

Program Development and Interim Evaluation of Riding Free: Equine Therapy for Children Diagnosed with Post-Traumatic Stress Disorder

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Background: Post-traumatic stress disorder (PTSD) is a disabling anxiety disorder in children and adolescents exposed to traumatic events. The National Comorbidity Survey-Adolescent Supplement (NCS-A) estimated that 31.9% of children in the United States suffer from a type of anxiety disorder. Of that 31.9%, 10.3% met the clinical criteria for PTSD. Yet very few programs exist to meet community needs. (Merikangas, K. R., He, J., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., Benjet, C., Katholiki, G., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49 (10), 980-989. doi: 10.1016/j.jaac.2010.05.017)

Purpose: Research shows equine therapy is beneficial in children with various emotional and behavioral disorders, including PTSD. The Riding Free™ equine therapy program was designed by the author for individuals diagnosed with PTSD. The program goals were to improve the quality of life and reduce PTSD symptoms. The purpose of this study was conduct an interim program evaluation to assess feasibility of the program, demonstrated by retention rate and participants' achievement of program objectives.

Methods: Riding Free™ was developed after thorough research in PTSD in children, equine therapy, and effective program development. Focus groups were held to address PTSD needs in the community. The program was implemented at Sebastian Riding Associates (SRA); a non-profit, therapeutic riding facility located in Collegeville, Pa. Riding Free™ is a complementary program to add to participants' existing therapy. The program was offered to children diagnosed with PTSD, ages 7 through 17. Riding Free™ consists of twelve goal-driven sessions to improve social skills, self-confidence, and self-efficacy. In total, the program contained 49 session objectives, based on learning and skill acquisition.

Records from the first 10 participants to complete the program were evaluated. Attendance was recorded and achievement of objectives was noted in participants' Student Activity Charts. The retention and program completion rates were assessed by reviewing attendance records. The objective achievement rate was assessed by reviewing participants' Student Activity Charts.

Results: There were no participant withdrawals. Each participant completed all 12 program sessions, showing a 100% attendance rate. The group's average for achieving session objectives was 97.96%. The most common objective not met was trotting independently.

Conclusions: The 100% retention and attendance rates demonstrated the high feasibility of the program. Likewise, it indicated a dedicated engagement from both the participant and parents. The high rate of achieving objectives demonstrated both the high feasibility of the program and appropriateness of session plans. The results suggested the session objectives are attainable, yet remain challenging at an appropriate level. The interim program evaluation suggested that the program sessions should not be modified. However, to improve the overall objective achievement rate it is suggested that any unmet objectives be repeated in later sessions, if possible. Results show the Riding Free program was feasible, engaged the participants and their families, and that its session objectives were achievable, supporting the goals of the program.

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Dené Mitchell; MPH, CCRP

Dené graduated from Arcadia University with her Master of Public Health degree in 2013, where she also earned her Bachelor of Arts degree in Psycho-Biology. During her time at Arcadia, she developed Riding Free™, an equine therapy program for individuals suffering from post-traumatic stress disorder (PTSD). Dr. Andrea Crivelli-Kovach began working with Dené as her academic advisor while she implemented the program as her thesis. Dr. Kovach continues her work with Dené post-graduation, and is currently a co-investigator on their ongoing research of the program. While volunteering at Sebastian Riding Associates (SRA), Dené was inspired to create a program based in mental health, which was determined to be a great need in their community. She now serves as a volunteer research director and principal investigator for the program at SRA. It is Dené's hope that the program grow large enough to sustain the need in their community. Dené's career involves many years of research experience; she currently holds a position at a large non-profit organization as an oncology research study associate. Contact Dené at dmitchell@arcadia.edu.



Andrea Crivelli-Kovach; Ph.D., MA, MCHES

Professor and Chair of Community & Global Public Health at Arcadia University, Dr. Andrea Crivelli-Kovach, earned her BA in Biology/Biochemistry ; an MA in Nutrition from Immaculata University; and completed her PhD in Community Public Health with a focus in Women's Health/Maternal & Child Health at Temple University. Her areas of research include: (a) US and international hospital breastfeeding policies and practices; (b) mother's experience with breastfeeding in a hospital setting and (c) the effect of community health workers on empowerment in low-income pregnant women and mothers of young children. In 1994, she developed an instrument to evaluate implementation of the Global Policy: The Baby-Friendly Hospital Initiative's Ten Steps to Successful Breastfeeding, which was later used throughout the U.S. and internationally to measure hospital policies and practices related to the Ten Steps.  Kovach serves as an academic advisor and co-investigator for the Riding Free™ research.



Christine Hanebury; PATH

Chris has been involved with the Sebastian Riding Associates (SRA) since 1986 when her daughter, Lindsey, began hippotherapy at the age of 2 to aid her low muscle tone characteristic of Down Syndrome. Over the next 17 years, her role changed from parent to volunteer to instructor and to board member, but always an advocate for the program, having witnessed first-hand the benefits riding had provided for her daughter. In 2004, tragically Lindsey passed away from leukemia after only a month-long battle; she was 10 days shy of her 20th birthday. Horses not only aided Lindsey's health but Chris also credits Twizzle with helping the family with their grief from their loss. Chris is the Montgomery County Special Olympics Equestrian Team Head Coach; holds the Professional Association on Therapeutic Horsemanship (PATH) certification in Equine Specialist in Mental Health Learning; and is passionately dedicated as the lead instructor for the Riding Free™ program.