrefutably connected to a love of all things in Nature.**

**Power:** The participants all stated that they enjoy the feeling of control which they have over the tree when styling and developing. The more successful they are in keeping the trees alive, the more powerful they feel.

“To make a Bonsai trunk taper and the lower branch thicker, while the tendency of a plant is to give most of the nutrient to the top, means that control of the tendency is really necessary in order to achieve a good result. We have to prune the top section of the tree regularly so as to force the nutrient to the lower part. It is an example of controlling the natural tendency in order to achieve a good result.”

***Harmony & order - Bonsai rules, traditions and rituals:*** All participants acknowledged the need for styling rules, although a small number, representing 5, 9% (in the quantitative survey), stated that they had never heard of these rules and therefore did not follow them. It was evident in the qualitative survey that the participants who were interviewed and did not follow rules, also did not belong to any of the formal Bonsai clubs and were therefore not exposed to the strict regimen proclaimed by them. A large proportion of the participants did not follow rules per se, but agreed that you “needed to know them, in order to break them”, and thereby be considered a true artist. “You have to know the rules, to break them.”

Each person claimed to have some sort of tradition or ritual which they follow when working on their tree or walking through their Bonsai-en. “I just concentrated on my tree of choice for a long time. I channeled my imagination toward attempting to design it. When the idea came to me, I started to work.”

“I like to wear my *happi* coat. I feel that it focuses me.” “I sit down and contemplate what I am about to do, while smoking my pipe, sometimes for hours without doing a thing.”

“I have a certain routine; starting by cleaning first the soil surface then the pot and then the trunk and branches. Only after all this do I take a relaxed look at the tree and decide how to proceed and whether or not to change anything. To begin working without the cleaning ritual makes me feel uncomfortable because I could possibly overlook any number of important things.”

***Respect for Nature and conservation:*** A true appreciation of the art and Nature cannot be experienced in isolation. Respect for Nature is first and foremost in everyone’s mind. “...it has made me more aware of the cultural needs of the flora I see around me; and it has helped me learn to think as a steward of Nature rather than a simple user.”

All subjects felt that, by planting trees and seeds and by cultivating seeds, they were contributing towards conservation and thereby decreasing the negative impact on Earth (Gaia). “With regard to ecological wellbeing, growing Bonsai has made me more aware of the necessity to maintain the growth of trees, jungles and our surroundings. A cut tree will look ugly in our eyes. An old ancient tree will look beautiful and has to be maintained to make it live longer. Growing Bonsai has made me love Nature more.”

“Working with Bonsai makes us aware of Nature and I think that all Bonsai growers are extremely aware of the ecological well-being of Nature as a whole. One looks at Nature with new eyes and tries to protect our natural heritage.”

“I rate it as my highest priority and place it before my collection. I would rather have the world enjoy Nature as it ought to be, regardless of my personal interests.”

***Behavioural component:*** Respectful behaviour toward all living things is strongly encouraged and where it is perceived that people are disrespectful in indiscriminately removing trees from Nature, they are quickly ostracised by clubs and communities. “...don’t like going on digs which rape the country side.”

“Some of my trees make me think of my mother (Those I don't like that much) so I carve or change them until I can see myself again.”

Other behaviour also changes or is adjusted, as the artist ages. These behavioural changes are inevitable if the artist wants to continue enjoying the art and it’s proclaimed benefits.

“(I) have had to sell my bigger trees, as I could not manage them any longer”.

**Theme Two: (Reflection) A deep-seated Spirituality is involved in practicing the art.**

*Pleasure:* Participants expressed feelings of euphoria when spending time with their trees. These subjective feelings of pleasure were all expressed as “happy” and “peaceful moments”, far better than spending time in social Bonsai gatherings .

“Bonsai gives me a creative outlet, helps me relax, helps me focus, and sometimes gives a temporary refuge from conflict.”

“...this intriguing activity which is a blend of art and horticulture.”

“I don’t like people, I like trees”

*Contentment:* When participants admired their handiwork, they expressed a feeling of contentment, whether the end product was acceptable to other viewers, of high standard, show quality or not. It was not important for the artist to be admired by his or her peers as the contentment is derived from private viewing and the pleasure obtained from the object. “...the artistic significance of Bonsai creation makes me delighted to have this opportunity to display a small number of our better examples in this gallery setting. I hope that you enjoy looking at these artistic forms which never stop growing and so, in that sense, are never finished works of art.”

“One always tries to design a tree so as to elicit a reaction from the viewer.”

“I don't look for my own personality in my creations yet other people have commented on recognising repeated / consistent factors in the trees which reflect my personality and that is important”

*Inner Spaces and Shadows:* As with any art, the use of space and shadows is very important for Bonsai. One of the traditions of Bonsai is, to leave a space for birds to fly

through your tree, literally and figuratively. Some artists also leave space for Buddha to sit under the tree.

“During that empty time I got a vision on planting a small banyan tree.” “...It brought joy to my empty time...”

“Negative spaces, which can also be the "empty space" between branches or foliage, are also shaped and proportioned to appear in balance....see completely through the tree's negative spaces to the background .”

Many feel that being able to spend time with your Bonsai, is a divine experience in which every decision to cut back, nip or leave to develop is a reflection of the artist’s spirit and personality.

“Negative space resonates within my soul to a certain degree but I focus more on the general 'feel' of the tree than on the individual components (as with life).”

“I find this to be key, as I need silence in which to 'lose myself' when working on my trees.”

“Negative space is very important for correct balance. As in life, you need the bad to place the good in perspective.”

**Silence:** A Bonsai meeting is generally a festive affair. One criticism regarding joining and attending club meetings is that it has turned into a “tea party”.

Popular competitions at shows and workshops include silent styling competitions. Once the artist starts to work on the tree, be it his own, or a demonstration tree, silence is of the utmost importance.

“Silence is very important, I even chase my seven year old away.”

“Silence allows communion with my trees and results in better concentration.”

“Yes, I valued the silence, especially when I was still working. It was wonderful to return from work and concentrate on my trees with no interruptions or other people who needed attention. Very relaxing.”

***Spirit guide:*** “When creating a tree to imitate a tree in Nature, one becomes aware”;  
“Growing Bonsai is really a good means by which to train one’s spirit.”

“A small pot and minimal nutrient in the whole life is a good method of self discipline and control of our desire. Consistency in controlling desire is a means to attaining a higher spiritual level.”

“...The Bonsai was formerly just a natural plant growing wild as a friend of snakes, insects and other low level animals. Now it (the Bonsai) is trained to be a civilized creature. It has to have a tight diet like a monk. It becomes the friend of a human being, the highest creature in the world. All of this will enable the tree to become holier in the sense of it's spirituality which will, in turn, allow it to become a higher creature in it's next life; an animal or even a human being. The Bonsai artist will also advance to a better level due to the discipline and his or her love shown to the trees....”

“This attention and tedious work carries me to a state where I just do it and forget about the rest of the world. I let my thoughts roam while I do the work. I often forget about time and space. This is called mediating. While being part of Zen Buddhism it can very well be done by an ordinary European without any religious or cultural connection with Asia.”

**Theme Three: (We Reflection) A balance needs to be maintained between what the Bonaist feels toward the tree and the innate need to create.**

**Competence:** “Having to concentrate when shaping or styling a tree, or keep your mind active when handling a problem tree helps one to stay mentally alert and sharp.”  
“Object lessons found in Bonsai, reflect, to a certain extent, God's dealings with us. For example, sometimes I'll remove a perfectly healthy and visually attractive branch from a tree, simply because it doesn't conform with my design for that tree because I'm the artist. God is a much better Artist than I am, and His designs are exactly right. Remembering that makes trust that much easier in difficult situations.”

**Respect:** “But now I surrender more to God.”

“I let the tree tell me what the best shape is.”

“I like to be quiet and listen for the voice of God”.

“I respect Nature as it reflects God's face”

**Connected to life cycles:** “A tree also has a soul. A well styled, healthy Bonsai tends to get a higher degree in the next reincarnation. It is already a civilized creature, not a wild one. In Bonsai training, we also condition ourselves to be more disciplined and to share our love of the Bonsai.

Enjoying the Bonsai experience (As long as we are not merely motivated by ambition or a desire to be number one) will help us to better ourselves in many ways.”

“In my past life, my soul was in a baobab. My soul still lives in a Baobab, even today”.

Bonsai means: “A connection to the real world, to changing seasons, to life, to death, and to natural processes.”

**Reflection:** “Yes, a desire to reduce our pain or to direct our concentration away from a painful thing is normal.”

“Bonsai is like a faithful second wife to me. I can share my love with it. It keeps me busy. I would be sad if anything happened to it. It is really loyal and would never betray me. In the 'Whole life' it accompanies me. What is more the first wife will never be jealous of the second one.”

“When I first saw Bonsai I was quite intrigued. I felt that it brought many things together for me. It was very challenging gardening and had to do with scientific botany.

It was serious art, very complex and seemed really impossible for a person from my culture. Well, really impossible things have always challenged me, so I started Bonsai and have not stopped since.”

“I have developed coping mechanisms for when a tree dies. When one has a thousand trees and does risky things with them then there will be many fatalities. If it broke my heart every time a fatality occurred then my heart would be broken permanently. I feel like a doctor in a major hospital. I do my best but if a patient happens to die I put it down to experience and forget about it. In theory this is sound practice but it is not always how it works. When a major tree dies it really hurts me deeply.”

“Part of my personality is inevitably reflected in my trees.”

“One can but wonder if we are philosophical enough in our culture to really reflect what is in our trees. I think that we are still too bound by rules and guidelines to allow more of our personal qualities to come through in our creations, which is a pity.”

**Theme Four: (Its Reflection) There is a lack of social affinity amongst artists**

***Belonging:*** “It gave me fame, a lot of friends and richness in art appreciation, but I don’t need clubs”.

"It was a big breakthrough, artistically and also financially, to be accepted to exhibit at BMW in Germany. It was the first time that I received a rather large sum of money for exhibiting trees. It also helped my standing in the Bonsai community a lot."

***Social component:*** "Growing Bonsai engenders a certain degree of love for the tree and pride in the result of our creations. On a more mercenary level the trees grow in value as we work, our success brings recognition as artists and our standing in the organisation is enhanced. Understanding and coping with the interpersonal and political aspects of the foregoing requires tact, diplomacy and social expertise."

"Although I am not a member of a club I find joy in tending to my own trees and have shown my collection to but a few people."

"I don't belong to a club - Bonsai is my hobby".

"I do not really attend Bonsai meetings."

"My locus of control is not in the club."

***Resources:*** "...Bonsai has helped me to evolve into a tougher person, more durable in changing situations. I have acquired enough patience to accept the fact that it takes years to create a fine Bonsai. Working with Bonsai instills in us the discipline, diligence and consistency required to take care of our plants for the rest of our lives."

***Personal gain:*** "Growing Bonsai makes me aware of the need to care about my personal health and wellbeing."

"...is giving me a little more confidence in dealing with people. That's especially significant because, as I may or may not have mentioned to you, I've had a life-long speech impediment."

**Social gain:** “Bonsai brings one together with many people all over the world and so broadens one's social spectrum. Once they have met, Bonsai growers become friends forever. I believe that a Bonsai stranger is just a friend one has not yet met.”

“Growing Bonsai has made me a member of a large society. I have many friends all over the world. It made me famous as well. Anyhow, getting along with many Bonsai friends in a society also educated me in the world of politics.”

“I think it provides a sense of being part of a community. This community includes people from all over the world, including yourself, whom I've never met in the flesh but have come to regard as friends.”

“..... Very, but I also like working with a good friend.”

**Physical health;** “People who grow Bonsai don't really need to go to the gym on a daily basis. They get enough exercise by moving their trees around, digging up those growing in the ground, going on digs, mixing soil and re-potting their trees regularly. So one can have enough exercise while working with Bonsai.”

“It helped me to overcome major trauma in a positive way”.

## CHAPTER FIVE

“I have reduced the world to my garden and now I see the intensity of everything that exists.”

Ortega y Gasset

### **Introduction**

This chapter provides the discussion of the results and outlines the limitations of the study.

### **Discussion of results**

The author of this study undertook a formal Bonsai tour to Japan in 2011. One night tired, lonely and homesick, she lost her group while wandering around a Japanese garden, missed the bus home and spent several hours on her own at the garden. It was there, sitting in the tea house, staring at the Bonsai on display, where true inner peace settled over a very depressed mind.

In awe of the age and history of the tree, as well as the timeless patience spent on shaping and nurturing, she noticed the shadows of the Bonsai in the Zen garden beyond. Connecting inner silence, turned the dark shadows into space for growth.

Reflecting on her years as a collector and artist she remembered that at times of celebrating life, whether in death or in birth, the occasion always resulted in the planting of a tree. It all started when a friend on his deathbed gave her a baobab to look after in his memory. Being untrained and unenlightened, she over-watered the tree and it died. Feelings of guilt and regret overcame her and resulted in an urgent need to atone for betraying the trust

of her friend by nurturing and successfully growing a baobab. She eventually managed to grow all eight species of baobab successfully and all but one tree was grown from seed.

This was the legacy for her children. At each birth, a baobab seed was planted and nurtured and at each death of a loved one, a tree was dedicated.

Special occasions, such as the death of her brother, father and grandmother were commemorated with the planting of a baobab. Other lesser yet significant occasions, are celebrated with different species of trees.

*“The ultimate meaning to which all stories refer has two faces: the continuity of life, the inevitability of death.” Italo Calvino.*

The integration and continuity of life and death as a theme is important for the author. Life and death are dependent on each other and one’s life experiences define one’s thoughts and feelings. Through Integral Psychology comes Integral Life practices which focus on a way to make sense of life and death (through Bonsai).

Bonsai became an escape and a means of healing for other respondents as well who commented as follows: such as: -

“It's not the stuff of Bonsai that keeps us going it's the spirit of it.” (Pall, 2008b, p. 1) and “It helped me to overcome major trauma in a positive way” (Harrington, 2012). A major part of this study sought to determine whether there is a relationship between physical health and spiritual or religious belief. This study did not differentiate between religious and spiritual belief. The majority of participants, at 49, 2% (Graph 15) reported high religious and spiritual belief as opposed to 1, 06% who reported being neither religious nor spiritual and 52% of the participants (Graph 17) reported only mild health factors. All participants agreed that Bonsai helped to make them “feel better” and connected to a Higher Spirit. One participant reported that when faced with a choice of treatment for major prostate cancer

surgery which would affect his creative abilities or his sexual health, he “chose Bonsai” over pleasure. The fact that he was able to still create, “softened the blow”. He also stated categorically that he did not regret his choice.

Psychoneuroimmunologists describe the relationship between psychosocial and biological aspects in the etiology and development of disease. The way in which an individual understands and responds to the environment governs both the effect which stress has on the body and the manner in which health behaviors influence and contribute to the neuroendocrine and immune response. Health psychology interventions are intended to control the stress response and enhance health behaviors by coaching individuals on more adaptive methods of deciphering life challenges and encouraging more effective coping responses (Lutgendorf & Costanzo, 2003, p. 225).

First studies published on psychoneuroimmunology in the 1920's (Zachariae, 2009, p. 645), found that negative emotions could impact on the immune system of patients. In the Bonsai study, it was found that Bonsai had a “feel good” effect on people, whether they were serious artists, well known artists or merely the viewing public. According to the results of the quantitative data, 95, 7% of the respondents claimed that working with Bonsai had a positive effect on their moods. One can therefore, assume that Bonsai will have a positive effect on the immune system as well.

**Theme One: Bonsai is irrefutably connected to a love of all things in Nature.**

**Power (the ability to influence):** Olson, (1995, p.23) stated that symbolic power is a sensitive and useful concept. He adopts Foucault's argument that the body is the object of power and uses it to demonstrate the process of symbolic domination, in that power objectifies individuals and in this case, the artist, as well as subjectifying them. Power is

relational in that the artist exerts his power over the art-object, the tree, but at the same time is opposed by the counter-power of possible failure.

Foucault (Olson, 1995, p. 28) claims that power not only has suppressive qualities, but can also contribute to production of quality art and in this study, it would be the art of Bonsai. This is clearly evident when the artist tries to “make a Bonsai trunk taper..” and “thicken the lower branches” by manipulating growing patterns and using knowledge of the species. By “sending most of the nutrients to the top”, the artist controls which parts of the tree receive the most nutrient and therefore develops the best possible method.

Olson (1995, p. 95) queries Foucault’s theory of objectification and subjectification, but it is clear that when the artist says: “We have to cut off the top .... To force nutrients to the lower part”, power means “achieving a good result”.

Research on creativity and aging (Cohen, 2006, p. 7) revealed that entire art forms can be dominated by older people as in folk art and, in this case, Bonsai. Cohen, (2006, p.8) further states that all humans have an inner drive which encourages psychological growth throughout their life cycle and manifests itself in various ways during its developmental stages. Older people have had more experience with internalising their psychological life and this is often viewed as an advantage in creative and artistic settings.

Cohen (2006, p.8) claims that creative expression promotes health in older people when they engage in activities which require a sense of achievement, such as Bonsai. This sense of achievement leads to feelings of empowerment and belief that a sense of control in one area will increase the person’s level of comfort in exploring other new challenges.

Psychoneuroimmunologists claim that a sense of self control can influence a person’s health because positive feelings of self control trigger a response in the brain which sends signals to the immune system, thereby boosting T-cells (small white blood cells involved in

the immune system) and NK cells (natural killer cells which attack tumours and infected body cells) (Cohen, 2006, p. 9).

***Bonsai rules, tradition and rituals:*** Everyday life can be regarded as a combination of different temporal ritual states (Bengston, 2006, p. 120). People shift daily between different temporal states and behaviour is adjusted according to the current state such as work, play and leisure. Thus, in a temporal ritual state, a person acts and performs in a particular way within the framework of everyday life. When a person shifts between these ritual states, attention is also shifted to the surrounding environment and adapted in such a way that it develops character.

Adhering to the, so-called, rules of Bonsai actually supports the development of self-control. The rules act as a guide in mastering the art of Bonsai. They are also important in development of a process of leisure resource guidance, where the therapist can involve and instruct the patient in the art of Bonsai by following rules. The aim is to assist the patient in bridging the gap between merely viewing the art and benefiting from the practice through being influenced by styles (Trenberth, 2005, p. 3). It is important to note that some participants declared a strong adherence to the rules. Studies have found that people who have a total disregard for rules and regulations have a tendency to be violent and aggressive. This is significant and could have reference to their personality which leaves scope for further study (Theodoulides & Armour, 2001, p. 7).

A large proportion of the participants, who did not follow rules or were not aware of the rules, also did not belong to Bonsai clubs. This could be significant in that, because the participants chose not to follow the rules and there was nobody to enforce the rules through criticism, the artists enjoyed more freedom to design their trees in a way that appealed to them and reported that when they belonged to clubs they were unhappy with their art.

Collective Bonsai traditions and individual rituals contribute to cohesion in the art of Bonsai. Wearing a *happi*-coat as part of a uniform and compulsive behaviour, in having to start at a specific point, helps to contain a person with an Autism Spectrum Disorder. Rituals aid in coping and often involve a calculated effort to focus attention, ascertain significance, and achieve a beneficial outcome. Focus becomes an intimate encounter with the tree (Vaughan, 2002, p. 16), thereby cultivating spiritual intelligence.

Vaughan (2002, p.19) defines spirituality as being involved with an inner life, through mind, spirit and “being” in the world. It further suggests a philosophical interpretation of existential challenges and an insight into various levels of consciousness. Spirituality implies an awareness of the relationship between the divine and the mystical, each other, the earth and all beings. Spirituality suggests that the person has to be aware of, and carry a knowledge of rules, traditions and rituals. For the Bonsai artist, having individual rituals, binds the person to the tree, as one has to “open the heart, illuminate the mind and inspire the soul”.

Emotional satisfaction is obtained by stimulating or pleasing the senses. It is important though to have an emotional bond with the object or person performing a ritual such as a religious ritual. Vaughan (2002, p.25) states that symbolic images as well as archetypes can express different levels of meaning in religious rites and rituals as they provide a context from which meaning for events and transitions in life can be conveyed.

The author is not alone in honouring important people in her life, by potting a Bonsai in their honour. In many cultures (Jacobs, 2008, p. 211), commemorative ceremonies memorialise tragic events, celebrate victories and remember traumatic experiences by erecting monuments, such as museums and statues and planting trees. Many cities have avenues where people can buy space to accommodate trees for loved ones; possibly because of the positive emotions evoked in the process. (Hinds & Sparks, 2011, p. 452). This ties in

well with the biophilia hypothesis that humans have a “fundamental need to affiliate with life and life-like processes.”

***Respect for Nature and conservation:*** Cohen, (1994, p.1) claims that people are born with approximately fifty three natural sensory attractions which enable them to build relationships and integrate crucial natural connections. As people learn to integrate these natural attractions and sensations, they become more responsible in organising their daily lives.

He further declares that, when people learn to express themselves within their scarred landscapes and personal bruises, emotional wounds and destructive relationships can be healed and that every species and individual inherits this expressive biological non-verbal blueprint. Beings and civilizations which culture this blueprint wisely are able to function harmoniously.

***Behavioural component:*** Many respondents expressed their disgust at what was perceived to be the unscrupulous behaviour of people who were taking more trees from Nature than they could care for. For example, the sentiment of “..don’t like going on digs where they rape the countryside...” was expressed by more than one participant. Such actions are perceived as “aggressive” and “corrupt”. In terms of social skills, MacDonald & Cohen (1981, p. 342) view these as “bad” behaviours. According to the participants, this is viewed as less “mindful”; “spiritual” and/or “moral”.

Participants across the board felt that the abovementioned behaviour must be stopped as it could lead to an environmental crisis and the extinction of certain species. Protection of Nature should occur at all levels, from individuals to groups (Kuhn, 2001, p. 10). Group action can and should lead to changing attitudes, laws (written and unwritten) and social policies. Kuhn (2001, p. 11) feels that human needs should not be placed above those of

Nature and that extending self-actualisation in Nature can offer solutions to various environmental crises.

Kuhn (2001, p.14) further claims that when a person takes responsibility, this leads to actualising of the self. For example, the true Bonsai artist takes responsibility or *yamadoris* and by doing so, becomes self-actualising.

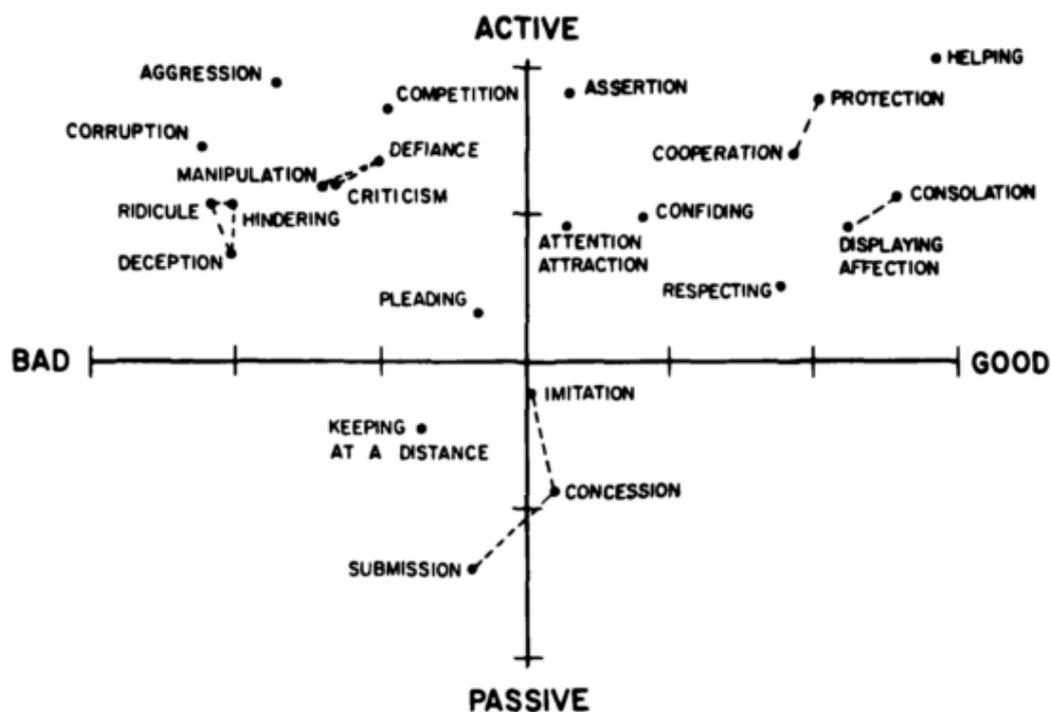


Figure 3 Social skills components (MacDonald & Cohen, 1981, p. 344).

Science has for a long time argued that individuals' behaviours and environmental (ecological and environmental) settings can improve their cognitive functioning and growth in adulthood and old age. This improvement is therefore particularly important to individuals and to society as the population of older adults increases, especially those in the United States and other industrial nations (Hertzog, Kramer, Wilson, & Lindenburger, 2009, pp. 5-7) and South Africa. There are major consequences for the solvency of retirement and medical

schemes in particular and potential problems for society if the representative life span is accompanied by an increased period of disability and infirmity rather than productive life.

The concepts of successful ageing and health both place the focus on preserving physical and psychological well-being in the senior population by optimising their effective functioning. By minimizing the length of time during which individuals are functionally impaired, it will take the strain off mental health care. Therefore, from a social perspective, extending independent functioning is both a desirable goal in itself and a way of postponing costs of long-term care. On the other hand, maintaining effective cognitive functioning is desirable simply because it promises to enhance the quality of life in old age from an individual perspective (Hertzog, Kramer, Wilson, & Lindenburger, 2009, pp. 15 - 21).

Certain adjustments in practising the art of Bonsai are necessary in older participants. Smaller trees, lighter pots and less Bonsai are just some of the necessary sacrifices. The adjustments do not, however, affect the emotional and cognitive pleasure derived from the art. When therapy is offered to older people, it often involves verbal interventions and indoor activity (Berger, 2009, p. 45). Whilst the therapist focuses on helping the client accept the past and adjust choices for the future, more can be done to encourage a sense of competence in the older generation. This is easily accomplished in the successful “nurturing” of a Bonsai tree. This mind-body-spirit orientation is the basis of the innovative Bonsai therapeutic framework.

**Theme Two: A deep seated Spirituality is involved in practicing the art.**

*Pleasure:* Happiness is not just a state of mind, it also involves positive ways of thinking and acting (Resnick, Warmoth, & Serlin, 2001, p. 81). Resnick, (2001, p. 82) claims that positive psychology is not enough to achieve happiness and states that the act of shaping raw material (or emotion) into symbols (the tree) or image (building a landscape),

can be healing as it characterises emotions by distancing them and personifying them in the tree.

Resnick (2001, p. 83) stated that art heals. According to her, Aristotle explained that identification through “mimetic action and ... catharsis in Greek drama functioned as a collective healing ritual.” Art can be used as a metaphor and as an organising approach. By being self-actualised, the person “sees beauty and wonder...”

Bugenthal, (Resnick, Warmoth, & Serlin, 2001, p. 84) believed that psychotherapy is more of an art than a science but that the assessment of deep emotional states through symbols (or stories) has not yet fully developed in positive psychology.

Although scientists distinguish between pleasure and enjoyment, where pleasure is described as mere gratification of homeostatic needs like hunger and sex, while enjoyment is defined as that which leads to personal growth and long term happiness (Resnick, Warmoth, & Serlin, 2001, p. 85). For the purposes of this paper no distinction is made between the two. Pleasure has a very important somatic influence on health within the body-spirit-mind connection. Successful therapy is based on enhancing skills which encourage pleasure and happiness (Resnick, Warmoth, & Serlin, 2001, pp. 88 - 89). Good therapy has two parallel tracks: One confronts the painful issues of the client. The other educates and encourages experimentation with positive enhancement of life by whatever means as are available to the client.

***Contentment:*** Contentment is a positive emotion created when one is satisfied with what has been achieved. It depends more upon self-actualisation than on the admiration of others. The sense of accomplishment is derived from the tree which brings so much pleasure to the artist. Based on Wilber’s AQAL, the artist is content within the subjective “I”, and not

much influenced by IT or WE and in terms of self-development, the upper left quadrant is of primary concern (Paulsen, 2007, p. 372).

Researchers found a link between successful ageing and serious leisure activities (Brown, McGuire, & Voelkl, 2008, p. 75). Even in the light of reported illnesses and depressive feelings, most participants reported a contentment with life. The benefits of serious leisure include self-actualisation, self-expression, self-image, self-enrichment, self gratification and a sense of social interaction. The contentment lies in the fact that the leisure activity enables the artist to divert his mind from work or other challenging events (2008, p. 88).

Research by Hills and Argyle (1998, p. 523 – 524) found that leisure activities can be major sources of happiness. Selection of leisure activities is often a matter of personal choice, and that choice is influenced more by personal power and knowledge than by other sources of influence. Leisure activities are voluntary activities so it can be anticipated that individuals would participate in them for their own enjoyment, even when the activities are physically demanding as in the case of boxing or marathon running. In addition, underlying positive moods or emotions (affect) are generated by these chosen activities. Recent research has revealed that there are different kinds of positive emotion and that different types of leisure can produce different types of positive affects. Leisure activities that are relaxing and the satisfaction derived from them is often associated with states of low arousal whereas other activities are pursued for the exhilaration which they provide and are related to states of high arousal. Such examples are parachuting, motorbike riding and scuba diving.

In other studies by Argyle and Crossland (as cited by Hills & Argyle, 1998, p. 524) it is demonstrated that the positive emotions that are associated with a number of pleasant life situations could be categorised by their capacity for absorption, potency, altruism and spirituality.

*Inner Spaces and Shadows:* Successful therapy also reaches into the psychic spaces of clients. It is within these “spaces” that narratives can function as bridges to connect the therapist and the patient, overcome difficult challenges and create possibilities for action. Bonsai could be the bridge which enables the patient to connect those spaces and clear the shadows. Bonsai could also be the bridge between the spiritual dimension and the human consciousness (Moodley & Sutherland, 2010, p. 275).

In the art of Bonsai, spaces could be symbolic of growth opportunities. Seeing Bonsai as pure and honourable could negate any undesirable, negative feelings one might have with regard to one’s own personality. Relating one’s own shadow to the shadow cast by the tree purifies it of all evil intent.

Jung talks about the shadow or "shadow aspect" which refers to the total unconscious part of a person or the unconscious trait of the personality which does not identify with the conscious ego. Due to the fact that one is inclined to reject the least appropriate aspects of one's personality, the shadow is mostly negative, but positive aspects could also remain hidden in one's shadow. Jung claimed that everyone carried a shadow that was dark and dense if not personified in the conscious life (Daniels, 2011, p. 5). According to Jung (Moore, 1984, p. 260), the shadow is predisposed to unconscious psychological projection which leads to the realisation of one’s own perceived inferiority. This inferiority is often recognised as a perceived moral deficiency in someone else. These projections remain hidden, on the whole and act as a constant curtain of illusion between the ego and the real world.

Jung also alleged that "In spite of its function as a reservoir for human darkness, or perhaps because of this, the shadow is the seat of creativity." Consequently, some may see it as “The dark side of his being, his sinister shadow...represents the true spirit of life as against the arid scholar” (Jung, 1983, p. 262).

**Silence:** An important discovery with this study is the relatively high number of participants (2,7%) with Autism Spectrum Disorder. With a prevalence world wide of 2 per 1,000 children, this is very high (Mallick, 2013, p. 1). Whilst silence is not the choice of the person with Autism, the art of Bonsai which very often demands silence, may well be a welcome break.

Psychoanalysis and dynamic psychotherapy in the West favours verbalisation, especially in the therapeutic setting as a method of accomplishing understanding and insight into the self. Stillness and silence are often construed as resistance in therapy. The defensive implication of silence in meditation as an important aspect to the development of internal peace and harmony, has not yet been fully appreciated (Shafii, 1973, pp. 431 - 434) in Western culture.

Silence is not negative, but the ability to become quiet, helps the individual to re-experience union with the earlier love object on a preverbal level. Even though the experience of silence is an enigmatic phenomenon, it is surprising to note that there have not been many articles written on this subject in psychological and psychiatric literature with only a few significant contributions to the psychological understanding and conceptualisation of silence being found in psychoanalytic literature.

In most of the psychoanalytic studies, silence is conceptualised as a form of inhibition, withholding, transference resistance and severe ego regression. Only a few authors have emphasized the integrative, creative and adaptive aspects of silence in the psychoanalytic situation. Shafii (1973, p. 434) feels that there is not enough knowledge of the impact of silence on the psychic structure. For the purpose of this study, very little information on the benefit of silence could be found.

Van der Heide (Shafii, p. 435) feels that “the experience of a shared, mutual silence occasionally outweighs in importance the ideational content ... analysis really does not move until the talkative patient becomes silent”. Sitting quietly and being completely silent internally and externally, heightens the receptivity of the person to tiny signals from his body and his internal self. This openness and receptivity can gradually be generalised throughout the person’s daily activities and lifestyle, and can create a feeling of well-being, interest and enthusiasm. The ability to tolerate internal and external silence is preferred and encouraged.

In classical Greece, Mortley, (Zerzan, 2010, p. 4), saw a “growing dissatisfaction with the use of words” and the promotion of an increase in the language of silence. Bonsai encourages introspection, “seeing” beyond what is visible and “seeing” into the future of the tree. Heiddiger stated that at times a more profound and more demanding thinking than the conceptual is required, and some of this is involved in a primitive relation between silence and understanding.

This silence is a regrouping; a feeling of comfort, like two lovers who do not need words to communicate.

***Spiritual guide:*** “An excellent Bonsai pot; I do not see it - I feel it...” The Bonsai plant and the pot will enter into an optical symbiosis. Sometimes to the potter and also to the viewer it seems that the pots must have a “soul” (Pall, 2008a). It happens, now and then, that a pot's excellence almost reaches the Japanese sentiment of “Wabi” and “Sabi”. It is not only the potter who is responsible for such an excellent pot. Other important and appreciable considerations for the potter are Earth, Air, Water, Fire and the Spirit from which every being emanates.” (Kebs, 2013, p. 1).

This sensation of sensing should lead to perception. From there it will lead to an impulse, it will lead to an image, to a symbol, to a concept, to a reason, to a psychic

experience, to subtlety and to a causal occasion. This is in its own way a shocking self-recognition to the artist. The Spirit will recognise its own self-realisation and self-resurrection in each of these stages as being described from matter to body, to mind, to soul, to spirit. The evolution of the artist becomes increasingly conscious, increasingly aware, increasingly realized and increasingly awake; with all the joys and all the terrors inherently involved in that dialectic of awakening (Wilber, 1996). Spirit is often sought in the world where time is of essence, but Spirit is timeless and cannot be measured. "It's not the stuff of Bonsai that keeps us going it's the spirit of it." (Pall, 2005, p. 1).

Spirit is often sought in the world of space, whether it be an area or an interval in time; but Spirit is spaceless and therefore cannot be found. Spirit is even sought in various objects, "Shiny and alluring and full of fame or fortune"; but Spirit is also not an object, and it cannot be seen or understood in the world of possessions and turmoil (Wilber, 1996).

Spirit is often sought in ways which prevent its realization, and the artist is then forced to settle for substitute gratifications, which lead to the wretched world of time and terror, space and death, sin and separation, loneliness and consolation (Wilber, 1996, pp. 8 - 9). ".....working at nights with Mr. Kimura and all of my younger apprentices when nothing is being said but everybody is pursuing Bonsai with the same objective." ( , 2008c, p. 1).

At each developmental stage or level of evolution, both the mode of self and the sense of reality that keeps us together are created by complex transformations of the previous level. Every developing level is not a total rejection of the previous level, but rather a divine transformation of it. In the Atman project, Wilber (1998) investigates ways in which Unity is forced to use symbolic substitutes to reach successive stages. As one moves to being closer to the source, it still merely remains substitutive. At this point, however, it would be worthwhile to look into the Nature of that which transforms, and it will be found that as each transformation is accomplished, some type of symbolic structure (using "symbol" in its

widest possible sense), is accomplished (Wilber, 1996, p. 39).

**A balance needs to be maintained between what the Bonsaist's feel toward the tree, and the innate need to create.**

*Competence:* Competence is one of three innate needs (Ryan & Deci, 2000, p. 68). The construct of intrinsic motivation leans towards mastery and spontaneous interest which embodies a principal source of enjoyment. This inherent tendency towards competence needs to be maintained and enhanced through supportive environments, of which the Bonsai social scene, be it clubs or online forums, is one. It is here that the artist receives feedback and rewards from other artists or admirers. People will also only be intrinsically motivated by activities which hold intrinsic interest for them.

Feelings of competence also lead to autonomy, which is the second innate need. Without relatedness, which is the third need, people cannot thrive. Ryan and Deci (2000, p. 75) claim that when a social environment affords competence, but does not nurture relatedness (as in the club concept), the wellbeing of the participant will suffer.

It could well be that Bonsai social clubs exclude certain individuals and therefore contribute to the growing movement away from clubs and towards autonomy.

This is in direct contravention of Wilber's lower right "ITS" quadrant which states that people need "all levels, all quadrants" to be successful. Just under half of all participants rejected the social club as a reflection of their competence. Although holons evolve or develop together holarchically, or from a co-dependent origin, they are always there from the beginning. In human developmental terms one can only become I (Upper left quadrant) through WE (lower left quadrant) of parents, friends, etc. One would then not "need" clubs and organisations to fully develop or heal in and through the art of Bonsai.

**Respect:** Bonsai artists are spiritual. It is evident in the responses to the Spirituality Scale. Endeavours in Nature are frequently linked with spiritual encounters. Very few other studies have been conducted on the relationship between spirituality, Nature connectedness and respect for God-Head. Here, one respondent replied that he surrendered his art and artistic eye to God while another submitted to being led by the tree, showing respect and being submissive.

Transcendental aspects seem to be important elements in the human-Nature-relationship (Heintzman, 2010b, p. 20). Goodale (as cited in Heintzman, 2010b, p.19) stated that leisure must have a purpose, as well as being “compelled by love and wrapped in the cosmic and the spiritual”.

Heintzman (2010b, p. 21) claims that spirituality is a relationship with oneself, others and the environment and sees Spirituality as “the God thing”. His general definition of spirituality includes an individual’s “attempt to understand his place in the universe” and claims that spirituality is a human element; that Christian spirituality is based on a trusting, obedient and personal relationship with an immanent and transcendent Creator.

Spirituality is steeped in the desire to be obedient to a Higher Being and obedience is central to most religions (Henman, 2005, p. 1). According to Henman, one cannot respect without obedience, but blind obedience is not a sign of respect. Respect for Nature and the material that is being worked with is a consequence of that human-Nature connection through Bonsai.

Van der Wart (2012, p.141; p. 139) claims that God is all around us, in Nature, in the sunset and in the flower. He just needs to be seen where we are. According to van der Wart, spirituality is not a philosophy full of rules or a mysterious experience, but a continual journey, “*soos die voortgaande skeppinge van n kunstenaar*”. Like the continued creativity

of the artist, it represents growth and transformation.

**Connected to life cycles:** As people connect through Nature, it is inevitable that one should encounter “souls”. “Souls” are the mortality of what is “I” and “past lives”, and this is encountered while communing with Nature. Ecopsychology is that spiritual connection between humans and the environment (Lincoln, 2000, p. 227). If this awareness was not present then the art would be empty. To feel true spirituality, there must be a sense of life commitment and ultimate meaning, as well as a oneness with Nature and the beauty it brings (Heintzman, 2010a, p. 72). To feel a sense of connectedness with others, there must be a profound concern for and obligation to something greater than the “I”. Spirituality will also bring a sense of wholeness in this life. One cannot experience this spirituality without having solid spiritual opinions, values, morals and principles, coupled with affection, enjoyment, harmony, faith, and fulfillment.

Heintzman, (2010a, p.73) claims that spirituality has a second external dimension, which includes characteristics that involve interaction with others portrayed by trust, honesty, integrity, etc., as well as consistent unity or a private affiliation with a higher power that transcends apparent physical reality. This encounter provides the prospect to leave the pressures of daily life; to have a capability of being spiritually rejuvenated in the environment.

**Reflection:** Kant (as cited in Richards, 2001, p. 61) stated that it serves no purpose to appreciate beauty for beauty’s sake, that one must enjoy it without agenda or purpose. People notice beauty (the Bonsai) because of its fundamental appeal to the viewer. The reason for noticing is adequate in itself with no further need for explanation. May (Richards, 2001, p. 62) extended the subjective experience of beauty by saying:

“Beauty is an experience that gives us a sense of joy and a sense of peace

simultaneously. . . Beauty gives us not only a feeling of wonder; it imparts to us at this same moment a timelessness, a repose—which is why we speak of beauty as being eternal”.

Richards, (2001, p.63) speaks of wider and divine practices of beauty that involves a realm or culture that may surpass the ordinary in everyday life. This culture also may also defy description and create an art which is capable of altering lives, in order for it to be beneficial to the artist and the viewer. Hillman (Richards, 2001, p. 63) said, “beauty is the way in which the gods touch our senses, reach the heart and attract us into life”.

Richards, (2001, p.62 – 63) noted that people have an inherent need to be close to Nature, to stare at natural settings. Wilson’s “biophilia hypothesis” (as cited in Richards, 2001, p.62) and the fundamental pleasure experienced in being in Nature brings about a consciousness of harmony which draws people together beyond their isolated individual identities. This could be considered as the binding power in the art of Bonsai; appreciation of the beauty of Nature in a specific form. “Bonsai was one way of celebrating Nature to me and writing haiku is just another way of doing it.”(Pall, 2008b, p. 1).

In the innate need expressed by several participants to spend time in Nature; in the Bonsai garden, the wonders of Nature persist and this need is satisfied. As with most art, the name of the original owner, lives on with the tree and guarantees immortality.

#### **Theme Four: There is a lack of social affinity amongst artists**

**Belonging:** Bandura (as cited in Hills & Argyle, 1998, p. 525) claimed that in order to enjoy leisure activities, people must take part in activities at which they are proficient, which they enjoy, and consequently do often. Other common sources of positive emotions can be derived from the satisfaction of self-efficacy that is experienced by those who achieve success in their leisure activities. Hills and Argyle (1998, p. 525 – 526) found that those who

possess superior abilities with regard to specific leisure activities enjoy those activities more and this applies to a diversity of interests other than sport and exercise.

When working with Bonsai however, most participants felt that their creations were inferior; that they had created trees worthy of being exhibited but that their enjoyment was derived from self-appreciation of the art. The majority felt that their ability to care for the Bonsai/tree provided sufficient enjoyment without having to share their experiences.

***Social component:*** The fact that the majority of respondents were in relationships was surprising because, it was assumed that there would be more single, widowed or divorced people amongst the artists and that interaction would facilitate socialisation. Bonsai meetings are often social gatherings that end in eating and drinking. Most members of clubs participate as individuals and not as couples or families.

Loneliness is reportedly one of the most frequent types of distress and can lead to behaviour which seeks to lessen its intensity (Satran, 1978, p. 1). The Bonsai artist must actually crave being alone. The supportive environment, in later life at the club or association, is then built into the personality and leads to the ability to be alone. Intra-psychically “someone” or some object is always present, and the paradox is that to be alone comfortably, one must carry along the experience of having been alone in a supportive environment. Kohut (as cited in Satran, 1978, p. 1) noted how “a person's apparent isolation and loneliness may be a setting for a wealth of object (the Bonsai) investment,” and stated that many observable relationships may conceal a narcissistic experience of the world and loneliness. He described a patient who retreated to fantasies of relationships with playmates after a relationship with his father failed. It may be said that even though more respondents were in a relationship, not all were happy or not lonely. Whether the Bonsai was the constant object, could be investigated at a later stage.

The presence of a stable intimate relationship that is of high quality might strongly impact on health and well-being in life. Therefore, by identifying the variables that influence this social resource, it becomes of primary interest (Knoke, Burau, & Roehrl, 2010, p. 310) that, in conjunction with the phenomenon of age, it appears to be the most reliable predictor of marital value and stability. As couples grow older, they often experience an increase in marital satisfaction that might be explained as a revival of positive interactions in late life accompanied by a constant linear decline in negative sentimentality across the life span and improved attentiveness toward each other that may provide numerous emotional rewards. It was of interest that the greatest percentage of participants were involved in stable relationships.

The study by Hills and Argyle (1998, p. 524) also reported that the greatest source of social support and social satisfaction was derived from being members of clubs and teams, and from the intimate personal interaction involved in meeting up with associates. The art of music is typically practiced by members of co-operating groups for the pleasure of an audience, and so provides a double social satisfaction. It was therefore surprising to find that only half of the participants belong to clubs and societies, and even less exhibit trees or take part in demonstrations. On blogs and Bonsai forums, participants are most vocal about avoiding formal clubs. Most participants commented on their ability to participate in the art on a solitary basis, or in silent companionship which transgresses their need for sociability and cohesive pleasantness.

This isolation from Bonsai clubs and societies does not reflect on the socialization of the participant or the participant's family interactions, as all participants reported close family ties and interactions. The passion for Bonsai often has its origins in friendship and not necessarily in companionship.

Wilber, (1996, p.8) describes this by stating that there could be a “falling away” from

a “Godhead”, or from “Spirit”, or even from society, where artists imagine themselves to be separate and isolated in the simplest naturalistic way. Once this “involution” has occurred, where the Spirit has become instinctively involved in the inferior and lesser forms of its own expression, only then can evolution occur and Spirit unfold.

It is perhaps here, in isolation rather than withdrawal, that the artist finds meaning and healing in the art of Bonsai.

**Resources:** Heintzman (2010a, p.77) states that personal history and recent circumstances relate closely to the inspiration and attitude of the individual who engages in Nature-based recreation or undergoes experiences of a spiritual Nature. In the Bonsai study, spiritual value was important to all but three participants. A spiritual background or tradition is definitely a component which influences the connection between Nature-based recreation and spirituality.

One respondent felt so close a link to the baobab, that he/she was convinced that in his/her past life, he/she was a baobab because he/she could still feel it in his/her spirit.

Most respondents felt that family was very important and included family members in their Bonsai activities, even if just to accompany them on a dig or to a club meeting; however the majority did not feel that organised group activities contributed significantly to the benefits of Bonsai.

**Personal gain:** Focus is placed on individuals’ current state of lives and how they are able to maintain and optimize their cognitive functioning. Cognitive psychologists have written many books on how to maintain and improve memory, through mental exercises and through cognitive enrichment. Cognition, is considered as one of the more susceptible facets of the brain which declines in old age (Hertzog, Kramer, Wilson, & Lindenberger, 2009, p. 17).

According to the “Use-it-or-lose-it” hypothesis (Hertzog, et al, 2009, p. 3), exercising one’s cognitive equipment, such as the brain, by accomplishing cognitively challenging activities such as preparation and implementing tasks, stimulates the mind and preserves cognitive functioning. The cognitive-enrichment theory states that the behaviours of a person’s cognitive activity, social arrangements, physical exercise, and other behaviour, have a meaningful constructive influence on the level of effective cognitive functioning in old age by focusing on the degree to which an individual’s behaviours and way of life effect cognitive functioning in old age.

Cognitive development can be influenced by many different factors, including those which directly enrich the metabolic and biological functioning of the neural substrate, such as psychopharmacological interventions, diet, and physical exercise. Factors affected are those that operate at the level of cognition itself in daily use or training, and those that impact on the broader context in which individuals think, learn, and remember. The quality of social interaction plays a huge role in cognitive stimulation. Some of these factors form part of an individual’s daily attempts to embrace a health-promoting routine, whereas other factors form part of an individual’s behavioural choices or environment. Often these factors appear without being accompanied by cognition-related objectives (Hertzog, Kramer, Wilson, & Lindenburger, 2009, p. 5).

***Social gain:*** Cutrona and Russell (as cited in Loy, Dattilo, & Kleiber, 2003, p. 239) stated that social support is the reinforcement a person needs from in any given situation in order to feel acceptable and avoid loneliness. Social support is categorized into functions such as attachment, which is described as the function which instills in the participant a sense of intimacy and sanctuary; social integration, which is the function which instills a sense of attachment or belonging; guidance, as in skilled tasks which provide knowledgeable advice through clubs or working groups. There is a reassurance of worthiness or functions which

reinforces a person's sense of worth, at the same time providing reliable alliance or care in the form of non-conditional support from family members. There exists an opportunity for nurturance with a sense of responsibility for the welfare of another (Loy, et al, p. 239).

Opinions of participants were divided on their need for social interaction and support. ".....working at nights with Mr. Kimura and all of my younger apprentices when nothing is being said but everybody is pursuing Bonsai with the same objective." (Pall, 2008c, p. 1). It might be advantageous to state that the healing power of Bonsai lies in the silences. Spielberg (Zerzan, 2010, p. 3) stated that "phenomenology starts with silence." Silence has been in past generations, seen as a means of isolation. But now, it is the absence of silence which works to reduce today's world to emptiness and isolation. The value of Silence's reserves have been assaulted and exhausted. Silence is pertinent in the assertion of human liberation and silence engenders awe in that it embodies the wish for a perceptual and cultural new beginning.

**Physical health:** Bonsai has traditionally been an art form practiced by older people. More mature people frequent clubs and societies and although there has been a drive to attract a younger membership, it is a slow process. There were therefore, no surprises in the results of the survey, which revealed that the majority of participants fell between the ages of 26 and 60 years of age. It could be argued that because Bonsai requires a certain amount of patience, this is developmentally lacking in younger generations. Recently, some younger artists have joined clubs, but have yet to prove their endurance. It would appear that after the age of 60, participation in the art diminishes, probably due to physical decline rather than a loss of passion. Older participants remain loyal and appreciative of the art.

Research based on psychological progress and development in the latter half of life (Cohen, 2006) has focused on a person's ability to embrace positive change on creative expression in the later stages of life. These qualities are evident in the practice of Bonsai which, according to this study, is dominated by older artists. During interviews it was evident

that, although most successful participants started doing Bonsai in their youth, the general majority started later in life, but were just as passionate.

According to Cohen (2006, p. 8) older people are not often recognized for outstanding work, due to the general belief that success and achievement occur more frequently at the hands of younger people. Cohen (2006, p. 8) states that when you can categorize an art form, such as Bonsai, as being dominated by older people, then outstanding performance by various older individuals cannot be trivialized as atypical or an exception to the rule. Psychoanalytic research found that older generations are more in touch with their inner psychological life, than at any other point in their life cycle. This awareness can be an asset in a creative and artistic sense by allowing people to draw upon new potential as they age.

Most respondents (and Bonsai artists) older than 61 years of age, reported physical impediments in moving pots around, digging for new material, etc., as an obstruction to their participation in the art form, but not to their enjoyment.

Kohut (as cited in Wada, 2003), stated that the elderly need and use others for narcissistic purposes, as a “source of admiration”. Kohut focuses on the patient's subjective experience. This view is especially applicable for psychotherapy with the elderly, because of their retreat from social activity and loss of intimate surroundings, there are fewer resources for validating their subjective experience. For example, not all of what the elderly are experiencing is pain. They can also enjoy their lives and feel pleasure in what they are experiencing.

According to Beard (as cited in Simonton, 1992, p. 77), 70 – 80% of revered artwork is accomplished by people between the ages of 45 and 50. Beard further stated that the last years of life tend to be unproductive, tapering to almost “nothing” by the age of 80. One respondent in the present study, is over the age of 80 and still considered to be one of South

Africa's best Bonsai artists, constantly organising club meetings, demonstrating and attending workshops. Beard (ibid, p.78) did state that Haeefele found an exception to this rule in that he noted a creative revival around the years 80 – 85, which he attributes to “youthful recollections” in their latter years. During an interview, the artist stated that the quantity of her work had diminished, but that the quality had improved due to her experience and unimpaired learning ability.

Undoubtedly Bonsai artists produce their best work between the ages of 41 and 60. This is the age at which they are still able to collect material and tend to their own trees. Participants in the age group 41 – 60 all had more than 20 trees. It could be argued that most of the older participants owned more trees than the younger group because they had started doing Bonsai in their younger years and the trees on hand were old stock.

### **Limitations**

While results of this study suggested that being engaged in leisure activities has both direct and indirect influences on individuals, there are several limitations associated with the study that limit generalisation and explanation of the findings. Further study is recommended on the direct effect of Bonsai as a therapy tool together with clear randomised controlled research, with experimental groups and pre-and post-test assessments.

Other considerations for future research include the type of influence Bonsai or Nature based therapies could have on mood or anxiety adjustment. Although results of this study suggested that engagement in Bonsai activities had a statistically significant influence on the coping methods of the participants, the study did not disclose the extent to which respondents may have participated in leisure activities more frequently since they were well-adjusted, which highlights the lack of pre-test data. The complexity of the relationship which Bonsai activities have on a reciprocal connotation with adjustment, requires statistical

procedures which were outside the scope of this research. However, further research is needed to examine the possibility that the Bonsai model is actually non-recursive or reciprocal.

The Psych-neuro-immunological (PNI) background is helpful in explaining the scientific basis of many integrative therapies, but it has limitations which must also be recognized. PNI is a biomedical model which stems from modern Western medicine and clarified by bio-chemical and physical mechanisms. It is therefore does not include practices that are related to energy theories, spirituality or Eastern medicine. The PNI framework does not make provision for integrative therapies, such as therapeutic massage, Reiki, acupuncture or needle therapy, acupressure, reflexology or homeopathy. Finally, PNI does not distinguish between the indirect but profound effect that is created by caring relationships between people when facilitating interventions for others by using touch therapies or some sensory and cognitive therapies. Relational influences invoke trust and peace of mind that lead to a more relaxed state and greater psychological and physical well-being.

It is proposed that Bonsai serves as the gateway-therapy between integrative therapies and PNI.

## CHAPTER SIX

“My words have as yet moved no mountains and what I have spoken has not reached men.”

Nietzsche

### **Introduction**

This chapter concludes with recommendations that the findings of the study be used as a therapeutic tool that the subject be earmarked for further study.

### **Recommendations**

This study found that the practice of Bonsai can be exceptionally beneficial as a therapy tool, especially in settings where the client/patient has been isolated from family or society in institutions such as long term psychiatric wards, prisons, old age homes and orphanages

It is envisaged that Bonsai therapy can be arranged in stages wherein the therapist is able to meet with the client/patient, initially to assess therapy needs. In a subsequent session the idea of using Bonsai as a tool may be suggested to the client followed by an explanation of the basic principles.

Stage Two would involve developing the patient's motor skills in preparation for the transition from novice status to that of capable student. The development would include such rudimentary tasks as selecting a tree and pot, learning to care for the tree, etc. The therapist would then use the trees as a form of motivation for the patient. The patient/ student is then taught to repot the tree and to care for it during the initial stages of its development. Once the tree has survived and has settled in the pot, styling can begin. The emphasis of activities can then be shifted from positive social interactions and generalised to include other human interactions.

Stage Three involves the therapist's monitoring progress in the patient's moods and other human interactions and assessing any positive social situations. Patients are then given autonomy and allowed expression of their individuality, including freedom to make their own choices with regard to the styling of the tree. Once the client has mastered the care of the tree, he becomes responsible for keeping it alive. When implementing an intervention, it is necessary to assess whether or not the program is producing results as far as its outcomes are concerned; therefore the goals must be clear and specific. They include enhanced capacity to form positive images of the self and others, as well as forming a spiritual connection with the tree.

Results should demonstrate significant improvements with regard to pain, mood, and other stressful issues after patients have spent time with their tree/s.

Children can also derive positive benefits from Nature based therapy in a class setting. Mental Institutions, Hospitals and Nursing Homes are of particular interest as Bonsai assisted therapy is more hygienic than for example, animal-assisted Therapy (AAT), which has proved beneficial in having anxiety levels of institutionalized patients reduced (Beck & Katcher, 1983). It was determined that anxiety levels (Barak, Savoria, Mavashev, & Avshalom, 2001, p. 1) in patients with mood and psychotic disorders were significantly reduced after a session of animal based therapy. Their study suggested that human-animal interaction proved more effective, as opposed to traditional therapy, especially for individuals with psychotic disorders. This is construed to be because of the relatively "low demands" placed the participants. Bonsai art therapy would demand even less from the client/patient in terms of human interaction and therefore be even less threatening.

Nursing Homes are another untapped area where Nature can be used to benefit, improve and preserve an individual's functional activities and to contribute in the process of improving the individual's quality of life. Therapists have noticed increasingly unfavourable

behaviour in elderly people who were relocated to nursing homes by their families. As soon as the patients have settled in their new environment, they tend to lose their sense of individuality. Tasks that they were able to do every day, are often taken away from them. Patients perceive this loss as an attack on their self-efficacy and can become weary, depressed, and exhibit anti-social tendencies, as well as withdrawal. The fact that they often do not receive visitors, alienates them even further (Kramer, Friedman, & Bernstein, 2009, p. 44). After being transferred to places where they can be cared for, or other nursing home facilities, they often become passive, agitated, withdrawn, depressed, and inactive because of this perceived abandonment by their loved ones. Having to care for a Bonsai can assist in motivating patients to be actively involved in daily activities, both mentally and physically; while keeping their minds functional and their bodies healthy.

There are various methods used in animal-assisted therapy which can also be implemented in Bonsai therapy (Kramer, Friedman, & Bernstein, 2009). Based on the needs and physical situation of the patient, hands on interaction with animals is the most important therapy. It provides patients with the opportunity to have close physical interaction with the animals' warm bodies, where their heartbeats can be felt. Patients can caress the soft skins and coats, and embrace the animal. Planned activities for patients who need physical movement, such as petting, walking and grooming the animal are also very important.

Although these activities seem common and simple, it is not often that elderly dementia patients can normally have similar social exchanges with people either because their family members or people close to them have passed or no one visits them. Their minds need the stimulation they were once accustomed to. Animals provide patients with a sense of meaning and belonging and they become something to look forward to during the patients' long days (Kramer, Friedman, & Bernstein, 2009, pp. 44 - 45).

The animal based therapy programs encourage the patients to express their emotions

in a healthy manner. It also offers cognitive stimulation through discussions and reminiscing while patients are bonding with the animals. Decreased physical functioning, lethargy, despair, isolation, and disturbing behaviours, are just some of the many symptoms found in elderly dementia patients and needing attention. These symptoms can all be positively affected by animal based therapy interventions. Animal based therapy is very useful in diminishing undesirable behaviour by distracting the patient and directing their attention on something more positive (the animal and in this case, the Bonsai) rather than on their physical illness. The focus shift motivates the patient to be physically active while enhancing communication skills for those plagued by the loss of their memory and other cognitive functions.

Although animal based therapy is considered to be a new method of dealing with mood disorders, anxiety and childhood ailments such as Attention Deficit Hyperactivity Disorder and Autism spectrum Disorder, it has been criticised because of lack of evidence of the success of the technique. According to Lilienfeld and Arkowitz (2008, p.1) animal based therapy should rather be considered as a “temporary fix” as there is a lack of longitudinal data or research of evidence for more permanent progress in patients taking part in the therapy process. Further suggestions are that animal based therapy is more of an emotional technique using therapy than a behavioural management. Lilienfeld (2008, p.1) further suggests that animal based therapy reinforcement might be of brief Nature and not a long term one (Lilienfeld & Alkovitz, 2008, p. 1).

The results of leisure engagement have simultaneously direct and indirect impacts on the regulation of the moods of individuals. This has both practical and theoretical consequences for the treatment of individuals with disabilities (Loy, Dattilo, & Kleiber, 2003, pp. 232 - 233). Results further provide evidence that the apparent social support in the process of adjustment to spinal cord injuries is very important; thereby signifying that leisure

engagement contributed, to a certain degree, to the development of social support groups which positively influenced regulation of their affect. Dattilo however, (as cited in Loy, Dattilo, & Kleiber, 2003, p. 234) inferred that the absence of social support often limits the patients' opportunities to be reintegrated in the community. Bonsai art therapy does not rely on social support, although it is nice to have, and therefore allows the patient to readjust without a need for social support.

Kleiber et al. (as cited in Loy, Dattilo, & Kleiber, 2003, p. 251) proposed that engaging in leisure activities often provides a degree of stability which is soothing for individuals who have experienced interruption of their daily activities by negative or disabling life events. However, additional research is required to better define the meaning of the "continuity of leisure engagement and diversity of leisure" range of activities in the lives of persons living with disabilities. Loy, Dattilo and Kleiber's (2003, p.252) study provides further evidence of the importance of remaining actively engaged in life after a negative life event.

Bonsai art therapy as a psychoneuroimmunology intervention (PNI), can be seen as an all-encompassing sensory experience. Based on all the diverse types of sensory integration therapies, sensory mediations are the most commonly used with practices where nursing and mental health issues are concerned. It is also considered to be the easiest to incorporate into everyday patient care (Bauer-Wu, 2002, p. 1). The sensory interventions have immense therapeutic value and are based on evidence that the stimulation of the five chief senses activates a torrent of bi-directional physiologic activities which are able to build neural pathways. The cranial nerves (CNs) play a part in the integration therapies of smell (CN I), sight (CN II), and hearing (CN VIII); whereas peripheral nerves are central to touch interventions or therapies.

Aromatherapy recently became very popular as an intervention but scientists have

done little scientific research. However, the understanding of PNI anatomy and physiology would support the subjective support of science of PNI's effectiveness. For example, the olfactory nerve (CN I) which is set in the brain, influences the limbic structures, and in particular, the hippocampus. The hippocampus has a crucial function in the regulation of emotion and memory (Bauer-Wu, 2002, p. 1). Consequently, it may be that specific aromas can induce not only emotional and physical responses, but also evoke certain recollections of other periods and places. It is known that the smell or the fragrance of certain flowers or blossoms, can elicit memories of a loved one. Some species are especially fragrant, such as the Brazilian Pepper Tree (*Schinus terebinthifolius*) or the Camphor Bush (*Tarchonanthus camphoratus*). For example, the smell of certain blossoms or the fragrance of certain flowers, can trigger the memory of a loved one. Some species are especially fragrant, such as the Brazilian Pepper Tree or *Schinus terebinthifolius* when being cut. The more fragrant the flowers or the leaves, the more it is likely to elicit a reaction or memory from the patient.

The sense of sight, stimulated through the optic nerve (CN II), can have an influence on the way an individual feels. Florence Nightingale (as cited in Bauer-Wu, 2002, p. 2), stressed the importance of colours, as well as the use of natural light, and paying attention to the appealing environments in patients' recovery. Research supports the convalescing benefits of hospital rooms with softer wall colourings as opposed to the stark white walls in the past, larger windows and views, with places where birds can feed, window boxes with flowers, or attractive wall hangings (Bauer-Wu, 2002, p. 2).

A person's sense of hearing is naturally "on" all the time, as is smell. With regard to Bonsai art therapy, silence was for most participants as important as a break from the cacophony of sounds all around. The benefit of silence is of utmost importance in spirituality (Heintzman, 2010a) and prescribed as a spiritual discipline in most religions.

For many generations, nurses have integrated touch interventions into clinical

practice. An increasing number of studies have documented the positive effects of touch (Bauer-Wu, 2002, p. 2). In Bonsai therapy, the patient would continually touch the tree and get feedback through 'tactile' stimulation.

Cognitive intervention focuses predominantly on stimulating the cerebral cortex in the brain. The cerebral cortex is considered to be the intellectual part of the brain while the limbic system is the expressive or emotional part. Where these two areas interconnect with each other, as well as with other parts of the body (i.e., the hypothalamus, sympathetic and parasympathetic nervous systems), is where most intervention programs work. It has been suggested that control and variation of thoughts and perceptions can affect emotional reactions and physical functions.

Eastern religious reflection in meditation, such as Buddhism and Hinduism, includes being sedentary, being silent and being able to calm the mind. Being in a state of mindful reflection encompasses non-judgmental consciousness of breath, bodily perceptions, feelings, and sounds. This process is necessary to bring the meditators back to the present moment, allowing them to let go of former apprehensions or worrisome expectations of the future (Bauer-Wu, 2002, p. 3). Another type of meditation, called concentrative meditation, used during transcendental meditation or meditation linked with the relaxation response, involves repeating a particular mantra or focusing on a visual prompt, such as a Bonsai. Notwithstanding their disparities, the several forms of meditation have proven to be very helpful for countless health problems and symptoms, such as anxiety and pain.

Visualisation involves using images in the mind, as if watching a movie. One needs to visualise what the Bonsai would look like after styling. One would also need to visualise what it would look like in a few years' time after a few seasons' of growth. Cognitive reorganization and reframing are effective and constructive coping strategies. Merely changing ones thoughts about a demanding situation whilst working on a Bonsai or being

more positive can enhance mood and create a general sense of well-being. Bauer-Wu (2002, p.3) cited an example of a patient, recently diagnosed with a debilitating illness, who would endure aggressive multi-modal therapy but is unable to work or perform many activities of daily living. He suggested that such a patient can incorporate a leisure activity (such as Bonsai) whilst he or she reframes thinking from: "My whole life has fallen apart, and I can't bear the changes" to "I really needed some time to re-evaluate how I was living my life, and this will be an opportunity to step back and sort things out." Reframing can also involve humour at times, as well as attempting to be less serious, and laughing at oneself or one's situation.

The most important impact that Bonsai art therapy can make is with Expressive therapies. Expressive therapies benefit internalised stress by releasing it through catharsis and perseverance. Catharsis suggests the release of pent up thoughts and emotions. Resolution, which frequently follows catharsis, is the termination or closure of previous difficulties so that a person can let go and move on with his or her life.

Research on expressive intervention's consequences on patients with cancer is preliminary but promising (Bauer-Wu, 2002, p. 4). Rough and robust trees that are tamed into beautiful art pieces, can be a testimony to the person's past life experiences and to where they are now. The recovery of a tree dug up from Nature, can symbolise a person's own recovery from radical surgery or treatment.

Tapping into one's creativity can be an alternative means of self-expression. Creative expression can provide an alternative to using language to express hurt, self-doubt and to let go of emotions held deep within. Art therapy, facilitated by qualified art therapists, is the formalised use of art to encourage psychological processes in recovery. However, the benefits of being able to use the arts to heal are not restricted to art therapy or to individuals with natural artistic talents. Patients, particularly those who are not artistically talented, may

need frequent encouragement and assistance to try creative therapies and may benefit from Bonsai art therapy.

Research has revealed that patients with cancer who are involved in physical activities have more energy and less stressful symptoms than those who are less active (Bauer-Wu, 2002, p. 4). Physical activities can be accomplished in a variety of ways, including just walking through the Bonsai-en or moving pots around or moving around the tree whilst styling.

## CHAPTER SEVEN

“Now you have heard everything, and why I must return to my solitude”

Nietzsche

### **Conclusion**

The purpose of this study was to determine whether there was a link between the art of Bonsai, Spirituality and mental well-being. It was hoped that the study would provide confirmation that having contact with nature and with activities in and around nature might have an impact on the capacity of a person to adjust to negative life events.

More explicitly, it was an attempt to determine whether or not being engaged in Nature leisure activities could have direct and indirect influences on mood and spirituality and to what extent, if at all, such influences might be relevant to engagement in Bonsai activities specifically. Results implied that Bonsai activities did have a direct effect on mood adjustment, while at the same time creating a platform for spirituality. Bonsai activities, coupled with spirituality contributed greatly to the mental wellbeing of individuals.

Some questions which this study attempted to answer are included; such as the social, political, cultural and personal ramifications of being involved in the art of Bonsai. Baran, (2010b, p.1) questions whether it impacted on one's family, one self, occupational, and daily life and whether the lessons learned were transferred. Psyches, perceptions and concepts were altered by relationships with the Bonsai.

The incessant rhythmic cycles represented in Nature and in a life being fulfilled through the nourishing of a living thing provide a form of achievement which causes our Spirits, to be moved beyond return. Baran (2010a, p.1) asks not if, but to what extent “our Bonsai are designed as alternative versions of our own stature and posture in the world, i.e. (upright vs. windswept, formal vs. informal, silhouette vs. evergreen, etc.) or *suiseki* as

representing us in the world (dark and mysterious vs. precisely defined mountain or hut, solid vs. spirit-opened, etc.)”

Lastly, it is not the impact which we have had on the Bonsai which is important, but rather what the Bonsai meant to us. " To sooth my soul and reconnect me with people and places long ago. It is where I go for better or for worse, in sickness and in health.

The artist’s pain and pleasure of lost treasures are being disregarded. The toil of the styling and caring is quickly forgotten, like the female forgets the pain of childbirth. It is perhaps possible that the artist is successful largely independently of interpersonal confirmation. Ascetic pleasure is found the moment they demonstrate that their expectation, contained in their fantasy, construction, or scientific understanding, coincided with a previously unknown reality, whether in external Nature or human Nature. It is not unusual for this aspect of reality to be named after the discoverer or inventor, who is then identified with what he discovered (Thomä & Kächele, 1987, p. 1), much as the original artist will always be associated with the tree.

### **Recommendations for further research**

The stories and experiences communicated by the Bonsai artists in this research have illustrated how Bonsai can provide the context for healing, growth, power, gratification, and transformation. It may have demonstrated that artistic expression, caring and tending to a tree can be healing and therapeutic. Further research could investigate the possible benefits of healthy self- expression within artistic contexts on body image, self-confidence, and self-esteem with regards to shapes and styles. It may be of use to the psychology profession to be aware of the possible benefits of Nature-assisted therapies, with specific reference to Bonsai.

## References

- Adam, R. (2010, August 15). *Site Visit*. (C. Hermann, Interviewer).
- Adams, W. (2006). William Blake's Integral Psychology: reading Blake and Ken Wilber. *Journal of Transpersonal Psychology*, 38 (1), 55 - 72.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Ando, T. (nd). *What is wabi-sabi?* Retrieved June 15, 2013, from Noble Harbor: [www.nobleharbor.com/tea/chado/WhatisWabi-Sabi-htm](http://www.nobleharbor.com/tea/chado/WhatisWabi-Sabi-htm).
- Assagioli, R. (1974). Psychosynthesis: Height psychology discovering the self and the Self. In P. de Coster, *Some Collected Works of Dr. Roberto Assagioli, M.D.* (pp. 36 - 49). Gent, Belgium: Satsang Press.
- Aten, J. (2004). Bridging the gap between integration research and clinical practice: An interview with Gary R. Collins. *Journal of Psychology and Christianity*, 23 (3), 254 - 257.
- Attride-Stirling, J. (2001). Thematic networks: an analytic tool for qualitative research. *Qualitative Research*, 1 (3), 385 - 405.
- Barak, Y., Savoria, O., Mavashev, S., & Avshalom, B. (2001). Animal-assisted therapy for elderly schizophrenic patients: a one year controlled trial. *American Journal of Geriatric Psychiatry*, 9 (4), 439 - 442.
- Baran, R. (1992). Hachi-No-Ki, a perspective. *ABS Bonsai Journal*, 26 (2), 1.
- Baran, R. (2010a). *A celebration of a grand master's life*. Retrieved April 25, 2012, from Phoenix Bonsai: <http://www.phoenixBonsai.com/JYN.htm>.
- Baran, R. (2010b). *Some of what we don't know about the history of magical miniature landscapes and anomalies*. Retrieved September 2, 2013, from Phoenix Bonsai: [www.phoenixBonsai.com/BigPicture/don'tknow3.html](http://www.phoenixBonsai.com/BigPicture/don'tknow3.html).
- Baran, R. (2012). *How many Bonsai enthusiasts are there?* Retrieved March 19, 2013, from Phoenix Bonsai: [www.phoenixBonsai.com/BigPicture/Census.html](http://www.phoenixBonsai.com/BigPicture/Census.html).
- Barker, S., & Dawson, K. (1998). The effects of animal-assisted therapy on anxiety ratings of hospitalized psychiatric patients. *Psychiatric Services*, 49 (6), 797 - 802.
- Barrotta, P. (2011). James Lovelock, Gaia Theory, and the rejection of fact/value dualism. *Environmental Philosophy*, 8 (2), 95 - 113.
- Bauer-Wu, S. (2002). Psychoneuroimmunology Part II: Mind-body interventions. *Clinical Journal of Oncology Nursing*, 6 (4), 1 - 4.

- Baumeister, R., & Dale, K. S. (1998). Freudian defense mechanisms and empirical findings in modern social psychology: reaction formation, projection, displacement, undoing, isolation, sublimation and denial. *Journal of Personality*, 66 (6), 1081 - 1095.
- Beck, A., & Katcher, A. (1983). *Between pets and people: the importance of animal companionship*. New York: Putnam.
- Bengston, S. (2006). Symbolic spaces of everyday life: work and leisure at home. *Nordicom Review*, 27 (2), 119 - 132.
- Berger, R. (2009). Being in Nature: An innovative framework for incorporating Nature in therapy with older adults. *Journal of Holistic Nursing*, 27 (1), 45 - 50.
- Bodhi, V. (2010 - 2013). *Arahants, Bodhisattvas, and Buddhas*. Retrieved January 12, 2013, from Access to Insight: [www.accesstoinsight.org/lib/authors/bodhi/arahantsbodhisattvas.html](http://www.accesstoinsight.org/lib/authors/bodhi/arahantsbodhisattvas.html).
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2), 77 - 101.
- Brody, S. (2001). Paul Klee: Art, potential space and the transitional process. *Psychoanalytical Review*, 88 (3), pp. 369 - 393.
- Brown, C., McGuire, F., & Voelkl, J. (2008). The link between successful aging and serious leisure. *International Journal of Aging and Human Development*, 66 (1), 73 - 95.
- Buckton, M. (2009). *The Japanese Happi Coat: more than just a festival accessory*. Retrieved October 03, 2012, from Japan i: [www.japan-i.jp/news/japanese\\_happi\\_coat\\_buckton\\_part\\_1.html](http://www.japan-i.jp/news/japanese_happi_coat_buckton_part_1.html).
- Bullit, J. (2005 - 2013). *Sangha*. Retrieved January 12, 2013, from Access to Insight: [www.accesstoinsight.org/ptf/sangha.html](http://www.accesstoinsight.org/ptf/sangha.html).
- Chan, P. (1987). *Bonsai Masterclass*. Boston: Sterling Publishing Company, Inc.
- Chandler, K. (2010). In practice: Rituals in therapy. *Therapy Today*, 21(10). Retrieved January 23, 2013, from <http://www.therapytoday.net/article/show/2192/>.
- Charles, C., & Wheeler, K. (2012). *Children & Nature Worldwide: An exploration of children's experiences of the outdoors and Nature with associated risks and benefits*. Retrieved February 1, 2013, from Children and Nature Network: [www.childrenandNature.org/downloads/CECCNNWorldwideResearch.pdf](http://www.childrenandNature.org/downloads/CECCNNWorldwideResearch.pdf).
- Chaudhary, K., Singh, M., & Pillai, U. (2008). Ethnobotanical survey of Rajasthan - An update. *American-Eurasian Journal of Botany*, 1 (2), 38 - 45.
- Cheshire, C. & Norman, K. (2011). *Japanese gardening and growing Bonsai*. Leicestershire: Anness House.

- Cohen, G. (2006). Research on creativity and aging: The positive impact of the arts on health and illness. *The American Society on Aging*, 30 (1), 7 - 15.
- Cohen, M. J. (1993). Integrated ecology: The process of counselling with Nature. *The Humanistic Psychologist*, 21 (3), 277 - 295.
- Creswell, J. (1998). *Qualitative inquiry and research design: Choosing among five designs*. Thousand Oaks: Sage.
- Creswell, J.W. & Plano-Clarke, V.L. (2007) *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Daniels, V. (2011). *The analytical psychology of Carl Gustav Jung*. Retrieved August 24, 2013, from Jung: [www.matrixmeditations.info/bonusjung.pdf](http://www.matrixmeditations.info/bonusjung.pdf).
- Davis, J. (2000). Rituals as therapy: Therapy as rituals. *Journal of Feminist Family Therapy*, 11 (4), 115 - 130.
- Davis, J. (2006). *What is ecopsychology*. Retrieved April 25, 2012, from John Davis: <http://www.johndavis.com/ep/epdef.htm>.
- Delaney, C. (2005). The Spirituality Scale: development and psychometric testing of a holistic instrument to assess the human spiritual dimension. *Journal of Holistic Nursing*, 23 (2), 145-167.
- Deutsch, E. (1973). *Advaita Vedanta: A philosophical reconstruction*. Maui: University of Hawaii Press.
- DiCicco-Bloom, B., & Crabtree, B. (2006). The qualitative research interview. *Medical Education*, 40, 314 - 321.
- Edwards, S. (2011). Communicating hope with one breath. *HTS Teologiese Studies/Theological Studies*, 67 (2), 1-7.
- Edwards, S. (2012a). Celebrating God in Nature - An integral ecological and practical theological approach.
- Edwards, S. (2012b). Effects of integral breath consciousness workshops on spirituality and health perceptions. *African Journal for Physical, Health Education, Recreation and Dance*, 18 (3), 587 - 597.
- Edwards, S. (2012c). Standardisation of a spirituality scale with a South African sample. *Journal of Psychology in Africa*, 22(4), 655 – 659.
- Ehman, J. (2005). *June 2005 Articles of the Month*. Retrieved February 02, 2013, from ACPE Research Network: [www.acperesearch.net/jun05.html](http://www.acperesearch.net/jun05.html).

Elias, T. (nd). *History of the introduction and establishment of Bonsai in the Western World*. Retrieved from National Bonsai Federation: [http://www.Bonsai-nbf.org/site/images/Elias\\_Paper.pdf](http://www.Bonsai-nbf.org/site/images/Elias_Paper.pdf).

Esbjörn-Hargens, S., & Zimmerman, M. (2009). *Integral Ecology*. Boston: Integral Books.

Fereday, J., & Muir-Chochrane, E. (2006). Demonstrating rigor using thematic analysis: a hybrid approach to inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5 (1), 1.

Ferrans, C., & Powers, M. (1985a). Quality of Life Index: Development and psychometric properties. *Advances in Nursing Science*, 8, 15 - 24.

Ferrans, C., & Powers, M. (1985b). *Questionnaires & Scoring*. Retrieved from Quality of Life Index: <http://www.uic.edu/orgs/qli/questionnaires/questionnairehome.htm>.

Fragar, R., & Fadiman, J. (2005). Transpersonal pioneers: Carl Jung. In *Personality and personal growth (6th Edition)* (p. 56). New York: Pearson Prentice Hall.

Frantz, F., Bruehlman-Senecal, E., & Dolliver, K. (2009). Why is Nature beneficial?: The role of connectedness to Nature. *Environment and Behaviour*, 41, 607 - 643.

Fukumoto, D. (1988). *Saburo Kato: The gentle Spirit of International Bonsai and Peace*. Retrieved February 12, 2013, from FukuBonsai: [www.fukuBonsai.com/5a2.html](http://www.fukuBonsai.com/5a2.html).

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: strategies for Qualitative Research*. Chicago: Aldine Publishing Company.

Glasser, H. (1997). Warwick Fox's assessment of deep ecology. *Environmental Ethics*, 19 (1), 69 - 85.

Gullone, E. (2000). The Biophilia Hypothesis and life in the 21st century: Increasing mental health or increasing pathology? *Journal of Happiness Studies*, 1 (1), 293 - 321.

Hagel, P., & Westergren, A. (2006). The significance of importance: An evaluation of Ferrans and Powers' quality of life index. *Quality of Life Research*, 15 (5), 867 - 876.

Hagen, E. (1999 - 2002). *What is the EEA and why is it important?* Retrieved February 1, 2013, from Institute for Theoretical Biology, Berlin: <http://www.anth.ucsb.edu/projects/human/epfaq/eea.html>.

Hall, D., & Haw, J. (2008). *Growing Bonsai in South Africa*. Dunnotar: JoDa Bonsai Distributors.

Harrington, H. (2004). *Bonsai Basics*. Retrieved April 25, 2012, from Bonsai 4 Me: <http://www.Bonsai4me.com/basics.html>.

Harrington, H. (2012). Bonsai. (C. Hermann, Interviewer).

- Heath, W. (2005). *Babylon: the origin of Bonsai*. Retrieved May 18, 2103, from Art of Bonsai Project: <http://www.artofBonsai.org/forum/viewtopic.php?t=611>.
- Heintzman, P. (2010a). Nature-based recreation and spirituality: A complex relationship. *Leisure Sciences*, 32, 72 - 89.
- Heintzman, P. (2010b). Leisure studies and spirituality: a Christian critique. *Journal of the Christian Society for Konesiology and Leisure Studies*, 1 (1), 19 - 31.
- Henman, R. (2005). A spirituality of obedience: equal in God's eyes only? *Quodlibet Journal*, 7 (2), 1.
- Hermann, C. (2008) Charles Ceronio. *South African Bonsai Association*, 1, (2).
- Hermann, C. (2010) Bonsai in South Africa: A History. *Bonsai in South Africa*, 1 (1).
- Hertzog, C., Kramer, A., Wilson, R., & Lindenburger, U. (2009). Enrichment effects on adult cognitive development. *Association for Psychological Science*, 9 (1), 1 - 65.
- Hill, G. (nd). *Your own Bonsai-en, Prt 1*. Retrieved March 1, 2013, from Cape Bonsai Kai: [www.capeBonsaikai.co.za/articles/300-creating-your-own-special-Bonsai-en-prt-1.html](http://www.capeBonsaikai.co.za/articles/300-creating-your-own-special-Bonsai-en-prt-1.html).
- Hills, P., & Argyle, M. (1998). Positive moods derived from leisure and their relationship to happiness and personality. *Personality and Individual Differences*, 25, 523 - 535.
- Hinds, J., & Sparks, P. (2011). The affective quality of hunab-natural environmental relationships. *Evolutionary Psychology*, 9 (3), 451 - 469.
- Hodus, L. (2003). *Buddhism and Buddhists in China*. (P. Lenssen, Editor) Retrieved January 11, 2013, from The Establishment of Buddhism as the Predominating Religion of China: [222.authorama.com/buddhism-and-buddhists-in-china-4.html](http://222.authorama.com/buddhism-and-buddhists-in-china-4.html).
- Howell, A., Dopko, R., Passmore, H., & Buro, K. (2011). Nature connectedness: Associations with well-being and mindfulness. *Personality and individual differences*, 51, 166 - 171.
- Hubik, D. (1997). *History of Bonsai*. Retrieved August 18, 2012, from Bonsai Site: <http://www.ndsu.edu/pubweb/chiwonlee/plsc211/students20%papers/articles02/avoorhees/Bonsai.txt>.
- Hutchinson, S., Loy, D., Kleiber, D., & Dattilo, J. (2003). Leisure as coping resource: Variations in coping with traumatic injury and illness. *Leisure Sciences*, 25, 143 - 161.
- Jacobs, J. (2008). Gender and collective memory: Women and representation at Auschwitz. *Memory Studies*, 1 (2), 211 - 225.
- Jung, C. (1983). *Memories, dreams & reflections*. London: Random House.
- Kals, E., Schumacher, D., & Montada, L. (1999). Emotional affinity toward Nature as a motivational basis to protect Nature. *Environment and Behaviour*, 31 (10), 178-202.

- Kaplan, D. (1972). Reflections on Eissler's Concept of the Doxalethic Function. *American Imago*, 29 (4).
- Kato, S. (1983). *Bonsai no Kokoro: The spirit and philosophy of Bonsai*. (D. Fukumoto, Ed., & D. Fukumoto, Trans.) Retrieved February 12, 2013, from FukuBonsai: [www.fukuBonsai.com/5a2.html](http://www.fukuBonsai.com/5a2.html).
- Kebs, P. (2013). *Fire and earth*. Retrieved May 18, 2013, from Peter Krebs Bonsaischalen: [www.peter-krebs.de/index.php?page=earth-and-fire](http://www.peter-krebs.de/index.php?page=earth-and-fire).
- Kimura, M., & da Silva, J. (2009). *Ferrans and Powers quality of life index*. Retrieved March 05, 2013, from SciFlo Brazil: [www.scielo.br/scielo.php?pid=S0080-62342009000500014&script=sci\\_arttex&ting=en](http://www.scielo.br/scielo.php?pid=S0080-62342009000500014&script=sci_arttex&ting=en).
- Knoke, J., Burau, J., & Roehrl, B. (2010). Attachment styles, loneliness, quality, and stability of marital relationships. *Journal of Divorce and Remarriage*, 51, 310 - 325.
- Konopack, J., & McAuley, E. (2012). Efficacy-mediated effects of spirituality and physical activity on quality of life: A path analysis. *Health and Quality of Life Outcomes*, 10 (25), 1 - 6.
- Koreshoff, D. (1984). *Bonsai: It's art, science, history and philosophy*. Johannesburg, South Africa: MacMillan South Africa.
- Kramer, S., Friedman, E., & Bernstein, P. (2009). Comparison of the effect of human interaction, animal-assisted therapy and AIBO-assisted therapy on long term care patients with dementia. *Anthrozoos*, 22 (1), 43 - 57.
- Kroenke, K. & Spitzer, R.L. (2002). The PHQ-9: A new depression and anxiety severity measure. *Psychiatric Annals*, 32(9), 1 – 7.
- Kuhn, J. (2001). Toward and ecological humanistic psychology. *Journal of Humanistic Psychology*, 41 (2), 9 - 24.
- Lilienfeld, S., & Alkovitz, H. (2008, June 19). Is animal-assisted therapy really the cat's meow? *Scientific American Mind*.
- Lincoln, V. (2000). Ecospirituality: The pattern that connects. *Journal of Holistic Nursing*, 18 (3), 227 - 244.
- Long, C. (1931). *An informal history of Bonsai*. Retrieved September 29, 2012, from University of Harvard: [arnoldia.arboretum.harvard.edu/pdf/articles/1738.pdf](http://arnoldia.arboretum.harvard.edu/pdf/articles/1738.pdf).
- Lovelock, J. (2006, January 6). *The Earth is about to catch a morbid fever*. Retrieved May 28, 2013, from The Independent: [www.independent.co.uk/voices/commentators/james-lovelock-the-earth-is-about-to-catch-a-morbid-fever-that-may-last-as-long-as-100000-years-523161.html](http://www.independent.co.uk/voices/commentators/james-lovelock-the-earth-is-about-to-catch-a-morbid-fever-that-may-last-as-long-as-100000-years-523161.html).

- Loy, D., Dattilo, J., & Kleiber, D. (2003). Exploring the influence of leisure on adjustment: development of the leisure and Spinal Cord Injury Adjustment model. *Leisure Sciences*, 25, 231 - 255.
- Lutgendorf, S., & Costanzo, E. (2003). psychoneuroimmunology and health psychology: An integrative model. *Brain, Behaviour and Immunity*, 17 (4), 225 - 232.
- MacDonald, M., & Cohen, J. (1981). Trees in the forest: Some components of social skills. *Journal of Clinical Psychology*, 37 (2), 342-347.
- Mahoney, M. & Marcuis, A. (2002). Integral Constructivism and Dynamic Systems in Psychotherapy Processes. *Psycholytic Inquiry*, 22 (5), 794 - 813.
- Mallick, H. (2013, October 14). The Autism Enigma - beauty and silence. *The Star*, p. 1.
- Marquis, A. (2007). What is Integral Theory? *Counselling and Values*, 51 (1), 164 - 179.
- Mayer, F., Frantz, C., Bruehlman-Senecal, E., & Dolliver, K. (2009). Why is Nature beneficial? The role of connectedness to Nature. *Environment & Behavior*, 41 (5), 607 - 643.
- Meyer, W.F., Moore, C. & Viljone, H.G. (1989) *Personality Theories – from Freud to Frankl*. Johannesburg: Lexicon Publishers.
- Miller, S. (1989). *Gaia Hypothesis*. Retrieved May 28, 2013, from ERG: [erg.ucd.ie/arupa/references/gaia.html](http://erg.ucd.ie/arupa/references/gaia.html).
- Moodley, R., & Sutherland, P. (2010). Psychic retreats in other places: Clients who seek healing with traditional healers and psychotherapists. *Counselling Psychology Quarterly*, 23 (3), 267 - 282.
- Moore, N. (1984). The left hand of darkness: aspects of the shadow and individuation. *Journal of Analytical Psychology*, 29, 255 - 275.
- Naka, J. (1973). *Bonsai Techniques I*. Whittier: Bonsai Institute of California.
- Naka, J. (2006). *Bonsai Techniques II*. Whittier: Bonsai Institute of California.
- O'Hara, D.J. & O'Hara, F. (2012) Towards a grounded theory of therapist hope. *Counselling Psychology Review*, 27 (4), 42 – 55.
- Olson, K. (1995). Habitus and body language: towards a critical theory of symbolic power. *Philosophy Social Criticism*, 21 (23), 23 - 49.
- Pakenham, T. (2004). *The Remarkable Baobab*. Cape Town: Jonathan Ball Publishers.
- Pall, W. (2005). *Defining Bonsai*. Retrieved June 2, 2013, from Art of Bonsai Project: [artofBonsai.org/forum/viewtopic.php?t=195](http://artofBonsai.org/forum/viewtopic.php?t=195).
- Pall, W. (2008a). *Lindsay Farr*. Retrieved May 18, 2013, from Art of Bonsai Project: [artofBonsai.org/forum/viewtopic.php?t=1489](http://artofBonsai.org/forum/viewtopic.php?t=1489).

- Pall, W. (2008b). *Vaughn Banting*. Retrieved June 2, 2013, from Art of Bonsai Project: [artofBonsai.org/forum/viewtopic.php?f=23&t=936](http://artofBonsai.org/forum/viewtopic.php?f=23&t=936).
- Pall, W. (2008c). *Ryan Neil*. Retrieved June 02, 2013, from Art of Bonsai Project: <http://artofBonsai.org/forum/viewtopic.php?f=23&t=3860>.
- Paulsen, D. (2007). Wilber's integral philosophy: a summary and critique. *Journal of Humanistic Psychology*, 48 (3), 364 - 388.
- Perrin, J. (2009). *Emotional responses to environmental messages: implications for future environmentally responsible behavioural intentions*. Ann Arbor: ProQuest LLC.
- Pringle, P. (2005). Spatial pleasures. *Space and Culture*, 8 (2), 141 - 159.
- Resnick, S., Warmoth, A., & Serlin, I. (2001). The humanistic psychology and positive psychology connection: Implications for psychotherapy. *Journal of Humanistic Psychology*, 41 (1), 73 - 101.
- Richards, R. (2001). A new aesthetic for environmental awareness: Chaos theory, the beauty of Nature and our broader humanistic identity. *Journal of Humanistic Psychology*, 41 (2), 59 - 95.
- Rosler, S. (2008). Green space development in shrinking cities: opportunities and constraints. *Urbani izziv*, 19 (2), 147 - 152.
- Roszak, T. (1993). *Awakening The Ecological Unconscious: Ecopsychology: healing our alienation from the rest of Creation*. Retrieved January 31, 2013, from Context Institute: Whole system pathways to a thriving future: <http://www.context.org/iclib/ic34/roszak/>.
- Roszak, T. (1996). *Psychology Today*. Retrieved February 1, 2013, from The Nature of Sanity: [www.psychologytoday.com/articles/199601/the-Nature-sanity](http://www.psychologytoday.com/articles/199601/the-Nature-sanity).
- Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55 (1), 68 - 78.
- Satran, G. (1978). Notes on Loneliness. *Journal of the American Academy of Psychoanalysis*, 6 (3).
- Schipperijn, J. (2012). *Institute of Sport Science & Clinical Biomechanics*. Retrieved November 6, 2012, from University of Southern Denmark: [http://svenskbeteendemedicin.se/wp-content/uploads/2012/04/Physical-environment-in-behavioral-analyses\\_jasper-schipperijn.pdf](http://svenskbeteendemedicin.se/wp-content/uploads/2012/04/Physical-environment-in-behavioral-analyses_jasper-schipperijn.pdf).
- Schmitz, D. (2006). *Masahiko Kimura*. Retrieved May 18, 2013, from Art of Bonsai Project: [artofBonsai.org/forum/viewtopic.php?t=942](http://artofBonsai.org/forum/viewtopic.php?t=942).
- Schultz, W. (2002). Inclusion with Nature: The psychology of human-Nature relations. In P. Schmuck, & W. Schultz, *Psychology of sustainable development* (pp. 62 - 78). Norwell: Kluwer Academic.

Seifert, T. (2005). *The Ryff scales of psychological well-being*. Retrieved June 4, 2013, from Center of Inquiry: [www.liberalarts.wabash.edu/ryff-scales.html](http://www.liberalarts.wabash.edu/ryff-scales.html).

Services, U. D. (1999). *Mental Health: A report of the Surgeon General*. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. Rockville, MD: National Institute of Mental Health.

Shafii, M. (1973). Silence in the service of Ego: Psychoanalytical study of meditation. *International Journal of Psycho-Analysis*, 54, 431 - 444.

Simonton, D. (1992). *Age and Achievement: Genius & Eminence*. Oxford: Pergamon Press.

Society, I. M. (2012). *Glossary of Buddhist Terms*. Retrieved January 12, 2013, from Insight Meditation Society: [www.dharma.org/resources/glossary](http://www.dharma.org/resources/glossary).

Solistyo, B. (2013). Meaning of Bonsai. (C. Hermann, Interviewer).

Sørensen, K. (2009). *Integral Psychosynthesis. A comparison of Wilber and Assagioli*. Retrieved August 4, 2013, from Integral World: [www.integralworld.net/sorenson2.html](http://www.integralworld.net/sorenson2.html).

Spitzer, R., Williams, J., & Kroenke, K. (n.d.). *Instruction Manual*. Retrieved March 19, 2013, from PHQ and GAD-7 Instructions: <http://www.phqscreeners.com/instructions/instructions.pdf>.

Springer, K., Pudrovskaya, T., & Hauser, R. (2011). Does psychological well-being change with age? Longitudinal tests of age variations and further exploration of the multidimensionality of Ryff's model of psychological well-being. *Social Science Research*, 40, 392 - 398.

Stevens, R. (2006). *Behind the Rules*. Retrieved December 18, 2013, from The Art of Bonsai Project: [www.artofBonsai.org/feature\\_articles/rules.php](http://www.artofBonsai.org/feature_articles/rules.php).

Terre Blanche, M., Durheim, K., & Painter, D. (2006) *Research in practice: Applied methods for the social sciences*. Cape Town: University of Cape Town Press.

Theodoulides, A., & Armour, K. (2001). Personal, social and moral development through team games: some critical questions. *European Physical Education Review*, 7 (1), 5 - 23.

Thomä, H., & Kächele, H. (1987). *Psychoanalytical Practice: 1 - Principles*. Retrieved June 24, 2013, from Ebscohost: [ehis.ebscohost.com/ehost/detail?sid=df35c709-398d4222-8f97-db4cd59c27e%40sessionmgr10&vid](http://ehis.ebscohost.com/ehost/detail?sid=df35c709-398d4222-8f97-db4cd59c27e%40sessionmgr10&vid).

Trenberth, L. (2005). The role, Nature and purpose of leisure and its contribution to individual development and well-being. *British Journal of Guidance and Counselling*, 33 (1), 1 - 7.

Valliant, G.E. (1992) *Ego mechanisms of defense: a guide for clinicians and researchers*. Washington: American Psychiatric Press.

- Van der Wart, A. (2013) *Amokmakende draadspringers*. eBook.
- Vaughan, F. (2002). What is spiritual intelligence? *Journal of Humanistic Psychology*, 42 (16), 16 - 33.
- Vining, J., Merrick, M., & Price, E. (2008). The distinction between humans and Nature: Human perceptions of connectedness to Nature and elements of the natural and unnatural. *Human Ecology Review*, 15 (1), 1 - 11.
- Wada, H. (2003). Chapter 15. The applicability of self psychology to psychotherapy with the elderly: with emphasis on twinship self-object. *Progress in Self Psychology*, 19, pp. 331 - 343.
- Weinstein, N., Przybylski, A., & Ryan, R. (2009). Retrieved February 4, 2013, from Self Determination Theory: [http://www.selfdeterminationtheory.org/SDT/documents/2009\\_WeinsteinPrzybylskiRyan\\_Nature.pdf](http://www.selfdeterminationtheory.org/SDT/documents/2009_WeinsteinPrzybylskiRyan_Nature.pdf).
- Weissman, P. (1971). The artist and his objects. *International Journal of Psycho-Analysis*, 52.
- Wessa, P. (2013). *Free Statistics Software*. Retrieved June 23, 2013, from Office for Research Development and Education: <http://www.wessa.net/>.
- Wickens, G. (1982). The Baobab: Africa's Upside-down tree. In R. B. Gardens, *Kew Bullitin* 37, 173 - 209).
- Wilber, K. (1991). *Grace and grit*. Boston: Shambala.
- Wilber, K. (1996). *The Atman Project*. Wheaton: The Theosophical Publilshing House.
- Wilber, K. (1997). An integral theory of consciousness. *Journal of Consciousness Studies* , 4 (1), 71 - 92.
- Wilber, K. (1998). *The essential Ken Wilber: An introductory reader*. Boston: Shambala.
- Wilber, K. (2000a). *Integral Psychology*. Boston: Shambala.
- Wilber, K. (2000b). *Sex, Ecology, Spirituality: the spirit of evolution*. Boston: Shambhala Publications.
- Wilber, K. (2006). *Integral Spirituality*. Boston: Shambala.
- Wilber, K. (2012). *Outline of an Integral Psychology*. Retrieved April 25, 2012, from Ken Wilber: [http://Wilber.shambala.com/html/books/psych\\_model/psych\\_model1.cfm](http://Wilber.shambala.com/html/books/psych_model/psych_model1.cfm).
- Wilpert, W. (2001). A spiritual third way. *Tikkun Magazine* , 16 (4), p. 44.
- Wong, Y., & Torres, R. (2005). Research commentary on The Spirituality Scale. *Journal of Holistic Nursing*, 23, 168 - 171.

Zachariae, R. (2009). Psychoneuroimmunology: A bio-psycho-social approach to health and disease. *Scandinavian Journal of Psychology*, 50, 645-651.

Zerzan, J. (2010). Silence. *Gaia Scientia*, 4 (1), 3 - 6.

Appendix 1a

## Spirituality Scale

Please indicate your level of agreement to the following statements by circling the appropriate number that corresponds with the answer key.

Key:

1. Strongly Disagree
2. Disagree
3. Mostly disagree
4. Mostly agree
5. Agree
6. Strongly Agree

1. I find meaning in my life experiences.	1 2 3 4 5 6
2 I have a sense of purpose.	1 2 3 4 5 6
3. I am happy about the person I have become.	1 2 3 4 5 6
4. I see the sacredness in everyday life.	1 2 3 4 5 6
5. I meditate to gain access to my inner spirit	1 2 3 4 5 6
6. I live in harmony with nature.	1 2 3 4 5 6
7. I believe there is a connection between all things that I cannot see but can sense.	1 2 3 4 5 6
8. My life is a process of becoming.	1 2 3 4 5 6
9. I believe in a Higher Power/Universal Intelligence.	1 2 3 4 5 6
10. I believe that all living creatures deserve respect.	1 2 3 4 5 6
11. The earth is sacred.	1 2 3 4 5 6
12. I value maintaining and nurturing my relationships with others.	1 2 3 4 5 6

<b>13. I use silence to get in touch with myself.</b>	<b>1 2 3 4 5 6</b>
<b>14. I believe that nature should be respected.</b>	<b>1 2 3 4 5 6</b>
<b>15. I have a relationship with a Higher Power/Universal Intelligence.</b>	<b>1 2 3 4 5 6</b>
<b>16. My spirituality gives me inner strength.</b>	<b>1 2 3 4 5 6</b>
<b>17. I am able to receive love from others.</b>	<b>1 2 3 4 5 6</b>
<b>18. My faith in a Higher Power/Universal Intelligence helps me cope during challenges in my life.</b>	<b>1 2 3 4 5 6</b>
<b>19. I strive to correct the excesses in my own lifestyle patterns/practices.</b>	<b>1 2 3 4 5 6</b>
<b>20. I respect the diversity of people.</b>	<b>1 2 3 4 5 6</b>
<b>21. Prayer is an integral part of my spiritual nature.</b>	<b>1 2 3 4 5 6</b>
<b>22. At times, I feel at one with the universe.</b>	<b>1 2 3 4 5 6</b>
<b>23. I often take time to assess my life choices as a way of living my spirituality.</b>	<b>1 2 3 4 5 6</b>

© Copyright, 2003 by C. Delaney

**Note:** Those interested in using the SS for clinical or research purposes are asked to contact Dr. Colleen Delaney RN, PhD, AHN-BC Associate Professor, Western Connecticut State University, 181 White St. Danbury, CT 06810

delaneyc@wcsu.edu

## Appendix 1b

### Spirituality Scale Scoring Sheet

The highest possible score that can be obtained on the 23-item SS is 138 and the lowest, 23. It is theorized that scores between 23-60 indicated very low levels of spirituality, 61 – 91 indicated low spirituality, 92 – 117 moderate spirituality, and 118-138 suggested high levels of spirituality

Total SS \_\_\_\_\_

#### Self-Discovery

The range of possible scores on the self-discovery scale was 4-24

Questions :

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

Total \_\_\_\_\_

#### Relationships

6-item relationship subscale has a possible scoring range of 6 – 36

Questions:

10 \_\_\_\_\_

12 \_\_\_\_\_

14 \_\_\_\_\_

17 \_\_\_\_\_

19 \_\_\_\_\_

20 \_\_\_\_\_

Total \_\_\_\_\_

**Eco-Awareness**

13-item subscale has a possible range of 13 – 78.

Questions:

5 \_\_\_\_\_

9 \_\_\_\_\_

6 \_\_\_\_\_

15 \_\_\_\_\_

7 \_\_\_\_\_

18 \_\_\_\_\_

8 \_\_\_\_\_

21 \_\_\_\_\_

11 \_\_\_\_\_

13 \_\_\_\_\_

16 \_\_\_\_\_

22 \_\_\_\_\_

23 \_\_\_\_\_

**Total** \_\_\_\_\_

## Appendix 2

### PATIENT HEALTH QUESTIONNAIRE (PHQ-SADS)

This questionnaire is an important part of providing you with the best health care possible. Your answers will help in understanding problems that you may have. Please answer every question to the best of your ability

**A. During the last 4 weeks, how much have you been bothered by any of the following problems?**

	Not bothered (0)	Bothered a little (1)	Bothered a lot (2)
1. Stomach pain.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Back pain.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Pain in your arms, legs, or joints (knees, hips, etc.)...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Feeling tired or having little energy.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Trouble falling or staying asleep, or sleeping too much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Menstrual cramps or other problems with your periods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Pain or problems during sexual intercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Headaches.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Chest pain.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Dizziness..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Fainting spells.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Feeling your heart pound or race....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Shortness of breath.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Constipation, loose bowels, or diarrhea	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Nausea, gas, or indigestion.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PHQ-15 Score  = \_\_\_\_ + \_\_\_\_

**B. Over the last 2 weeks, how often have you been bothered by any of the following problems?**

	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
1. Feeling nervous anxiety or on edge .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Not being able to stop or control worrying.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Worrying too much about different things.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Trouble relaxing .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Being so restless that it is hard to sit still .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Becoming easily annoyed or irritable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Feeling afraid as if something awful might happen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GAD-7 Score  = \_\_\_\_ + \_\_\_\_ + \_\_\_\_

**C. Questions about anxiety attacks.**

a. In the last 4 weeks, have you had an anxiety attack — suddenly feeling fear or panic?

**NO**                      **YES**

**If you checked "NO", go to question E.**

	<input type="checkbox"/>	<input type="checkbox"/>
b. Has this ever happened before?	<input type="checkbox"/>	<input type="checkbox"/>
c. Do some of these attacks come <u>suddenly out of the blue</u> — that is, in situations where you don't expect to be nervous or uncomfortable?	<input type="checkbox"/>	<input type="checkbox"/>
d. Do these attacks bother you a lot or are you worried about having another attack?	<input type="checkbox"/>	<input type="checkbox"/>
e. During your last bad anxiety attack, did you have symptoms like shortness of breath, sweating, or your heart racing, pounding or skipping?	<input type="checkbox"/>	<input type="checkbox"/>

**D. Over the last 2 weeks, how often have you been bothered by any of the following problems?**

	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
1. Little interest or pleasure in doing things.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Feeling down, depressed, or hopeless. ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Trouble falling or staying asleep, or sleeping too much.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Feeling tired or having little energy.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Poor appetite or overeating.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down. ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Trouble concentrating on things, such as reading the newspaper or watching television.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual. ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Thoughts that you would be better off dead or hurting yourself in some way. ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PHQ-9 Score**  = \_\_\_\_ + \_\_\_\_ + \_\_\_\_

**E. If you checked off any problems on this questionnaire, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?**

**Not difficult  
at all**

**Somewhat  
difficult**

**Very  
difficult**

**Extremely  
difficult**

Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display or distribute.

## Appendix 3a

### Ferrans and Powers QUALITY OF LIFE INDEX® GENERIC VERSION - III

PART 1. For each of the following, please choose the answer that best describes how *satisfied* you are with that area of your life. Please mark your answer by circling the number. There are no right or wrong answers.

<b>HOW SATISFIED ARE YOU WITH:</b>	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
1. Your health?	1	2	3	4	5	6
2. Your health care?	1	2	3	4	5	6
3. The amount of pain that you have?	1	2	3	4	5	6
4. The amount of energy you have for everyday activities?	1	2	3	4	5	6
5. Your ability to take care of yourself without help?	1	2	3	4	5	6
6. The amount of control you have over your life?	1	2	3	4	5	6
7. Your chances of living as long as you would like?	1	2	3	4	5	6
8. Your family's health?	1	2	3	4	5	6
9. Your children?	1	2	3	4	5	6
10. Your family's happiness?	1	2	3	4	5	6
11. Your sex life?	1	2	3	4	5	6
12. Your spouse, lover, or partner?	1	2	3	4	5	6
13. Your friends?	1	2	3	4	5	6
14. The emotional support you get from your family?	1	2	3	4	5	6
15. The emotional support you get from people other than your family?	1	2	3	4	5	6

(Please Go To Next Page)

© Copyright 1984 & 1998 Carol Estwing Ferrans and Marjorie J. Powers

<b>HOW SATISFIED ARE YOU WITH:</b>	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
16. Your ability to take care of family responsibilities?	1	2	3	4	5	6
17. How useful you are to others?	1	2	3	4	5	6
18. The amount of worries in your life?	1	2	3	4	5	6
19. Your neighborhood?	1	2	3	4	5	6
20. Your home, apartment, or place where you live?	1	2	3	4	5	6
21. Your job (if employed)?	1	2	3	4	5	6
22. Not having a job (if unemployed, retired, or disabled)?	1	2	3	4	5	6
23. Your education?	1	2	3	4	5	6
24. How well you can take care of your financial needs?	1	2	3	4	5	6
25. The things you do for fun?	1	2	3	4	5	6
26. Your chances for a happy future?	1	2	3	4	5	6
27. Your peace of mind?	1	2	3	4	5	6
28. Your faith in God?	1	2	3	4	5	6
29. Your achievement of personal goals?	1	2	3	4	5	6
30. Your happiness in general?	1	2	3	4	5	6
31. Your life in general?	1	2	3	4	5	6
32. Your personal appearance?	1	2	3	4	5	6
33. Yourself in general?	1	2	3	4	5	6

(Please Go To Next Page)

© Copyright 1984& 1998 Carol Estwing Ferrans and Marjorie J. Powers

**PART 2.** For each of the following, please choose the answer that best describes how ***important*** that area of your life is to you. Please mark your answer by circling the number. There are no right or wrong answers.

<b>HOW IMPORTANT TO YOU IS:</b>	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
1. Your health?	1	2	3	4	5	6
2. Your health care?	1	2	3	4	5	6
3. Having no pain?	1	2	3	4	5	6
4. Having enough energy for everyday activities?	1	2	3	4	5	6
5. Taking care of yourself without help?	1	2	3	4	5	6
6. Having control over your life?	1	2	3	4	5	6
7. Living as long as you would like?	1	2	3	4	5	6
8. Your family's health?	1	2	3	4	5	6
9. Your children?	1	2	3	4	5	6
10. Your family's happiness?	1	2	3	4	5	6
11. Your sex life?	1	2	3	4	5	6
12. Your spouse, lover, or partner?	1	2	3	4	5	6
13. Your friends?	1	2	3	4	5	6
14. The emotional support you get from your family?	1	2	3	4	5	6
15. The emotional support you get from people other than your family?	1	2	3	4	5	6

(Please Go To Next Page)

© Copyright 1984 & 1998 Carol Estwing Ferrans and Marjorie J. Powers

<b>HOW IMPORTANT TO YOU IS:</b>	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
16. Taking care of family responsibilities?	1	2	3	4	5	6
17. Being useful to others?	1	2	3	4	5	6
18. Having no worries?	1	2	3	4	5	6
19. Your neighborhood?	1	2	3	4	5	6
20. Your home, apartment, or place where you live?	1	2	3	4	5	6
21. Your job (if employed)?	1	2	3	4	5	6
22. Having a job (if unemployed, retired, or disabled)?	1	2	3	4	5	6
23. Your education?	1	2	3	4	5	6
24. Being able to take care of your financial needs?	1	2	3	4	5	6
25. Doing things for fun?	1	2	3	4	5	6
26. Having a happy future?	1	2	3	4	5	6
27. Peace of mind?	1	2	3	4	5	6
28. Your faith in God?	1	2	3	4	5	6
29. Achieving your personal goals?	1	2	3	4	5	6
30. Your happiness in general?	1	2	3	4	5	6
31. Being satisfied with life?	1	2	3	4	5	6
32. Your personal appearance?	1	2	3	4	5	6
33. Are you to yourself?	1	2	3	4	5	6

© Copyright 1984 & 1998 Carol Estwing Ferrans and Marjorie J. Powers

## Appendix 3b

### Description of Scoring for the Ferrans and Powers Quality of Life Index (QLI)

*NOTE: This is a description of the steps for calculating the five scores of the Quality of Life Index: total scale, health and functioning subscale, social and economic subscale, psychological/spiritual subscale, and family subscale. To calculate the scores, we recommend using the computer syntax for SPSS-PC, which is included in this web site.*

STEPS	DESCRIPTION
<b><u>OVERALL QLI SCORE (overall quality of life)</u></b>	
1. Recode satisfaction scores	To center the scale on zero, subtract 3.5 from satisfaction response for each item. (This will produce responses of -2.5, -1.5, -.5, +.5, +1.5, +2.5.)
2. Weight satisfaction responses with the paired importance responses.	Multiply the recoded satisfaction response by the raw importance response for each pair of satisfaction and importance items.
3. Obtain preliminary sum for the overall (total) score.	Add together the weighted responses obtained in step 2 for all of the items.
4. Obtain final overall (total) QLI score.	To prevent bias due to missing data, divide each sum obtained in step 3 by the number of items answered by that individual. (At this point the possible range for scores is -15 to +15.) Next, to eliminate negative numbers for the final score, add 15 to every score. This will produce the final overall (total) QLI score. (Possible range for the final scores = 0 to 30).

#### **SUBSCALE SCORES**

*The same steps are used to calculate subscale scores as total scores. The only difference is that the calculations are performed using subsets of items, rather than on all of the items.*

1. Recode satisfaction scores	To center the scale on zero, subtract 3.5 from the satisfaction response for each item. (This will produce responses of -2.5, -1.5, -.5, +.5, +1.5, +2.5.) <i>This is exactly the same step as #1 above.</i>
-------------------------------	--

- |    |   |  |
|----|---|--|
| 2. | Weight satisfaction responses with the paired importance responses. | Multiply the recoded satisfaction response by the raw importance for each pair of satisfaction and importance items. <i>This is exactly the same step as # 2 above.</i>  |
| 3. | Obtain preliminary sum for the subscale score.                      | Add together the weighted responses obtained in step 2 <u>for the items that compose the subscale.</u>   |
| 4. | Obtain final subscale score.  | To prevent bias due to missing data, divide each sum obtained in step 3 by the number of items answered <u>in that subscale</u> for that individual. (At this point the possible range for score is -15 to +15. <i>This is the possible range for all four of the subscales and for the overall (total) score. The possible range is the same for all five scores even though they have different numbers of items, because we have divided the preliminary sum by the number of items answered for each one.</i> ) Next, to eliminate negative numbers for the final score, add 15 to every score. <i>It is always the number 15 that is added, regardless of which subscale score is being calculated.</i> This will produce the final subscale score. (Possible range for the final scores = 0 to 30.) <i>The possible range for the final scores is the same for all four subscales and for the overall (total) score.</i> |
-

## Appendix 4

### Bonsai Questionnaire

Directions: Please answer the following questions about your demographic characteristics. Please place a cross in the block that is most applicable to you. The information will be kept confidential and will only be used to prepare a general profile of study participants. Names will be kept confidential at all times. All research protocol will be maintained.

Age	>25	26 – 40	41 – 60	60<
Gender			Male	Female
Living arrangements	Single	Married/Living together	Divorced	Widowed
Are you	Left handed		Right handed	
How many bonsai's do you own	1 – 5	6 – 20	20 – 50	51+
How many show bonsai's do you own	1	2 – 5	10 – 20	20+
Which would describe you best?	I am a grower	I am a collector	I am a seller	I don't own any
Do you	Work on your own bonsai		Employ someone to work on it for you.	
How many hours per week do you spend working on your trees?	1 – 2	2 – 3	4 – 10	10+
How many hours per week do you spend in your bonsai garden	Stroll through it daily	Stroll through it once a week	Hardly get there	
Do you follow and adhere to the rules of bonsai	Yes, strongly	Somewhat	I know of them, but don't	Not at all
Do you belong to a formal club	Yes		No	
Do you attend regular workshops	Yes		No	

Do you attend bonsai conferences	Yes	No
Have you travelled internationally to attend conferences	Yes	No
Have you ever been invited to do a bonsai demonstration locally	Yes	No
Have you ever been invited to do a bonsai demonstration internationally	Yes	No
Have you found that by doing bonsai, you are able to calm yourself or it has a calming effect on you?	Yes	No
Would you say that doing bonsai or not being able to work on your trees, has an effect on your mood?	Yes	No

## **Appendix 5**

### **Bonsai Interview Questionnaire:**

*Please would you answer the following questions:*

1. What does bonsai mean to you?
2. What has bonsai meant in your life?
3. What influence has it had on your life?
4. Something of a more personal nature: Has anything in your life ever happened for you to turn to working on your trees to ease the pain, eg, death of a loved one?
5. How would your life be without bonsai?

## Appendix 6

### Letter of Informed Consent to participate in study.

You are being invited to take part in a research study conducted by Carroll Hermann from the University of Zululand, South Africa on the meaning of bonsai in your life. Please take the time to read the following information carefully.

The purpose of this study is: to investigate whether bonsai has a healing or calming effect on your life.

Your expected time commitment for this study is approximately 1 (one) hour. You will be interviewed by the researcher in an unstructured way and general questions may lead to more in depth probing. You will also be asked to complete a questionnaire on your demographics, bonsai activities and commitment and a health and spiritual involvement.

The risks of this study are minimal. The topics in the survey may make some respondents feel uncomfortable. You may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

There will be no direct benefit to you for your participation in this study. However, we hope that the information obtained from this study may involve development of rehabilitation opportunities and theories.

Every effort will be made by the researcher to preserve your confidentiality including assigning code names/numbers for participants that will be used on all researcher notes and documents.

Notes, interview transcriptions, and transcribed notes and any other identifying participant information will be kept in a locked file cabinet in the personal possession of the researcher. Records of the study might be kept for an indefinite period to enable further studies or academic papers.

**Information from this research will be used solely for the purpose of this study and any publications that may result from this study.** Participant data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. These incidents include, but may not be limited to, incidents of abuse and suicide risk.

Should you have any questions about the research or any related matters, please contact the researcher at [chermann@pan.uzulu.ac.za](mailto:chermann@pan.uzulu.ac.za)

Your participation in this study is voluntary, but you may withdraw at any stage and your records will be destroyed. If you do decide to take part in this study, you will be asked to sign a consent form.

There are no costs to you for your participation in this study and there will be no monetary compensation to you for your participation in this study.

### **Available sources of information:**

1. Any further questions you have about this study will be answered by the Principal Researcher:

Name: Ms. Caroll Hermann

Phone Number: (+27) 82 567 7583

2. Any questions you may have about your rights as a research subject will be answered by the Supervisor of this study:

Name: Professor J.D. Thwala

Phone Number: (+27) 35 902 6611

### **Consent:**

By signing this consent form, I confirm that I have read and understood the information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Signature \_\_\_\_\_ Date \_\_\_\_\_

## Appendix 7

### Bonsai Rules

a. A general approach to bonsai (Naka, *Bonsai Techniques I*, 1973, p. 15), should

always include basics such as:

1. Hardy plants must be collected or selected, due to vigorous training of tree.
2. Size should be considered in relation to the experience of bonsaist.
3. Roots should be spreading in all directions, splitting at the base of the trunk.
4. The trunk should taper upwards, unless the species in nature does not demand it, as with a baobab.
5. It is advisable for the trees to have an apex.
6. The primary branch should be thick and lower than the others
7. Secondary branches should have an abundance of foliage from the base.
8. Novice bonsai artists should start with an upright style.
9. Every tree should have a “front”, that is a side that creates the most pleasant viewing experience. (ibid, p. 16).
10. Finally, the bonsai should be in symmetry, balance and proportion.

b. Trunk and Nebari Rules:

1. The height of the tree should be six times the circumference of the trunk.
2. The trunk should lean marginally toward the bonsaist.
3. The trunk should depart at the base of the tree to visually anchor the bonsai.
4. Roots should radiate outwards from the departure point.
5. Naka is quite adamant that no viewer should feel that roots are “poking” at the eye. He refers to this analogy quite often though his book (Naka, *Bonsai Techniques I*, 1973, pp. 29 - 30).

6. Apex should lean toward the bonsaist and taper as it ascends.
  7. The trunk should not curve and appear “rounded” toward the artist.
  8. The apex of the tree should follow the direction set by the base so as to maintain flow.
  9. The trunk line should not move 'back on itself' so as to create a 'C' curve and “move away” from the artist.
  10. For formal and informal upright styles, the apex should remain directly over the base.
  11. In informal uprights, too many 'S' curves will be tiresome to the viewer and is generally referred to as “cookie-cutter” bonsai.
  12. As a tree ascends the curves should be closer together depending on branch placement which should always be on the outward “S” bend.
  13. A tree should have only one apex, according to Naka (1973, p. 40).
  14. Twin tree trunks should split at the base and not higher up.
- c. Branches:
1. A number one rule in bonsai is that no branches should cross, which is
  2. more of an aesthetic rule, than art or natural rule. Branches should also not cross the trunk.
  3. No branches should point directly at artist or viewer.
  4. The first branch should be placed roughly up from one third of the height of the tree.
  5. Subsequent branches should be placed at one third the remaining distance to the top of the tree.
  6. Branch size should be in proportion to the trunk. Branches should not be thicker than one third the trunk circumference.

7. A very controversial rule is that first branches should be placed to the left or the right, and second branch right (or left), third branch should be back branch.
  8. Branches should no parallel branches and all should be visually alternate.
  9. Branches should diminish in size and circumference as they rise.
  10. A space should be left between the branches to 'Let the birds fly through'.
  11. First and second branches (or also known as “Left and Right” branches) should be positioned forward of the mid line to 'invite' the observer.
  12. First, second, and third branches are roughly 120 degrees apart, with the back branch not directly behind the tree.
  13. Branches should not create a 'wheel and spoke', “octopus”, or “bicycle bar” impression, (branches directly opposite each other).
  14. Branches should create a silhouette of a scalene triangle with the apex representing God or a Deity, the middle corner, man and the lower corner earth.
  15. To create the impression of an old tree, the branches must be wired down. Young trees have ascending branches. The branches near and in
  16. the apex can be horizontal or upright as this represents the young part of the tree.
  17. Branches for cascades also commonly follow the rules for uprights, except that the trunk in this instance moves downward.
  18. In twin trees, the external branches of both trees create the triangle of foliage.
  19. A jin is never to be hidden in foliage.
- d. Pots:
1. A tree is never placed in the centre of a pot, it should be placed behind the mid line of the pot, and to the left or right of the centerline with the “front” facing the observer.

2. The depth of the pot should be the circumference of the trunk, but there are exceptions for this rule, such as for cascades and to an extent the climate of the region where the bonsai is growing.
3. Coloured glazed pots can be used for flowering and fruiting trees and the colours should supplement the flower color.
4. The width of the pot should be two thirds of the height of the tree. For very short trees, the width should be two thirds of the spread of the branches of tree.
5. The style of the pot should match the style of the tree. Uprights without much movement display best in rectangular pots, informal uprights with a lot of trunk movement in oval or round pots whereas very large trees look best in deep rectangular pots.

## Appendix 8

**Delaney, Colleen**   
To: Carol Hermann  
Cc: John Ehman  
RE: Spirituality scale

10 August 2012 at 5:38 PM

[Hide Details](#)

3

---

Hi Carol,

Thank you for your interest in the Spirituality Scale. You have my permission to use the SS. I just ask that you share your study results with me as I am keeping a file of the different uses of the SS in research and practice.

The SS is attached...there is no cost. I am also attaching the scoring key.

Best of luck with your research!  
Colleen

Colleen Delaney PhD, RN, AHN-BC  
Associate Professor  
University of Connecticut  
School of Nursing  
231 Glenbrook Road  
Storrs, CT 06269-2026  
Phone: 860-486-4887

---

From: Carol Hermann [[carollh@telkomsa.net](mailto:carollh@telkomsa.net)]  
Sent: Friday, August 10, 2012 10:35 AM  
To: Delaney, Colleen  
Cc: John Ehman  
Subject: Fwd: Spirituality scale

From: Carol Hermann <[carollh@telkomsa.net](mailto:carollh@telkomsa.net)<<mailto:carollh@telkomsa.net>>>  
Date: 01 August 2012 4:14:56 PM SAST  
To: [Colleen.Delaney@uconn.edu](mailto:Colleen.Delaney@uconn.edu)<<mailto:Colleen.Delaney@uconn.edu>>

Dear Dr. Delaney,

I am currently doing my D Phil at the University of Zululand in South Africa and my topic is "Integral Eco-Psychological investigation of Bonsai principles, meaning and healing".

My topic involves a theme of spirituality. I kindly request permission to use your "Spirituality Scale" (accessed at <http://www.acperesearch.net/jun05.html>), which seems to cover the emphasis of my research question.

Kindly advise of costs involved as well as any scoring keys.

Should you have any queries, please do not hesitate to contact me.

Kind regards,

Mrs. Carol Hermann  
(Computer Generated)  
Begin forwarded message:

Dear Mrs. Herman,

Thank you for your email and interest in the Quality of Life Index. I am pleased to grant you permission to use the Quality of Life Index for your study, as described in your email below. Please be sure to include the copyright information in all forms of the Quality of Life Index that you send to your participants. Our website contains a great deal of information that you will find useful: [www.uic.edu/orgs/qli](http://www.uic.edu/orgs/qli)<<http://www.uic.edu/orgs/qli>>.

Good luck with your study and the completion of your DPhil.

Sincerely,

Carol Estwing Ferrans, PhD, RN, FAAN  
Professor and Associate Dean for Research  
Co-Director, UIC Center of Excellence in Eliminating Health Disparities  
Director, Community Engagement and Research Core, UIC Center for Clinical and Translational Science  
University of Illinois at Chicago  
College of Nursing (M/C 802)  
845 S. Damen Avenue (Room 606)  
Chicago, IL 60612  
Phone 312.996.8445  
Fax 312.996.4979