

American Journal of

# RECREATION THERAPY™

*Clinical Research & Practice  
for Debilitating Conditions*

## FEATURES

- Accessibility on campus
- Using the group process
- Applied program description
- Therapeutic riding
- Professional duties in RT
- Life review in Alzheimer's



Volume 7, Number 2, Spring 2008 ISSN 1539-4131

# The impact of the “Stirrup Some Fun” therapeutic horseback riding program: A qualitative investigation

Steven Elliott, PhD  
Janet A. Funderburk, PhD, LRT/CTRS  
James M. Holland

## Abstract

Therapeutic horseback riding is an intervention utilizing horses in the treatment of individuals with emotional, cognitive, and/or physical disabilities. The purpose of this study was to investigate the perceived impact of a therapeutic riding program on children with mild to moderate physical and mental disabilities. Two groups of participants including five children (with a variety of physical and cognitive disabilities) and at least one parent of each of the five children were interviewed to investigate the impact of the Stirrup Some Fun Therapeutic Riding Program (SSF TRP). Qualitative data analysis procedures were used to explore participants' views and opinions of the SSF TRP. Several themes emerged from the interviews with the participants and their parents, including (a) enjoyment, (b) the child/animal connection, (c) social relationships with volunteers, (d) perceived physical benefits, and (e) the social and mental benefits of the program.

Key words: Therapeutic horseback riding, hippotherapy, developmental riding, children with disabilities, therapeutic benefits, qualitative analysis

## Introduction

Therapeutic horseback riding is an intervention utilizing horses in the treatment of individuals with emotional, cognitive, and/or physical disabilities. Dating back to early Greek civilization, it was reported that the Greeks gave horseback rides to individuals who were considered untreatable or incurable to improve their spirits.<sup>1</sup> According to Depaw,<sup>1</sup> the use and benefits of horseback riding as a therapeutic intervention originated in Europe and was first documented in medical literature during the eighteenth and nineteenth centuries. Over the years, horseback riding programs for the disabled have become diversified and increasingly somewhat sophisticated.<sup>21</sup> The North American Riding for the Handicapped Association (NARHA)<sup>2</sup> states that there are over 700 NARHA program centers currently in operation in the United States and Canada serving an estimated 42,000 individuals with disabilities.

Individuals with almost any cognitive, physical, and/or emotional disability can benefit from therapeutic riding. It has been documented that individuals with the following disabilities commonly participate and benefit from equine facilitated therapy and activities: muscular dystrophy, visual impairments, cerebral palsy, Down syndrome, mental retardation, autism, multiple sclerosis, spina bifida, and learning disabilities.<sup>1,3</sup> Because of the gentle and rhythmic moves the horse provides, the rider experiences a movement similar to human gait.<sup>1</sup> Riders with physical disabilities often show improvement in flexibility, balance, and muscle strength. According to NARHA, for individuals with mental or emotional disabilities, “the unique relationship formed with the horse can lead to increased confidence, patience, and self-esteem. A sense of independence and acceptance found through these activities with the horse is an additional benefit.”<sup>2</sup>

**Table 1. Description of participants: Children**

	Age	Gender	Disability	Length in program
Child 1	6	Female	Mild Down Syndrome	1 y
Child 2	9	Female	Mild cerebral palsy	1 y
Child 3	11	Female	Spina Bifida and hydrocephalus Multiple GI problems	1 y
Child 4	14	Male	Charge syndrome Mid line defects	2 y
Child 5	15	Female	Cerebral palsy which primarily effects her left side. She walks with a walker. She also has hydrocephalus in which she has a ventricular shunt.	2 y

Several types of approaches to therapeutic riding are used with riders. Two of the most common approaches are hippotherapy and developmental riding. The word *hippotherapy* literally means treatment with the help of a horse.<sup>4</sup> According to Heine,<sup>4</sup> the movement of the horse's pelvis and hips as it walks provides a challenge for riders who, without the use of the horse as a tool, may not be able to experience this movement. Developmental riding also uses a treatment approach to achieve cognitive, affective, perceptual motor, and movement needs; however, developmental riding differs from hippotherapy in that the focus is on the acquisition of equine skills and training.<sup>3,5</sup>

While therapeutic horseback riding is currently being utilized as a therapeutic intervention in hundreds of programs in the United States and throughout the world, only a limited amount of research has been conducted to assess the therapeutic effectiveness of horseback riding for people with disabilities.<sup>1</sup> Research studies in this area have shown that physical benefits such as coordination,<sup>6-8</sup> gross motor functioning,<sup>9,10</sup> balance,<sup>11</sup> posture,<sup>12</sup> and psychosocial factors such as physical self-efficacy and self-confidence<sup>13</sup> can be achieved through therapeutic horseback riding.

Several examples of empirical research in the literature related to this topic were identified. One

study<sup>11</sup> sought to determine the effects of therapeutic horseback riding on the balance of eight individuals with mental retardation. The results indicated that participants showed significant improvement on balancing tasks after involvement in a therapeutic riding program. More recently, Sterba et al.<sup>9</sup> conducted a study to measure the effect of horseback riding on gross motor function in children with cerebral palsy (CP). These findings suggest that recreational horseback riding therapy may improve gross motor function in children with CP, which may reduce the degree of motor disability. In one exploratory study, Ferias-Tomaszewski et al.<sup>13</sup> assessed the outcome of a 12-week therapeutic horseback riding program for persons with physical disabilities. Physical self-efficacy and behavioral self-confidence were found to increase from pretest to posttest. Another study<sup>12</sup> measured postural changes in children with spastic cerebral palsy after participating in a therapeutic riding program. A significant change in posture was reported. Further, Brock<sup>7</sup> conducted a pretest and posttest design to study the effects of therapeutic horseback riding on adults with physical disabilities. Participants in the riding group demonstrated significant improvement in coordination but no significant improvement in self-concept and strength. In summary, research findings have shown that physical benefits

**Table 2. Description of participants: Parents**

Parent	Age	Gender	Child	Length in program
Parent 1	33	F	Child 1	1 y
Parent 2	42	M	Child 2	1 y
Parent 3	36	M	Child 3	1 y
Parent 4	39	F	Child 4	2 y
Parent 5	45	F	Child 5	2 y

such as coordination, motor control, balance, posture, and psychosocial factors can be achieved through therapeutic horseback riding. Thus, increased self-concept, improved psychosocial factors, motor control, and posture may be benefits of therapeutic horseback riding for individuals with disabilities.

### Stirrup Some Fun program

Stirrup Some Fun (SSF TRP) is a nonprofit therapeutic riding program designed for children with special needs located in Southeastern Georgia. The program (SSF TRP) provides children with special needs the opportunity to engage in therapeutic riding activities. The purpose of this qualitative study was to investigate the perceived impacts of the SSF TRP on the participants. Figures 1 to 4 show participants in “action” at the SSF TRP.

## Methods

### Description of participants

The two subsamples of participants were as follows: (a) five SSF TRP participants aged between 6 and 15 years of age who were diagnosed with varying mental and physical disabilities and (b) a parent of each of the five children (see Tables 1 and 2). They were selected by a purposeful sampling technique. Purposeful sampling seeks information rich cases, which can be studied in depth.<sup>14</sup> The subjects responded to a request from the researchers for participation in this project. To collect data for this study, the protocol was reviewed and approved by the Georgia

Southern Universities Institutional Review Board (approval H06202).

### Data collection

The purpose of the data collection phase was to collect in-depth descriptive information from the five participants and five of their parents on the SSF TRP (10 participants in total). Information was collected by interviewing each participant and his or her parent separately on an average of 30 minutes each. Certain guidelines were followed when compiling the interview questions. Specifically, the questions were open-ended, nonthreatening, and followed by probes, not leading<sup>15</sup> and arranged in a logical order.<sup>14</sup> The interviews were recorded to allow for complete verbatim transcriptions to be made.

Following the interview, member checking occurred by asking each participant to read his or her transcribed interview. The participants were invited to clarify, elaborate, or suggest changes to their original responses.<sup>16</sup> The two researchers met frequently throughout the study to discuss the interviews. The two researchers had taken multiple graduate courses in qualitative research methods and were trained and experienced in qualitative techniques. Discussions between the two researchers focused on methodological issues, the analytical process, the nature of the questions asked of the participants, and the interpretations of the data. The purpose of using two analysts was an attempt to reduce the potential bias that comes from a single person doing all the data collection and provided means to assess the reliability and validity of the data obtained.<sup>14</sup>



**Figure 1. Participant works on balance skills.**

### **Method of analysis**

Qualitative data analysis procedures were used to explore participants' views and opinions of the SSF TRP. The constant comparative method of analysis<sup>17</sup> was applied to the individual transcripts as a method of coding and categorizing the data and to summarize the findings in meaningful ways. This process involved multiple and careful examinations of the data to identify key linkages, themes, and patterns, which were used to analyze and interpret the qualitative data.<sup>16</sup>

The analysis of the interview data began with an individual case analysis of one of the children (selected randomly), followed by a within-group case analysis of all the children.<sup>14</sup> This involved inducing categories from the answers of one participant and comparing them to the answers from the other children. Themes and patterns drawn from the five individual cases were compared and contrasted for similarities and differences. The synthesis of the within-group cross-case analyses represented a descriptive and interpretive framework of the five children's feelings toward the riding program. The same process was repeated for the five parents in the study. The next step involved comparing the themes

and patterns found in the children's answers to those found in the parent's answers.

### **Results**

Following the tradition of the phenomenological perspective, the researchers attempted to present the major themes regarding participation in the SSF TRP from each of the participant's perspective. The participants expressed varying viewpoints and the myriad of topics discussed were featured as their stories. After extensive studying of the participant's stories, each case was synthesized and inserted into a table format. This preliminary analysis was done so that topics of conversation could be scanned from each person's interview. The first researcher approached the task of categorization with this question in mind: "What major categories do I see here?" The first researcher was able to discern 10 major categories that he believed depicted the essence of what was reflected in the children's interviews, and 11 major categories that he believed depicted the essence of what was reflected in the parent's interviews.

The second researcher completed the same tasks as the first researcher during the analysis phase of these qualitative data. Specifically, the second researcher selected her own categories for both sets of participants. The second researcher was able to discern 10 major categories that she believed depicted the essence of what was reflected in the children's interviews, and 13 major categories that she believed depicted the essence of what was reflected in the parent's interviews.



**Figure 2. Participant eagerly awaits mounting his horse for therapy.**

**Table 3. Selection of categories: Children**

First researcher (10)	Second researcher (10)	Final categories (6)
Initial excitement	All looked forward to it each week (sad if missed)	Excitement
	Something unique they can call their own (that others don't get to do)	
Best part of week	Participation in program became a conversation piece with friends	A program they called their own
Something different	Increased self-confidence	
Friends were jealous		
Positive self-esteem	Horses motivated them in several aspects of life	Improved self-confidence and self-esteem
Confidence on horse		
Love of animals	All bonded with one special horse	Love of animals / horses
	All LOVE animals/the horse	
Fun volunteers	Instructors had an impact	Relationships with volunteers
	All reported physical therapeutic outcomes related to disability	
More fun to do activities while on a horse	Tiring but felt good/happy at end of sessions	Therapeutic activities performed on horseback
A good workout		

\*Note: The above categories are listed in no particular order.

In general, the categories that the two researchers selected were similar to each other. The differences between the categories identified by the two researchers were discussed and the final categories were selected. The selected categories are presented in Table 3 (children) and Table 4 (parents). The final step in the analysis process involved comparing and contrasting the categories from both sets of participants, which resulted in five final categories (Table 5). These final categories, in no particular order, are described in the following section.

**Enjoyment**

The most common theme that emerged from the interviews was that the children thoroughly enjoyed their participation in the SSF TRP. For example, one female rider told the researchers that “I’m not good at other physical activities . . . it’s not something that

makes me feel I have accomplished something but with the horses I was not only good at it but I really liked being around the horses. It was a very enjoyable thing for me, it wasn’t like a chore, it wasn’t something I had to win to enjoy, it was like a bonding session.”

The “excitement” and “fun” described by the children were confirmed by their parents. Every parent told the researchers that his or her child looked forward to the sessions each week with great anticipation and excitement. One parent told how her son always talks about riding horses at home, “He tells his friends about it at school and he is very much excited about being in this program.” Another parent believed that her daughter’s positive experiences had led to an improvement in her self-esteem, stating that, “She enjoys it so much and it is something she can excel in so it gives her a little bit of I guess self-worth and



**Figure 3. Participant enjoys social interaction with a volunteer.**

builds up their self-esteem for them to be able to do something like that when they cannot do other stuff in school.”

### **Child/animal connection**

Each child was paired with the same horse every week. All five children in the study mentioned the connection they had formed with “their” horse. One child stated that, “I just enjoyed seeing the horses, getting to interact with them, and grooming them after was fun. I was allowed to groom Bella (horse) and wash her off. I just enjoyed the whole personal side of it and getting to know Bella.” Another child also talked extensively about the relationship he developed with his horse, “I got to work with one of the bigger horses and we got along really well. I think we became friends.”

The child’s connection with his or her horse was a theme that emerged from the interviews with the parents. One parent commented, “especially Max (the horse), they say that he (child) and Max have some kind of, you know how some animals connect with some people, Miss S (volunteer), she said that Max’s ears will sit back when he hears his voice. They are just a good match.” A father of one participant encouraged his child to spend as much time with his horse as possible, “I told the helper that he likes to do the care of the horse as much as he does the actual riding.”

### **Social relationships with volunteers**

This theme was found in all of the interviews the children and their parents. The children developed positive relationships with the volunteer helper who acted as horse leaders and side-walkers. One participant said, “The side-walkers were really great. They were encouraging and they really helped a lot. I couldn’t wait to go back and see them and horses each week.” These comments were echoed by another rider, “they knew what to do and they were really encouraging and when I would trot they would run beside me and they made it fun.”

Many of the parents who were interviewed also pointed out that the relationships built between the volunteers and the children was one of the most positive aspects of this whole experience. A mother of one participant described how impressed she was with the energy of the volunteers, “They were very caring, knowledgeable of the horse, and they loved the horses and the kids, they enjoyed interacting with them, it was so uplifting, very positive. From week to week they kept up with his name and his interests. They could talk to him on the horse, I could hear them talking to him about biology class, taking interest in him and that’s real special for kids that have needs like that.” Another parent enjoyed seeing her daughter interact with the volunteers, “She is a little princess out there, they treat her like a princess and she loves it.” Throughout the interviews it became obvious that



**Figure 4. Participant working on core stabilization on horseback.**

**Table 4. Selection of categories: Parents**

First researcher (11)	Second researcher (13)	Final categories (7)
Child looks forward to this all week	Child had fun!	Excitement and enjoyment
	Child was so excited every week	
Child formed a bond with "their" horse	Children love the horses	Connection with horse
	Child connected with horse as they rode it	
Relationships with volunteers	Child got special attention from staff	Relationships with volunteers
Performed therapeutic activities while on the horse	Incorporated physical therapy with something fun	Therapeutic activities
	Addressed therapeutic needs	
Attitude of child after the session	Gave child a sense of accomplishment	Pride in accomplishments
Child bragged to siblings about riding a horse	Child took responsibility	
Positive attitude towards therapy	Noticeable improvement in self-worth	Attitude change
Friendship with other riders	Child became more social	
More talkative	Noticed attitude and mood change	
Improvements in flexibility	Physical benefits	Physical benefits
A good work out for child		

\*Note: The above categories are listed in no particular order.

one of the big attractions of the program for the parents was that it was a safe program led by committed volunteers. The comment from one mother was especially powerful, "I mean they come to her and hug her and care for her. They would remember information that she would share with them and they would ask her how it is going."

**Perceived physical benefits**

The fourth theme identified in the study related to the perceived physical benefits of performing therapeutic activities while riding the horse. The interviews revealed that the riders performed several different activities while moving around the arena on the horse. Some of these were described by the riders, "I usually have to reach for some cards and they say

stuff on it, like about the horses and what the horses wears. I have to reach across and pick out what the horse wears." Another rider pointed out that performing her therapeutic activities while riding the horse was more fun and motivating, "I have been in physical therapy a lot so stretching is not that big in fun but it was interesting and fun to do it on the horse."

All of the parents expressed their approval of the types of activities their children performed and believed that it helped their children improve their balance, muscular strength, and muscular endurance. Comments included, "they encouraged her to use her legs, squeeze the horse, stand up sometimes, sit straight, and to do lots of reaching around. Being on the horse has helped improve her balance." Another parent also discussed how she believed the activities

helped her son's balance, "He was born with a lot of midline birth defects. There is a section of the brain that does control your balance and that was underdeveloped and he has trouble with balance but he tells us that he thinks being on a horse is helping him walk straighter down the hallway."

### ***Mental and social benefits of program***

In this study, participants reported a boost in their self-esteem and self-worth and that riding provided them with a sense of pride and accomplishment. One rider stated, "I felt proud of myself when I achieved something like trotting, when I was holding the horse without any side-walkers." Another rider told the researchers that she was scared to begin with but gradually gained more confidence on the horse, "I was a little nervous because I have always wanted to ride horses, it was a childhood dream of mine, but I never really felt confident enough to do it and I wasn't sure I would be able to do it. So, I was really nervous but after I got on the horse it was just so much fun that I couldn't stay scared or nervous."

One surprising theme that emerged throughout the interviews was the value the children placed on participating in a nontraditional activity that not every child got to experience. One participant explained how she had two brothers who played several sports and that they were jealous of her involvement in a horse riding program. This child's mother also commented on this, "no one in our family has ridden horses. He has two very athletic brothers and this is something all his own that he knows how to ride a horse." Another parent stated that "this program was something she got to do that the other kids didn't, you know, when maybe they were able to go ride bikes she was always stuck on the porch or stuck not having anything to do."

One of the more powerful statements came from a mother who described how her daughter's involvement had allowed her to become closer to her sister. She said, "It gave her something to talk to her sister about, she is a twin and her sister participates in several physical activities so she never really had anything to talk about with her sister that she had done so it gave her something to talk about with her sister."

The themes that emerged to form these findings identify a range of both physical and psychosocial benefits. Implication of these benefits will be discussed in the next section.

### **Discussion**

This challenging and rewarding experience enabled the participants to perform therapeutic activities while riding a horse. The interviews with participants and their parents revealed that this was a fun and exciting program run by enthusiastic therapists and that the therapeutic activities performed on horseback resulted in perceived mental and psychosocial benefits in the children.

While the results of this study suggest that positive outcomes may be obtained by children with disabilities who participate in a therapeutic riding program, there were limitations to these results. One limitation to this study was the small sample size and possible bias in selection. Another limitation was that the study focused on just one therapeutic riding program. Studying larger numbers and multiple programs might provide more information about the programs themselves and allow for how different programs might provide different experiences for the participants and their parents.

Some of the reported positive outcomes of participation in the SSF TRP mirrored the findings from previous studies conducted on other therapeutic riding programs. For example, one of the themes that emerged in the present study was the mental and psychosocial benefits of participation in the program. These benefits concurred with the findings of Ferie Tomazewski and colleagues,<sup>13</sup> who found that participation in a therapeutic riding program helped to increase individuals' self-efficacy and self-confidence. The results of this study are also similar to those reported by Biery and Kaufman.<sup>11</sup> The participant indicated that the therapeutic activities performed on horseback helped improve their balance and muscular endurance. The participants were challenged to perform individualized activities that were designed to improve their balance, muscle tone, flexibility, and coordination. Interestingly, many of the SSF TRP participants expressed a dislike for regular therapeutic

**Table 5. Selection of final categories**

<b>Interviews with children Final categories</b>	<b>Interviews with parents Final categories</b>	<b>Final categories</b>
Excitement	Excitement and enjoyment	<b>1. Enjoyment</b>
Love of animals/horses	Connection with horse	<b>2. Child/animal connection</b>
Relationships with volunteers	Relationships with volunteers	<b>3. Social relationships with volunteers</b>
Therapeutic activities performed on horseback	Therapeutic activities	<b>4. Physical benefits of therapeutic activities</b>
	Physical benefits	
Improved self-confidence and self-esteem	Pride in accomplishments	<b>5. Mental and social benefits of program</b>
Program they called their own	Attitude change	

Note: The above categories are listed in no particular order.

...vity sessions but were very enthusiastic about similar activities performed when on horseback.

### **Implications for recreation therapy for service providers**

The results of this study provide several implications for the field of recreation therapy and for service providers. Furthermore, this study and others show that programs such as the SSF TRP offer a supportive and exciting environment where children with disabilities can perform therapeutic activities on horseback which can lead to improvements in their self-esteem and self-confidence. As several children mentioned, because they have a disability, there are many activities which they are not able to participate. This riding experience allowed them to do something unique (that their able-bodied peers and siblings did not do), which ultimately led to improvement in self-esteem. The social experience of the program was also very meaningful for the participants, including the relationships formed with the horses and the volunteers who served as lead-walkers and horse leaders. While important emotional bonds are formed during the session, more specific measurable therapeutic goals related to the social experience could also be addressed as a part of a treatment plan. For example, a child with autism who has trouble

communicating with peers could use the horse to work on those skills. Communicating with a horse may seem less threatening than talking to a person.

Additionally, all the children interviewed talked about how they enjoyed grooming their horse. Indeed, for some the time spent grooming the horse was the highlight of their day as it gave them a sense of ownership and responsibility. Another implication for recreational therapy practice would be to use the grooming of the horse to address physical limitations. For example, a child with a physical disability could work on a range of motion, balance, or building strength when brushing and grooming the horse. As a result, a therapeutic goal would be addressed while the child did something they enjoyed. When planning therapeutic riding programs for individuals with disabilities, program providers may need to consider the comments and benefits reported by the children in this study, and incorporating these ideas into future programming. Service providers should not underestimate the value that the participants place on being able to spend extended periods of time with their horse.

### **Summary**

More research is needed to answer specific questions regarding the experience of therapeutic horse riding.

**Table 5. Selection of final categories**

<b>Interviews with children Final categories</b>	<b>Interviews with parents Final categories</b>	<b>Final categories</b>
Excitement	Excitement and enjoyment	<b>1. Enjoyment</b>
Love of animals/horses	Connection with horse	<b>2. Child/animal connection</b>
Relationships with volunteers	Relationships with volunteers	<b>3. Social relationships with volunteers</b>
Therapeutic activities performed on horseback	Therapeutic activities	<b>4. Physical benefits of therapeutic activities</b>
	Physical benefits	
Improved self-confidence and self-esteem	Pride in accomplishments	<b>5. Mental and social benefits of program</b>
A program they called their own	Attitude change	

\*Note: The above categories are listed in no particular order.

activity sessions but were very enthusiastic about similar activities performed when on horseback.

### **Implications for recreation therapy and service providers**

The results of this study provide several implications for the field of recreation therapy and for service providers. Furthermore, this study and others show that programs such as the SSF TRP offer a supportive and exciting environment where children with disabilities can perform therapeutic activities on horseback which can lead to improvements in their self-esteem and self-confidence. As several children mentioned, because they have a disability, there are many activities in which they are not able to participate. This riding experience allowed them to do something unique (that their able-bodied peers and siblings did not do), which in turn led to improvement in self-esteem. The social experience of the program was also very meaningful to the participants, including the relationships formed with the horses and the volunteers who served as side-walkers and horse leaders. While important social bonds are formed during the session, more specific, measurable therapeutic goals related to the social domain could also be addressed as a part of a treatment plan. For example, a child with autism who has trouble

communicating with peers could use the horse to work on those skills. Communicating with a horse may seem less threatening than talking to a person.

Additionally, all the children interviewed talked about how they enjoyed grooming their horse. Indeed, for some the time spent grooming the horse was the highlight of their day as it gave them a sense of ownership and responsibility. Another implication for recreational therapy practice would be to use the grooming of the horse to address physical limitations. For example, a child with a physical disability could work on range of motion, balance, or building strength when brushing and grooming the horse. As a result, a therapeutic goal would be addressed while the child did something they enjoyed. When planning therapeutic riding programs for individuals with disabilities, program providers may need to consider the comments and benefits reported by the children in this study, and incorporating these ideas into future programming. Service providers should not underestimate the value that the participants place on being able to spend extended periods of time with their horse.

### **Summary**

More research is needed to answer specific questions regarding the experience of therapeutic horse riding.

Future research could involve studying other therapeutic riding programs to determine whether similar or different themes related to participation exist. A more comprehensive study could employ a mixed-methodology approach in which: (a) components of health related physical fitness (eg, flexibility range of motion, muscular strength and endurance) and mental variables (eg, self-esteem, confidence) are measured and analyzed before and after participation in a therapeutic horse riding program and (b) the same participants are interviewed to examine their perceptions of the program.

Overall, the findings from this qualitative investigation show great promise for recreation therapists using horse riding programs for children with special needs. The results of this study should encourage recreation therapists to investigate the possibility of providing therapeutic activities to children while riding a horse. Many recreation therapists work in areas that have established horse riding clubs who may be willing to provide a therapeutic horse riding experience for children with special needs. New programs should focus on providing a structured experience that is individualized to each child's specific needs. Additionally, time should be provided for children to indulge in non-horse riding activities (ie, grooming). If these findings are adopted, recreation therapy could truly utilize this nontraditional intervention/setting in a whole new way.

---

**Steven Elliott, PhD**, Department of Health and Applied Human Sciences, University of North Carolina at Wilmington, Wilmington, North Carolina.

**Janet A. Funderburk, PhD, LRT/CTRS**, Department of Recreation & Leisure Studies, East Carolina University, Carol Belk Building, Greenville, North Carolina.

**James M. Holland**, Graduate Student, Department of Recreation & Leisure Studies, East Carolina University, Carol Belk Building, Greenville, North Carolina.

## Acknowledgment

The authors would like to thank Debbie Gleason for the Stirrup Some Fun therapeutic horseback riding program for her help throughout this study.

## References

1. Depaw KP: Horseback riding programs for individuals with disabilities: programs, philosophy, and research. *Adapted Physical Activity Quarterly*. 1986; 3: 217-226.
2. North American Riding for the Handicapped Association (NARHA) website. Available at [www.narha.org](http://www.narha.org). Accessed January 30, 2008.
3. All AC, Loving GL, Crane LL: Animals, horseback riding and implications for rehabilitation therapy. *J Rehab*. 19 July/Aug/Sept: 49-57.
4. Heine B: An introduction to hippotherapy. *Strides*. 1993; 3(2): 10-13.
5. Britton V: *Riding for the disabled*. London, UK: B. Batsford, 1991.
6. Datillo J: *Facilitation Techniques in Therapeutic Recreation*. State College, PA: Venture Publishing, 2000.
7. Brock BJ: Therapy on horseback: Psychomotor and psychological change in physically disabled adults. *Proc Natl Conf Am Camping Assoc*. 1989; 5-27.
8. Fox VM, Lawlor VA, Luttges MW: Pilot study of novel test instrumentation to evaluate therapeutic horseback riding. *Adapt Phys Activ Q*. 1984; 1: 30-36.
9. Sterba JA, Rogers BT, France, AP, Vokes, DA: Horseback riding in children with cerebral palsy: Effect on gross motor function. *Dev Med Child Neurol*. 2002; 44: 301-308.
10. Cherg R, Liao HF, Leung HW, Hwang AW: The effectiveness of therapeutic horseback riding in children with spastic cerebral palsy. *Adapt Phys Activ Q*. 2004; 21: 10-12.
11. Biery MJ, Kauffman N: The effects of therapeutic horseback riding on balance. *Adapt Phys Activ Q*. 1989; 6: 22-29.
12. Bertoli DB: Effect of therapeutic horseback riding on posture in children with cerebral palsy. *Phys Therapy*. 1988; 68(10): 1505-1512.
13. Ferias-Tomaszewski S, Jenkins SR, Keller J: An evaluation of therapeutic horseback riding programs for adults with physical impairments. *Ther Recreation J*. 2001; 35(3): 250-257.
14. Patton MQ: *Qualitative Evaluation and Research Methods*. 3rd ed. Newbury Park, CA: Sage Publications, 2001.
15. Bogdan RC, Biklen SK: *Qualitative Research for Education*. 5th ed. Boston, MA: Allyn & Bacon, 2006.
16. Lincoln YS, Guba EG: *Naturalistic Inquiry*. Beverly Hills, CA: Sage Publications, 1985.
17. Glaser BG, Strauss AL: *The Discovery of Grounded Theory*. Chicago, IL: Aldine Publishing Company, 1967.