

5-1-2015

# Problem Solving Skills Training with At-Risk Nicaraguan Children and Adolescents

Jessica Lee  
*George Fox University*

This research is a product of the Doctor of Psychology (PsyD) program at George Fox University. [Find out more](#) about the program.

---

## Recommended Citation

Lee, Jessica, "Problem Solving Skills Training with At-Risk Nicaraguan Children and Adolescents" (2015). *Doctor of Psychology (PsyD)*. Paper 176.  
<http://digitalcommons.georgefox.edu/psyd/176>

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Digital Commons @ George Fox University. It has been accepted for inclusion in Doctor of Psychology (PsyD) by an authorized administrator of Digital Commons @ George Fox University. For more information, please contact [arolf@georgefox.edu](mailto:arolf@georgefox.edu).

Problem Solving Skills Training with At-Risk Nicaraguan  
Children and Adolescents

by

Jessica Lee

Presented to the Faculty of the  
Graduate Department of Clinical Psychology

George Fox University

In partial fulfillment

Of the requirements for the degree of

Doctor of Psychology

In Clinical Psychology

Newberg, Oregon

May, 2015

Problem Solving Skills Training with At-Risk

Nicaraguan Children and Adolescents

by

Jessica Laurel Lee, MA

has been approved

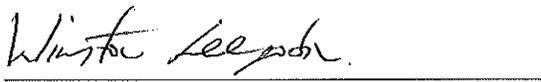
by the

Graduate School of Clinical Psychology

George Fox University

as a dissertation for the PsyD Degree

Signatures:

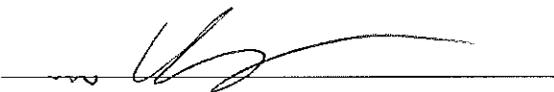


Winston Seegobin, PsyD, Chair

Members:



Mary Peterson, PhD, ABPP



Kelly Chang, PhD

### **Abstract**

Problem solving skills have been used to effectively improve behavioral, psychological, and social functioning in a number of clinical and nonclinical settings, but there is need for additional research in cross-cultural settings. Dissemination research focuses on increasing our knowledge on how to effectively deliver evidence-based health care interventions to diverse communities. In this study, 23 Nicaraguan females, ages 9-19, from a girls' home in Managua, Nicaragua received problem solving skills training, and a token economy system was implemented to measure behavior change. A significant improvement was found in the girls' problem solving ability, externalizing problems, conduct problems, and adaptive skills. Additionally, staff reported that they were satisfied with the intervention and confident in their ability to continue assessing problem solving skills.

**Table of Contents**

Approval Page..... ii

Abstract..... iii

List of Tables ..... vii

Chapter 1: Introduction .....1

    Problem Solving .....2

        Definition of problem solving.....2

        Effect of problem solving skills.....2

        Problem solving interventions .....3

    Residential Treatment Facilities and Token Economies.....5

    Cultural Adaptation for At-Risk Community .....5

    Present Study .....6

Chapter 2: Methods.....8

    Participants.....8

        Sampling procedures.....9

    Measures .....9

        Behavioral Assessment System for Children, Second Edition, Parent Rating  
Scales- Children & Parent Rating Scales-Adolescents (BASC 2,  
PRS-C, & PRS-A).....9

        The coping power program.....9

        Token economy components .....10

        Weekly behavior chart .....10

Daily privileges list.....	10
Weekly privileges list .....	10
Short demographic questionnaire .....	10
Satisfaction survey .....	10
Research design .....	11
Procedures.....	11
Data Analysis .....	13
Chapter 3: Results .....	14
Hypothesis 1.....	15
Hypothesis 2.....	15
Hypothesis 3.....	15
Hypothesis 4.....	15
Hypothesis 5.....	16
Chapter 4: Discussion .....	18
Understanding Problem Solving Skills.....	19
Effectiveness of Taken Economy .....	19
Decrease in Externalizing Problems .....	20
Decrease in Conduct Problems .....	20
Increase in Adaptative Skills and Adaptability.....	21
Staff Satisfaction with Intervention .....	21
Implications for Research and Practice.....	23
Limitations .....	25

Conclusion .....	27
References.....	28
Appendix A Procedure Protocol .....	33
Appendix B Curriculum Vitae.....	37

**List of Tables**

Table 1 Comparison of Behavioral Variables Pre to Post Intervention.....14

## **Chapter 1**

### **Introduction**

Problem solving therapy is effective for a wide range of individuals with diverse psychological, behavioral, and health problems. A number of studies have shown that problem solving ability mediates the relationship between daily stressful events and emotional well-being, depression, anxiety, and internalizing and externalizing symptoms (D’Zurilla & Nezu, 2010). Problem solving therapies have been applied within a variety of clinical and nonclinical settings, including individual, family, and group therapy, primary care settings, and academic settings (Dobson, 2010). However, there are many communities in the world that are not receiving training on problem solving that would benefit from these therapies.

Leaders in research and clinical practice note that there continues to be an enormous gap between evidence-based interventions for health care and what is currently practiced in community settings. Dissemination research focuses on increasing our knowledge on how to effectively deliver evidence-based health care interventions to diverse communities (National Institute of Health [NIH], 2014).

Implementation of these evidence-based interventions is particularly complex, especially when working with a culturally or linguistically diverse population. Therefore, dissemination research highlights the importance of the relationship between the organization and the researcher. Since problem-solving therapy is effective for a wide range of individuals, it is unlikely that any single standardized manual would be equally appropriate for everyone. The

problem solving therapeutic model used depends on the particular therapeutic goals, relevant problematic situations, and the problem-solving strengths and weaknesses of the specific participants (D’Zurilla & Nezu, 2010).

This research project involved implementing evidence-based problem solving skills training within a specific marginalized community in Managua, Nicaragua. This community requested problem solving skills training and a token economy system in order to address behavioral concerns in a group of children and adolescents.

### **Problem Solving**

**Definition of problem solving.** Problem solving is defined as an individual’s ability to identify and define problems, generate alternative solutions, select and implement a solution, and evaluate the outcome (Raferty, Steinke, & Nickerson, 2010). Problem solving skills can be applied in personal, interpersonal, and group situations. Interpersonal problem solving requires a person to define the interpersonal problem, generate possible solutions, and make a logical choice among solutions to produce a desirable outcome (Erozkan, 2013).

**Effect of problem solving skills.** Research has demonstrated the importance of problem solving skills for positive life outcomes, such as reduced stress, increased adaptation, acquiring and maintaining relationships with peers, and academic performance (Raferty et al., 2010). Problem solving ability is also positively related to adaptive situational coping strategies, behavioral competence, social skills, job performance, positive psychological functioning, positive affectivity, and self-esteem (D’Zurilla & Nezu, 2010). A person’s capacity to demonstrate interpersonal problem solving skills is important for psychological adjustment due to its influences on adaptive functioning in stressful situations. Interpersonal problem solving

skills also affect self-efficacy expectations. Self-efficacy is defined as a person's belief in their ability to perform a particular action or course of action. An individual's thoughts, emotions, and actions before and during a particular event are influenced by their judgment of their abilities. As a result, people using more effective problem solving methods generally have higher social self-efficacy, because they have more confidence in their ability to handle stressful situations (Erozkan, 2013).

In contrast, problem-solving deficits have been associated with general psychological distress, suicidal ideation, anxiety, substance abuse and addictions, severe psychopathology (e.g., schizophrenia), health-related distress, and health-compromising behaviors (D'Zurilla & Nezu, 2010). In schools, students with no problem solving behaviors display avoidance and have a low level of social self-efficacy (Erozkan, 2013). Several research studies in the United States and other countries have established a connection between poor problem solving skills and depressive symptoms (Dixon, 2000; Erdur-Baker, 2009; Heppner, Witty, & Dixon, 2004; Stewart, Mazurka, Bond, Wynne-Edwards, & Harkness, 2013). Rumination is considered to be one of the essential personality traits that maintains and exacerbates depressed mood, and ruminators are shown to have poorer problem solving skills (Stewart et al., 2013). Problem solving deficits are also common among children and adolescents who display aggressive behavior and other conduct problems (Raftery et al., 2010). Youth with aggressive behavior have been found to generate fewer alternative solutions to problems (Lochman & Dodge 1994), evaluate aggressive alternatives less negatively (Orobio de Castro, Merk, & Koops, 2005), and enact more aggressive behavioral responses than nonaggressive comparison groups (Dodge & Frame, 1982).

**Problem solving interventions.** Research on problem solving supports the use of interventions that teach problem-solving skills in order to help children and adolescents negotiate personal, interpersonal, and group life stressors. Problem solving therapies teach the individual how to identify and define problems, form alternative solutions, choose and execute a solution, and evaluate the outcome (Dobson, 2010). Problem solving therapies have been shown to reduce depression and anxiety-related symptoms (Cape, Whittington, Buszewicz, Wallace, & Underwood, 2010; Malouff, Thorsteinsson, & Schutte, 2007). Additionally, cognitive problem solving skills training approaches have been found to significantly reduce aggression and antisocial behavior (Larson & Lochman, 2002). One program used to improve problem solving skills is the Coping Power Program.

Lochman and Wells (1996) developed Coping Power as a prevention program for later elementary students. It uses the P.I.C.C. model as a step-by-step method for how to solve problems: P.I. Problem Identification, C. Identify Choices, and C. Choose the best solution. The foundation for Coping Power Program is based on a contextual social-cognitive model of risk for disruptive behavior problems. It recognizes that children with disruptive behaviors often have less developed cognitive skills and poorer social problem solving skills. These children may also have overstressed parents with less skillful parenting behaviors, come from socioeconomically disadvantaged neighborhoods, and attend schools with high densities of similarly high-risk children (Harr, Horn-Johnson, Williams., Jones, & Riley, 2013). Coping Power program has produced significant improvements in children's disruptive behavior problems across a number of clinical trials (Cabiya et al., 2008; Lochman, Boxmeyer, Powell, Roth, & Windle, 2006; Lochman et al., 2001; Lochman & Wells, 2002, 2003, 2004; Peterson, Hamilton, & Russell,

2009; van de Wiel et al., 2007). As a program aimed to improve behavior skills in children, Coping Power could be an effective program to use in a youth residential setting.

### **Residential Treatment Facilities and Token Economies**

Residential treatment facilities are increasingly using behavioral interventions to help at-risk youth learn the process of problem solving (Raftery et al., 2010). Workers in residential treatment settings frequently pair interventions with a token economy system to create a baseline for expectations and provide consistent consequences for behavior (Corder, 1994). Token economies are behavioral reinforcement systems used to increase the frequency of adaptive or desirable behaviors, such as problem solving (Mather & Jaffe, 2002). In these systems, targeted behaviors are identified and personal reinforcers are established. Youth are rewarded for demonstrating problem solving behavior in the form of privileges and/or check marks on a weekly behavior chart which monitors their progress throughout the week (Mather & Jaffe, 2002). Keeping a daily or weekly record of behavioral progress using a chart may have a variety of benefits for both the individual and the workers. The use of this visual aid may enhance the individual's motivation to make good choices and help workers recognize progress (Fisher, Piazza, & Roane, 2011). While the use of token economies has been shown to facilitate client change and improve program functioning in numerous settings (LePage et al., 2003), there is need for research aimed at determining whether token economies are effective behavioral interventions for youth in Latin America, specifically Nicaragua.

### **Cultural Adaptation for At-Risk Community**

Literature supports the conclusion that problem solving therapies and token economies have been used to effectively treat youth in the United States. Research on problem solving

therapies suggests that therapists be sensitive to the diversity markers within each specific group in order to address the problem areas and goals relevant to that community. Culture is a diversity marker that therapists should consider, and cultural adaptation of evidence-based therapies is important for the success of the intervention. One model used for the culturally sensitive dissemination of evidence-based practices is Participatory Action Research (PAR). The purpose of PAR is to assist a community of people to define pertinent issues and design and implement a plan of action. It allows the subjects of study to have a voice in the research process for the benefit of the community. Participatory Action Research is outlined in several sources, including Creswell, Hanson, Plano Clark, and Morales (2007).

### **Present Study**

This research is part of on-going participatory action research (PAR) conducted with a population of at-risk female children and adolescents in Managua, Nicaragua. The major purpose of this research is to improve adaptive functioning in this community. Specifically, the area that the organization noted as a significant need was problem solving skills (G. Sequiera & W. Sequiera, personal communication, November 6, 2011).

The needs of the community were addressed by conducting problem-solving group training with the girls and staff using the PICC model, monitoring the girls' progress through weekly behavior charts, and providing daily and weekly privileges to girls who demonstrated problem-solving skills. Through implementing this behavioral intervention, the expectations were:

1. Positive behavior change as evidenced by higher scores on the weekly behavior chart.

2. A decrease in externalizing problems, as evidenced by the difference on the pre and post scores of the Behavioral Assessment System for Children, 2<sup>nd</sup> edition (BASC-2).
3. Conduct problems will decrease as evidenced by pre and post scores on the BASC-2.
4. Functional communication scores and social skills scores will increase as evidenced by pre and post scores on the BASC-2.
5. Staff will score high (4 or 5 on a scale of 1 to 5) on each of the following items, which will indicate that staff is satisfied with the program and have the ability to implement and continue it: (a) How helpful is the behavior chart? (b) Do you feel comfortable continuing the behavior chart on your own? (c) How helpful was the problem-solving group with the girls? (d) Do you notice any changes in the girls' ability to solve conflicts? (e) How helpful was the behavior training?

## Chapter 2

### Methods

#### Participants

Participants were 23 Nicaraguan females, ages 9-19 ( $M = 14.39$ ), who were relocated from the city dump to a girls' home in Managua, Nicaragua. Participants ranged from first to tenth grade ( $M = 6.23$ ,  $N = 22$ ). Their religion was identified as either Evangelical or Christian, and two girls left the item blank. Participants reported the number of people living in their home in La Chureca ranged from two to eleven ( $M = 7.52$ ,  $N = 23$ ), and their number of siblings ranged from one to ten ( $M = 5.18$ ,  $N = 22$ ); one girl reported, "I do not know how many." Twelve girls reported their parents were separated, seven said their parents were married, two girls (sisters) had parents that died of disease, one reported her parents were divorced, and one reported her parents were single. Length of time spent at the girls' home ranged from one to four years; five girls had been there for one year, six were there for two years, eight were there for three years, and four girls were there for four years. The participants' primary language was Spanish.

Participants also included 11 staff members: three house mothers, two program directors, and six missionaries. The housemothers are single Nicaraguan women who are in charge of one of the three houses on the property. The directors of the program are a married couple from Nicaragua. There are two single women and two married couples that are missionaries from the United States.

**Sampling procedures.** Participants were selected from a convenience sample because they were residents or staff at the girls' home in Managua, Nicaragua. All of the girls and staff at the home participated in the intervention. The intervention was conducted and all of the data was collected at the girls' home. De-identification of the data insured the confidentiality and security of the data. An informed consent document was signed by all of the participants. The research was approved by the Internal Review Board at George Fox University.

## Measures

**Behavioral Assessment System for Children, Second Edition, Parent Rating Scales-Children & Parent Rating Scales-Adolescents (BASC 2, PRS-C, & PRS-A).** The BASC-2 is an assessment tool for evaluation, differential diagnosis, and treatment planning (Reynolds & Kamphaus, 2004). It takes approximately 10 to 30 minutes to complete and is designed for use with parents of children and adolescents. The PRS-C has 160 items, and the PRS-A has 150 items. Psychometric properties are considered strong. For the BASC-2, PRS-C, and PRS-A forms, internal consistency reliability coefficients for the BSI and other major composite scores ranged from .90 to .95, while the alpha coefficients for the individual scales ranged from .72 to .88. The Spanish version of this instrument was used.

***The coping power program (CPP).*** The CPP is a school-based anger coping program originally developed for at-risk youths to help prevent future substance abuse (Lochman & Wells, 2002). The problem solving portion of the CPP that utilizes the PICC model was translated into Spanish and modified for use with this specific population. Participants received training on the PICC model using various learning methods, including lecture, group discussion, video, and role-play. A masters level clinical psychology student facilitated the training.

***Token economy components.***

*Weekly behavior chart.* The intervention was assessed through examination of a weekly behavioral chart at each of the three houses. Residents received a check mark each day that they demonstrated use of problem solving skills. Increases in recorded check marks were used to determine the effectiveness of the intervention.

*Daily privileges list.* This list was generated by all three housemothers and includes seven privileges. Girls who obtained a check mark the previous day were allowed to select one privilege from this list for use the next day. This list was in Spanish. Examples of daily privileges included thirty minutes of extra television time or sleeping in an extra thirty minutes in the morning.

*Weekly privileges list.* This list was generated by all three housemothers and includes twelve privileges. Girls who obtained five out of seven check marks for the week were allowed to select one privilege from this list for use the next day. This list was in Spanish. Examples of weekly privileges included using the computer for an hour or visiting a staff member's house.

***Short demographic questionnaire.*** Demographic data was collected on each participant. This data included name, age, sex, grade in school, ethnicity, religion, number of brothers, number of sisters, birth order, parental status, and number of years residing at the girls' home. This questionnaire was in Spanish.

***Satisfaction survey.*** This survey, developed by the researcher, consisted of 5 items and utilizes a 5-point likert scale to evaluate staff members' level of satisfaction with the behavioral intervention. It also assesses confidence in their ability to continue the intervention on their own.

**Research design.** All of the girls at the home were already separated, based on age and number of years in the home, into three separate houses. Each house received separate problem solving skill trainings in order to address problems relevant to participants in that house. The only difference between trainings was the sample problem used by the researcher.

### **Procedure**

See Appendix A for protocol

1. Training Staff: Overview explanation of model including problem solving, token economy, & weekly behavior chart.

Prior to conducting problem solving skills training, the researcher held group meetings with the girls' home staff. These staff meetings involved explaining problem solving, the process of the behavioral intervention, and the tools used for behavior change.

2. Application to community: Identified specific problem behaviors & developed intervention tools.

Members of staff generated a list of daily and weekly rewards for girls who demonstrate problem-solving behavior. The housemothers identified problem behaviors for each of their houses, and short training videos were created displaying these problems.

3. Pre-Intervention Assessment

All 23 female residents of the girls' home completed the informed consent forms, BASC-2 self-report forms, and demographic information. Test completion was overseen by a masters level clinical psychology student, and a Spanish interpreter and staff members were present to address questions. The housemothers completed informed consent forms and BASC-2 parent-report forms on each girl in their house. This initial

testing using the BASC-2 parent-report and self-report forms was used to obtain a baseline for externalizing problems, conduct problems, functional communication, and social skills.

#### 4. Problem Solving Skills Training

Problem solving skills trainings were conducted with each house separately. Each house watched a short video displaying a problem and went through the PICC model to solve that problem. Each training session lasted approximately 1.5 hours. This process was repeated twice for each house and the training process occurred for one week.

#### 5. Daily Meetings With Houses Using Weekly Behavior Chart

The girls' progress demonstrating problem solving skills was monitored and recorded daily using the weekly behavior chart. Daily and weekly rewards were distributed immediately after problem solving skills were assessed. During the second week, the researcher observed the housemothers facilitating the daily meetings and answered questions as needed. The researcher provided feedback to the housemothers at the end of these meetings.

#### 6. Post-Intervention Assessment

At the end of the third week, the housemothers completed the BASC-2 parent-report form for each of their eight girls, and all of the girls completed the BASC-2 self-report form. It took about one hour for all the girls to complete their self-report forms, and it took about two days for the housemothers to complete their parent-report forms. All staff completed a 15-minute satisfaction survey to evaluate the intervention.

**Data Analysis**

The research design involved the use of pre and post measures to ascertain changes in the behavior of the girls that occurred as a result of the program implementation. The scores from the instruments were entered into SPSS and changes were analyzed using paired samples *t*-tests to determine significance.

### Chapter 3

#### Results

Descriptive statistics including means and standard deviations were computed for each of the measures completed by the sample (see Table 1).

Table 1

*Comparison of Behavioral Variables Pre to Post Intervention*

Variables	Pre-Test		Post-Test		<i>t</i> -test		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	Sig	
Behavior Chart	4.39	.99	6.3	.93	-7.628	.000	
Externalizing Probs.	56.41	10.83	51.0	11.04	4.242	.000	.49
Conduct Problems	55.18	10.47	51.36	11.15	3.434	.002	.35
Functional Comm.	50.05	16.06	51.41	14.16	-1.140	.267	
Social Skills	38.96	11.15	40.65	11.86	-1.042	.309	
Adaptive Skills	44.40	11.82	46.59	12.1	-2.110	.047	-.183

Changes in the following variables resulted from the implementation of a three-week behavioral intervention, which involved teaching problem solving skills to the female children and adolescent participants and monitoring and rewarding their progress using a token economy system.

**Hypothesis 1**

The initial hypothesis postulated that there would be positive behavior change as evidenced by higher scores on the weekly behavior chart over the course of the two-week intervention. A significant improvement was found in the girls' problem solving ability as was evidenced by a statistically significant change in a positive direction from week one ( $M = 4.39$ ,  $SD = 0.99$ ) to week two ( $M = 6.30$ ,  $SD = 0.93$ ) on the weekly behavioral chart,  $t(22) = -7.63$ ,  $p = .001$ .

**Hypothesis 2**

The second hypothesis stated that there would be a decrease in Externalizing Problems as evidenced by the difference on the pre and post scores of the Behavioral Assessment System for Children, 2<sup>nd</sup> edition, parent-report form (BASC-2, PRS). A significant reduction was found in the girls' Externalizing Problems from pre test ( $M = 56.41$ ,  $SD = 10.83$ ) to post test ( $M = 51.0$ ,  $SD = 11.04$ ) scores,  $t(21) = 4.242$ ,  $p = .001$ .

**Hypothesis 3**

The third hypothesis stated that there would be a decrease in Conduct Problems as evidenced by pre and post scores on the BASC-2, parent form. A significant reduction was found in Conduct Problems from pre test ( $M = 55.18$ ,  $SD = 10.47$ ) to post test ( $M = 51.36$ ,  $SD = 11.15$ ) scores,  $t(21) = 3.434$ ,  $p = .002$ .

**Hypothesis 4**

The fourth hypothesis stated that functional communication scores and social skill scores would increase as evidenced by pre and post scores on the BASC-2, parent-report form. There was no significant change found in functional communication from pre test ( $M = 50.05$ ,  $SD =$

16.06) to post test ( $M = 51.41$ ,  $SD = 14.16$ ) scores,  $t(21) = -1.14$ ,  $p = .267$ , or social skills from pre test ( $M = 38.96$ ,  $SD = 11.15$ ) to post test ( $M = 40.65$ ,  $SD = 11.86$ ) scores,  $t(21) = -1.042$ ,  $p = .309$ . However, overall scores for Adaptive Skills improved significantly from pre test ( $M = 44.50$ ,  $SD = 11.82$ ) to post test ( $M = 46.59$ ,  $SD = 12.10$ ) scores,  $t(21) = -2.110$ ,  $p = .047$ . The Adaptive Skills domain includes scores from functional communication and social skills subdomains, as well as adaptability, leadership, and activities of daily living subdomains. The Adaptive Skills domain is a good general measure of the overall strengths of the individual. While none of the other subdomains showed significant differences as a result of the intervention, adaptability did show significant improvement,  $t(21) = -2.147$ ,  $p = .043$ . The adaptability subdomain on the BASC-2 measures the individual's ability to adapt to changes in the environment.

### **Hypothesis 5**

The fifth hypothesis stated that staff will score high (4 or 5 on a scale of 1 to 5) on each of the following items, which will indicate that staff is satisfied with the program and have the ability to implement and continue it. (a) How helpful is the behavior chart? (b) Do you feel comfortable continuing the behavior chart on your own? (c) How helpful was the problem-solving group with the girls? (d) Do you notice any changes in the girls' ability to solve conflicts? (e) How helpful was the behavior training? Results showed that all but two staff members gave high scores (4 or 5) on all satisfaction survey items. Of those two staff members, one participant circled 3 on item (d) and the other participant circled 3 on item (b). There were no scores of 1 or 2 on any of the items. This indicated that staff members were satisfied with the

program, viewed it as helpful, and the majority of staff members were confident in their ability to continue it.

## **Chapter 4**

### **Discussion**

This study was designed to teach problem solving skills to a marginalized community of female children and adolescents at a girl's home in Managua, Nicaragua. A token economy system was developed to motivate and monitor behavior change as a result of the intervention. The hypotheses were that, as a direct result of this problem solving intervention,

1. Problem solving behaviors would increase from week one to week two on the weekly behavior chart.
2. Externalizing problems would decrease, (3) conduct problems would decrease.
3. Functional communication scores and social skill scores would increase, and
4. Staff will score high (4 or 5 on a scale of 1 to 5) on each of the following items: (a) How helpful is the behavior chart? (b) Do you feel comfortable continuing the behavior chart on your own? (c) How helpful was the problem-solving group with the girls? (d) Do you notice any changes in the girls' ability to solve conflicts? (e) How helpful was the behavior training?

The majority of these hypotheses were supported, while others were not observed. The following discussion will provide brief explanations of each hypothesis, implications, limitations of the study, and concluding statements.

### **Understanding Problem Solving Skills**

Findings from this study revealed a significant change in the girls' problem solving ability as evidenced by higher scores on the weekly behavior chart over the course of the two weeks that behaviors were recorded. This suggests that the problem solving training was effective in teaching the girls problem solving skills. The various evidence-based teaching methods that were applied, including didactic instruction, coaching, modeling, rehearsal, feedback, and positive reinforcement, very likely contributed to the success of the training. These teaching methods are listed as helpful techniques for teaching problem solving skills to various populations (D'Zurilla & Nezu, 2010). Additionally, the involvement of the Nicaraguan staff members in the creation of the training videos helped tailor this problem solving intervention to address issues relevant to the community. The literature suggests that clinicians individually tailor problem solving therapies in order to address the specific goals, problem situations, and strengths and weaknesses of the participants (D'Zurilla & Nezu, 2010). Cultural sensitivity in the application of intervention techniques likely contributed to the girls' understanding of problem solving and increase in problem solving behaviors throughout the intervention.

### **Effectiveness of Token Economy**

The significant change in the girls' problem solving ability also suggests that the token economy system motivated the girls to demonstrate the problem solving skills they learned in their training. The effectiveness of the token economy system was likely due to staff involvement in the formation of daily and weekly rewards. Additional opportunities to engage in these enjoyable activities properly incentivized the girls to change their behavior (Nichols, 2010). This concept, called Premack's principle, states that more probable behaviors will reinforce less

probable behaviors. Research clearly shows that token economy programs have been used successfully in homes, prisons, recreational settings, educational settings, hospitals, businesses, and industry (Boerke & Reitman, 2011). This study also confirms that token economies can be used effectively in cross-cultural settings.

### **Decrease in Externalizing Problems**

As a result of the intervention, results showed a significant decrease in externalizing problems on the BASC-2, parent-report form. This finding indicates that the housemothers, who act as parental figures in the girls' home, observed significantly fewer externalizing problems such as hyperactivity and aggression, following the intervention. Problem solving deficits have been linked to aggression and other behavioral problems in the literature; therefore, as this community's ability to utilize problem solving skills improved, we expected that externalizing problems would decrease (Dodge & Frame, 1982; Lochman & Dodge, 1994; Orobio de Castro et al. 2005; Raftery et al., 2010). This study provides additional support for this correlation between problem solving ability and externalizing problems.

### **Decrease in Conduct Problems**

Similarly, findings also showed that the scores for conduct problems significantly decreased on the BASC -2, parent-report form as a result of the intervention. This means that the housemothers observed a decrease in conduct problems after the problem solving intervention. In Scott (2008) that presented an update on interventions for conduct disorder, problem solving skills training with in vivo practice and Coping Power Program were identified as two of the more popular treatment models for treating children with behavioral problems. Also, research on the effectiveness of the Coping Power Program has shown significant improvements in children's

disruptive behavior problems across a number of clinical trials within the past decade (Cabiya et al., 2008; Lochman et al., 2006; Lochman et al., 2001; Lochman & Wells, 2002, 2003, 2004; Peterson et al., 2009; van de Wiel et al., 2007). This study demonstrates that problem solving skills training using the PICC model (taken from the Coping Power Program) can be used to effectively reduce conduct problems with this marginalized community of girls.

### **Increase in Adaptive Skills and Adaptability**

While results showed that there was no significant change in functional communication or social skill scores on the BASC-2, parent-report form, there was a significant increase in the Adaptive Skills domain as a result of the intervention. Items assessing adaptive skills include “Adjusts easily to new surroundings,” “Adjusts well to changes in family plans,” and “Recovers quickly after a setback.” One staff member wrote the comment on the satisfaction survey, “I see more ownership of behavior and that they see they have the power and choice to change their own behavior.” When the girls experienced confrontation with housemates, they were better able to resolve the problem themselves without relying on the housemother to resolve the issue, as they frequently did before the intervention. The most significant change in the girls’ environment requiring adaptability skills, was the incorporation of the token economy system. The girls’ response to that system was almost immediate, resulting in a positive change in behavior from week one to week two.

### **Staff Satisfaction with Intervention**

Finally, results showed that staff members at the girls’ home were satisfied with the program, viewed it as helpful, and the large majority were confident in their ability to continue it. One staff member wrote the comment, “I notice the girls thinking before making decisions more

often” on the satisfaction survey. There are many possible explanations for the success of this intervention. According to dissemination research, the relationship the researcher has with the organization it is trying to serve is very important to the process of sharing information (NIH, 2014). While some researchers question the validity of participatory action research stating there is a lack of generalizability and causality due to the involvement of participants, literature on the validity of PAR asserts that the participants’ involvement in the research is necessary in order to educate the population and create social change (McTaggart, 2007). In addition, this behavioral intervention received the support of staff from the beginning since it was selected based on consultation with the program directors to address their main concerns, needs, and goals (G. Sequiera & W. Sequiera, personal communication, November 6, 2011). The housemothers became increasingly motivated to participate in the intervention, because they mediated fewer interpersonal conflicts as problem solving skills improved. The structure of the organization places eight girls under the care of one housemother; thus, there were naturally reinforcing consequences for both the girls and the housemothers.

In addition, immediately after the first round of rewards were distributed, the staff remarked on how quickly the girls’ behavior changed. While consulting with the directors of the organization, they reported that verbal praise and privileges for good behavior were not a part of Nicaraguan culture, but they were interested in implementing them into their community (G. Sequiera & W. Sequiera, personal communication, November 6, 2011). There is a large body of literature that supports the effectiveness of using positive reinforcement for behavior modification (Dobson, 2010). Perhaps the girls’ immediate behavioral changes in response to

receiving verbal praise and privileges, was due to a shortage of reinforcement for good behavior in the past.

The majority of staff endorsed that they felt comfortable continuing the behavior chart on their own. Over the span of this two-week long intervention, the housemothers were given increasingly more responsibility for going through the behavior chart with the girls in their house. Initially, the researcher modeled the process of assessing problem solving skill development. Then the housemothers started leading the process while the researcher provided feedback through observation. At the end, the housemothers were conducting the entire process on their own. The methods for training these housemothers in problem solving skills and how to create and maintain a token economy system involved didactic instruction, coaching, modeling, rehearsal, feedback, and positive reinforcement. This process of decreasing the researcher's role in the token economy system was likely what contributed to staff's comfort continuing the system on their own.

### **Implications for Research and Practice**

One of the main implications of this study for research and practice is that it demonstrates problem solving skills can be used effectively cross-culturally. The PICC model, when translated into Spanish and its concepts thoroughly explained through various teaching methods, can be comprehended and utilized by this community of Nicaraguan girls. This study contributes to the existing body of dissemination research by providing a step-by-step intervention that clinicians can replicate in order to teach skills to cross-cultural communities.

Additionally, this study shows that token economy systems can be used effectively cross-culturally when they are tailored to fit the setting. This Nicaraguan community responded with

rapid behavior change when they were provided with daily and weekly positive reinforcement. The positive reinforcement consisted of rewards that were already built into the organization, such as additional computer time, television time, naptime, and telephone time. Instead of receiving these rewards with or without demonstrating good behavior, the girls only received them if they displayed problem solving behavior. This study relied heavily on staff input for positive reinforcements and staff delivery of reinforcements; therefore, it's important that clinicians/researchers working with an organization foster collaboration with staff members.

This leads to the third implication for this research, which is the importance of staff inclusion in the development, implementation, and continuation of cross-cultural interventions. Literature on consultation with outside organizations highlights the importance of gaining a thorough understanding of that organization's needs and goals in order to develop the correct intervention (Kirmayer, Guzder, & Rousseau, 2013). With cross-cultural research and practice, additional work should be done to understand that culture's values, beliefs, and behavioral norms. In this Nicaraguan community, the housemothers knew their girls' problem areas and had already gained their trust; thus, they were essential in the process of implementing an entirely new and unfamiliar system for these girls. Without the aide of the housemothers and other staff members, the girls would not have been as committed to learning these skills. The housemothers are also Nicaraguan, so their cultural and linguistic adjustments made during the implementation process improved comprehension of the training materials. Additionally, involving staff in the development and implementation steps of the intervention made the process of transitioning them into leadership roles much smoother. The ultimate goal of dissemination research is to share healthcare information with outside communities in such a way that this community can

then incorporate and sustain it for themselves. Therefore, their involvement in all three steps of the process; development, implementation, and continuation, was found to be essential.

A final broader implication from this research is that female children and adolescents from abusive, impoverished, and neglectful homes can successfully learn skills to resolve problems independently. The majority of these girls did not have parents who taught them the skills to deal with problems they'd encounter in life. It was not a priority when their basic needs for food, water, and shelter were uncertain on a daily basis. However, even though these skills were not modeled for them during childhood they were still able to learn and demonstrate these skills when shown the procedure. This proves the capacity for marginalized girls to learn new behavioral skills when we invest the time to teach them.

This organization and their mission are responsible for a huge part of the behavioral gains made through this intervention. They removed these girls from the dangers and unpredictability of the city dump and placed them in a safe and stable home that addressed their basic needs. Because of this, these girls did not have to return to a chaotic environment after learning these new skills. These results would not have been the same if the girls learned these skills and went back to the city dump. The structured living and consistent reinforcement at the girls' home provided an environment where the girls could practice their new problem solving skills and gain mastery of a skill set that will likely help them become more successful in life.

### **Limitations**

There are some limitations with the present study. First, there was a disproportionate distribution among the ages of the participants receiving training, and the sample was relatively

small. The generalizability of the findings is therefore limited to communities with this demographic.

Additionally, it would have been useful to have later child and adolescent outcomes, to know whether these encouraging findings for the intervention can translate to long-term behavior change. Pre and post test data was collected within a three-week time frame; therefore, it is uncertain whether the rapid progress seen initially in the girls' behavior will continue.

Due to the nature of PAR, there is a chance that the results of this study were partially influenced by the Rosenthal Effect. Since participants were aware of the study's intentions to improve the girls' problem solving skills, housemothers may have reported improvements in behavior in order to please the researcher. That being said, observations of the girls' behavior throughout the intervention support housemothers' responses of improved behavior change.

A final limitation is that materials used for problem solving skills training were created by this researcher and the cooperating organization, and used for this specific community of girls. This intervention can be used to inform the process of participatory action research with another organization, but considerations for the other organization's concerns, needs, and goals, as well as cultural and demographic information should be taken into account when conducting similar participatory action research.

Further research should examine the usefulness of this intervention on other communities of at-risk Latin American youth in residential facilities, to assess its generalizability to other groups. Lastly, it would be beneficial to examine the effects of this problem solving intervention on long-term behavior change.

**Conclusion**

The results of this study indicate that problem solving skills can significantly reduce observed externalizing problems and conduct problems, and significantly increase observed adaptability behaviors. Findings also indicate that this specific community of at-risk female children and adolescents were motivated by the presence of a token economy system to increase daily problem solving behaviors. Staff surveys endorsed that they were satisfied with the behavior intervention and confident in their ability to continue it without the help of the researcher. This intervention program is intended to contribute to the existing body of dissemination research, spreading evidence-based health care information to communities in need.

### References

- Boerke, K. W., & Reitman, D. (2011). Token Economies. In W. W. Fisher, C. C. Piazza, & H. S. Roane, *Applied behavior analysis* (370-380). New York, NY: The Guilford Press.
- Cabiya, J. J., Padilla-Cotto, L., González, K., Sánchez-Gestero, J., Martínez-Taboas, A., & Sayers, S. (2008). Effectiveness of a cognitive-behavioral intervention for Puerto Rican children. *Revista Interamericana De Psicología, 42*, 195-202.
- Cape, J., Whittington, C., Buszewicz, M., Wallace, P., & Underwood, L. (2010). Brief psychological therapies for anxiety and depression in primary care: meta-analysis and meta-regression. *BMC Medicine, 8*38-50. doi:10.1186/1741-7015-8-38
- Corder, B. F. (1994). Structured adolescent psychotherapy groups. Sarasota, FL: Professional Resources Press.
- Creswell, J. W., Hanson, W. E., Plano Clark, V. L., & Morales, A. (2007). Qualitative research designs: Selection and implementation. *Counseling Psychologist, 35*(2), 236-264.
- Dixon, W. A. (2000). Problem-solving appraisal and depression: Evidence for a recovery model. *Journal of Counseling and Development, 78*, 87-91.
- Dobson, K. S. (2010). *Handbook of Cognitive Behavioral Therapies* (Third ed.). New York, NY: The Guilford Press.
- Dodge, K. A., & Frame, C. L. (1982). Social cognitive biases and deficits in aggressive boys. *Child Development, 53*, 620-635.
- D’Zurilla, T. J., & Nezu, A. M. (2010). Problem-Solving Therapy. In K. S. Dobson, *Handbook of Cognitive Behavioral Therapies, Third Edition* (197-223). New York: The Guilford Press.

Erdur-Baker, Ö. (2009). Peer Victimization, Rumination, and Problem Solving as Risk

Contributors to Adolescents' Depressive Symptoms. *Journal of Psychology, 143*(1), 78-90.

Erozkan, A. (2013). The effect of communication skills and interpersonal problem solving skills on social self-efficacy. *Educational Sciences: Theory & Practice, 13*(2), 739-745.

Fisher, W. W., Piazza, C. C., & Roane, H. S. (2011). *Handbook of Applied Behavior Analysis* (pp. 370-380). New York, NY: Guilford Press.

Gloria Sequiera & Wilbert Sequiera, personal communication, November 6, 2011.

Harr, C. R., Horn-Johnson, T. C., Williams, N. J., Jones, M., & Riley, K. (2013). Personal trauma and risk behaviors among youth entering residential treatment, *Child and Adolescent Social Work Journal, 3*, 383-398. doi: 10.1007/s10560-013-0297-1

Heppner, P. P., Witty, T. E., & Dixon, W. A. (2004). Problem-solving appraisal and human adjustment: A review of 20 years of research using the Problem Solving Inventory. *The Counseling Psychologist, 32*, 344-428.

Kirmayer, L. J., Guzder, J., & Rousseau, C. (2013). *Cultural consultation: Encountering the other in mental health care*. New York, NY: Springer.

Larson, J., & Lochman, J. E. (2002). Helping schoolchildren cope with anger: A cognitive behavioral intervention. New York, NY: Guilford Press.

LePage, J. P., DelBen, K., Pollard, S., McGhee, M., VanHorn, L., Murphy, J., & Lewis, P. (2003). Reducing assaults on an acute psychiatric unit using a token economy: A 2-year follow-up. *Behavioral Interventions, 18*(3), 179-190.

- Lochman, J. E., Boxmeyer, C, Powell, N., Roth, D. L., & Windle, M. (2006). Masked intervention effects: Analytic methods addressing low dosage of intervention. *New Directions for Evaluation*, 19-32.
- Lochman, J. E., & Dodge, K. A. (1994). Social-cognitive processes of severely violent, moderately aggressive, and nonaggressive boys. *Journal of Consulting and Clinical Psychology*, 62, 366-374.
- Lochman, J. E., FitzGerald, D. P., Gage, S. M., Kannaly, M. K., Whidby, J. M., & Barry, T. D., McElroy, H. (2001). Effects of social-cognitive intervention for aggressive deaf children: The Coping Power program. *Journal of the American Deafness and Rehabilitation Association*, 35, 39-61.
- Lochman, J. E. & Wells, K. C. (1996). A social-cognitive intervention with aggressive children: Prevention effects and contextual implementation issues. In R. Dev. Peters & R. J. McMahon (Eds.), *Prevention and early intervention: Childhood disorders, substance use, and delinquency* (111-143). Newbury Park, CA: Sage.
- Lochman, J. E., & Wells, K. C. (2002). The Coping Power program at the middle school transition: Universal and indicated prevention effects. *Psychology of Addictive Behaviors*, 76(4S), S40-S54.
- Lochman, J. E., & Wells, K. C. (2003). Effectiveness study of Coping Power and classroom intervention with aggressive children: Outcomes at a one-year follow-up. *Behavior Therapy*, 34, 493-515.

- Lochman, J. E., & Wells, K. C. (2004). The Coping Power program for préadolescent boys and their parents: Outcome effects at the 1-year follow- up. *Journal of Consulting and Clinical Psychology, 72*, 571-578.
- Malouff, J. M., Thorsteinsson, E. B., & Schutte, N. S. (2007). The efficacy of problem solving therapy in reducing mental and physical health problems: A meta-analysis. *Clinical Psychology Review, 27*(1), 46-57. doi:10.1016/j.cpr.2005.12.005
- Mather, N., & Jaffe, L. E. (2002). *Woodcock Johnson III Reports, Recommendations, and Strategies* (pp. 501-502). New York, NY: Wiley & Sons.
- McTaggart, R. (2007). Is validity really an issue for participatory action research? *Studies in Cultures, Organizations, and Societies, 4*(2), 211-236. doi:10.1080/10245289808523513
- National Institute of Health (2014). *Dissemination and implementation*. Retrieved from [http://obssr.od.nih.gov/scientific\\_areas/translation/dissemination\\_and\\_implementation/index.aspx](http://obssr.od.nih.gov/scientific_areas/translation/dissemination_and_implementation/index.aspx)
- Nichols, M. P. (2010). Family Therapy Concepts and Methods (9thEd). Boston: Prentice Hall.
- Orobio de Castro, B. O., Merk, W., & Koops, W. (2005). Emotions in social information processing and their relations with reactive and proactive aggression in referred aggressive boys. *Journal of Clinical Child and Adolescent Psychology, 34*, 105-116.
- Pazaratz, D. (2000) Training youth workers in residential treatment. *Residential Treatment for Children & Youth, 18*(1), 35-56.
- Peterson, M. A., Hamilton, E. B., & Russell, A. D. (2009). Starting well: Facilitating the middle school transition. *Journal of Applied School Psychoiogy, 25*, 286-304.

Raftery, J. N., Steinke, C. M., & Nickerson, A. B. (2010). Engagement, residential treatment

staff cognitive and behavioral disputations, and youths' problem-solving. *Child & Youth*

*Care Forum*, 39(3), 167-185. doi:10.1007/s10566-010-9093-7

Scott, S. (2008). An update on interventions for conduct disorder. *Advances in Psychiatric*

*Treatment*, 14(1), 61-70. doi:10.1192/apt.bp.106.002626

Stewart, J., Mazurka, R., Bond, L., Wynne-Edwards, K., & Harkness, K. (2013). Rumination and

impaired cortisol recovery following a social stressor in adolescent depression. *Journal of*

*Abnormal Child Psychology*, 41(7), 1015-1026. doi:10.1007/s10802-013-9740-1

van de Wiel, N. M. H., Matthys, W., Cohen-Kettenis, P. T., Maassen, G. H., Lochman, J. E., &

van Engeland, H. (2007). The effectiveness of an experimental treatment when compared

with care as usual depends on the type of care as usual. *Behavior Modification*, 31, 298-

312.

## **Appendix A**

### **Procedure Protocol**

#### **STEP 1: Training Staff**

Prior to conducting problem solving skills training, the researcher held group meetings with the girls' home staff. These meetings involved an overview explanation of the model including problem solving, token economy, and weekly behavior charts.

Staff received training on important elements of behavior theory, such as how to reward positive behavior and not reward negative behaviors with attention. Staff was informed of their role in the intervention: observing the girls' behaviors throughout the day, rewarding problem solving behaviors with verbal praise, and reporting negative behaviors to the housemothers.

#### **STEP 2: Application to community: Identified specific problem behaviors & developed intervention tools.**

The researcher met with the four staff members that interact most with the girls. The researcher explained the steps of problem solving again, as well as how and when to reinforce problem-solving behavior. The researcher and staff members generated a list of daily and weekly rewards to be distributed to the girls demonstrating problem-solving behavior. Staff also identified a few general problems within each of their houses that could be used as examples. These problems included: tattling, gossip, physical fights, and chores. Short videos were created to display the specific problems identified by the housemothers. These videos showed the problem but not the solution.

**STEP 3: Pre-Intervention Assessment**

The researcher conducted a large group meeting in the rancho at the girls' home with all the girls and staff members. The girls completed the informed consent forms, BASC self-report forms, and demographic information. This process lasted about 2½ hours. The housemothers were also given informed consent forms and BASC parent forms to complete on each girl in their house. They signed the informed consent forms immediately, and completed the parent-report forms in three days. This initial testing using the BASC- parent and self-report forms was used to obtain a baseline for externalizing problems and adaptive skills. Test completion was overseen by a masters level clinical psychology student, and a Spanish interpreter and staff members were present to address questions.

**STEP 4: Problem Solving Skills Training**

The researcher conducted problem solving skills training with each of the three houses, separately. The girls watched a short video displaying a problem, and afterward the girls went through each step of the PICC model to solve that problem:

1. **PROBLEM IDENTIFICATION (PI):** they identified the problem and the goal according to each person in the video. This process involved perspective taking.
2. **IDENTIFY CHOICES (C):** they identified as many solutions to the problem as they could, and their responses were recorded on a white erase board at the front of the group.
3. **CHOOSE THE BEST SOLUTION (C):** they identified the consequences of each solution.

The researcher explained the term "consequence". Then they were asked, "How can you tell if a consequence is good or bad?" The girls learned that a consequence is good if it helps the

person to reach an important goal. They rated each consequence as either good or bad and then chose the best solution.

Afterward, the girls were given the opportunity to be videotaped acting out the problem with the solution they created during the group discussion. When all of the girls practiced solving the problem on video they reviewed those videos together.

This training process involved a number of learning methods, including audio & visual learning techniques, rehearsal, role-play, and review. Each house received two separate trainings and each session lasted approximately 1.5 hours.

### **STEP 5: Daily Meetings With Weekly Behavior Chart**

#### **WEEK 1**

The day after each house received their first training on problem solving skills, the researcher started monitoring and rewarding each girl's progress toward demonstrating problem solving skills using the weekly behavior chart. A weekly behavior chart and PICC model were placed side by side and hung on the living room wall of each house.

Every night for one week the girls and housemother in each house gathered together around the weekly behavior chart. The researcher modeled for the housemothers how to use the behavior chart to assess the girls' progress in utilizing problem solving skills. The researcher went down the list of names one-by-one and asked the same questions: "Did you encounter any problems today?" "Were you able to resolve the problem?" "If you did resolve the problem, how did you resolve the problem?" "If you didn't resolve the problem, how would you resolve the problem now?" They could ask the other girls, the housemother, and/or the researcher for assistance if needed. The girls who demonstrated improvement in the area of problem solving

that day put a check mark by their name. Immediately afterward, those girls selected a privilege from the list of daily privileges. This process lasted approximately 1 to 1.5 hours.

At the end of the week, the girls who had earned five out of seven check marks were allowed to select a privilege from the weekly privileges list. After the first week of the intervention, the staff decided to take the girls who earned five check marks on a trip to the mall.

#### WEEK 2

During week 2, the housemothers started leading the meetings that assessed each girl's progress using the behavior charts. Privileges were selected immediately after receiving the check mark. The researcher took an observatory role and answered questions for housemothers as needed. Afterward, the researcher provided feedback to the housemothers.

#### WEEK 3

During week 3, the housemothers independently facilitated the group sessions using the weekly behavior chart and provided daily and weekly privileges to girls demonstrating problem-solving skills.

#### **STEP 6: Post-Intervention Assessment**

At the end of the third week, the housemothers completed the BASC parent-report form for each of their eight girls, and all of the girls completed the BASC self-report form. Pre and post test scores were used to evaluate changes in externalizing problems, conduct problems, adaptive skills, adaptability, social skills, and functional communication. It took about one hour for all the girls to complete their self-report forms, and it took about two days for the housemothers to complete their parent-report forms. All staff completed a brief 5-item satisfaction survey to evaluate the intervention.

**Appendix B****Curriculum Vitae****Jessica Lee, MA**

414 N. Meridian Street #v285  
Newberg, OR 97132  
(503) 298-0424  
jlee06@georgefox.edu

---

**EDUCATION**

---

- Present**      **Doctoral Student in Clinical Psychology Program**  
George Fox University, Graduate Department of Clinical Psychology  
**(APA- Accredited)**, Newberg, Oregon  
Advisor: Winston Seegobin, PsyD
- May 2012**    **Masters of Arts, Clinical Psychology**  
George Fox University, Graduate Department of Clinical Psychology  
**(APA-Accredited)**, Newberg, Oregon
- May 2010**    **Bachelor of Arts, Psychology**  
George Fox University  
Newberg, Oregon

---

**MULTICULTURAL CLINICAL EXPERIENCES**

---

- 3/2014 - 5/2014    **Behavioral Health Consultant- (4 hours per week)**  
**Salud Medical Center, Woodburn, Oregon**  
Supervisor: Juliette Cutts, PsyD  
Population: Children, adolescents, and adults, low-income,  
uninsured, primarily Spanish-speaking, 85% Latino  
Clinical Responsibilities:
- Conducted intake interviews, provided brief interventions, and utilized assessment screeners.
  - Provided individual therapy using Solution-Focused, CBT, and ACT therapeutic techniques.
  - Consulted with medical team.
  - Received “live” supervision model plus one hour of weekly individual supervision.
- 7/2012 - 7/2013    **Behavioral Health Intern – (18 hours per week)**  
**Willamette Family Medical Center, Salem, Oregon**

Supervisor: Joel Gregor, PsyD

Populations: Children, adolescents, adults, low-income, primarily Spanish-speaking

Clinical Responsibilities:

- Provided weekly individual therapy in Spanish and English for a population diverse in age, SES, culture, and religion, including work with translators (Russian and Spanish).
- Conducted intake interviews and treatment planning.
- Provided comprehensive psychological evaluations.
- Provided psychoeducation for emotion regulation, coping skill development, parent training, trauma, and grief.
- Provided consultation and liaison to medical center staff.
- Participated in didactic trainings in psychopharmacological interventions and parent training.
- Received one hour of individual supervision and one hour of group supervision each week.

5/2012

**Consultation and Intervention (42 hours per week for 3 weeks)**

**Villa Esperanza, residential care facility, Managua, Nicaragua**

Supervisor: Elizabeth Hamilton, PhD

Populations: At-risk mono-lingual children and adolescents, adult staff members

Clinical Responsibilities:

- Consulted with program directors to address needs within their organization.
- Developed behavior intervention program focusing on problem solving skill development
- Facilitated weekly group trainings with staff to teach them behavior modification techniques.
- Collaborated with staff to implement intervention program.
- Provided group skill development trainings with youth.
- Conducted individual therapy with select girls exhibiting symptoms of trauma.
- Administered pre and post assessment measures and satisfaction surveys to determine success of the intervention program.

---

## **SUPERVISED CLINICAL EXPERIENCES**

---

6/2014 – 5/1/2015

**Clinical Therapist - (14 hours per week)**

**Evergreen Clinical, Portland, Oregon**

Supervisor: Brian Goff, PhD

Population: Adults, low income, uninsured

Clinical Responsibilities:

- Provide weekly individual therapy, conduct intake interviews, and create treatment plans.
- Administer pre and post therapy assessments for every client to determine success of the interventions.
- Conduct individual research on Acceptance and Commitment Therapy.
- Oversee administrative duties, including billing and scheduling of clients.
- Receive 2 hours of in-depth, process-oriented individual supervision each week.

8/2013 – 4/2014

**Peer Supervisor – (2 hours per week)**

Supervisor: Mary Peterson, PhD

Population: George Fox University doctoral students

Clinical Responsibilities:

- Provided individual supervision, addressing personal and professional issues, for two second-year students in the Graduate Department of Clinical Psychology.
- Received supervision from a faculty member regarding my supervision of these two students.

8/2013 – 5/2014

**University Counselor – (18 hours per week)****George Fox University Health & Counseling Center, Newberg, Oregon**

Supervisors: Bill Buhrow, PsyD &amp; Kris Kays, PsyD

Populations: Graduate and undergraduate students

Clinical Responsibilities:

- Provided weekly individual therapy.
- Conducted intake interviews and individual treatment planning.
- Provided comprehensive assessment for ADHD.
- Received didactic trainings on various subjects two hours each week, including forgiveness, suicide assessment, grief and loss, ACT, cutting, DBT, CPT for rape victims, depression, porn and masturbation, stages of change, Solution Focused Therapy, stress reduction, antidepressant medication, panic attacks, self injury, and addressing religious/spiritual issues in therapy.
- Received one hour of individual supervision and two hours of group training each week.

7/2011 - 5/2012

**School-Based Behavioral Health Intern (14 hours per week)  
Rural School District Consortium, Yamhill, Oregon**

Supervisors: Elizabeth Hamilton, PhD &amp; Gene Bundy, LCSW

Populations: Children and adolescents

Clinical Responsibilities:

- Provided weekly individual and group therapy for high school students struggling with academic, psychological, and relational disturbances.
- Conducted intake interviews and individual treatment planning.
- Provided comprehensive psychological and educational assessment, psychoeducation, consultation, and liaison.
- Participated in multidisciplinary meetings to design Individual Education Plans and 504 Plans for students.
- Participated in didactic training groups on report writing and risk assessment.
- Received one hour of individual supervision and two hours of group supervision each week.

10/2011 - 5/2012

**Parent Advice Line (2 hours per month)**

**Student Consultant**

**Behavioral Health Center, Newberg, Oregon**

Supervisor: Joel Gregor, PsyD

Population: Parents

Clinical Responsibilities:

- Conducted structured intake interviews.
- Provided research-based information and advice to parents regarding their child's problematic behaviors.
- Recorded caller information on individual call forms.
- Received monthly group supervision.

1/2011 – 4/2011

**Pre-Practicum II (2 hours per week for 10 weeks)**

**Student Therapist**

**George Fox University, Newberg, Oregon**

Supervisors: Kim Kunze, PsyD & Mary Peterson, PhD

Populations: Undergraduate students

Clinical Responsibilities:

- Provided outpatient services to undergraduate students including clinical interview, diagnosis, and individual psychotherapy.
- Administrative responsibilities included report writing, weekly chart notes, case presentations, and consultation.
- Formulated diagnostic impressions, treatment plans, and case formulations.
- Presented two cases to a supervisory clinical team.

10/2010 - 12/2010

**Depression Group Facilitator (2 hours per week for 8 weeks)**

**Nedley Depression Group Program DVD Series, Newberg, Oregon**

Supervisors: Jeri Turgesen, PsyD & Mary Peterson, PhD

Population: Adults in Yamhill County

Clinical Responsibilities:

- Led 8-week video series for community-based depression recovery group.
- Facilitated mental health education series via DVD using a practical workbook approach.
- Identified potential mental health concerns for participants using depression screeners.
- Proposed evidence-based recommendations in preventative mental health care for participants.

9/2010 - 12/2010

**Pre-Practicum I (1 hour per week for 10 weeks)****Student Therapist****George Fox University, Newberg, Oregon**

Supervisors: Kim Kunze, PsyD &amp; Mary Peterson, PhD

Populations: Graduate students

Clinical Responsibilities:

- Learned basic Rogerian counseling skills.
- Tasks included intake interviews and treatment planning.
- All sessions were taped and reviewed during individual supervision.

---

**MULTICULTURAL RESEARCH EXPERIENCES**


---

2011-2014

**Dissertation: Problem Solving Skills Training with At-Risk Nicaraguan Children and Adolescents**

Villa Esperanza, residential care facility, Managua, Nicaragua

Committee Members: Winston Seegobin, PsyD,

Mary Peterson, PhD, &amp; Kelly Chang, PhD

- Facilitated parent-training groups, implemented token economy, facilitated problem-solving skills development groups with child and adolescent residents.
- Collected data from behavior charts and pre and post tests and analyzed data using SPSS.

2009-2010

**Participatory Action Research**

Villa Esperanza, residential care facility, Managua, Nicaragua

Supervisor: Kelly Chang, PhD

Populations: At-risk mono-lingual children and adolescents, adult staff members

- Assessed general and spiritual wellbeing of residents.
- Performed structured interviews with staff and residents.
- Administered questionnaires in Spanish.
- Used SPSS for quantitative data analysis.

---

**RESEARCH EXPERIENCES**

---

- 2010 - Present      **Research Team Member**  
George Fox University, Newberg, Oregon  
Chair: Winston Seegobin, PsyD
- Meet bi-monthly to discuss and evaluate progress, methodology, and design of research projects.
  - Assist other team members with their research projects.
  - Areas of team focus: cross-cultural studies, hope, and resilience.
- 2012 - 2013      **Hope Meta-Analysis Study**  
George Fox University, Newberg, Oregon  
Coauthors: Winston Seegobin, PsyD & Carolyn McGurl, MA
- Abstract review of 500 peer-reviewed journal articles on hope.
  - Data analysis using SPSS.
- 2011 – 2012      **Training and Supervision Study**  
George Fox University, Newberg, Oregon  
Coauthors: Winston Seegobin, PsyD, Roger Bufford, PhD,  
Carlos Taloyo, PsyD, Serita Holte, BA, Dave Gleave, MA
- Archival data collection and excel data input.

---

**PRESENTATIONS, WORKSHOP, AND PUBLICATION**

---

*Poster Presentations*

- Lee, J., Seegobin, W., Peterson, M., & Chang, K. (2014, August). *Problem solving skills training with at-risk Nicaraguan children and adolescents*. Poster presented at the annual conference of the American Psychological Association, Washington, DC.
- Seegobin, W., McGurl, C., & Lee, J. (2013, April). *Hope meta-analysis study*. Poster presented at the annual conference of the Christian Association for Psychological Studies, Portland, OR.
- Seegobin, W., Luna, L., Lee, J., McGurl, C., & Galindo, D. (2012, April). *Diverse perspectives on children and adolescent's trauma, resilience, and hope*. Poster presented at the annual conference of the Christian Association for Psychological Studies, Portland, OR.
- Bufford, R. K., Seegobin, W., Taloyo, C., Holte, S., Gleave, D., & Lee, J. (2012, August). *Training in supervision*. Poster accepted for presentation at the annual conference of the American Psychological Association, Orlando, FL.

Chang, K., Lee., J., Kampfe, E. (2009, June). *The well-being of girls born into poverty in Nicaragua*. Poster session presented at the First World Congress of International Positive Psychology Association, Philadelphia, PA.

Chang, K., Lee., J., Kampfe, E. (2010, April). *Spiritual well-being of at-risk girls in Nicaragua*. Poster session presented at the Christian Association of Psychological Studies, Kansas City, KS.

#### *Paper Presentation*

Chang, K. B. T. & Lee, J. (2012, March). *The spiritual well-being of girls rescued from a city dump*. Paper presented at the meeting of the Religion and Spirituality Conference, Loyola, MD.

#### *Workshop*

Chang, K. B. T. & Lee, J. (2013, April). *Cross-Cultural Training and Research with Psychology Students*. Presented at meeting of the Christian Association for Psychological Studies Annual Conference, Portland, OR.

#### *Publication*

McMinn, M. R., & Goodworth, M-C., Borrelli, J., Goetsch, B., Lee, J. L., & Uhder, J. (2013). Spiritual formation training in the George Fox University Graduate Department of Clinical Psychology. *Journal of Psychology and Christianity*, 32, 313-319.

---

### ACADEMIC SERVICE

---

- |             |   |
|-------------|---|
| 2013        | <p><b>Guest Lecturer</b><br/>         Course: PSY 399 Juniors Abroad<br/>         Topic: Interviewing Skills Training for Cross-Cultural Research</p>   |
| 2011 - 2012 | <p><b>Peer Mentor:</b> George Fox University, Newberg, Oregon</p> <ul style="list-style-type: none"> <li>• Assisted a first-year doctoral student in the Graduate Department of Clinical Psychology. Provided academic and professional guidance and support to help them transition into graduate school.</li> </ul> |
| 2010 - 2011 | <p><b>American Psychological Association Graduate Student Campus Representative:</b> George Fox University, Newberg, Oregon</p> <ul style="list-style-type: none"> <li>• Distributed information from the APAGS committee to the student body and communicated student feedback to APAGS leaders.</li> </ul>          |

- 2010                    **Key Note Speaker**  
 George Fox University Alumni Banquet  
 Topic: Richter Scholarship and International Research Experiences

---

## EDUCATIONAL EXPERIENCES

---

- 2014                    **Compassion Clinic**  
 Tigard High School, Tigard, Oregon
- Networked with medical and mental health care providers.
  - Provided mental health care information to low income, uninsured individuals and families.
- 2012 - 2013            **Psychodynamic Consultation Team (2 hours per month)**  
 Supervisor: Kurt Free, PsyD
- Participated in supplemental group supervision for psychodynamic training using clinical cases.
- 2012                    **Program Representative for Parent Advice Line**  
 Behavioral Health Clinic, Newberg, Oregon  
 Supervisor: Joel Gregor, PsyD
- Participated in a televised presentation to increase community awareness of this support program.

---

## PROFESSIONAL AFFILIATIONS

---

- 2014 – Present            Association for Contextual Behavioral Science (Student Affiliate)
- 2009 – Present            American Psychological Association (Student Affiliate)
- 2010 - 2013                Christian Association for Psychological Studies (Student Affiliate)

---

## PROFESSIONAL TRAININGS AND WORKSHOPS

---

- September 2014            ACT-II: Acceptance and Commitment Therapy Clinical Skills Building Intensive  
 Speaker: Steven C. Hayes, PhD
- March 2013                Clinical Colloquium: The Person of the Therapist: How Spiritual Practice Weaves with Therapeutic Encounter  
 Speaker: Brooke Kuhnhausen, PhD
- January 2013                Grand Rounds: African American History, Culture and Addictions and Mental Health Treatment  
 Speakers: Danette C. Haynes, LCSW and Marcus Sharpe, PsyD

- November 2012      Clinical Colloquium: Sexual Identity  
Speaker: Erica Tan, PsyD
- October 2012      Clinical Colloquium: Treating Gender Variant Clients: Christian  
Integration  
Speaker: Erica Tan, PsyD
- March 2012        Clinical Colloquium: Mindfulness  
Speaker: Erica Tan, PsyD
- November 2011    Clinical Colloquium: Cross-Cultural Psychological Assessment  
Speaker: Tedd Judd, PhD
- November 2011    Portland Mending the Soul for Professionals Training: Human  
Trafficking: Trauma, abuse, and intervention  
Speakers: Roxane Thorstad, PsyD, Celestia Tracey, MA, LPC
- October 2011      Grand Rounds: Motivational Interviewing & “A Work in Progress”  
Speaker: Michael Fulop, PsyD
- March 2011        Clinical Colloquium: Neurobiological effects of trauma  
Speaker: Anna Berardi, PhD
- February 2011    Clinical Colloquium: Child custody evaluations: not for everyone. Review  
of recent APA practice guidelines.  
Speaker: Wendy Bourg Ransford, PhD
- October 2010      Grand Rounds: Primary Care Behavioral Health: Where Body, Mind  
(&Spirit) Meet.  
Speaker: Neftali Serrano, PhD
- October 2010      Clinical Colloquium: Best Practices in Multi-Cultural Assessment  
Speaker: Eleanor Gil-Kashiwabara, PhD

---

## GRANTS & AWARDS

---

- 2014                **Student Poster Competition - Third Placing**  
Problem Solving Skills Training with At-Risk Nicaraguan Children  
and Adolescents  
American Psychological Association: The Division of International  
Psychology, Washington, DC

- 2014        **Richter Scholars Travel Grant:** Funds awarded to attend the American Psychological Association Conference in Washington DC.  
Travel funded at \$1,000
- 2012        **Richter Scholarship:** George Fox University, Newberg, Oregon  
Program Development for a Girls' Home in Nicaragua  
Project funded at \$3,080  
Supervisor: Winston Seegobin, PsyD
- 2009        **Richter Scholars Travel Grant:** Funds awarded to attend the First World Congress of International Positive Psychology Association in Philadelphia and the Christian Association for Psychological Studies in Kansas City.
- 2008        **Richter Scholarship and Summer Stipend:** George Fox University, Newberg, Oregon  
The Wellbeing of Girls Born into Poverty in Nicaragua  
Project funded at \$4,164  
Supervisor: Kelly Chang, PhD

---

## TEST ADMINISTRATION, SCORING, AND REPORT WRITING

---

### *Adult Measures*

- 16PF- Fifth Edition
- Acceptance and Action Questionnaire (AAQ-II)
- Cognitive Fusion Questionnaire (CFQ-13)
- Conners' Adult ADHD Rating Scales
- Millon Clinical Multiaxial Inventory Third Edition (MCMI-III)
- Minnesota Multiphasic Personality Inventory Second Edition (MMPI-II)
- Outcome Questionnaire (OQ-45)
- Patient Health Questionnaire (PHQ-9)
- Patient's Behavior Checklist for ADHD Adults
- Personality Assessment Inventory (PAI)
- Physical Complaints Checklist for ADHD Adults
- Self-Rating Symptom Checklist for ADHD Adults
- Wechsler Nonverbal Test of Ability (WNV)
- Wechsler's Adult Intelligence Scale – Fourth Edition (WAIS-IV)
- Wechsler's Individual Achievement Test- Third Edition (WIAT-III)
- Wide Range Assessment of Memory and Learning – Second Edition (WRAML-2)

### *Child and Adolescent Measures*

- Behavior Rating Inventory of Executive Functioning (BRIEF)

- Behavioral Assessment System for Children, Second Edition (BASC-II)
- Brown Attention Deficit Disorder Scales (Brown ADD Scales)
- Childhood Autism Rating Scale (CARS)
- Conners' Rating Scales, Third Edition (Conners 3)
- Delis-Kaplan Executive Function System (D-KEFS), Trail Making Test & Color-Word Interference Test
- Gilliam Asperger's Disorder Scale (GADS)
- House, Tree, Person
- Millon Adolescent Clinical Inventory (MACI)
- Roberts Apperception Test for Children (RATC)
- Vineland Adaptive Behavior Scales, Second Edition
- Wechsler's Intelligence Scale for Children – Fourth Edition (WISC-IV)
- Wide Range Achievement Test – Fourth Edition (WRAT4)
- Wide Range Intelligence Test (WRIT)
- Woodcock Johnson-Third Edition Achievement Battery (WJ-III ACH)
- Woodcock Johnson-Third Edition Cognitive Battery (WJ-III COG)

---

## REFERENCES

---

Joel Gregor, PsyD  
Director of GFU Behavioral Health Clinic  
George Fox University  
Practicum II Supervisor  
Newberg, Oregon  
503-554-2367  
jogregor@georgefox.edu

Brian Goff, PhD  
Licensed Clinical Psychologist  
Evergreen Clinical  
Practicum IV Supervisor  
Portland, Oregon  
503-956-7252  
brian@briangoffphd.com

Mary Peterson, PhD  
Chairperson of GDCP  
Professor & Clinical Team Leader  
Newberg, Oregon  
503-554-2377  
mpeterson@georgefox.edu

Bill Buhrow, PsyD  
Dean of Student Services  
Practicum III Supervisor  
Newberg, Oregon  
503-554-2340  
bbuhrow@georgefox.edu