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Veterans

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14. ABSTRACT

One purpose of the study is to evaluate the effects of hippotherapy on motor performance in individuals with disabilities. Fifty veterans will be recruited and receive traditional physical therapy and physical therapy including hippotherapy. Measures will be taken after each session and analyzed. This study will also evaluate the impact of the Beck PRIDE Center on health and well being and quality of life. It will document veteran completion of referrals and engagement with care across six domain areas. It will develop a program implementation manual that can be distributed to other educational institutions.

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INTRODUCTION

- 1) One purpose of the study was to evaluate the effects of hippotherapy on motor performance in individuals with disabilities. Fifty veterans were recruited and received traditional physical therapy and physical therapy including hippotherapy. Measures were taken after each session and analyzed.
- 2) This study also evaluated the impact of the Beck PRIDE Center on health and well being and quality of life.
- 3) It documented veteran completion of referrals and engagement with care across six domain areas.
- 4) It developed a program implementation manual that was distributed to other educational institutions.

The significance of these areas of investigation furthered the model for civilian institutions to engage combat veterans with disabilities and their families on reintegration post employment.

BODY

Summary of Hippotherapy DoD work

A collection of single subject case studies were used to examine the effects of motor performance in subjects while using hippotherapy. The study used an A-B design in which treatment A was traditional therapy and hippotherapy, while treatment B was traditional therapy. Several veterans participated in the study with a variety of neurological and orthopedic issues. Neurological conditions included stroke and traumatic brain injury. Orthopedic issues included back, neck, knee, and shoulder pain. A coin flip determined if the veteran received Treatment A or Treatment B first. The following is a synopsis of the presentations and publication that resulted from this study.

For the hippotherapy project, forty eight veterans were referred and signed the consent form to participate. All veterans were referred through the Beck PRIDE Center. Twenty four veterans completed the study with some data points in Treatment A and Treatment B. Fourteen veterans completed both phases of the study. Ten completed only a portion of the second treatment in the study. These ten did not return for unknown reasons/unable to contact (10). Twenty four veterans only completed one phase of the treatment. Of these twenty four, one moved out of town and the other twenty three did not return due to illness(4) ,work schedule (1), deployment (1), and unknown reasons/unable to contact to reschedule (16). Treatment A and Treatment B lasted one hour. Participants were assessed after each session using a variety of scales to examine changes as a result of the therapy session based on their limitations. All sessions were cancelled after injury to the principal investigator on 4-1-16.

The results of the study, in some of the single subject studies, showed a greater response to hippotherapy combined with traditional therapy than to traditional therapy alone. While statistical significance was not found in all cases with all areas assessed, data plotting did reveal a change with hippotherapy combined with traditional therapy as opposed to traditional therapy alone.

In the case that a veteran with neurological deficits participated, improvements in functional ADLs were noted with greater improvements while participating in hippotherapy. The measures chosen for motor performance were components of the Functional Independence Measure Test (FIM), tests used included bed mobility, transitional movements, transfers, and gait. Improvements were less evident in the treatment with traditional therapy. In some cases FIM scores decreased after removing hippotherapy from the treatment. Figure 1 gives an illustration of an increase in FIM scores after the addition of hippotherapy to traditional therapy (Treatment B) after only participating in traditional therapy initially (Treatment A).

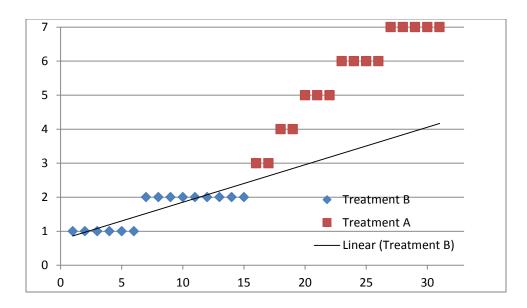


Figure 1: FIM Scores with Ambulation Veteran with a Traumatic Brain Injury

Figure 2 shows similar results in changes in FIM scores in the area of toilet transfers. Treatment A is only traditional therapy while Treatment B includes the addition of hippotherapy.

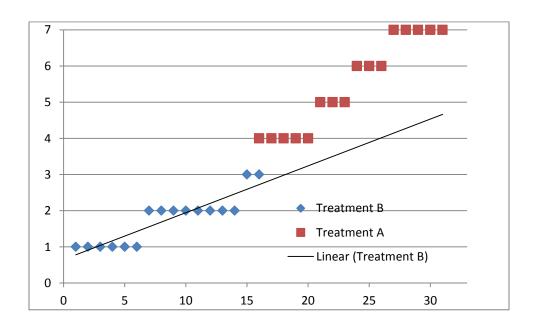


Figure 2: FIM Scores with Toilet Transfers Veteran with a Traumatic Brain Injury

In the two figures above using an exact binomial calculator, statistical difference is noted at the .05 level. When the celebration line is extended from the initial treatment, all the data points in the second treatment are above the predicted line, showing statistical significance in these two figures.

In the cases where orthopedic issues were addressed, improvements in range of motion and reductions in pain were noted with greater changes documented while participating in hippotherapy. The measures chosen for motor performance were changes in range of motion and self-reported measures of disability and function that were obtained with scales that included the Sheehan Disability Scale (SDS), Upper Extremity Functional Index (UEFI), Lower Extremity Functional Index (LEFI), Oswestry Low Back Pain Questionnaire (OLBPQ), and the Neck Disability Index (NDI).

In the case of a veteran with low back pain, scores on the Oswestry Pain Scale decreased in the initial sessions that included hippotherapy (Treatment A), however scores plateaued and slightly increased at times after hippotherapy was no longer offered in the study (Treatment B). Figure 3 demonstrates this trend.

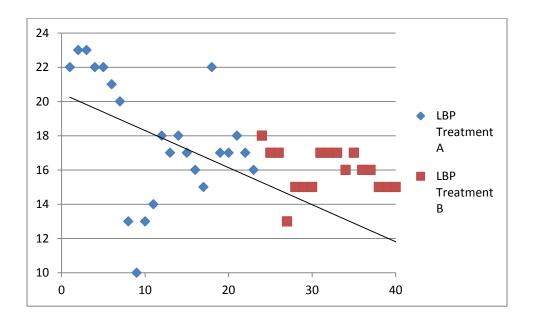


Figure 3: Oswestry Scores in Veteran with Low Back Pain

In another study looking at a veteran with low back pain, a similar result was seen. Treatment A includes hippotherapy while in Treatment B, only traditional physical therapy was used. This can be seen in Figure 4.

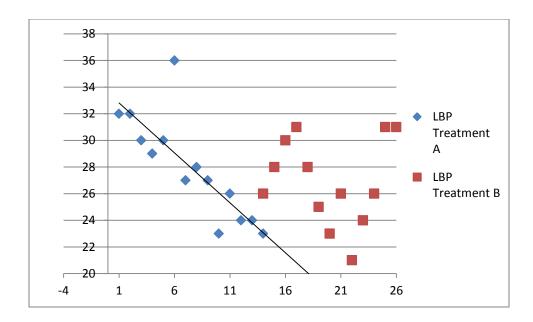


Figure 4: Oswestry Scores in Veteran with Low Back Pain

In another case study that looked at a veteran with decrease function, the Sheehan Disability Scale was used. In this case it was seen that while a decrease in scores were noted with the inclusion of hippotherapy (Treatment A), scores then increased after hippotherapy was removed (Treatment B). This change can be seen in figure 5.

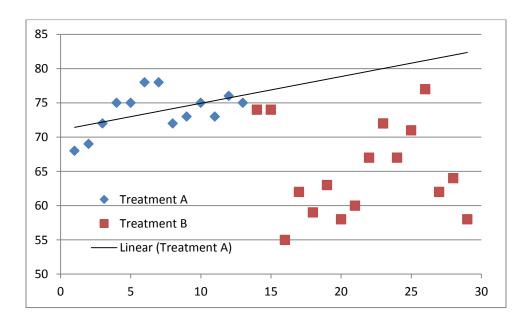


Figure 5: Sheehan Disability Scale

In an additional case that involved a veteran with shoulder issues, increased active range of motion was noted when hippotherapy was incorporated as opposed to traditional physical

therapy only. Table 1 gives an illustration to the improvement in range of motion after the inclusion of hippotherapy.

Action	L AROM PRE	L AROM POST	R AROM PRE	R AROM POST
Flexion	148	176	142	178
Abduction	142	174	140	175
Extension	20	20	20	31
External Rotation	28	67	40	80
Internal Rotation	25	90	44	70

Table 1: AROM in Veteran with Shoulder Issues

Also in this veteran, a decrease in functional limitations was noted after the inclusion of hippotherapy to the traditional physical therapy program. Table 2 illustrates this.

Outcome tool	Section	PRE	POST
Sheehan Disability Scale	Work/ School	4	0
	Social life	5	0
	Family life	4	0
	Days Lost	3	0
	Days Unproductive	3	0

Outcome tool	PRE	POST
Upper Extremity Functional Index	53	80

Table 2: Sheehan/UEFS in Veteran with Shoulder Issues

In some cases, the patients became disappointed when the horse was withdrawn and required strong encouragement to complete the data in the second phase of the program. After completion of the traditional treatment, the subjects were often eager to return to hippotherapy treatment. Thus, while hippotherapy produced effects that could be sustained over time, in these cases the decreased motivation and eagerness of participation and other external factors may have played a role in increasing disability levels during the traditional therapy portion of the study. Subjects 'enthusiasm for horse-based therapy suggests that they would have responded

well to hippotherapy alone, but also demonstrated more willing participation in traditional therapy when combined with hippotherapy.

Subjects often after completing the study pursued additional interaction with equine based therapy. Several subjects enrolled in equine science courses at the university. Subjects also returned to the hippotherapy sessions to volunteer as assistance in hippotherapy sessions for other subjects. It is interesting to note that a majority of the veterans had limited exposure to horses before participating in the study.

Impact of the Beck P.R.I.D.E. Center on the Health, Well-Being, and Quality of Life for Veterans

As part of the Beck PRIDE Center's *An Effective Solution for Combat Injured Student Veterans* project, a multi-faceted data collection plan was implemented to assess the impact of Beck PRIDE services on the health and well-being of the veterans it served, as well as their quality of life. As part of the data collection, project-end surveys were conducted to assess the perceived effectiveness of the program from the perspective of both the veterans it served and the various community members involved in the work of the center. A listing of data collection instruments, a brief description, and their administration timeframes is provided in the table below. More details about each instrument and the data obtained will be provided throughout this report.

Data Collection Instruments

Instrument	Description	When Administered
Beck P.R.I.D.E. Intake Form	The Beck PRIDE Intake form collects information on a wide range of participant demographics and needs as they enter the program.	Upon Entry only
SF-12 Health Survey	The SF-12 measures participant functional health and well-being.	Upon Entry and at Follow-Up
Beck Pride Satisfaction Inventory (BPSI)	The BPSI measures the general satisfaction and quality of life of veterans.	Upon Entry and at Follow-Up
Quality of Life Index (QLI)	The QLI assesses quality of life by measuring the general satisfaction with, and perceived value of, different areas of life.	Upon Entry only
Project End Participant Survey	The Project End Participant Survey assesses participant satisfaction with, and perceived effectiveness, of the Beck P.R.I.D.E. Center.	End of the Project
Project End Community Agency Survey	The Project End Community Agency Survey assesses satisfaction with, and perceived effectiveness, of the Beck P.R.I.D.E. Center.	End of the Project

This report is organized around 3 main questions: (1) Who were the participants? (2) Why did they come to Beck P.R.I.D.E.? and (3) Did Beck P.R.I.D.E. make a difference in the lives of the

veterans it served? Each section will include relevant data from across the life of the grant period.

WHO WERE THE PARTICIPANTS?

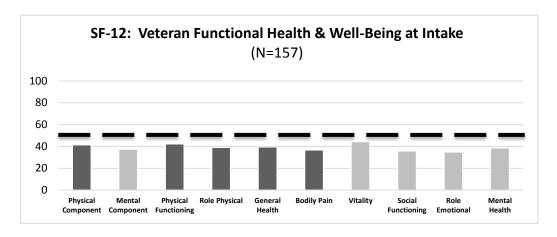
Demographics. Across the life of the project, 157 veterans took part in Beck P.R.I.D.E. services, far exceeding the original goal of 100 veterans. In order to receive services from the Beck P.R.I.D.E. Center, veterans must have been in a present day conflict (from the Persian Gulf War to present day). Most participants had been deployed either 1 (55%) or 2 (33%) times, with the remaining veterans having been deployed 3 or more times. The most common locations for deployment were Iraq (67% of veterans) and Afghanistan (68% of veterans). Other locations included the Persian Gulf, Africa, and Kosovo. When entering the program, 9% were on active duty.

The majority of participants were male (93%) and Caucasian (74%). Participant ages ranged from 23 to 70 years old, with a mean age of 36 years. Reports of marital status showed that around one-half were married (49%), about one-quarter were single (24%), and 17% were divorced. Fifty-six percent of participants had been married once, 29% reported never being married, and 12% had been married twice. The majority of participants (59%) had at least 1 dependent and 30% were enrolled in college.

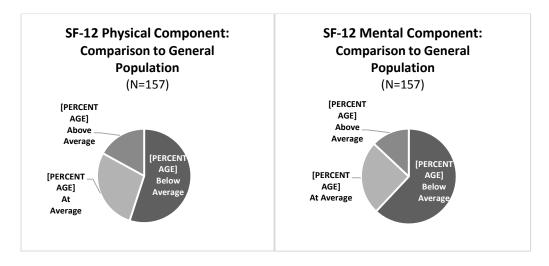
Existing Issues/Problems. Beck PRIDE participants reported a number of medical or physical issues when they entered the program. The majority of those issues appeared to be a result of their combat-related experiences and exposure to a war-zone environment. Of the participants who responded to the impairment items on the intake form, 79% reported suffering from mobility impairments (e.g., back, knee, or shoulder pain), 76% reported suffering from sleep problems (e.g. sleep apnea or insomnia), and 72% reported hearing impairments (i.e., hearing loss or tinnitus). Other major issues affecting returning veterans were Post-Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI); about two-thirds of participants reported having PTSD (64%) and about one-third reported having TBI (28%). Fifty-four percent were receiving VA Compensation at the time of entry into Beck P.R.I.D.E., with an average disability rating of 52%.

To assess whether any additional problems existed with participants (e.g., with functional health, well-being, satisfaction with life, and quality of life), 3 data collection instruments were administered at intake: (1) the SF-12 Health Survey, (2) the Quality of Life Index, and (3) the Beck PRIDE Satisfaction Inventory. Results from each instrument are provided below.

Functional Health & Well-Being (as measured by the SF-12, a short form Health Survey). All 157 Beck PRIDE Center participants completed an SF-12 when they first enrolled in the study. The SF-12 is a self-report measure of an individual's perceived health. The possible score range for the SF-12 is 0 (poor health) to 100 (excellent health), with 50 being considered the population mean (with a Standard Deviation of 10). The table below provides a breakdown of physical-, mental-, and overall health of the participants at intake based on the SF-12 domains.



As shown in the table above, and in the figures below, when entering the Beck P.R.I.D.E. project, the majority of participants fared much worse than the general population both physically and mentally. For example, only about one-fourth of participants fell into the "average" range in both the physical- and mental-domains of the SF-12, and over one-half of participants fell in the "below average" range.



Quality of Life (as measured by the Quality of Life Index). Each veteran who participated in the Beck PRIDE study was administered the Quality of Life Index (QLI) Generic III Version during the initial intake interview. The QLI is a 66-item inventory split into two parts: Part 1 contains 33 questions relating to general satisfaction (e.g., How satisfied are you with your health in general?), and part 2 contains 33 questions relating to values (e.g., How important to you is your health?). QLI items are rated on a six point Likert scale, with 1 being "very dissatisfied" or "very unimportant" and 6 being "very satisfied" or "very important." Five scores are calculated for the QLI: (1) Overall Quality of Life score, (2) Health and Functioning subscale score, (3) Social and Economic subscale score, (4) Psychological/Spiritual subscale score, and (5) Family subscale score. The following table shows the mean quality of life scores for veterans participating in the study on whom we have complete data (N=151). The range of scores is from 0 to 30 (with higher numbers reflecting higher quality of life).

Quality of Life Index Subscale & Overall Scores at Intake (N=151)						
Number of Respondents Minimum Maximu Mean Score* Standard Deviatio n						
Health & Functioning Subscale	151	1.9	30	16.37	6.53	
Social & Economic Subscale	151	3.0	30	17.60	6.24	
Psychological/Spiritual Subscale	150	0.0	30	17.91	6.68	
Family Subscale	150	3.6	30	21.18	6.31	
Overall Quality of Life Index Score	151	2.73	30	17.66	5.86	

*Mean scores range from 0 to 30

The results from the QLI indicate that veterans came into Beck P.R.I.D.E. with a less than ideal view of their Quality of Life (mean of 17.66 on a scale from 0 to 30), especially when it comes to Health and Functioning concerns, Social & Economic concerns, and Psychological/Spiritual concerns. This is not surprising, however, due to the fact that so many reported having problems during their intake (e.g., mobility problems, hearing problems, PTSD). Satisfaction with Life (as measured by the Beck P.R.I.D.E. Satisfaction Inventory). As veterans entered the Beck PRIDE study, they were administered the Beck PRIDE Satisfaction Inventory (BPSI). There are 2 sections of the BPSI: (1) Section 1 of the BPSI assesses the general satisfaction participants have in eight different domains of life and (2) Section 2 measures veteran satisfaction with the services provided by the Beck PRIDE Center (section 2 was administered at follow-up and will be discussed later in this report). Complete BPSI data are available for 156 participating veterans. Overall, it appears that when participants came to Beck P.R.I.D.E., they were only a little satisfied with a most areas in their life, especially their Work Life. This may be due to the fact that they are experiencing so many issues, as discussed above. The table below shows the mean satisfaction scores for each domain on a scale from 1 (no satisfaction at all) to 4 (a great deal of satisfaction).

Beck PRIDE Satisfaction Inventory Mean Scores at Intake - N=156		
LIFE DOMAIN	MEAN SCORE*	
Education	2.55	
Career Prospects	2.53	
Social Life	2.48	
Family Life	2.90	
Health	2.55	
Physical Activity	2.37	
Recreational Activities	2.53	
Work Life	2.12	
*Range = 1 to 4 1 = No Satisfaction, 2 = A Little Satisfaction, 3 = Quite a Bit of Satisfaction, and 4 = A Great Deal of Satisfaction		

WHY DID VETERANS COME TO BECK P.R.I.D.E.?

When first coming to Beck P.R.I.D.E., participants were asked what kind of assistance they were seeking. Many of the veterans came in seeking assistance for their education needs (e.g., educational advising), but also for career assistance and assistance with vocational rehabilitation. A listing of the various types of assistance veterans sought out is presented in the table below, along with the percentage of individuals requesting that assistance.

Type of Assistance Sought	Percentage of Respondents
Education Advising Assistance	51%
GI Bill Education Benefits Assistance	38%
Scholarship/Other Financial Aid Assistance	36%
Vocational Rehab Assistance	36%
Career Advising Assistance	33%
Testing/Placement/Assessment Assistance	20%
Tutoring/Mentoring/Study Skills Assistance	18%
Cultural/Social Enrichment Assistance	16%
Employment Services Assistance	12%

Most veterans appeared to be without existing social supports to help them when they came to Beck P.R.I.D.E. Although just over one-half of participants (55%) had been accessing services through a nearby VA facility (in Memphis, TN), very few appeared to belong to any community support organization (e.g., only 20% said they belonged to a community veteran organization, 13% said they belonged to the VFW Organization). Anecdotally, participants reported that they did not know how to receive benefits and services (e.g., they did not understand the paperwork or who to contact). As a result, Beck P.R.I.D.E. reached out to the 3 VA systems in the surrounding area to coordinate services and workshops for veterans. In addition, many veterans appeared to be lacking support from their family and friends (e.g., 50% said their spouse/lover was their support system, 38% said their parent[s] were their support system).

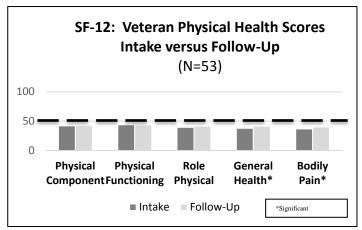
DOES BECK P.R.I.D.E. MAKE A DIFFERENCE FOR VETERANS?

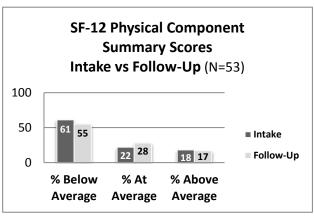
One of the key aims of this project was to determine the extent to which Beck P.R.I.D.E. is effective for veterans. To assess that effectiveness, both intake and follow-up (about 6 months after they entered the project) interviews were conducted with participants to allow for a pre-post comparison of key indicators (e.g., functional health, quality of life). The interviews included the SF-12 (assessing functional health and well-being) and the BPSI (assessing satisfaction with, and quality of, life). Follow-up interviews were conducted with 53 participants. Overall, participants appeared to make some significant improvements after having received Beck P.R.I.D.E. services, especially in their mental health. Below is a more detailed summary of the findings.

Functional Health & Well-Being (as measured by the SF-12). As reported earlier, upon entering the Beck PRIDE Center project, veteran self-reports indicated that very few of them

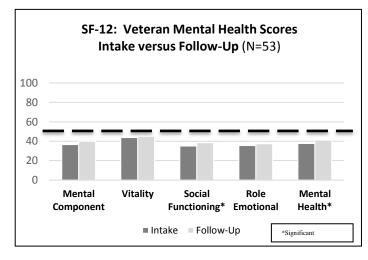
fared better than the general population in both physical health and mental health. However, after having received services from Beck P.R.I.D.E., those reports improved quite a bit, some even significantly.

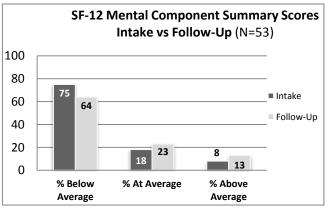
The figures below show that after having participated in the Beck PRIDE project, many participants were doing better **PHYSICALLY**. In fact, in the areas of General Health and Bodily Pain (higher scores indicate more freedom from pain), the changes were significant (*ts* >1.7, *ps* <.05). In addition, many more participants reported being "At" the general population average in the Physical Health component at follow-up than at intake. This indicates a great improvements in Beck P.R.I.D.E. participants after having received services.





Similar to physical health (above), it appeared that only a few Beck PRIDE participants fared better in self-reported **MENTAL HEALTH** than the general population upon entering the program. At follow-up, however, participant mental health appeared to have improved significantly based on the SF-12; the Mental Health Component Score increased from 36.62 to 39.98 (*t*=2.22, *p*<.04). A couple of SF-12 mental health sub scores increased as well (*t*s > 2.1, *p*s <.05): Social Functioning and Mental Health. In addition, the percentage of veterans who fell "below average" in the mental health domains of the SF-12 when compared to the general population decreased from 75% to 64%, while the percentage of those falling "At" and "Above" average increased (18% to 23% and 8% to 13%, respectively). The figures below depict the positive changes that occurred in veterans' mental health after receiving services from Beck P.R.I.D.E.





Satisfaction with, and Quality of, Life (as measured by the Beck P.R.I.D.E. Satisfaction Inventory). The table below shows the mean life domain satisfaction scores from the Beck P.R.I.D.E. Satisfaction Inventory intake interview (pre) and the follow-up interviews. Although no statistically significant differences in any of the domains from Intake to Follow-up were found (*ts* ranged from .00 to 1.64, all *ps>*.05), there was movement toward improved satisfaction with life for those on whom we have follow-up data. For example, at intake, the least satisfaction appeared to occur in the Work Life and Social Life domains, but after having been part of the Beck P.R.I.D.E. project, there appeared to be a trend toward higher satisfaction with both of those areas. The most satisfaction appeared to occur in the Family and Education domains of veterans' lives (consistent with responses from intake).

BPSI Intake & Follow-Up Scores (N=52*)					
LIFE DOMAIN	PRE MEAN SCORE	FOLLOW-UP MEAN SCORE	DIFFERENCE IN MEANS		
Education	2.58	2.67	.09		
Career Prospects	2.50	2.50	0		
Social Life	2.25	2.50	.25		
Family Life	2.83	2.89	.06		
Health	2.48	2.42	06		
Physical Activity	2.42	2.35	07		
Recreational Activities	2.39	2.40	.01		
Work Life	1.92	2.10	.18		
*Complete intake	*Complete intake and follow-up data are available for only 52 participants				

Another factor that impacts participant quality of life is their VA Compensation Rating. There were 23 veterans on whom we had both intake and follow-up VA Ratings. Although there was not a significant change, there was movement toward an increased rating (67% to 69%), which translates into increased benefits for veterans.

Satisfaction with Beck P.R.I.D.E. (as measured by the Beck P.R.I.D.E. Satisfaction Inventory and the Project End Surveys). Throughout the project, the Beck PRIDE Center offered eight types of services to veterans: Educational Assistance, Mental Health Counseling, Social Services, Community Referrals, Mentoring, Socialization, Career Planning, and Rehabilitative Services. During follow-up, Section 2 (Satisfaction with Services) of the Beck P.R.I.D.E. Satisfaction Inventory (BPSI) was administered. Overall, veterans were generally satisfied with Beck PRIDE Services, with the exception of a small percentage who found the Social Services and Community Referral services at Beck PRIDE being "poor" at follow-up. However, over one-half of veterans report all services are working "great." The Rehabilitative and Education Assistance services had the highest ratings at follow-up with 82% and 81%, respectively. Social services had the lowest overall "great" rating (68%), which suggests that this domain may be in need of the most improvement. That being said, over two-thirds of participants rated Social Services as "great," indicating that it was working well for most. The table below shows the results for the 53 veterans who completed the follow-up interview.

Satisfaction With Beck PRIDE Services at 6-Month Follow-up (N=53)* (Note: Percentages are of those participants not selecting "N/A")					
How well are the following services Poorly Adequately Great					
working for you?	%	%	%		
Education Assistance Service	0	19	81		
Mental Health Counseling	0	25	75		
Social Services	5	27	68		
Community Referral Service	7	22	70		
Mentoring Service	0	24	76		
Socialization Service	0	30	70		
Career Planning Service	0	28	72		
Rehabilitative Service	0	19	82		
*Due to rounding, percentages may not equal 100%.					

In an effort to get feedback from the participants about what they thought about Beck P.R.I.D.E., a Project End Participant Survey was sent out in May, 2016, to those who had participated in Beck P.R.I.D.E. services. In all, 20 veterans completed a survey. Of those, the majority agreed that Beck PRIDE was a helpful resource that (a) meets the needs of veterans, (b) helps veterans gain skills they need to be successful, and (c) is something they would recommend to others. When asked to what extent Beck P.R.I.D.E. services were helpful to them, the responses were very positive. Although only some respondents received any given service, 100% of those who reported receiving Education Assistance, Mental Health Counseling, Social Services & Community Referrals, Career & Business Planning, and Personal Rehabilitation Services said those services were "very helpful." When asked about the ways in which Beck P.R.I.D.E. has helped them the most, one person said, "Attending the combat support group has been helpful, even though I was reluctant to address those issues..." Another veteran said it was helpful in that they had "...someone to talk to when no one else understands." Others said that Beck P.R.I.D.E. helped them with educational issues: "...Getting back into college was an overwhelming task for me. Not only did they help me with all of the paperwork, but they also seen me through my program..." Another person said, "I don't know how I would have managed to feel comfortable going back to school after so many years of being out of school without the help of the Beck Pride staff."

A Project End Survey was also sent out to various community members who have worked with Beck P.R.I.D.E. to get a broader sense of the perceived effectiveness of the project. Twelve individuals from the community who work with Beck P.R.I.D.E. responded to the survey, all of whom had worked with the program for at least 2 years. Community partner responses echoed those from the participants: Beck P.R.I.D.E. is helpful, meets veterans' needs, and is a resource they would recommend to any veteran needing assistance. Respondents said that the program serves as a "strong advocate for veterans' needs and resources." In addition, it is clear that its community partners think that Beck P.R.I.D.E. is an invaluable service that deserves more recognition. One respondent said, "It is Jonesboro, AR (*sic*) best kept secret that others should know about." Another said, "I am honored to be a volunteer that is involved in the Beck Pride Center. The whole United States should know about this center."

SUMMARY AND CONCLUSIONS

As reflected in this report, when veterans come to the Beck PRIDE Center, they are likely to have a host of physical or mental health issues, they are not totally satisfied with their lives, and they are in need of various types of assistance. They also tend to come in without a strong support system in place. Based on the results gained from the data collection throughout the project, it appears that the Beck PRIDE Center has been a valuable mechanism to assist those veterans by providing them with numerous types of assistance they need (e.g., education, career), and in turn it helps to improve critical aspects of their lives, both physically and mentally. This project also allowed Beck P.R.I.D.E. to learn some important lessons and provided some direction for future efforts. For example, the issues of moral injury and spirituality came to light during this project (what veterans had to do while deployed is sometimes incongruent with their spiritual beliefs), and needs to be an area of attention in the future. In addition, Beck P.R.I.D.E. is in a great position to impact rural veterans in the area. In order to get to one of the 3 major VA Systems in the surrounding area, veterans have well over one hour of travel time. Beck P.R.I.D.E.'s coordination and promotion of VA services has been a positive step in helping those from rural areas, but systematic data have not been collected on those elements of assistance. The general consensus about the Beck P.R.I.D.E. Center can be summed up by one participant's comment..."I feel the Beck P.R.I.D.E. is an outstanding organization...One of the best [veteran] programs that is out there."

Part of the reason that Beck PRIDE has been successful is because it has adapted its services in response to veteran needs. For example, as part of the expansion of assistance provided by the Beck PRIDE Center in response to specific needs and concerns, a number of services were initiated to broaden its activities. The following illustrates those projects completed by the Beck PRIDE Center for veterans:

- Beck PRIDE Center staff are involved in a veteran's court initiative in partnership with the 2nd Judicial District, Memphis VA system, and MidSouth Health systems. The veteran mentors have been recruited from the Beck PRIDE Center program.
- A community education series has been developed and presented to 410 mental health professionals and clergy. The 5 Topics included Addictive Thinking, Improving Treatment Outcomes with Substance Abuse, Understanding Moral Injury, Suicide Awareness, and Understanding TBI and PTSD.
- A VA vocational-rehabilitation counselor is located at A-State after negotiations by Beck PRIDE Center staff.
- Completing applications for VA services, such as eBenefits, and for medical benefits, was part of
 the service provided. All interns and VA work study students have been trained in this process
 and the process for enhanced enrollment.
- Two eBenefits workshops were conducted for veterans and staffed by VA personnel.
- A research project with the A-State Physical Therapy Department utilizing Yoga to address chronic pain and PTSD symptoms was developed and is being currently offered for the 2nd time.

- Individual Counseling for veterans and family members has been provided for those with no payor source or their copays have been covered.
- Funds for medication for veterans outside the VA system has been provided as needed.
- Gas money has been provided for veterans as needed, including trips to the VA for medical appointments when they are not eligible for travel pay due to the distance.
- A veteran's claim workshop at BPC has been offered at the Beck PRIDE Center three times this past year with support from the Arkansas Department of Veteran's Services.
- An additional two claims assistance programs were offered at the Beck PRIDE Center with support of the Disabled American Veterans Association.
- VA work study students (generally 4 per semester) have been through orientation and given assignments. This provides financial support to the veteran along with job training.
- A VA Caregivers support group has been offered for two semesters.
- Interns from bachelors and masters level programs in social work, occupational therapy, physical therapy, and counseling work with veterans each semester. Preference is given to veterans to fill these positions.
- Community Service groups in coordination with the Beck PRIDE Center have supported social programs for veterans and their families for each holiday and at the start of school.
- The Beck PRIDE Center served on the founding committee of the VA/Clergy Partnership of Rural Veterans to coordinate services.
- Support is offered to The Order of the Purple Heart Association and meetings are held at the Beck PRIDE Center.
- The Disabled American Veterans Association is supported by the Beck PRIDE Center and their monthly meetings are held at the office.
- Free tax services were offered to veterans for 2015 and will be repeated in 2016.
- Financial workshops on budgeting and understanding student loans has been offered twice and will be repeated in the fall, 2016.
- Anger management classes were offered to veterans.
- The Arkansas Student Veterans Association (ASVO) is supported by the Beck PRIDE Center staff.
- Financial support is given to veterans to attend leadership courses and small business classes.
- Financial support was given to a veteran to allow him to compete in state and national university business competitions. He placed first in the nation.
- Two Dental clinics for veterans with no access to VA dental care have been coordinated with a dental clinic. One veteran received \$16,000.00 in dental care.
- Hosted Town Hall meeting for veterans with the Memphis and Little Rock VA Health Systems.
- Provided physical therapy assessments and speech testing for veterans and family members.
- Provided equine assisted psychotherapy (individual and family sessions) for veterans.

Implementation Manual

As there was more focus on Veterans in academic institutions, our research group felt it was important to provide information on how our Center was developed. It was a piece that we wanted to share with other institutions nationwide as they considered Veterans programs and support on their campuses. Our goal was to develop a draft manual in year one of the project, send it out for review and modification in year 2 and disseminate the manual in year 3.

Some preliminary meetings were held in February through April, 2012 with staff and media personnel to discuss the project, conceptualize it and move it to a draft outline. A more formalized meeting was held on May 4, 2012 with Dr. JoAnn Kirchner, consultant and media personnel to discuss the design of the implementation manual. The research group spent time outlining the chronology of the Beck PRIDE Center's development and operationalization with a discussion of what specific materials were necessary to collect for the manual. They met again on July 9th, 2012 where the manual contents were decided upon. Group members were assigned tasks for the compilation of the content. Another meeting occurred on August 10, 2012 to refine that content. A timeline was established for continued draft development followed by external review, final compilation and manual dissemination.

An early draft of the manual was reviewed on October 12, 2012 by members of the Beck PRIDE Center National Advisory Council. They were asked to review design and content. They noted that it might be preferred to put diagnostic tools and other forms/materials in an electronic file versus trying to provide appendices to the printed booklet. Based on that feedback, a second draft of the implementation manual was sent out April 1, 2013 to that same group plus other individuals who were familiar with and/or affiliated with the program. Suggestions were taken into account and incorporated into a third and final draft.

In 2014, the manual was submitted for cost analysis and printing. Production occurred and manuals were disseminated to hundreds of higher education institutions, policy makers, veterans groups, visitors, and other interested parties. The manual won the Gold Award in its category in the annual competition sponsored by the Council for Advancement and Support of Education, District IV. The manual is still being utilized today although the working timeline is now a little out of date. The higher education cover letter, manual and resource sheet are attached.

KEY RESEARCH ACCOMPLISHMENTS

- Non-military installations/institutions have the ability to successfully implement veterans reintegration programs with impactful personal outcomes.
- Additional data to support the effects of hippotherapy on motor performance in veterans with disabilities.

REPORTABLE OUTCOMES

Publications:

1. Aldridge, R. L., Jr., Morgan, A., & Lewis, A. (2016, July). The Effects of Hippotherapy on Motor Performance in Veterans with Disabilities: A Case Report. *Journal of Military and Veterans' Health*, 24(3), 24-27. Retrieved from jmvh.org/issue/volume-24-no-3/.

Presentations:

- 1. Aldridge, R. L. Jr., Lewis, A., Mathews, M., Easton, C., McKinney, N. (2017, February) *The Effect of Hippotherapy on Shoulder Function and Related Disability for a Military Veteran*. Lecture to be presented at Combined Sections Meeting, American Physical Therapy Association, San Antonio, Texas
- 2. Aldridge, R. L., Jr. (2015, June 22). *The Effects of Hippotherapy on a United States Veteran with a Traumatic Brain Injury*. Lecture presented at Horses and People Meet in Taiwan, Taiwan, Taipei.
- 3. Aldridge, R. L., Jr. (2014, August 7-8). *The Effects of Hippotherapy on a United States Veteran after a Stroke*. Lecture presented at Regional Meeting of the Professional Association of Therapeutic Horsemanship International, Murfreesboro, Tennessee.
- 4. Aldridge, R. L., Jr. (2013, March 8-10). *The Effects of Hippotherapy on Motor Performance and Function in United States Military Veterans with Orthopedic Issues*. Lecture presented at AHA International Conference 2013, St Louis, Missouri.
- 5. Aldridge, R. L., Jr. (2012, October 24-26). *The Effects of Hippotherapy on Motor Performance and Function in United States Military Veterans with Low Back Pain*. Lecture presented at ASAHP Annual Conference, Orlando, Florida.

CONCLUSION

The Beck PRIDE Center has been a valuable mechanism to assist those veterans by providing them with numerous types of assistance they need. The diversity of assistance provided and the development of additional needs based offerings has moved the veterans forward toward their goal of reintegration.

Using hippotherapy as an intervention modality has improved functional outcomes for veterans. The ability to apply this method to a variety of physical and mental health issues offers versatility in patient care versus using more traditional therapies.

REFERENCES

Publication/Presentations noted on page 22.

APPENDICES

Original Articles

Original Articles

The Effects of Hippotherapy on Motor Performance in Veterans with Disabilities: A Case Report

R L Aldridge Jr, A. Morgan, A. Lewis

Abstract

The purpose of this case report was to compare traditional physical therapy to hippotherapy combined with traditional physical therapy on the motor performance of a 34-year-old male military veteran with low back and neck pain. Hippotherapy, as a treatment strategy, uses the movement of a horse to improve the subject's neuromuscular function and sensory processing through the motion of the horse in its variety of gait. Outcome measurements for this subject included the Sheehan Disability Scale, Oswestry Low Back Pain Questionnaire, and the Neck Disability Index. The combination of hippotherapy and traditional physical therapy resulted in greater improvements in disability scores on all three outcome measures compared to traditional physical therapy alone.

Key words: hippotherapy, veteran, low back pain, physical therapy, equine

Background

American Hippotherapy Association¹ (AHA) defines hippotherapy as a physical, occupational, and speech-language therapy treatment strategy that uses equine movement as part of an integrated intervention program to achieve functional outcomes. Using a horse in therapy was beneficial for many reasons.^{2,3,4,5} The horse's pelvis demonstrated a three-dimensional movement pattern similar to a human's pelvis while walking,^{3,4,5} which provides rhythmic and repetitive physical and sensory input to the client.^{2,3,4,6} The variability of the horse's steps allows the therapist to evaluate the degree of input to the subject, and then use this movement in combination with other treatment strategies to reach desired therapy goals.⁵ The horses' gait established a foundation for improving neurological function and sensory processing, which can be instrumental to a wide range of daily activities in addition to addressing functional outcomes and therapy goals.^{4,7} According to Meredith S. Bazaar,¹ a licensed speech-language pathologist, board certified hippotherapy clinical specialist, sensory integration via hippotherapy, simultaneously addresses the vestibular, proprioceptive, tactile, visual, olfactory, and auditory systems. Therefore, movement of the horse helps accomplish speech, language, swallowing, cognitive, physical, and occupational goals that were established in therapy.

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Rationale

Hippotherapy is useful in physical therapy. Horse

based therapy facilitates balance and posture control, increased strengthening and assists in an improved range of motion.8

Current research demonstrates that hippotherapy is beneficial for those with developmental, skeletal, psychological, or neuromuscular conditions. Examples of such disabilities include cerebral palsy, arthritis, amputation, scoliosis, Down syndrome, traumatic brain injury, and spina bifida. Most commonly the patients were children, with lower extremity spasticity due to neuromuscular disorders receiving hippotherapy (e.g., cerebral palsy, spinal cord injury). Hippotherapy remained an experimental treatment for all diagnoses due to the limited quantity of published literature supporting its efficacy in individuals with disabilities.

Research Design

The researchers obtained approval for the hippotherapy study from the Arkansas State University Institutional Review Board. Participants are referred to the program either through self- referral, physician referral or through the Beck Pride Center. As not all participants present with comparable impairments, a single subject design permits reporting of outlying cases in the literature. Therefore, a single subject design examined the interactive effect of two or more treatments (control and treatment).¹¹ In this study, the effectiveness of hippotherapy in conjunction with traditional physical therapy, the experimental treatment, was compared with the control treatment of traditional physical

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therapy in an individual patient. Several data points were collected after each treatment session to allow more accurate measurement of overall functional improvement. Sufficient data points permitted a publishable report based on the subject's unique disability.

The risks associated with this study included but were not limited to falls, muscle injuries, and fractures. Therefore, subjects included must be 18 years of age or older and have a physician determined need for physical therapy. Individuals with severe horse allergies, unstable fractures, atlanto-axial instability (excessive movement at the junction between the first two cervical vertebrae), or the inability to balance in a seated position could not participate in the study.

After a licensed physical therapist determined that the subject was eligible for participation and obtained informed consent, the subject was randomly assigned to Treatment A via a coin flip. In this first treatment group, he received both hippotherapy and traditional physical therapy, each for one hour once per week. After 15 weeks in Treatment A, the subject moved to Treatment B, receiving traditional physical therapy twice a week for one hour. The study lasted for 30 weeks, and the same physical therapist oversaw the duration of the patient's care in both groups. Three main outcome measures were collected after individual treatment sessions: the Sheehan Disability Scale (SDS; Sensitivity 0.83, Specificity 0.6912), the Oswestry Low Back Pain Questionnaire (OLBPQ; Sensitivity 0.76, Specificity 0.6313), and the Neck Disability Index (NDI; Sensitivity 0.74, Specificity 0.6614).

Case Presentation W81XWH-11-1-0793

The subject was originally referred to the study through the Beck Pride Center. He was a male with a history of low back pain, neck pain, and a moderate stutter secondary to post-traumatic stress disorder (PTSD). He has lived with all of his impairments since he was discharged from the service.

Intervention during a one hour hippotherapy session involved retrieving the horse from the pasture or stall; tacking the horse (putting on appropriate "".i.e. saddle, etc.); brushing and grooming the horse; mounting the horse via the use (27 Iting ramps; riding the horse facing forward,

backwards, and sideways; performing strengthening and stretching exercises; changing directions and speeds while on the horse; dismounting the horse via the mounting ramps; untacking the horse and returning the horse to the pasture or stall. Every session was performed by a licensed physical

therapist, certified in hippotherapy as recognised by the AHA, along with a trained horse handler, and two trained side walkers. At the end of each session a licensed physical therapist evaluated the patient, and the patient completed a questionnaire evaluating improvement.

A traditional physical therapy session lasted approximately one hour and was the same during both experimental and control phases of the program. Intervention for the subject included stretching and strengthening exercises, manual therapy, educational training, and physical agents such as hot packs, cold packs, ultrasound, and electrical stimulation. At the end of each session, the subject was evaluated by a licensed physical therapist and then filled out a questionnaire evaluating improvement.

Measurements of motor performance were taken following each session. Evaluations included a range of motion, strength, balance, gait analysis, and posture. The results were analysed and compared to see if they are similar or different.

Tools used to measure changes as a result of treatment included a NeuroCom Balance Master, Gait Rite, Parotec Gait System, Lite Gait, Biodex, and functional scales. Other equipment utilised in treatments included an equine approved helmet, tack equipment- saddle, bridle, brushes, etc., gait belts, mounting ramps, Life System, and therapeutic exercise.

Examination Findings- Data and Analysis

The results of the three main outcome measures (SDS, OLBPQ, & NDI) were graphed and visual analysis was used to evaluate the graphs of the single subject data. Visual analysis was selected because, with basic information, outcomes can be accurately predicted using this method. Data trends for all three measures showed the subject's marked improvement with the addition of hippotherapy to his treatment program. The subject reported decreased low back and neck pain following hippotherapy sessions. In addition, as therapy progressed the subject's stutter, present at initial evaluation, became less frequent and eventually disappeared.

While all three measures showed numerical improvement, only the Sheehan Disability Scale reached statistical significance according to visual analysis (Figures 1 & 2). The Oswestry Low Back Pain Questionnaire and Neck Disability Index both demonstrated clinical significance by improving function more than the minimal clinically important difference (MCID, Oswestry=1515, NDI=9.514) and both scores decreased over 50%. The figures below represent the data collected from the Sheehan

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Disability Scale in the experimental and control phases of treatment. The dates of treatment are located on the x-axis and the results of the day's measures are plotted on the y-axis. The rate of improvement is the slope. By looking at the slope, a trend, or direction of change, can be seen in the data.

Figure 1. Hippotherapy Plus Traditional Physical Therapy, measure of disability and impairment. Data measured using the Sheehan Disability Scale.

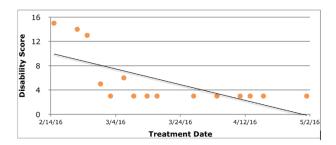


Figure 2. Traditional Physical Therapy only, measure of disability and impairment. Data measured using the Sheehan Disability Scale.



Discussion

The subject showed a greater response to hippotherapy combined with traditional therapy than to traditional therapy alone. While he was a compliant patient, he became disappointed when the horse was withdrawn and required strong encouragement to complete the data in the Treatment B of the program. The traditional physical therapy treatments were comparable during both experimental and control sessions. After completion of the control data, the subject eagerly returned to hippotherapy treatment. Thus, while hippotherapy produced effects that could be sustained over time, in this case the decreased motivation and eagerness of participation and other external factors may have played a role in increasing disability levels during the control portion of the program. Among other factors, the subject was a

university student whose course load varied between the two semesters and who experienced external stressors during the last half of the program due to family dynamics. His enthusiasm for horse-based therapy suggests that he would have responded well to hippotherapy alone, but he also demonstrated more willing participation in traditional therapy when combined with hippotherapy.

While single-case design studies provide rich data, several limitations should be noted. The small sample size did not allow the results to be applied as freely to larger populations. The Hippotherapy Program treated a wide variety of diagnoses, which also limited the ability to aggregate data and generalise conclusions. Power was limited in the statistical data secondary to single case design. De power, both statistically significant and clinically relevant improvements were demons W81XWH-11-1-0793 individual case. Determining confounding factors is difficult in this study. Exclusion bias exists as subjects are primarily referred from the Beck Pride Center.

The Beck Pride Center was established in 2007 at Arkansas State University. Services offered by the center were designed to fill gaps in an underserved area and supplement, not duplicate, existing government benefits while providing support for United States Veterans returning from service and entering higher

education. Examples of services provided at little or no cost include physical rehabilitation, mental health counselling, advocacy, benefit assistance, and career or vocational development.

Acknowledgements

The authors gratefully acknowledge the contributions of Cory Lawson, Jenny Massey, Sabrina Benton, and Candace Chapman for their work in data collection and patient treatment. Financial support for the study was provided through grants from the

U.S. Army Medical Research & Materiel Command (USAMRMC) and the Telemedicine & Advanced Technology Research Center (TATRC), at Fort Detrick, MD. Finally, we are grateful to the patient who gave his time to participate in this study.

Conclusion

The subject reported decreased disability with low back pain, decreased neck pain, and disappearance of stuttering following hippotherapy sessions. This evidence suggests that hippotherapy may result in physical benefits for some veterans. Hippotherapy has the potential to restore, maintain, and promote

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physical function as well as quality of life in aspects of disability, in some individuals. Further research is indicated.

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- ² Memphis

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Roy Lee Aldridge Jr. PT EdD Arkansas State University

Abstract

Title of Presentation: The Effects of Hippotherapy on a United States Veteran after a Stroke

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Problem: The problem was to see what avenues in physical therapy might assist a United States Veteran from the Korean War after having a stroke. Few studies have addressed hippotherapy in individuals after a stroke. IRB approval was granted prior to the study and the participant signed informed consent

Purpose of the Study: The purpose of the study was to investigate the effects of hippotherapy on a United States Veteran after a stroke as a medical diagnosis. Hypothesis is the addition of hippotherapy to a traditional physical therapy program will result in a greater functional improvement in an individual patient's performance

Methods: A veteran of the Korean War participated in this study. The individual participated in both hippotherapy based physical therapy (Treatment A) and traditional therapy (Treatment B). The Individual was evaluated individually in a single subject trial design. Results were compared to individual and no one else. The first treatment A was randomly assigned and lasted for fifteen weeks followed by crossing over to the alternate treatment B for fifteen weeks. Treatments were scheduled to occurred twice a week for both groups.

Results: The results of the study showed that the individual responded with greater effectiveness to hippotherapy as opposed to traditional therapy. The testing revealed that while some gains were noted in traditional therapy, greater improvements were noted while the individuals were involved in hippotherapy. During the initial evaluation, the physical therapist determined the impairments to be measured.

Data: For this individual, each measurement of impairment was illustrated in a graph. The X-axis was the dates of treatment and the Y-axis were measurements for that day. The data analyses compared the rate of improvement between the two groups. The rate of improvement was represented by the slope in the graph for each treatment group. For each measurement the slope for Treatment Group A and Treatment Group B was be compared. Using an exact binomial table statistical significance was determined for each variable measured

Summary/Conclusion: Based on these results, hippotherapy should be considered a treatment option when dealing with individuals after a stroke. While not all measured areas demonstrate statistical significance, the rate of improvement was noted more significant in the graw81XWH-11-1-0793 individual in the study. While this study did show positive results with hippotherapy, studies should be preformed.

THE EFFECTS OF HIPPOTHERAPY ON MOTOR PREFORMANCE AND FUNCTION IN UNITED STATES MILITARY VETERANS WITH LOW BACK PAIN



Disclaimer Statement

'This research and development project was conducted by Arkansas State University and is made possible by a research grant that was awarded and administered by the U.S. Army Medical Research & Materiel Command (USAMRMC) and the Telemedicine & Advanced Technology Research Center (TATRC), at Fort Detrick, MD under Contract Number: Award No. W81XWH-11-1-0793"

Non-Endorsement Disclaimer:

"The views, opinions and/or findings contained in this research are those of the author and do not necessarily reflect the views of the Department of Defense and should not be construed as an official DoD/Army position, policy or decision unless so designated by other documentation. No official endorsement should be made."

Purpose: To investigate if any differences are found in motor functioning and function when adding hippotherapy to a traditional physical therapy program with individuals with Low Back Pain.

Methods: The subjects included veterans from various branches of the United States Military. Treatment A consisted of the traditional physical therapy program with the addition of hippotherapy for 15 weeks. Treatment B consisted of a traditional physical therapy program for 15 weeks. Veterans were randomly selected to receive either Treatment A or B initially. A-B Single-Subject Repeated Measures Design Outcomes: The initial results of this study showed that there were differences found when adding hippotherapy as an adjunct therapy to a traditional physical therapy program. Conclusion: The addition of hippotherapy to a traditional physical therapy program seems to improve motor functioning in an adult with functional issues.

METHODS

Two subjects volunteered to participate in the investigation through the Beck PRIDE Center. The study was approved by the University Institutional Review Board for human subjects. All subjects signed a written informed consent prior to testing.

Each subject received physical therapy for 30 weeks. Subjects either received physical therapy including hippotherapy or traditional therapy for fifteen weeks followed by the alternate treatment for fifteen weeks

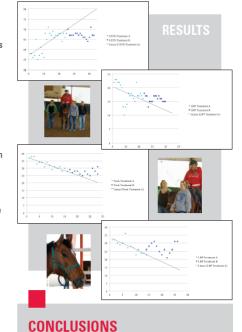
STATISTICAL ANALYSES

After each treatment protocal, slope and trend lines for each treatment were established and compared

RESULTS

The slopes when compared for each participant Treatment A (therapy and hippotherapy) resulted in a greater decrease in pain and increase in function than Treatment B (therapy)







The results of the study suggest that hippotherapy does

result in a greater increase in motor preformance and function when compared to traditional therapy



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Presenter information:

 $\circ\,$ Names, credentials and brief biographical sketch of presenters (and non-presenting co-authors)

Roy Lee Aldridge Jr received a bachelor's degree in Physical Therapy from The University of Tennessee in 1990 and an Advanced Physical Therapy degree in 2001 from The University of Tennessee. Roy received his Specialist Degree in 2004 and his Doctoral Degree in 2008 from Arkansas State University. Roy has been published and presented in the effects of hippotherapy.

☐ Content description:

Title of presentation

THE EFFECTS OF HIPPOTHERAPY ON MOTOR PREFORMANCE AND FUNCTION IN UNITED STATES MILITARY VETERANS

- Abstract (with figures if appropriate) Max. one page, any format.
- If research paper, include Intro, methods, results, discussion.
- References only on second page.

<u>Hypothesis/Issue to be Addressed:</u> To investigate if any differences are found in motor functioning and function when adding hippotherapy to a traditional physical therapy program with individuals with Low Back Pain.

<u>Methods:</u> The subjects included veterans from various branches of the United States Military. Treatment A consisted of the traditional physical therapy program with the addition of hippotherapy for 15 weeks. Treatment B consisted of a traditional physical therapy program for 15 weeks. Veterans were randomly selected to receive either Treatment A or B initially. A-B Single-Subject Repeated Measures Design

<u>Observations/Outcomes:</u> The initial results of this study showed that there were differences found when adding hippotherapy as an adjunct therapy to a traditional physical therapy program. <u>Conclusion:</u> The addition of hippotherapy to a traditional physical therapy program seems to improve motor functioning in an adult with functional issues.

 Brief statement describing how this presentation adds to the body of knowledge about hippotherapy and how it will be beneficial to participants. For example, how it assists with care, improvement of equine and HPOT.

This presentation will reveal the latest endeavors in the use of hippotherapy on our veterans as they return home and address their physical needs

- ☐ Presentation process:
- Presentation outline (include ideal time requested for effective presentation)
 30 minutes
- o 2-3 Learning objectives

Describe the process of a single subject research design

Describe the statistical analysis including slope and exact binomial scales

Describe the benefits of hippotherapy in veterans

Describe presentation process (e.g. lecture with ppt, workshop, activities, simulation)
 Lecture with ppt

W81XWH-11-1-0793

Arkansas State University is pleased to release a manual documenting our journey to provide support services on our campus for disabled veterans seeking our assistance. The Beck PRIDE Center for America's Wounded Veterans opened in October, 2007 and has been an award winning, signature program since that time. The Department of Defense provided funding in 2010 to study the effectiveness of our program. Part of that project included development of an informational and resource manual to be shared with college campuses. The booklet and enclosed resource sheet contains a variety of materials that may be of value in the development of your own program or enhancing existing operations.

It has been a privilege to serve our veterans and their families. They are so grateful for our attention, but our staff are the ones who are rewarded with this work. The experiences continue to be very enriching and memorable.

I hope you will contact us should we be able to assist your work in anyway.

Please share this document with the individual on your campus who is or might consider doing work in this area.

Have a great academic year!

Sincerely,

Susan Hanrahan, Dean College of Nursing and Health Professions

Enclosure

W81XWH-11-1-0793





BECK PRIDE CENTER For America's Wounded Veterans







FOR INFORMATION PLEASE CONTACT:
Beck PRIDE Center
P.O. Box 910
State University, AR, 72467
(870) 972-2624
AState_edu/cpi/beckpride/



CHARLOTTE V. BECK

W81XWH-11-1-0793

BECK PRIDE CENTER For America's Wounded Veterans

To the PRIDE Vets - Charlotte and I thank you for the service of you and your families. WELCOME HOME!

America is forever grateful to you for your service. We cannot do everything, but we do hope in some small way we can help with your transition back to a future in the great USA. God bless all of you and the United States of America.







enrich:

A LETTER FROM DR. TIM HUDSON, A-STATE CHANCELLOR

Artanous State has a long history supporting the new and women who have destinated our fractions. One part of the measure is obstacled, during such to see shortwards years and continuing with one of the state of their threating programs in the control, where our making our board and application in the mining in the control of the state of the state of the state of the state of the control of the state of the state of the state of the state of the control of the state of the state of the state of the state of the what note in supporting whetever returning from their service.



This guidablook Rectrates the Indiany of the Back IMRICE Center and the vision of those who seekhel Imstacky to make it a study. As you must drawing it it would ask you to this of three impossing than. Do you would not be a study of the property of the

Window Chartel I one said that "We shap sality at legal became magin man dand ready to feld relations on those we weekfarm as "The black PREC Contine saids to be the recovered saids groundy for window of our moving regularity and to the the continuous appearance and access and ow this product for the results of the results of the production, appearance and access and ow this other final final

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Chancelor consulted with the College of Neutral and Feelth Professions dear, who gatheaut some department clauss together to discuss possibilities including the rame of such a program. A document was constructed that corceptualized the program and provided it to the chancelor.



enversity and proposed benefactor are conducted to define the program mission, beneficiaries and core

The university chancellor and dean of the College of Nothing and Health Professions (CN-P) garrend an initial vector commitment from the Seck Family in February 2007 of \$1 million.



The EN-P door accepted the challenge to develop, administer, staff and operate the program within the EN-P



mission:

BECK PRIDE CENTER FOR AMERICA'S WOUNDED VETERANS

BECK PRUDE CENTER: ARKANSAS STATE UNNERSITY

educational preparation in a university environment. It prepares wounded veterans for post-service cureers and offices resource support for veterans and office harvily during this critical posted. The center's mission is reflected by the accorym "PRIDE" as it represents the primary focus on Personal Refsabilitation, Individual Development and Education. Examples of services designed to support the veteraris in achieving their post-military goals include access to the higher education experience, mental health courseling, personal rehabilitation, advocacy, benefits/financial assistance and current/excational development. The services are designed to supplement, not duplicate, veteran's government benefits. These "gap" services are provided at no cost to the veteran.



March 2007

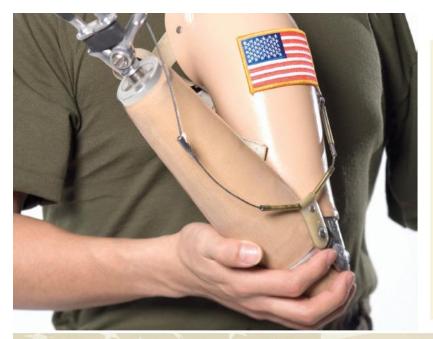
The CNI-P deen relains individuals to conduct made assessments via interviews at the local, seed state and retronal level.

The unwersty character and CNEP does now by Washington D.C., with lattice and entain, call on welcom adulation to accord in orbit to gather program support them the Department of Delares, Washington, compressional organizations, compressional proprietations and other key figures on Capital Hill and at the Restagon.

The CN4P dear, unwestify precident, charactery, charactery, charactery and thousand the companies of histosic evaluation for program organization and scope. They obtained the francial structure will be transposed within the university's foundation, various forming a separate 501 (4) 3.



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personal rehabilitation:

BECK PRIDE CENTER: ARKANSAS STATE UNIVERSITY







BECK PRUDE CENTER: ARKANSAS STATE UNNERSITY 9

individual development:

The Beck PRICE Center also focuses on the veterant's individual development that goes beyond the physical and mental needs in an effort to encourage a successful training-union process. These efforts are assend at normaling assistation with other veterate on campus, in the commandy and with asceler as whole by encouraging participation in subsolided events and activities led at the university and in the local commander. The commander of the surface of the control of the property of the control of

Reintegration activities am also incorporated with the ASVO (Askarsas State Veterans Diginization), which is a student veteran-lead organization that was developed shortly after the neighbor of the Best PRIED Center. The mission of ASVO is to develop student veterans group on college and university campaies, and coordinate, by egice, between existing groups, to correct student groups with resources and be an advocate on behalf of student veterans at the state and restront leads. ADVO activities residue veters floasting on socialistion with other students groups on campus, community services, education and career development.



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BECK PRIDE CENTER: ARKANSAS STATE INMERSITY 13

facility:

The Book PRICE Center is not only a one-stop slop for services, but it is also a place for study, social experiences and reintegration opportunities. The Beck PRICE Center is located within the College of Nursing and Health Preferences (CAPIF) on the A State campus, Intellay, the program stilled one small office on the third floor of the College of Nursing and Health Professions building, then reved into two offices within the COAPT's social work department. In 2008, the center moved into the newly constructed Boral VM Reprofit S center for Health Sciences and own occupies there offices for the full time social workers and two graduals essistants. The same is cassily accossible for tutoring, meetings and consultation with staff members. The Day Born is a large open norm with tables, coucher, compraint, toler internal and located and the staff terminates. The Day Heart is a some of community and frust. The term as also asset in the Reprofit Center facility has Bountshed into screening much more finan a place to hood a program. It serves a place of centerfact and community for student veterans.



Month 1

sees and document volumes has the benefits; so not to gaps.

The first gaps document beloate, but were not limited to:
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Categorias servica areas for tracking and service delivery purposes.



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Elevelop and laureth a web page within the university

page within the university website.

• Utilize the university's deathy savious. Initial program web pages contained information on

- Eligibility requirements, services provided, program contact information, calendar of events.
- Units to the university's witness related services and compas points of contacts.
- Links to height adamal organisations ilso volumes objection and Wildom information, Wilhold force resources and military force.
 Links to height commently based resources and military organisations.
- Links through community based resources and military organizations.
 Unline topical for information or program participation.
 Each ordine reposal transmitted to the program director's small for believant method.





BECK PRIDE CENTER: ARKANSAS STATE UNMERSITY



awards:

THE ENTIRE STATE BENEFITS WHEN AN ARKANSAS PROGRAM IS NATIONALLY RECOGNIZED. THE BECK PRIDE CENTER HAS RECEIVED SEVERAL PRESTIGIOUS AWARDS:

Sept. 10, 2009 - Newman's Own/Feber House Award-one of top 10 U.S. non-profit organizations providing innovative service to American military families.

U.S. Colleges and Universities: Farsked 10th in 2010, 28th in 2011, and 31th in 2012 and 2013 in Military Stores "Best for Vets at U.S. Colleges" (Doly Advances school on the top 100 list), Listed in 3.6 bets Magazine as one of the "Top 100 Military Friendly Educational Institutions" for years 2009-2014.

Recipient of \$100,000 American Council on Education (ACE) award funded by Wal-Mart.

National media coverage: Disabled American Veteraris, Veteraris of Foreign Wars, US Department of Deferois American Foreis Priest Service and US American Funces Hadio, Salute to Freedom, "Veteraris on Campus" Papercilip Communications.



Meet with unworstly meetic and public relations point of contact (POC) to

- develop a communications strategy in order to increase public awareness
- Got quotes about the benefits of services from participants, with their permission
 Research contact information from local, state, material VA, nellitary modes person
- Invite the university's made POC to artend all program operational public over its and manuser man assets.

Relationship building within the regional military

- Afford local national guard "drift" weekends.
 One information a monthly weekends.
- Accept invitations to attend as many military owents as possible.
- Display materials at National Guard, Reservo reintegration brieflygs.

January 2008 —
Three Messals
Conduct a Videoral's
wolcome to campus
open house swent.

Conduct Information and discussions with VA mental health provides to learn best practice methods for addressing velocate mental health needs.

was are exclusive connecting to be a connecting to be a connecting to be a connecting serious for connecting serio

Oincoor and military illasson establish statewide presence through aread based organizations like:

 Employer support of the Guard and Reserve, Military Difficers Military Difficers Association of America, and others.



BECK PRIDE CENTER: ARKANSAS SIATE LINNERSITY 19



relationships:

The purpose of the Beck PRIDE Center is to provide veterans with short and long term rehabilitation (sphysical and mental), educate family members on caregiving, assist with post service careers and serve as both an educational and research in the students and fiscally. The Beck PRICE Center was also represented to bail of an entainties relationships. The elictricity to between the veterans, the veterans and the staff, and fin staff with outside veteran organizations are extremely important in support of personal development and the apposits exhibilitation. The center also provide steff or constring and verticant positionships with loss of sovere providers and veteran organizations. The relationships within the Beck PRIDE Center are vital to the success of the renoran.



May 2008 — Begin to identify week to — See Mende their introduction in proceed to the program staff grown to two full-time into America's main stream.







problem solving therapy:

BECK PRIDE CENTER: ARKANSAS SIATE LINNERSITY 21

The center uses problem solving therapy as the strategy for assisting the veteram. Problem solving therapy (PST) is the best practices approach for a short-term, cognitive behavioral intervention that acceptances a systemic methed for engaging assurated veterant's Thelp weeking! behaviors, relevant coordination and problem solving. The expected result is for veterame to acquire new side for successfully resolving interpresented efficiations. The PST side socials exclude restrated situational assurances, publish effortings, purposite assertiveness. (solver through and eventually the ship's to evaluate their changes and outcomes. By consistently implementing these steps and molecular their stranges and outcomes. By consistently implementing these steps and molecular their stranges and outcomes. By consistently implementing these steps and molecular their changes and outcomes. PST sides the force of enotional and poll-ensional challenges. PST sides the force of enotional and poll-ensional challenges. PST sides the force of enotional and poll-ensional challenges. PST sides the force of enotional and poll-ensional challenges. PST sides the force of enotional and poll-ensional challenges. PST sides are solved to the same of enotional and poll-ensional challenges. PST sides are solved to the same of enotional and poll-ensional challenges. PST sides are solved to the same of enotional problems and pstrategy and problems are shown to be substantial to the force of enotional poll-ensional pstrategy and pstrategy and problems are broken down into annular parts. Veterantic assess are defined as a particular behavior that as part of a sequence of each sample sweet agreems. The goal of this approach is to asible polderins, achieve goals, improve behavior, respond to stressors and improve overall quality of life.



	Academic processes					and the same of	Pogran	October 2008 -			The university commits	Participant family social
oterans	The state of the s	aru downloped	downloped to assist military	to-campus	friendly, on-	No. of Lot	TOCUMES	One Year	staff moves	nucives	to join forces with	awards are promoted
rth	participants.	With WA	tamilies from	transportation and	carpus	14	\$37,500 grant	52 Participants are	into two	monetary	University of Arkansas	The program joins with ON-E-presidal
isabilities	Academic monitoring and	Vocational	Regional family randraiss groups, Family	parking issues	housing	10.10	from the	activaly arrolled in	offices	support	and Northwest Adoress	teray decreas
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supporting agencies:

Services for the Bock PRDIC Center are not limited to resources on the Alarason State University campan. Doze a veteran's initial assessment is completed, Bock PRDIC staff members determine the recently of cutside referrals. Here referrals could include personal inhabilitation, individual confessions of the Reporting aspects for the Res PRDIC Center reducts the educational support in services listed in the Education section of the manual, A State Oullege of Naming and Health Telessions, Neat Health Education section of the manual, A State Oullege of Naming and Health Telessions, Neat Health Education section. Bettle Department, Advances Department of Energy Products of Englanders, Neat Health States Department, Advances Army National Gound, Advances Department, Advances Army National Gound, Advances Department of Energy Products of the Indian State of the Indian States of the Indianal States of the Indianal





competition among





staffing:

The Beck PRIDE Center is currently staffled by two full-time employees with a background in social work who are military competent. From the eart, the Beck PRIDE Center needed connotes who could function as a case manager, identify velocities needs and operationalism the program. It was clear frem were needs for veteraris in the community that were not being net. Social work proved to be the best professional background for the Beck PRIDE Center per ability because of the native and complexity of the program and the principants. A background in social work provides workers with a natural ability to work in the mental health arens, an ability to identify appropriate resources and reflect connections. Our saffing patients have one a perfect fit for working with veterans, managing the overall program and putting the different pioces together.

BECK PRIDE CENTER: ARKANSAS SIA/E UNIVERSITY 25



to addressing key programmatic issues like:

• State beding, sectioned growth, increased state/ national/international visibility, local on adding program

October 2009
The Nam
Center moves into new and
experied facilities within the
DMP The program stilling three
offices and a matti quipos from

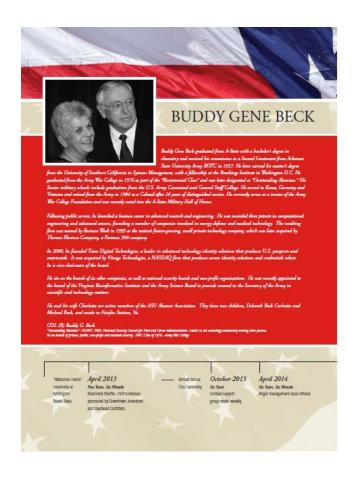
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Forms

Intake: The Intake form provides information for qualification, identification, contact, and referral services.

Information and Referral (I & R): The I&R allows tracking of individuals that are outside the scope of services for the Beck PRIDE Center and where they were referred for services.

Consent for Services: The consent for services provides a description of the Beck PRIDE Center program and gives consent for their participation.

Informed Consent for Physical Therapy Research Project: Adescription of "The Effects of Hippotherapy on Motor Performance in Individuals with Disabilities" study and consent to be evaluated and participate.

Volunteer Application and Agreement form: Brief overview of skills, past experiences, volunteering, contact information and time available.

Beck PRIDE Center Brochure: Brief overview of the program and services.

Special Program Materials

Beck PRIDE Center PowerPoint: An overview of the development of the Beck PRIDE Center and services offered by the center.

Beck PRIDE Center Overview: Fact sheet detailing information in a quick format.

Bob Hope Show Fundraiser Flyer

Arkansas Veterans Referral Guide

Surveys/Standardized Instruments

Beck PRIDE Satisfaction Inventory (BPSI)

Ferrans and Powers Quality of Life Index Generic Version – III SF 12

Your Health and Well-Being/SF 12v2 Health Survey: Medical Outcomes Trust and QualityMetric Incorporated.

Videos

Bob Hope Fundraiser video link – This video was the introduction to an evening fundraiser.

Veterans Online Resources

Arkansas State University Quick Links

Arkansas State University Virtual Tour Federal Student Aid Application Arkansas State University Registrar's Office -Veterans Representative

veterans Representative

Enrollment Information for Student Veterans and Dependents of Veterans Apply for Veteran's Benefits: US Department of Veterans Affairs

Apply for Veteran's Benefits: US Department of Veterans Affairs Article contributed by June Olsen: Veteran Education and Accredited Online Colleges

Military Education

Four Reasons to Choose your Military Education Benefit Carefully: From Military.Com Army National Guard Tuition Assistance Program AARTG Military Transcripts Student-Veterans with Disabilities: WA Vocational Rehabilitation Services Online Application Career Exploration and Job Analysis: O-Net Online

U.S. Department of Defense - Military Health System

TRICARE Benefit Information
Wounded Warrior Resource Center Website
Warrior Care Website - Service Programs, DOD, Labor
and VA Resources
Veteran's Information

The National Archives

Military Research

" eVetRecs" The National Archives: Military Personnel Records

Arkansas Veteran Resources

Arkansas Veteran.com Google for Veterans.com

Mental Health Issues and Programs

Online assessment tools, resources locator for veterans, family members and providers ebenefits.va.gov

Arkansas State University Jonesboro, Arkansas

List of Personnel

Susan Hanrahan Susan Tonymon Kelly McCoy-Edwards Roy Aldridge

Nancy Clark Margaret Horwatt Sandra Worlow-Brown Mary Williams

Lynda Nash Daniel Smith Charles Carter Christin Eddinger Kimberly James

Brianna Segraves Wesley Gautreaux Rachel Meredith Randall Murray

Cory Lawson