



## Building Solutions in Youth: Evaluation of the Human–Animal Resilience Therapy Intervention

Elizabeth Kjellstrand Hartwig

To cite this article: Elizabeth Kjellstrand Hartwig (2017) Building Solutions in Youth: Evaluation of the Human–Animal Resilience Therapy Intervention, Journal of Creativity in Mental Health, 12:4, 468-481, DOI: [10.1080/15401383.2017.1283281](https://doi.org/10.1080/15401383.2017.1283281)

To link to this article: <https://doi.org/10.1080/15401383.2017.1283281>



Published online: 07 Apr 2017.



Submit your article to this journal [↗](#)



Article views: 41



View related articles [↗](#)



View Crossmark data [↗](#)



## Building Solutions in Youth: Evaluation of the Human–Animal Resilience Therapy Intervention

Elizabeth Kjellstrand Hartwig

Texas State University, San Marcos, Texas, USA

### ABSTRACT

The effectiveness of the human-animal resilience therapy (HART) intervention was examined using a randomized comparison group design with youth ages 10–18 ( $n = 29$ ). Paired samples  $t$ -test analyses revealed statistically significant differences between pretest and posttest scores for anxiety, depression, and disruptive behavior inventories for participants in both the treatment and comparison groups. No significant differences were found for the self-concept or anger inventories. An analysis of variance on gain scores of the treatment and comparison groups revealed no between group differences. The implications of the findings are discussed.

### KEYWORDS

Canine-assisted therapy; creativity in counseling; human-animal resilience therapy; solution-focused; youth

For decades, counselors have searched for effective approaches to help youth work toward clinical goals and improve in emotional, social, and behavioral outcomes. Solution-focused therapy (SFT) and canine-assisted therapy are two approaches that have emerged in the counseling field as interventions that match the needs of adolescents in counseling. Badenoch (2008) asserted that adolescents respond to adults who encourage youth to find solutions rather than adults who provide guidance. Berg and Steiner (2003) suggested that the SFT model promotes successful therapy by allowing youth to use nonverbal, playful, and creative interventions that focus on individual strengths. Solution-focused and canine-assisted therapy approaches offer opportunities for youth to connect in meaningful ways, with counselors and therapy dogs, to promote recognition of strengths and abilities and progress toward clinical goals. This study investigates the human–animal resilience therapy (HART) intervention, an approach that combines both solution-focused and canine-assisted therapies to help youth succeed.

### SFT

SFT is a counseling approach that focuses on internal strengths and external resources of clients. The foundations for solution-focused counseling lie in

the philosophical theory of social constructionism, which posits that knowledge is created through language, society, and culture. Dell and Goolishian (1981) suggested that therapists are not the agents of change, but rather the client and therapist are an active part of the mutual evolutionary process of change. This process paired with the use of language forms the foundation of SFT. DeJong and Berg (2012) highlighted five stages of the solution-building process in therapy: (a) describing the problem, (b) developing well-formed goals, (c) exploring for exceptions, (d) end of session feedback, and (e) evaluating client progress. As a marriage and family-based theory, solution-focused counselors encourage the involvement of other family members, such as caregivers, partners, children, and extended family members, in the counseling process.

Researchers have developed a foundation of evidenced-based literature for using SFT with pre-adolescents and adolescents. DeJong and Berg (1998) reported that 78% of children 12 years old and younger and 89% of youth ages 13–18 made progress toward clinical goals using the SFT approach. Research on using SFT with children and adolescents has shown that SFT significantly improved behavior problems (Corcoran, 2006), academic outcomes (Cook & Kaffenberger, 2003; Daki & Savage, 2010), pretreatment change (Richmond, Jordan, Bischof, & Sauer, 2014), treatment engagement (Corcoran, 2006), and substance abuse recovery (Froeschle, Smith, & Ricard, 2007). Furthermore, Kelly, Kim, and Franklin (2008) reported that SFT demonstrates comparable success as other forms of therapy but achieves results in fewer sessions. Research on the solution-focused approach has demonstrated a promising framework for helping youth succeed.

### **Canine-assisted therapy**

Canine-assisted therapy has emerged as an effective tool for working with youth in a clinical setting. Canine-assisted therapy is a form of animal-assisted therapy (AAT), a clinical approach that facilitates recovery by incorporating a therapy animal into the counseling process. AAT differs from animal-assisted interventions, such as a volunteer visiting a nursing home with a therapy dog, in that AAT uses a credentialed therapist (e.g., Licensed Professional Counselor) to work toward the attainment of specific treatment goals (Pet Partners, 2014). Throughout the past 40 years, mental health counselors have used animal-assisted therapy to address a variety of child and family issues. Levinson (1969) was a pioneer in the field of AAT with children. He determined that including his dog into therapy sessions created an environment that was more relaxed and conducive to self-disclosure. Researchers have furthered Levinson's initial anecdotal research and have found that AAT is effective in decreasing depression and anxiety (Colombo, Buono, Smania, Raviola, & Leo, 2006), increasing positive social behaviors

and decreasing disruptive behaviors (Hergovich, Monshi, Semmler, & Zieglmayer, 2002; Trotter, Chandler, Goodwin-Bond, & Casey, 2008), enhancing self-esteem (Walsh & Mertin, 1994), enhancing psychophysiological health (Fine, 2006), and increasing client motivation to participate in counseling (Lange, Cox, Bernert, & Jenkins, 2006/2007; Macauley, 2006). Research in the AAT field provides an evidence base for this study.

HART is a model that I developed, which combines the concepts of SFT and canine-assisted therapy. The HART intervention is a process in which a trained therapy animal works in partnership with a counselor to help clients resolve psychosocial difficulties and achieve growth using experiential and expressive techniques that are based in solution-focused theory. HART is a form of play therapy used with older children that integrates creative and expressive techniques into therapy, such as expressive art and sandtray, with the support of a therapy animal. The HART intervention is used with children ages 7 through 18 who benefit from activities that engage their brain in cognitive and kinesthetic ways. The HART curriculum is discussed in more detail in the Materials section. Although a number of studies have demonstrated the efficacy of play therapy with older youth and AAT (Bratton, Ceballos, & Ferebee, 2009; Colombo et al., 2006; Fine, 2006; Finn, 2003; Hergovich et al., 2002; Trotter et al., 2008), more controlled research is needed to establish the value of an intervention which combines solution-focused and canine-assisted therapies, such as the HART intervention.

### **Purpose of the study**

Previous research on solution-focused counseling and canine-assisted therapy has provided a foundation of research to support the HART intervention, yet many of these studies lack experimental designs and quantitative data that would provide support for the HART intervention as an evidence-based approach. This study sought to further the evidence base of solution-focused counseling and canine-assisted therapy by using a randomized comparison group design. The purpose of this study was to evaluate the use of the HART curriculum with youth challenged by emotional difficulties. The following research questions were addressed:

Research Question 1: Does the HART intervention significantly increase scores on the BYI-II Self-Concept Inventory and significantly decrease scores on the BYI-II anxiety, depression, anger, and disruptive behavior inventories for youth in both the treatment and comparison conditions?

Research Question 2: Is there a statistically significant difference in gain scores on the five BYI-II inventories between youth in the treatment condition and the comparison condition?

Findings from this study can provide beneficial information to counselors who work with youth ages 10–18 and counselors who would like to work with therapy dogs in a clinical setting. Results from this study may also advance the evidence base for solution-focused counseling and animal-assisted therapy.

## **Method**

### ***Participants***

The participants in this study were 29 children who were referred by parents, school counselors, and local agencies for emotional issues to a community counseling clinic at a university in Texas. Presenting issues included grief, loss, anxiety, depression, and self-concept issues in the contexts of school, home, and family. The age range for participants was 10–18, with an average age of 13. Gender was reported as male ( $n = 13$ ; 45%) and female ( $n = 16$ ; 55%). Participants reported their ethnicity as Hispanic ( $n = 11$ ; 38%), Caucasian ( $n = 13$ ; 45%), African American ( $n = 2$ ; 7%), and Other ( $n = 3$ ; 10%). Ethnicity data from this sample is comparable to census data for Texas (U.S. Census Bureau, 2015), with the exception of the African American population being 6% higher (13%) and the Other population being 4% lower (6%) for Texas. Grade in school ranged from fourth grade to freshman year in college, with an average grade level of eighth grade.

### ***Materials***

#### ***HART curriculum***

The HART intervention used in this study was a SFT and canine-assisted therapy-based curriculum that I developed and it comprised 10 creative interventions for weekly 50-min individual counseling sessions. The therapeutic activities used in the HART curriculum were interactive and used activity-based materials to provide a means for youth to work toward counseling goals. Activities used in the curriculum include Thumball™, sandtray, Jenga™, strengths bandana, family genogram, and art materials. The counselors used processing questions that were included in the curriculum for each session. An example of a processing question is, “What are some resources and strengths that you bring to your family?” Youth created a scrapbook page for each activity throughout the 10-week curriculum. The page could be a drawing the child created or a picture of a sandtray. Youth were given their scrapbook on the last session as part of the final session celebration. The HART curriculum had two versions: the traditional curriculum with 10 weekly interventions for the HART comparison group and the treatment

group curriculum that was comprised of the same 10 weekly interventions with modifications to involve a therapy dog in the session.

The Thumball™ activity is one example of a therapeutic activity from the curriculum. A Thumball™ is a stuffed soccer-style ball that has prompts on each panel of the ball, such as “Favorite TV Show.” For this activity, the counselor tossed or rolled the ball to the child. The child would then respond to the prompt under the thumb or thumbs that caught the ball. The child then tossed or rolled the ball back to the therapist, who would respond to a prompt on the ball. The HART treatment group modification for this activity was to give the therapy dog a turn to answer by rolling the ball to the dog or allowing the dog to put her/his paw on the ball to choose a prompt. The counselor and child would discuss how the dog might answer. For example, the counselor may share, “Riley’s favorite TV show is ‘Scooby-Doo’ because he likes to investigate things and he loves treats!”

Family involvement and support for youth progress were an integral part of the curriculum. In addition to the therapeutic activities, counselors facilitated three 10–15-min caregiver consultations as part of the curriculum. The caregiver consultations were held during Sessions 1, 5, and 10. For the Session 1 caregiver check in, counselors met with the caregivers/parents and child to discuss informed consent, goals for counseling, and, for children assigned to the HART treatment group, the process of canine-assisted therapy. In the Session 5 caregiver consultation, counselors discussed the goal on which the child had chosen to work and progress made towards the clinical goal. For the Session 10 caregiver consultation, the counselor and child both shared with the caregivers the progress made during the course of counseling and what the child had learned through the counseling process. The caregiver consultations were an important component of the HART curriculum.

### ***Beck Youth Inventories—Second Edition***

The Beck Youth Inventories—Second Edition (BYI-II; Beck, Beck, Jolly, & Steer, 2005) was used for this study. The BYI-II measures emotional and social difficulties in children and adolescents, ages 7–18. This instrument is comprised of five inventories that measure self-concept (BSCI), anxiety (BAI), depression (BDI), anger (BANI), and disruptive behavior (BDBI). Each inventory consists of 20 items that are self-rated on a 4-point scale of 0 (*never*) to 3 (*always*).

The BYI-II manual (Beck et al., 2005) reported reliability using general population samples. The internal consistency analysis indicated Cronbach’s alpha coefficients that ranged from .86 to .91 for ages 7–10, .86 to .92 for ages 11–14, and .91 to .96 for ages 15–18, across all five scales. Test-retest reliability analyses produced correlation coefficients in the ranges of .74–.90 for ages 7–10, .84–.93 for ages 11–14, and .83–.93 for ages 15–18. Convergent validity was established by comparing the BYI-II to

the Children's Depression Inventory (CDI) using a subsample of 128 children ages 7–14. The BYI-II Depression Scale was associated at .72 with the total score of the CDI scale, suggesting that both instruments measure degrees of depression similarly. The BYI-II researchers also used a sub-sample of 26 youth, ages 15–18, whose scores produced an averaged correlation coefficient of .67 between the BYI-II depression scale and the CDI total score (Community-University Partnership for the Study of Children, Youth, and Families, 2011).

### **Procedure**

Prior to the training of counselors and therapy dogs, approvals were secured through the university Institutional Review Board, the Institutional Animal Care and Use Committee, and the Environmental Health, Safety, and Risk Management office. After protocols were approved and in place, the researcher provided a substantial amount of training, supervision, and evaluation to counselors and therapy dogs participating in the study. All counselors were current students or alumni of the same professional counseling program, and thus received comparable training in clinical skills. Counselors were chosen for this study based on their interest and experience in working with youth and their interest in AAT. Both the treatment and comparison group counselors received training in the HART curriculum and AAT. Counselors who worked with the therapy dogs completed the Pet Partners Handler Course and attended weekly practice sessions to develop AAT skills with their canine partner. The researcher prescreened all the therapy dogs and assessed the dogs throughout the training process for skills and aptitude. An independent Pet Partners Evaluator rigorously evaluated the counselor/therapy dog teams through the pet partners skills test and pet partners aptitude test. The Pet Partners Evaluator approved each counselor/therapy dog team who participated in the study to work in complex environments.

Youth were targeted for the study through emails and flyers sent to community agencies, school counselors, and university students, alumni, faculty, and staff. Caregivers completed an online referral form that included prescreening question such as, "Does the child have any animal allergies?" and "Does the child have a history of aggression or abuse toward animals?" Youth who had fears about dogs, severe animal allergies, or a history of aggression toward animals were not eligible to participate in the study. Family intake sessions were set up for youth and their caregivers and family members to discuss potential participation in the study. Counselors reviewed the informed consent form and answered any questions during the family intake. For youth who chose to participate in the study, they signed the assent form and their caregivers signed the consent form. Youth then completed the pretest for the study.

Random assignment was used to control for threats to internal validity (Kazdin, 2002). Youth were randomly assigned to the treatment condition (i.e., counselor and therapy dog;  $n = 15$ ; 52%) or the comparison condition (i.e., counselor only;  $n = 14$ ; 48%). A graduate assistant scheduled first session appointments, and youth were assigned to a treatment condition. Youth met with their counselor or counselor/therapy dog team on a weekly basis for 10 individual counseling sessions. At the end of the final session, youth completed the BYI-II as a post-test.

After the study was completed the researcher collected the surveys. Raw scores were converted to T-scores. The researcher and a graduate assistant reviewed raw scores and  $t$ -scores for accuracy. The scores, demographic, and treatment group information were entered into an SPSS spreadsheet. The researcher used a paired samples  $t$ -test analysis for each of the five BYI-II inventories to investigate Research Question 1, with each inventory mean as the dependent variable and the treatment condition as the independent variable. For Research Question 2, an analysis of variance of gain scores was used to explore between group differences. This analysis was conducted by first computing a gain score by subtracting the pretest score from the posttest score for each participant. The dependent variable for this analysis was the gain score and the independent variable was the treatment condition. The analyses for both research questions were assessed for each of the five BYI-II subtests with a Bonferroni adjusted alpha level of .01 (.05/5). Findings for both research questions are provided in the Results section.

## Results

The study used a randomized comparison group design to investigate the influence of the HART intervention with youth participants. A paired samples  $t$ -test was conducted for Research Question 1 to explore if the HART curriculum significantly increased scores on the BYI-II self-concept inventory and significantly decreased scores on the BYI-II anxiety, depression, anger, and disruptive behavior inventories for both the treatment and comparison participant groups. Table 1 presents the results for Research Question 1.

Results revealed a significant difference in pretest and posttest means for the anxiety, depression, and disruptive behavior inventories. These findings indicate that the HART intervention significantly decreased anxiety, depression, and disruptive behavior for youth in both the treatment and comparison conditions. Results did not show a significant change in the self-concept and anger inventories.

An analysis of variance using gain scores was used for Research Question 2 to investigate between group differences for the treatment and comparison



**Table 1.** Paired comparisons of BYI-II Inventories for pretest and posttest means.

Inventory	<i>n</i>	Pretest		Posttest		<i>t</i>	Sig.
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Beck Self-Concept Inventory	29	48.69	9.53	51.38	8.60	-2.03	.052-
Beck Anxiety Inventory	29	52.07	13.71	47.31	10.30	3.01	.006*
Beck Depression Inventory	29	52.38	13.41	46.66	9.46	3.37	.002*
Beck Anger Inventory	29	48.52	11.64	44.86	10.08	2.42	.022-
Beck Disruptive Behavior Inventory	29	46.14	7.66	43.21	6.64	3.23	.003*

Note: BYI-II = Beck Youth Inventory-II; Sig. = significance. An asterisk (\*) indicates that the comparison mean was significant with an alpha < .01.

**Table 2.** Analysis of variance of gain scores for Beck Youth Inventory-II.

Inventory	<i>F</i> (1,27)	Sig.	Partial Eta Squared
Beck Self-Concept Inventory	.18	.67	.007
Beck Anxiety Inventory	.05	.82	.002
Beck Depression Inventory	.42	.52	.015
Beck Anger Inventory	.05	.83	.002
Beck Disruptive Behavior Inventory	.99	.33	.035

Note: Sig. = significance.

conditions for all five inventories. Results for Research Question 2 are provided in Table 2.

Results from this analysis revealed that there were no significant differences between the treatment and comparison conditions for all five BYI-II inventories. These findings suggest that the BYI-II scores for youth in the treatment condition (i.e., counselor and therapy dog) were not significantly higher in self-concept or significantly lower in anxiety, depression, anger, and disruptive behavior, when compared with the comparison condition (i.e., counselor only). The Discussion section provides a further exploration of these results.

## Discussion

This study sought to explore the utilization of the HART intervention to investigate if the approach would significantly influence scores on the BYI-II that measure self-concept, anxiety, depression, anger, and disruptive behavior. Research Question 1 investigated if the HART curriculum made a significant difference for youth in both the treatment and comparison conditions. Findings indicated that the HART intervention was significant for three inventories, such that youth scored significantly lower in anxiety, depression, and disruptive behavior. These findings are important because they suggest that using the HART intervention, with or without a therapy dog, can help youth significantly decrease symptoms of anxiety, depression, and disruptive behavior. These outcomes are important because the youth who participated in the study were referred for emotional issues, such as

anxiety and depression. These findings are supported by research that demonstrated positive outcomes in using the SFT approach with children and adolescents for emotional and behavioral issues (Cook & Kaffenberger, 2003; Corcoran, 2006; Daki & Savage, 2010; Froeschle et al., 2007; Kelly et al., 2008; Richmond et al., 2014). The results suggest that using a strengths-based approach can help youth work through personal challenges, such as anxiety, depression, and disruptive behavior, related to school, home, or family contexts. Although problem-focused approaches focus on the causes of the presenting problem, the HART intervention focuses on finding solutions and moving forward from challenging situations. The findings from this study supported the integration of a solution-focused and canine-assisted therapy-based approach to address anxiety, depression, and maladaptive behavior with youth ages 10–18.

The results for the self-concept and anger inventories indicated that youth did not score significantly higher in self-concept or significantly lower in anger. The findings for the self-concept inventory were somewhat surprising, because the HART curriculum emphasizes acknowledging youth strengths and assets. It is possible that the change was not significant because youth ages 10–18 tend to struggle with self-concept. Chaplin and John (2007) asserted that youth become critical of their previously constructed self-concept due to physical changes and the fluctuations between their ideal self and their perceived self. Several studies point to peer interactions and acceptance as the greatest factor of adolescent self-concept (Krcmar, Giles, & Helme, 2008; MacDonald & Leary, 2005; Matsunaga, 2011). This may indicate that although participants in the study were able to recognize their own strengths in the counseling process, their interactions with peers outside of the counseling process may still have had an impact on participant perceptions of their own self-concept. The results for the anger inventory also indicated no significant changes. This means that youth did not perceive that anger was significantly lower after their participation in the HART intervention. The youth were referred for emotional issues, such as grief, loss, anxiety, depression, and self-concept. Youth who participated in the study did not report a presenting issue of anger. Although some youth may have reported frustration with a peer or family member during the course of counseling, no participants specifically struggled or set clinical goals related to anger. Thus the nonsignificant outcome for the anger inventory is logical.

Research Question 2 explored between group differences in gain scores for the BYI-II. Findings indicated no significant differences between the treatment and comparison groups for all five inventories. These results suggest that youth in the treatment and comparison conditions responded similarly on pretest and posttests inventories, such that neither condition produced significantly higher or lower scores in self-concept, anxiety, depression, anger, and disruptive behavior. Nimer and Lundahl (2007) supported this

finding in a meta-analysis that reported AAT shows potential as an adjunct to established interventions but did not have enough evidence as a stand-alone intervention.

With emerging research demonstrating positive outcomes for AAT, and canine-assisted therapy specifically (Lange et al., 2006/2007), there are several reasons why the addition of canine-assisted therapy in the HART intervention did not produce significant results when compared with the comparison condition. One explanation for this is curriculum design. The researchers were challenged in the development of the curriculum to create strength-based activities that could also be used with a counselor/therapy dog team with only slight modifications for integrating an animal of a different species into a clinical setting. If the curriculum was developed specifically for the treatment group, the activities would fully integrate the therapy dog. One example of an AAT activity not used in this study is called the Hula Hoop Challenge. The counselor asks the client to problem solve how to help the therapy dog walk through a hula-hoop. Because getting a dog to do this can be a challenge, the counselor could process with the child after the activity how the child helped the therapy dog do this and how the child works through challenges in life. Doing this activity without a therapy dog, but rather with a child going through the hula-hoop, could be awkward and may not provide the same type of learning as doing this activity with a therapy dog. Thus, the activities used were ones that would work for a child working with just a counselor and were modified for the treatment condition.

One activity used in the study was creating a “strengths bandana,” in which youth wrote personal strengths using markers on a white bandana. This activity was modified for the treatment condition by having the child also create a strengths bandana for the therapy dog. For processing questions, the counselors asked children to consider what strengths the child and therapy dog have in common and what strengths were different. Youth were able to choose if they wanted the therapy dog to wear the bandana in future sessions. Although this activity was a good fit for both participant groups, this activity was much less interactive than a typical AAT activity, such as the Hula Hoop Challenge. Future research in canine-assisted therapy using a randomized comparison or control group should consider the activities used and level of involvement of therapy dogs in clinical settings.

Another explanation for nonsignificant results of Research Question 2 could be that the comparison condition, without the integration of a therapy dog, was mainly a solution-focused approach. This stand-alone clinical approach has a strong evidence base as a beneficial intervention for youth, as described earlier in this section. Furthermore, using an activity-based curriculum, rather than talk therapy, may have influenced BYI-II scores. It is possible that if the curriculum for this study used talk therapy that did not integrate therapeutic activities, then the treatment group (i.e.,

counselors using talk therapy with a therapy dog) could have demonstrated significant results when compared to counselors using talk therapy without a therapy dog. Future research in using different theories and approaches with canine-assisted therapy could help to determine the influence of theory and approach when integrated with canine-assisted therapy with youth.

An important consideration for these results of this study is that the HART intervention was significant in three areas (e.g., anxiety, depression, and disruptive behavior) for both the treatment and comparison participant groups. Previous research on the SFT approach was comprised of youth working with only a counselor (i.e., comparison group; Corcoran, 2006; Sklare, 2005). The results for the treatment participant group are essential. These findings indicate that the HART curriculum can produce significant decreases in anxiety, depression, anger, and disruptive behavior. These results demonstrate that canine-assisted therapy can be a useful adjunct to strengths-based counseling. Similar to findings in this study, the current literature base for AAT described earlier has reported that AAT is effective in enhancing self-esteem, increasing positive social behaviors, and decreasing anxiety, depression, and disruptive behaviors. Furthermore, youth in a variety of clinical settings reported positive experiences with animal-assisted therapy (Anderson & Olson, 2006; Burgon, 2011; Dietz, Davis, & Pennings, 2012; Lange et al., 2006/2007; Mallon, 1994; Zasloff, Hart, & Weiss, 2003). The findings from this study suggest that using the HART intervention in individual counseling settings can be an effective clinical approach for working with youth.

## **Limitations**

There were a number of limitations to this study that should be considered when interpreting results. The sample size for this study was low. A larger sample size could provide results that are more generalizable. Although the location for the study was set in individual counseling rooms in a university clinic that provided standardization of the clinical setting, this may not have been the ideal setting for youth and therapy dogs. A setting with larger rooms, comfortable chairs for teens, and options for playing with the dog outside could have been a better fit for this study. The activity level of the therapy dogs could have been another limitation. The therapy dogs who participated in this study had a variety of personalities and energy levels. It is possible that the shy or robust nature, or high or low energy level, of certain dogs influenced the experiences of youth in the study. Future research on the influence of therapy dog traits on youth would be an asset to the evidence base of animal-assisted therapy.

## Conclusion

The findings of the current study support the use of the HART curriculum in decreasing anxiety, depression, and disruptive behavior in youth ages 10–18. The results indicate that youth can change how they conceptualize their thoughts and behaviors in positive ways through participation in a 10-week strengths-based intervention. The results did not indicate a significant increase in self-concept or a significant decrease in anger for participants. The findings also indicated that there were no significant differences between the treatment and comparison conditions. This could be due to the challenge of developing a curriculum that includes activities that fit for youth working with just a counselor and youth working with a counselor/therapy dog team. This could also be due to the evidence base of positive outcomes associated with using SFT interventions with youth. The HART intervention appears to be an effective modality for working with pre-adolescent and adolescent youth in counseling.

## Notes on contributor

**Elizabeth Kjellstrand Hartwig** is in the Department of Counseling, Leadership, Adult Education, and School Psychology at Texas State University, San Marcos, Texas.

## References

- Anderson, K. L., & Olson, M. R. (2006). The value of a dog in a classroom of children with severe emotional disorders. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*, *19*(1), 35–49. doi:[10.2752/089279306785593919](https://doi.org/10.2752/089279306785593919)
- Badenoch, B. (2008). *Being a brain-wise therapist: A practical guide to neurobiology*. New York, NY: W. W. Norton.
- Beck, J. S., Beck, A. T., Jolly, J. B., & Steer, R. A. (2005). *Beck Youth Inventories, second edition for Children and Adolescents (BYI-II)*. San Antonio, TX: Harcourt Assessment.
- Berg, I. K., & Steiner, T. (2003). *Children's solution work*. New York, NY: Norton.
- Bratton, S. C., Ceballos, P. L., & Ferebee, K. W. (2009). Integration of structured expressive activities within a humanistic group play therapy format for preadolescents. *The Journal for Specialists in Group Work*, *34*, 251–275. doi:[10.1080/01933920903033487](https://doi.org/10.1080/01933920903033487)
- Burgon, H. L. (2011). “Queen of the world”: Experiences of “at-risk” young people participating in equine-assisted learning/therapy. *Journal of Social Work Practice*, *25*, 165–183. doi:[10.1080/02650533.2011.561304](https://doi.org/10.1080/02650533.2011.561304)
- Chaplin, L. N., & John, D. R. (2007). Growing up in a material world: Age differences in materialism in children and adolescents. *Journal of Consumer Research*, *34*, 480–493. doi:[10.1086/518546](https://doi.org/10.1086/518546)
- Colombo, G., Buono, M., Smania, K., Raviola, R., & Leo, D. (2006). Pet therapy and institutionalized elderly: A study on 144 cognitively unimpaired subjects. *Archives of Gerontology and Geriatrics*, *42*, 207–216. doi:[10.1016/j.archger.2005.06.011](https://doi.org/10.1016/j.archger.2005.06.011)

- Community-University Partnership for the Study of Children, Youth, and Families. (2011). *Review of the Beck Youth Inventories—for Children and Adolescents*, 2nd ed. (BYI-II). Edmonton, Canada: Author.
- Cook, J. B., & Kaffenberger, C. J. (2003). Solution shop: A solution-focused counseling and study skills program for middle school. *Professional School Counseling*, 7, 116–123.
- Corcoran, J. (2006). A comparison group study of solution-focused therapy versus “treatment-as-usual” for behavior problems in children. *Journal of Social Service Research*, 33(1), 69–81. doi:10.1300/J079v33n01\_07
- Daki, J., & Savage, R. S. (2010). Solution-focused brief therapy: Impacts on academic and emotional difficulties. *The Journal of Educational Research*, 103(5), 309–326. doi:10.1080/00220670903383127
- DeJong, P., & Berg, I. K. (1998). *Interviewing for solutions* (1st ed.). Pacific Grove, CA: Brooks/Cole.
- DeJong, P., & Berg, I. K. (2012). *Interviewing for solutions* (4th ed.). Pacific Grove, CA: Brooks/Cole.
- Dell, P. F., & Goolishian, H. A. (1981). An evolutionary epistemology for cohesive phenomena. In H. Kellerman (Ed.), *Group cohesion: Theoretical and clinical perspectives*. New York, NY: Grune & Stratton.
- Dietz, T. J., Davis, D., & Pennings, J. (2012). Evaluating animal-assisted therapy in group treatment for child sexual abuse. *Journal of Child Sexual Abuse*, 21, 665–683. doi:10.1080/10538712.2012.726700
- Fine, A. (Ed.). (2006). *Handbook of animal-assisted therapy: Theoretical foundations and guidelines for practice* (2nd ed.). San Diego, CA: Elsevier.
- Finn, C. A. (2003). Helping students cope with loss: Incorporating art into group counseling. *The Journal for Specialists in Group Work*, 28, 155–165. doi:10.1080/714860157
- Froeschle, J. G., Smith, R. L., & Ricard, R. (2007). The efficacy of a systematic substance abuse program for adolescent females. *Professional School Counseling*, 10, 498–505. doi:10.5330/prsc.10.5.a458605px1u57217
- Hergovich, A., Monshi, B., Semmler, G., & Zieglmayer, V. (2002). The effects of the presence of a dog in the classroom. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*, 15, 37–50. doi:10.2752/089279302786992775
- Kazdin, A. E. (2002). *Research design in clinical psychology* (4th ed.). Boston, MA: Allyn and Bacon.
- Kelly, M. S., Kim, J. S., & Franklin, C. (2008). *Solution-focused brief therapy in schools: A 360-degree view of research and practice*. New York, NY: Oxford University Press.
- Krcmar, M., Giles, S., & Helme, D. (2008). Understanding the process: How mediated and peer norms affect young women’s body esteem. *Communication Quarterly*, 56(2), 111–130. doi:10.1080/01463370802031844
- Lange, A., Cox, J., Bernert, D., & Jenkins, C. (2006/2007). Is counseling going to the dogs? An exploratory study related to the inclusion of an animal in group counseling with adolescents. *Journal of Creativity in Mental Health*, 2, 17–31. doi:10.1300/J456v02n02\_03
- Levinson, B. (1969). *Pet-oriented child psychotherapy*. Springfield, IL: Charles C. Thomas, Bannerstone House.
- Macauley, B. L. (2006). Animal-assisted therapy for persons with aphasia: A pilot study. *Journal of Rehabilitation Research & Development*, 43(3), 357–365.
- MacDonald, G., & Leary, R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin*, 131(2), 202–223. doi:10.1037/0033-2909.131.2.202
- Mallon, G. P. (1994). Some of our best therapists are dogs. *Child & Youth Care Forum*, 23(2), 89–101. doi:10.1007/BF02209256

- Matsunaga, M. (2011). Underlying circuits of social support for bullied victims: An appraisal-based perspective on supportive communication and postbullying adjustment. *Human Communication Research*, 37(2), 174–206. doi:10.1111/hcre.2011.37.issue-2
- Nimer, J., & Lundahl, B. (2007). Animal-assisted therapy: A meta-analysis. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*, 20, 225–238. doi:10.2752/089279307X224773
- Pet Partners. (2014). *Pet Partners handler student guide*. Bellevue, WA: Author.
- Richmond, C. J., Jordan, S. S., Bischof, G. H., & Sauer, E. M. (2014). Effects of solution-focused versus problem-focused intake questions on pre-treatment change. *Journal of Systemic Therapies*, 33(1), 33–47. doi:10.1521/jsyt.2014.33.1.33
- Sklare, G. B. (2005). *Brief counseling that works: A solution-focused approach for school counselors and administrators* (2nd ed.). Thousand Oaks, CA: Sage.
- Trotter, K., Chandler, C. K., Goodwin-Bond, D., & Casey, J. (2008). A comparative study of the efficacy of group equine assisted counseling with at-risk children and adolescents. *Journal of Creativity in Mental Health*, 3, 254–284. doi:10.1080/15401380802356880
- U.S. Census Bureau. (2015). *Quick facts*. Retrieved from <http://quickfacts.census.gov/qfd/states/48000.html>.
- Walsh, P., & Mertin, P. (1994). The training of pets as therapy dogs in a women's prison: A pilot study. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*, 7, 124–128. doi:10.2752/089279394787002014
- Zasloff, L. R., Hart, L. A., & Weiss, J. M. (2003). Dog training as a violence prevention tool for at-risk adolescents. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*, 16, 352–359. doi:10.2752/089279303786992044