Horticulture, Humans and Health: Science and Psychology Validate Ancient Cultures

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Horticultural therapy is the engagement of a client in horticultural activities facilitated by a trained therapist to achieve specific and documented treatment goals. This is an active process which occurs in the context of a well established treatment plan where the process itself is considered the therapeutic activity rather than any type of end product. Horticultural therapy programs can be found in a wide variety of healthcare, rehabilitative, and residential settings.

Horticultural Therapists

Horticultural therapists are specially educated and trained professionals who involve the client in any phase of gardening - from propagation to selling products - as a means of bringing about many types of improvements in their lives.

Certification

Currently, licensing and certification are not required for horticultural therapists. However, credibility in this area is enhanced through certification and licensure. The American Horticulture Therapy Association (AHTA) offers voluntary professional registration for horticultural therapists that meet specific education and experience criteria.

There are many types of horticulture therapists and settings in which they work There are Healing Gardens, Therapeutic Gardens, Horticultural Therapy Gardens, and Restorative Gardens.



Benefits of Horticultural Therapy and Therapeutic Gardens:

The benefits of involvement in horticultural activities and exposure to nature can be seen in cognitive, psychological, social, and physical realms and research continues to reveal these connections across many groups of people. The following list includes some of the benefits that have been cited in the literature. Please note that many of these studies report on specific populations and the benefits may or may not be applicable to all groups.

During my sabbatical I explored new areas of information and research in the Human Services field that will impact our curriculum and approaches to students at Lane Community College in

the future. In addition, this information will assist Lane Community College as a whole in expanding existing programs (both academic and professional technical). I did this by studying Horticulture Therapy.

Horticulture Therapy is a quickly evolving field in Human Services, Juvenile Justice and Psychology. This field has been growing by leaps and bounds both in America and abroad. There is a plethora of new research being conducted in this field at several Universities and medical facilities throughout the United States and Canada. Most of the Human Services providers in Oregon are moving toward this environmental, holistic approach to therapy. In fact, PeaceHealth/RiverBend and McKenzie Willamette Hospital are already planning accommodations in which to implement this approach at their new facilities. In addition, the new Psychiatric facility that will be built in Lane County will be employing Horticulture Therapists. Lane Community College (Human Services and other programs here) has already been approached in order to provide workers in this field. This sabbatical gave me

the needed time to evaluate current information in this field.



In order to be competitive and informative in the Human Services field, we must stay abreast of all the current advances in this field. Like many other fields, Human Services field is undergoing a paradigm shift towards environmental therapies. This important evolving field must be incorporated into our curriculum as soon as possible. I have identified five areas of research which we have not yet incorporated into our curriculum which must be integrated into our studies if we are to remain current in our practices. The areas are: 1) the use of environmental factors in treating and assisting geriatric clients; 2) the use of environmental methods in working with developmentally challenged and special needs youth; 3) the use of horticulture therapy in the human services field with emotionally and socially challenged adults; 4) the use of environmental psychology and horticulture therapy in the treatment of addictions, and 5) the use of environmental psychology and horticulture therapy in conjunction with sustainable work environments in improving the lives of students and faculty.

During my sabbatical I attended three essential workshops offered by the American Horticultural Therapy Association, which address the research needs mentioned above.

I worked with Teresia Hazen, HTR at Legacy Health System, Portland, OR. Legacy Health System is the closest area certified to train individuals wishing to become certified in training and new program management. In order to incorporate this new research into Lane Community College, I worked with Legacy to obtain the most up-to-date research possible from certified trainers. I actually started this process before my sabbatical and will continue it after.



While in Portland, Oregon I also consulted with Hoichi Kurisu and Koichi John Kurisu. These individuals have been working in this field for years, building traditional Japanese Gardens for hospitals and treatment centers internationally. In fact, Legacy Health Systems, implement Kurisus' work in the treatment of their patients. Not only did this research assist me in getting the answers I need to develop Lane Community College's short- and long-term goals, it will also assist me in understanding the history of this field, along with implementing possible Cooperative education sites in the future.



One of the most impressive parts of my sabbatical was the tour and training at Betty Ford Alpine Gardens Clinic in Vale, Colorado. This clinic is using Horticulture therapy not only for the holistic environmental effects, but also for the treatment and restorative effects that gardening has on the youth and adults in treatment at that facility. The time spent here allowed me to achieve new research available on gardens outside of Oregon. I was able to work with disadvantaged youth at this site.



While in Colorado, I was also able to work with the Department of Horticulture & Landscape Architecture, Colorado State University at Fort Collins. Dr. Haller, who works here, is also certified to teach program instructors and managers. I was particularly interested in this research because the plant culture here is quite divergent from that on the west coast. If our students are to be competitive, we must train them to be well-rounding in their plant culture.

I conducted a vast amount of journal and article research on Horticultural Therapy and Environmental and Health Psychology at the University of Oregon Library as well as elsewhere. There are many journals and new books and manuals available on this topic. There are so many in fact that I am also continuing in this endeavor.

I studied the short- and long-term effects of horticultural therapy through research being conducted at the Providence Farm with Mark Timmermans, in British Colombia. I integrated this research with that of Dr. Ribe and Jenny Young from the University of Oregon, who are currently working on this garden research with the Legacy Emmanuel Hospital in Lebanon, Oregon, another part of the Legacy Health System. Together we were able to do some amazing work with adolescent offenders. The research has not yet been printed, but I am working with Kansas State on the data collected.

I spend some time at GrassRoots Garden in Eugene, Oregon to learn more about her youth program in Springfield, Oregon. Again, here horticultural therapy is being used with at-risk youth. I obtained some more great hands-on experience with at-risk and adjudicated youth that I hope to write about at a future time.



I attended seminars at Oregon State University Lane County Extension Office in horticultural training, and became more adept at teaching horticultural therapy to students. However, I was unable to complete The Master Gardener Program through the Lane Extension Service Center office of OSU because they changed their courses to Winter Term. I was, however accepted into the program. I hope to complete this program at a later date, since I was teaching Winter Term and unable to attend courses all day on Wednesdays.



I conducted the following behaviors in the weeks mentioned. In addition, I worked with adjudicated youth in two separate agencies. I also spent time on two separate Native American Reservations working with adjudicated youth. The experience was not only educational, but also rewarding. As you may have guessed by now, I started this sabbatical before Spring term of 2008 and finished it right before classes started in the Fall. However the only funds I used of Lane Community College's were those of the time off that I took in Spring Term. I am grateful for that time off, because it allowed me to do a plethora of work in the field of horticulture therapy that I could not have accomplished without six months off at a time.



SABBATICAL OUTLINE:

I accomplished everything that I set out to do on my sabbatical, with the exception of the Master Gardener Certificate. However, I had already obtained a Community Gardener Certificate by

attending classes at my own expense on my own time through the OSU extension office. These courses are identical to the Master Gardener courses.

Week 1: I conducted journal and article research and compilation regarding current evolvements in Horticulture Therapy and Treatment. I began reading and analyzing these articles. Week 2: Began reading the three books mentioned in #2 above. I compare these texts with journal articles and compiled information. I obtained articles from Colorado State University.

Week 3: I Continued with readings and attended my first workshop at the American Horticultural Therapy Association, Legacy Health System, Portland, OR.

Week 4: Toured Betty Ford Alpine Gardens Clinic in Vale, Colorado and continued reading.

Week 5: Visited the Department of Horticulture & Landscape Architecture, Colorado State University.

Week 6: Continued readings and met with Dr. Ribe and Jenny Young, University of Oregon. Met with the Kurisu's in Portland, Oregon and toured Lebanon Facility. I continued my readings and research. I met at OSU Extension Service and worked on classes to take at Legacy.

Week 7: Attended two more workshops at the American Horticultural Therapy Association, toured Vancouver, B.C, and Vancouver, Washington.

Week 8: Continued with readings and comparisons.

Week 9: Met with Jen Anonia at GrassRoots Garden. Toured their facilities and began working with at-risk youth.

Week 10: Visited Providence Farm in British Columbia. Study environmental awareness information in Canada. I toured more Kurisu sites in Oregon. I met with Oncologist's using Horticultural Therapy and Environmental Therapy in Oregon at Legacy Emmanuel.

Weeks 11 and 12: Compiled information for DVD presentation to colleagues at Lane Community College. I continued to work throughout the summer and at the end of summer created the DVD presentation.

2. How will this activity contribute to your growth as a professional person?



This leave allowed me the much needed opportunity to grow professionally in the Human Services field. I really enjoyed working with colleagues and the adjudicated youth at the four different settings. This hand-on training provided not only new classroom strategies for me to bring to my students, but allowed me to learn ways to better prepare my students for future careers in this field.

I also had the wonderful opportunity to travel and see a vast amount of beauty. I have not had the opportunity to travel and see the beautiful country in which we live for quite some time now. For many, many years now I have not had a leave. This leave was much needed and I am grateful for it.



I believe that in addition to enhancing our curriculum, this leave has helped me to be a better person. I have had an opportunity to work with individuals and clients in a very unique and rewarding way.

Further Notes from my presentation:

I chose to do a research project with violent, multiple offending youth.

They did not qualify for pet therapy programs.

Results of the study consistently showed that violence was reduced and prosocial behaviors increased.

This really should come as no surprise.

Horticulture therapy is and has been utilized in some of the toughest prisons in the United States.

There have been extremely positive results. On the average, over 70% of Inmates involved showed remarkable improvements

Horticulture Therapy (HT) is the engagement of a client in horticultural activities to achieve specific treatment goals.

It is an active process.

The process itself is the therapeutic activity rather than the end product.

Horticulture therapy programs are found in a wide variety of healthcare, rehabilitative, and residential settings.

Cognitive Benefits:

Enhance cognitive functioning Improve concentration Stimulate memory Improve goal achievement Improve attentional capacity

Psychological Benefits:

Improve quality of life Increase self-esteem Improve sense of well-being Reduce stress Improve mood Decrease anxiety Alleviate depression Increase sense of control Improves sense of personal worth Increase feelings of calm and relaxation Increase sense of stability Improve personal satisfaction Increase sense of pride and accomplishment

Social Benefits:

Improve social integration Increase social interaction Provide for healthier social functioning Improved group cohesiveness

People and Facilities shown to be benefiting from Horticulture Therapy and Therapeutic Gardens:

People of all ages and special needs Correctional Facilities Vocational, prevocational, occupational and Rehabilitation programs Psychiatric hospitals and mental health programs Substance abuse programs Hospitals, clinics and nursing facilities Hospice and palliative care programs Cancer centers Shelters for the homeless and victims of abuse Public and private schools Assisted living and senior centers Adult day care Community and botanical gardens

References:

Armstrong, D. (2000). A community diabetes education and gardening project to improve diabetes care in a northwest American Indian tribe. Diabetes Educator 26(1), 113-120.

Barnicle, T. & Stoelzle Midden, K. (2003). The effects of a horticultural activity program on the psychological well-being of older people in a long-term care facility. HortTechnology 13(1), 81-85.

Blair, D., Giesecke, C. & Sherman, S. (1991). A dietary, social, and economic evaluation of the Philadelphia urban gardening project. Journal of Nutrition Education 23:161–167.

Bunn, D.E. (1986). Group cohesiveness is enhanced as children engage in plant stimulated discovery activities. Journal of Therapeutic Horticulture 1:37–43.

Cimprich, B. (1993). Development of an intervention to restore attention to cancer patients. Cancer Nursing 12(4), 22-27.

Cooper Marcus, C. & Barnes, M. (1999). Healing gardens: Therapeutic benefits and design recommendations. Chichester, UK: J. Wiley.

Feenstra, G., McGrew, S. & Campbell, D. (1999). Entrepreneurial community gardens: Growing food, skills, jobs and communities, Publication 21587. Davis CA: University of CA- Davis.

Friends Hospital (2005). Healing with plants: The wonders of horticultural therapy. Retrieved October 22, 2006 from http://www.friendshospitalonline.org/History.htm

Galindo, M. & Rodrieguez, J. (2000). Environmental aesthetics and psychological well-being: Relationships between preference judgements for urban landscapes and other relevant affective responses. Psychology in Spain 4: pp.13-27.

Gerlach-Spriggs, N., Kaufman, R.E. & Warner, S.B. (1998). Restorative gardens: The healing landscape. New Haven and London: Yale University Press.

Hartig, T. (2003). Restorative environments: Guest editor's introduction. Environment and Behavior 33 (4), 475-479.

Haller, R. & Kramer, C. (Eds.). (2006). Horticultural therapy methods: Making connections in health care, human service, and community programs. Binghamton, NY: The Haworth Press.

Hartig, T., Mang, M. & Evans, G.W. (1991). Restorative effects of natural environment experiences. Environment and Behavior 23(1), 3-26.

Herzog, T., Black, A., Fountaine, K., Knotts, D. (1997). Reflection and attentional recovery as distinct benefits of restorative environments. Journal of Environmental Psychology 17(2) 165-170.

Hill, C. & Relf, P.D. (1982). Gardening as an outdoor activity in geriatric institutions. Activities, Adaptations and Aging 3(1):47–54.

Jarrott, S.E., Kwack, H.R. & Relf, D. (2002). An observational assessment of a dementiaspecific horticultural therapy program. HortTechnology 12(3), 402- 410.

Jellicoe, G. & Jellicoe, S.(1995). Landscape of man (2nd ed.). London: Thames and Hudson, 1995.

Kaplan, R. & Kaplan, S. (1989). The experience of nature. New York: Cambridge University Press.

Kaplan, R. (2001). The nature of the view from home: Psychological benefits. Environment and Behavior 33 (4), 507-542.

Kuo, F.E., Bacaicoa, M. & Sullivan, W.C. (1998). Transforming inner-city landscapes. Trees, sense of safety and preference. Environment and Behavior 30(1), 28-59.

Kweon, B.S., Sullivan, W.C. & Wiley, A.R. (1998). Green common spaces and the social integration of inner-city older adults. Environment and Behavior 30(6), 832-858.

Langer, E. & Rodin, J. (1976). The effects of choice and enhanced personal response for the aged: A field experiment in an institutional setting. Journal of Personality and Social Psychology 34(2), 191-198.

Matsuo, E. (1995). Horticulture helps us to live as human beings: Providing balance and harmony in our behavior and thought and life worth living. Acta Horticulturae 391:19–30.

Mooney, P.F. & Milstein, S.L. (1994). Assessing the benefits of a therapeutic horticulture program for seniors in intermediate care. In M. Francis, P. Lindsay & R.J. Stone (Eds.), The healing dimension of people-plant relations: Proceedings of a research symposium (pp.173-187). University of CA.

Moore, B. (1989). Growing with gardening: A twelve-month guide for therapy, recreation, and education (pp. 3-10). Chapel Hill: University of North Carolina Press.

Namazi, K.H. & Haynes, S.R. (1994). Sensory stimuli reminiscence for patients with Alzheimer's disease: Relevance and implications. Clinical Gerontology 14(4), 29–45.

Perrins-Margalis, N., Rugletic, J., Schepis, N., Stepanski, H., & Walsh, M. (2000). The immediate effects of group-based horticulture on the quality of life of persons with chronic mental illness. Occupational Therapy in Mental Health 16(1), 15-30.

Pothukuchi, K. & Bickes, J. (2001). Youth nutrition gardens in Detroit: A report on benefits, potential, and challenges. Detroit, MI: Wayne State University.

Relf, P.D. (1978). Horticulture as a recreational activity. American Health Care Association Journal 4(5), 68–71.

Relf, P.D. (2006) Agriculture and health care: The care of plants and animals for therapy and rehabilitation in the United States. In J .Hassink & M. van Dijk (Eds.), Farming for health (pp.309-343). The Netherlands: Springer.

Relf, D., McDaniel, A. & Butterfield, B. (1992). Attitudes toward plants and gardening. HortTechnology 2:201–204.

Rodiek, S. (2002). Influence of an outdoor garden on mood and stress in older persons. Journal of Therapeutic Horticulture 13: pp13-21.

Rush, B. (1812). Medical inquiries and observations upon diseases of the mind. Philadelphia: Kimber & Richardson. Retrieved October 22, 2006 from http://deila.dickinson.edu/theirownwords/title/0034.htm

Simson, S. & Straus, M. (1998). Horticulture as therapy: Principles and practice. Binghamton, NY: The Haworth Press.

Smith, D.V. & Aldous, D.E. (1994). Effect of therapeutic horticulture on the self-concept of the mildly intellectually disabled student. In M. Francis, P. Lindsay & R.J. Stone (Eds.), The healing dimension of people-plant relations: Proceedings of a research symposium (pp.215-221). University of CA.

Taylor, A.F., Kuo, F.E. & Sullivan, W.C. (2001). Coping with ADD: The surprising connection to green play settings. Environment and Behavior 33:54–77. Ulrich, R.S., Simons, R.F., Losito, B.D., Fiorito, E., Miles, M.A.,& Zelson, M. (1991). Stress recovery during exposure to natural and urban environments. Journal of Environmental Psychology 11: 201-230.

Ulrich, R.S. & Parsons, R. (1992). Influences of passive experiences with plants on individual well-being and health. In D. Relf (Ed.), The role of horticulture in human well-being and social development (pp.93-105). Portland, OR: Timber Press.

Ulrich, R.S. (1999). Effects of gardens on health outcomes: Theory and research. In C. Cooper Marcus & M. Barnes (Eds.), Healing gardens: Therapeutic benefits and design recommendations (pp.27-86). New York: Wiley.

Waliczek, T.M., Mattson, R.H. & Zajicek, J.M. (1996). Benefits of community gardening to quality of life issues. Journal of Environmental Horticulture 14:204–209.

Watson, D.P. & Burlingame, A.W. (1960). Therapy through horticulture. New York: Macmillan.

Wells, N.M. (2000). At home with nature: Effects of "greenness" on children's cognitive functioning. Environment and Behavior 32:775–795.

Wichrowski, M., Whiteson, J., Haas, F., Mola, A. & Rey, M. (2005). Effects of horticultural therapy on mood and heart rate in patients participating in an inpatient cardiopulmonary rehabilitation program. Journal of Cardiopulmonary Rehabilitation 25(5), 270-274.

Whitehouse, S., Varni, J.W., Seid, M., Cooper-Marcus, C., Ensberg, M.J., Jacobs, J.R. & Mehlenbeck, R.S. (2001). Evaluating a children's hospital garden environment: Utilization and consumer satisfaction. Journal of Environmental Psychology 21: 301-314.

Willets, H.C., & Sperling, A. (1983). The role of the therapeutic recreationist in assisting the oncology patient to cope. New York: Futura.

Other references I am using in my current research:

Barth, R.P., Schinke, S.P., Maxwell, J.S. (1983). Psychological correlates of teenage motherhood. *Journal of Youth and Adolescence*, *12*(6), 471-487.

Blount, R.L., Finch, A.J.Jr., Saylor, C.F., Wolfe, V.V., Pallmeyer, T.P., McIntosh, J., Griffin, J.M., & Carek, D.J. (1987). Locus of control and achievement in child psychiatric inpatients. *Journal of Abnormal Child Psychology*, *15*(2), 175-179.

Bunting, T.E. & Cousins, L.R. (1983). Environmental personality in school-age children: Development and application of the "Children's Environmental Response Inventory". *Journal of Environmental Education*, *15*(1), 3-10.

Bunting, T. E., & Semple, T. McL. (1979). The development of an environmental response inventory for children. In A.D. Seidel and S. Danford (Eds.), *Environmental Design, Research Theory and Application* (pp 273-283). Washington, DC: Environmental Design Research Association.

Carlson, C., Uppal, S., & Prosser, E.C. (2000). Ethnic differences in processes contributing to the self-esteem of early adolescent girls. Journal of Early *Adolescence*, 20(1), 44-67.

Carroll, A., Hattie, J., Durkin, K., & Houghton, S. (2001). Goal-setting and reputation enhancement: Behavioral choices among delinquent, at-risk and not at-risk adolescents. *Legal and Criminological Psychology*, *6*(2), 165-184.

Chubb, N.H., Fertman, C.I., & Ross, J.L. (1997). Adolescent self-esteem and locus of control: A longitudinal study of gender and age differences. *Adolescence*, *32*, 113-129.

Connor, J.M., Poyrazli, S., Ferrer-Wreder, L., & Grahame, K.M. (2004). The relation of age, gender, ethnicity, and risk behaviors to self-esteem among students in nonmainstream schools. *Adolescence*, *39*, 457-473.

Dunn, P.B., & Shapiro, S.K. (1999). Gender differences in the achievement goal orientations of ADHD children. *Cognitive Therapy and Research, 23(3),* 327-344. Fertman, C.I., & Chubb, N.H. (1992). The effects of a psychoeducational program on adolescents' activity involvement, self-esteem, and locus of control. *Adolescence, 27,* 517-526.

Elliot, J. (1996). Locus of control in behaviorally disordered children. *British Journal of Educational Psychology*, 66, 47-57.

Fincham, F., & Barling, J. (1978). Locus of control and generosity in learning disabled, normal achieving, and gifted children. *Child Development*, 49(2), 530-533.

Freiheit, S.R., Overholser, J.C., & Lehnert, K.L. (1998). The association between humor and depression in adolescent psychiatric inpatients and high school students. *Journal of Adolescent Research*, *13*(1), 32-48.

Halvorsen, I., & Heyerdahl, S. (2006). Girls with anorexia nervosa as young adults: Personality, self-esteem, and life satisfaction. *International Journal of Eating Disorders, 39*, 285-293.

Harvey, M.R. (1989). The relationship between children's experiences with vegetation on school grounds and their environmental attitudes. *Journal of Environmental Education*, 21(2), 9-15.

Healey, D., & Rucklidge, J.J. (2006). An investigation into the psychosocial functioning of creative children: The impact of ADHD symptomatology. *Journal of Creative Behavior*, 40(4), 243-264.

Lindsey, D. (1975). Reflective inquiry into mental illness by hospitalized adolescents. *Theory* and Research in Social Education, 3(1), 43-61.

Little, V.L., & Kendall, P.C. (1978). Note on locus of control and academic achievement in institutionalized juvenile delinquents. *Journal of Abnormal Child Psychology*, 6(2), 281-283.

Lynch, S., Hurford, D.P., & Cole, A.K. (2002). Parental enabling attitudes and locus of control of at-risk and honors students. *Adolescence*, *37*(*147*), 527-549.

Mannarino, A.P., & Cohen, J.A. (1996). Abuse-related attributions and perceptions, general attributions, and locus of control in sexually abused girls. *Journal of Interpersonal Violence*, *11*(2), 162-180.

March, J.S., Amaya-Jackson, L., Murray, M.C., & Schulte, A. (1998). Cognitive-behavioral psychotherapy for children and adolescents with posttraumatic stress disorder after a single-incident stressor. *Journal of American Academy of Child & Adolescent Psychiatry*, *37*(6), 585-593.

Marcotte, D., Fortin, L., Potvin, P., & Papillon, M. (2002). Gender differences in depressive symptoms during adolescence: Role of gender-typed characteristics, self-esteem, body image, stressful life events, and pubertal status. *Journal of emotional and Behavioral Disorders*, *10*(1), 29-42.

<u>McIntosh,D., Rawson, H.E.</u> (1988). Effects of a structured behavior modification treatment program on locus of control in behaviorally disturbed children. *Journal-of-Genetic-Psychology*, *149*(1), 45-51,

Miller, D.T. (1978). Locus of control and the ability to tolerate gratification delay: When it is better t o be an external. *Journal of Research in Personality*, *12*, 49-56.

Morrow, K.B. (1991). Attributions of female adolescent incest victims regarding their molestation. *Child Abuse and neglect*, *15*(4), 477-483.

Nielsen, D.M., & Metha, A. (1994). Parental behavior and adolescent self-esteem in clinical and nonclinical samples. *Adolescence*, 29(115), 525-542.

Nowicki, S. Jr., & Strickland, B.R. (1973). A locus of control scale for children. *Journal of Consulting and Clinical Psychology*, 40(1), 148-154.

Nunn, G.D. (1987). Concurrent validity between children's locus of control and attitudes toward, home, school, and peers. *Educational and Psychological Measurement*, 47, 1087-1089.

Overholser, J.C., Adams, D.M., Lehnert, K.L., & Brinkman, D.C. (1995). Self-esteem deficits and suicidal tendencies among adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, *34*(7), 919-928.

Polce-Lynch, M., Myers, B.J., Kliewer, W., & Kilmartin, C. (2001). Adolescent self-esteem and gender: Exploring relations to sexual harassment, body image, media influence, and emotional expression. *Journal of Youth and Adolescence*, *30*(*2*), 225-244.

Powell, M.L., Newgent, R.A., & Lee, S.M. (2006). Group cinematherapy: Using metaphor to enhance adolescent self-esteem. *The Arts in Psychotherapy*, *33*, 247-253.

Rawson, (1992). The interrelationship of measures of manifest anxiety, self-esteem, locus of control, and depression in children with behavior problems. *Journal of Psychoeducational* Assessment, 10(4), 319-329.

Rivard, J.C., Bloom, S.L., Abramovitz, R., Pasquale, L.E., Duncan, M., McCorkle, D., & Gelman, A. (2003). Assessing the implementation and effects of a trauma-focused intervention for youths in residential treatment. *Psychiatric Quarterly*, *74*(2), 137-154.

Robinson, L. (2000). Racial identity attitudes and self-esteem of black adolescents in residential care: An exploratory study. British Journal of Social Work, 30(1), 3-24.

Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton, NJ.: Princeton University Press.

Rotheram-Borus, M.J., Picentini, J., Vn Rossem, R., Graae, F., Cantwell, C., Castro-Blanco, D., Miller, S., & Feldman, J. (1996). Enhancing treatment adherence with a specialized emergency room program for adolescent suicide attempters. *Journal of the American Academy of Child and Adolescent Psychiatry*, *35*(*5*), 654-663.

Rucklidge, J.J. (2006). Psychosocial functioning of adolescents with and without paediatric bipolar disorder. *Journal of Affective Disorders*, *91*, 181-188.

Rucklidge, J.J., & Tannock, R. (2001). Psychiatric, psychosocial, and cognitive functioning of female adolescents with ADHD. *Journal of the American Academy of child and Adolescent Psychiatry*, 40(5), 530-540.

Schmitt, David P., & Allik, J. (2005). Simultaneous Administration of the Rosenberg Self-Esteem Scale in 53 Nations: Exploring the Universal and Culture-Specific Features of Global Self-Esteem, *Journal of Personality and Social Psychology*, *89*(4), 623-642.

Skelly, S.M., & Zajicek, J.M. (1998). The effect of an interdisciplinary garden program on the environmental attitudes of elementary school students. *HortTechnology*, 8(4), 579-583.

Strand, K., & Nowicki, S., Jr. (1999). Receptive nonverbal processing ability and locus of control orientation in children and adolescents with conduct disorders. *Behavioral Disorders*, 24(2), 102-108.

Tollefson, N., Tracy, D.B., Johnsen, E.P., Buenning, M., Farmen, A., & Barke, C.R. (1982). Attribution patterns of learning disabled adolescents. Learning Disability *Quarterly*, *5*(1), 14-20.

Verkuyten, M. (1996). Personal self-esteem and prejudice among ethnic majority and minority youth. *Journal of Research in Personality, 30,* 248-263.

Weems, C.F., Silverman, W.K., Rapee, R.M., & Pina, A.A. (2003). The role of control in childhood anxiety disorders. *Cognitive Therapy and Research*, 27(5), 557-568.

West, M.L., Spreng, S.W., Rose, S.M., & Adam, K.S. (1999). Relationship Between Attachment-Felt Security and History of Suicidal Behaviours in Clinical Adolescents. *The Canadian Journal of Psychiatry*, 44(6), 578-582.

Yates, B.T., Hecht-Lewis, R., Fritsch, R.C., & Goodrich, W. (1994). Locus of control in severely disturbed adolescents: Loci for peers, parents, achievement, relationships, and problems. *Journal of Youth and Adolescence*, 23(3), 289-314.