Program Evaluation Report Veterans Alternative Retreat Program

1750 Arcadia Road Holiday, FL, 34690

Date of Submission: January 16, 2016

Submitted by: Brian Anderson

Co-Founder and Director Veterans Alternative

Submitted to: Florida Department of Children and Families

Prepared by: Kevin E. Kip, Ph.D.

President, KMS Research LLC, Tampa, FL

Distinguished Health Professor University of South Florida College of Public Health

Department of Epidemiology and Biostatistics

Tampa, FL 33612 kkip@health.usf.edu

(813) 974-9266

TABLE OF CONTENTS

SECTION	TITLE
1.0	INTRODUCTION
2.0	SERVICES PROVIDED
3.0	PROGRAM EVALUATION RESULTS
4.0	ESTIMATE OF RETURN ON INVESTMENT (R01)
5.0	DE-IDENTIFIED LISTING OF VETERANS AND SPOUSES SERVED
6.0	ABOUT THE AUTHOR

1.0 INTRODUCTION

This report provides a summary of performance for the Veterans Alternative Retreat Program during the period July 1, 2016 through December 31, 2016. As background, the Veterans Alternative Center, housed in Holiday FL, is under contract with the Florida Department of Children and Family Services (DCF) to provide behavioral health care services to veterans and immediate family members who are facing life challenges that stem from emotional difficulties associated with military combat service and military sexual trauma. This includes challenges and difficulties with civilian transition and daily life functioning including but not limited to symptoms of post-traumatic stress disorder (PTSD), depression, anxiety, chronic pain, and substance use. The services provided (described below) are provided during a 6-day retreat program administered at the Veterans Alternative Center in Holiday, FL.

Some of the features of the retreat program that facilitate recruitment of veterans in need of services and optimize the overall retreat experience include:

- Services are provided free-of-charge and are open to Combat Veterans as well as veterans who have experienced Military Sexual Trauma (MST).
- Services are open to spouses/significant others of veterans.
- Research-proven modalities are provided in a respectful, collective, and holistic manner.
- All activities and results that occur are confidential and have no bearing on current medical diagnoses or disability ratings.

2.0 SERVICES PROVIDED

The services provided at the retreats include a blend of evidence-based therapies and complementary and alternative therapies designed to provide a holistic healing experience for the retreat participant. Whereas there is some flexibility and tailoring of the modalities provided, the primary therapeutic modalities offered and provided include:

Accelerated Resolution Therapy (ART)

- An evidence-based psychotherapy that achieves benefits rapidly (usually within 1-5 sessions), as compared to conventional therapy protocols.
- Changes the manner in which negative images and memories are stored in the brain using a process known as imagery rescripting.
- No need to disclose details of traumatic experiences verbally or in writing, and no homework or outside work is required.
- Most veterans experience some benefit within the first session.

Integrative Restoration (iREST)

- Guided meditation practice designed to relieve triggers that Veterans experience from Combat and MST in order to help transition back to civilian life.
- Currently being utilized by a growing number of healthcare organizations, including the VA, DoD, and other hospitals, homeless centers, and addiction treatment facilities.



Guided Yoga

- Designed to facilitate recovery from physical and emotional effects of trauma.
- Gentle Yoga -- low intensity form of yoga with relaxed pace and suitable for those trying to get active again and/or recover from illness or injury.
- Hatha Yoga -- Traditional standing and seated poses with a focus on proper breathing techniques.
- Power Yoga -- Fitness-based approach to yoga that uses sun salutations and emphasizes strength and flexibility.





Kali

- Martial art that focuses on use of edged weapons.
- Members train as a group that fosters close bonds, requires teamwork, and builds camaraderie.
- Very taxing on one's coordination, and drills are extremely fast.
- Has been described as high-speed chess with weapons.



Other Physical Fitness

- TRX Tactical Trainer -- Comprehensive deployable training solution.
- Includes ropes, kettle bells, squat bars, pull up bars, and more.
- Field-tested gear provides complete training solution for all branches of the military and first responders.



3.0 PROGRAM EVALUATION RESULTS

The Veterans Alternative Retreat Program makes use of a comprehensive and rigorous program evaluation component. The program evaluation includes quantification of services provided in addition to independent empirical assessment of the extent to which the program achieves the desired aims of significantly increasing the success of Veteran and family transition after Combat and military service. This occurs through the use of reliable and valid measures of psychological and physical health. As part of enrollment in the retreat program, all veterans and immediate family members are asked to complete a battery of self-report instruments at the beginning of the retreat, at the end of the retreat, and at 1- and 9-months post completion of the retreat. Results presented in this report refer to the pre- and post-retreat assessments. Data on the 1-month and 9-month follow-up assessments are being compiled and will be disseminated in future reports. In addition, limited information is provided in this report on the 5 spouses of veterans who attended the retreat program during the performance period.

During the period July 1, 2016 to December 31, 2016, a total of 15 retreats were conducted. Forty-four veterans and 5 spouses were enrolled in the retreat program. Data are presented for the 42 of 44 veterans who had complete pre-retreat and post-retreat data, in addition to limited data on the 5 spouses who attended the retreat program.

As seen in **Table** 1, veterans rated different components of the retreat program on a 1 to 5 scale with 1 corresponding to "Unsatisfactory" and 5 corresponding to "Very Satisfactory." Overall, satisfaction was very high with all components of the retreat program.

Table 2 lists the mean number of services provided per veteran. As seen, the most frequent service provided was Accelerated Resolution Therapy (ART) with an average of 4.5 sessions delivered per veteran. The aggregate number of sessions provided for the different therapeutic modalities are depicted in **Figure 1a**. As seen, a total of 200 and 179 veteran sessions were delivered for ART and yoga, respectively. A total of 25 and 23 spouse sessions were delivered for ART and yoga, respectively (**Figure 1b**).

Veterans Alternative Program Evaluation Report Table 1 - Overall Evaluation of Retreat Program All Elements Rated on a 1 to 5 Scale Results Overall and by Age of Veteran

Characteristic	Total (N=42)	18 to 29 (N=9)	30 or older (N=33)
Retreat Evaluation (1 to 5): Length of Retreat, mean, SD	4.3, 1.0	4.9, 0.4	4.2, 1.1
Retreat Evaluation (1 to 5): Accommodations, mean, SD	4.8, 0.6	5.0, 0.0	4.7, 0.7
Retreat Evaluation (1 to 5): Food, mean, SD	4.7, 0.6	4.9, 0.4	4.7, 0.6
Retreat Evaluation (1 to 5): Location, mean, SD	4.6, 0.9	5.0, 0.0	4.5, 1.0
Retreat Evaluation (1 to 5): Veterans Alternative staff, mean, SD	4.9, 0.4	5.0, 0.0	4.9, 0.4
Retreat Evaluation (1 to 5): Atmosphere of the center, mean, SD	4.7, 0.6	4.9, 0.4	4.7, 0.6
Retreat Evaluation (1 to 5): Overall rating - retreat activities and services, mean, SD	4.6, 0.8	4.8, 0.5	4.5, 0.8
Retreat Evaluation (1 to 5): ART, mean, SD	4.8, 0.6	4.6, 1.1	4.8, 0.4
Retreat Evaluation (1 to 5): iRest, mean, SD	4.9, 0.3	5.0, 0.0	4.8, 0.4
Retreat Evaluation (1 to 5): Yoga, mean, SD	4.7, 0.7	4.6, 1.1	4.7, 0.6
Retreat Evaluation (1 to 5): Kali, mean, SD	4.5, 0.9	4.8, 0.7	4.4, 1.0
Retreat Evaluation (1 to 5): PT (physical training), mean, SD	4.2, 1.1	4.4, 0.9	4.1, 1.2

Veterans Alternative Program Evaluation Report Table 2- Services Provided at the Retreat Program Results Overall and by Age of Veteran

Characteristic	Total (N=42)	18 to 29 (N=9)	30 or older (N=33)
Number of ART sessions, mean, SD	4.5, 1.0	4.3, 0.9	4.6, 1.1
Number if iREST sessions, mean, SD	2.9, 1.4	3.1, 1.6	2.9, 1.4
Number of Yoga sessions, mean, SD	3.9, 1.5	2.9, 1.8	4.3, 1.2
Number of Kali sessions, mean, SD	1.6, 1.2	1.4, 0.9	1.7, 1.3
Number of physical therapy sessions, mean, SD	0.8, 1.4	1.1, 2.0	0.7, 1.1
Number of Other activity sessions, mean, SD	1.8, 1.4	1.2, 0.7	1.9, 1.6

Number of retreats conducted: 15
Number of veterans served: 44
Activity sessions delivered to date (chart below):

ART

iREST
Yoga
Kali
PT
40

Other

84

Total number of sessions delivered: 697

Figure 1a. Aggregate Number of Veteran Sessions Provided per Therapeutic Modality.

Number of retreats conducted:

Number of spouses served:
Activity sessions delivered to date (chart below):

ART
iREST
Yoga
Kali
PT
3
Other
24
Total number of sessions delivered:
91

Figure 1b. Aggregate Number of Spouse Sessions Provided per Therapeutic Modality

2

Demographic characteristics for the veterans served are listed in **Table 3** overall and stratified by number of prior deployments. More than half of the veterans had served in the Army, and previous trauma history was high.

Veterans Alternative Program Evaluation Report
Table 3 - Demographic Characteristics of Retreat Participants
Results Overall and by Number of Deployments

Characteristic	Total (N=42)	0-1 deployments (N=21)	2 or more deployments (N=21)
Age in years, %			
18 to 29	20.9	14.3	27.3
30 to 39	37.2	42.9	31.8
40 to 49	25.6	28.6	22.7
50 to 59	9.3	4.8	13.6
60 to 69	4.7	4.8	4.5
70 or older	2.3	4.8	0.0
Gender, %			
Male	86.0	76.2	95.5
Female	14.0	23.8	4.5
Race, %			
Black/African American	4.9	0.0	9.1
White	92.7	100.0	86.4
American Indian/Alaskan Native	2.4	0.0	4.5
Ethnicity, %			
Hispanic	17.5	20.0	15.0
Non-Hispanic	82.5	80.0	85.0
Years of education completed, %			
Less than 12	2.3	4.8	0.0
12 to 14	51.2	38.1	63.6
15 to 16	23.3	28.6	18.2
17 to 18	11.6	14.3	9.1
19 or more	11.6	14.3	9.1

Characteristic	Total (N=42)	0-1 deployments (N=21)	2 or more deployments (N=21)
Marital status, %			
Married/Living with someone	27.9	19.0	36.4
Single	37.2	47.6	27.3
Separated	18.6	14.3	22.7
Divorced	16.3	19.0	13.6
Primary military service, %			
Army	55.8	52.4	59.1
Navy	16.3	14.3	18.2
Marine Corps	7.0	9.5	4.5
Air Force	9.3	9.5	9.1
National Guard	11.6	14.3	9.1
Number of deployments, %			
None	9.3	19.0	0.0
One	39.5	81.0	0.0
Two	25.6	0.0	50.0
Three	9.3	0.0	18.2
Four or more	16.3	0.0	31.8
Length of longest deployment, %			
Less than 6 months	11.6	19.0	4.5
6 months to 9 months	20.9	9.5	31.8
9 months to 12 months	30.2	28.6	31.8
12 month to 18 months	32.6	38.1	27.3
More than 18 months	4.7	4.8	4.5
Trauma - Witness death or execution, %			
No	27.5	44.4	13.6
Yes	72.5	55.6	86.4
Trauma - IED blast or combat explosion, %			
No	40.5	50.0	31.6
Yes	59.5	50.0	68.4

Characteristic	Total (N=42)	0-1 deployments (N=21)	2 or more deployments (N=21)
Trauma - Witness major injuries (non-lethal), %			
No	15.0	21.1	9.5
Yes	85.0	78.9	90.5
Trauma - Physical assault, %			
No	62.2	47.4	77.8
Yes	37.8	52.6	22.2
Trauma - Sexual assault, %			
No	75.0	55.6	94.4
Yes	25.0	44.4	5.6
Trauma - Other, %			
No	54.5	46.7	61.1
Yes	45.5	53.3	38.9
Current Medication - Pain, %			
No	62.8	61.9	63.6
Yes	37.2	38.1	36.4
Current Medication - Depression, %			
No	46.5	38.1	54.5
Yes	53.5	61.9	45.5
Current Medication - Anxiety, %			
No	44.2	28.6	59.1
Yes	55.8	71.4	40.9
Current Medication - Seizures, %			
No	88.4	90.5	86.4
Yes	11.6	9.5	13.6
Current Medication - Sleep, %			
No	48.8	38.1	59.1
Yes	51.2	61.9	40.9

Table 4 provides symptom levels reported by veterans at the start and end of the weekly retreat. As seen, very large, significant symptom reductions were reported for PTSD, perceived stress, depression, anxiety, pain, and sleep dysfunction. In addition, based on the 20-item PCL-5 (PTSD) Checklist and a cut-point score of \geq 33, 68% of veterans screened positive for PTSD at the start of the retreat compared to 26% at the end of the weekly retreat. **Figures 2-8** further depict change in symptom scores as a result of participation in the retreat program.

Veterans Alternative Program Evaluation Report Table 4 - Symptom Status of Retreat Participants Before and at the End of the Retreat

Characteristic	1. Start of Retreat (N=42)	2. At End of Retreat (N=42)	p-value
PCL5 (PTSD) score (total), mean, SD	44.7, 17.0	24.4, 16.0	< 0.0001
PCL5 Intrusion subscale score, mean, SD	9.6, 5.3	6.2, 4.9	0.0002
PCL5 Avoidance subscale score, mean, SD	4.6, 2.2	2.6, 2.4	< 0.0001
PCL5 Mood-Cognition scale score, mean, SD	16.3, 6.8	8.2, 6.1	< 0.0001
PCL5 Arousal subscale score, mean, SD	14.2, 4.9	7.4, 4.9	< 0.0001
Provisional PTSD diagnosis based on PCL-5, %	62.8	23.8	< 0.0001
PTSD cutpoint diagnosis (PLC5 score >=33), %	69.8	26.2	< 0.0001
Perceived Stress Scale Score (total), mean, SD	25.4, 6.9	13.8, 7.3	< 0.0001
Brief Symptom Inventory (BSI) score (total), mean, SD	30.9, 15.6	15.0, 11.4	< 0.0001
BSI Somatization subscale score, mean, SD	7.3, 5.7	4.0, 3.6	< 0.0001
BSI Depression subscale score, mean, SD	12.3, 6.4	5.5, 4.7	< 0.0001
BSI Anxiety subscale score, mean, SD	11.3, 6.0	5.5, 4.9	< 0.0001
Connor Davidson Resilience score, mean, SD	23.3, 6.5	25.0, 6.8	0.08
Average pain past week (0-10 scale), mean, SD	4.0, 3.1	3.4, 2.7	0.01
Pain Outcomes Quest: Mobility scale, mean, SD	12.2, 8.8	11.6, 7.2	0.45
Pain Outcomes Quest: ADL scale, mean, SD	2.7, 6.2	2.2, 5.6	0.27
Pain Outcomes Quest: Vitality scale, mean, SD	14.6, 6.3	12.0, 5.6	0.009

Characteristic	1. Start of Retreat (N=42)	2. At End of Retreat (N=42)	p-value
Pain Outcomes Quest: Negative Affect scale, mean, SD	26.0, 10.4	16.8, 10.8	< 0.0001
Pain Outcomes Quest: Fear scale, mean, SD	9, 3.4	8, 2.9	0.79
Pain Outcomes Quest: Total Score, mean, SD	54.5, 23.0	41.8, 21.8	< 0.0001
PSQI total sleep score, mean, SD	13.1, 4.2	9.5, 4.2	< 0.0001
PSQI total sleep score >5 (poor sleep), %	97.5	82.9	0.03
Marital Adjustment Score (100 is average), mean, SD	83.9, 36.7	91.9, 34.7	0.16

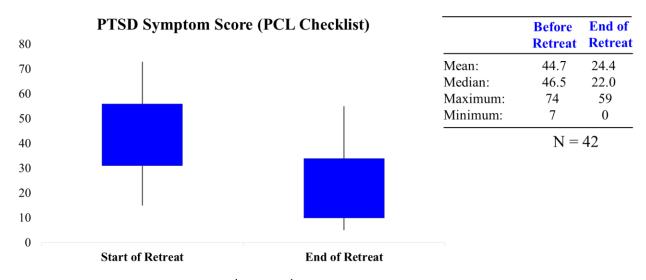


Figure 2. Box Plot of Distribution of PCL-5 (PTSD) Scores Before and at the End of the Retreat Program.

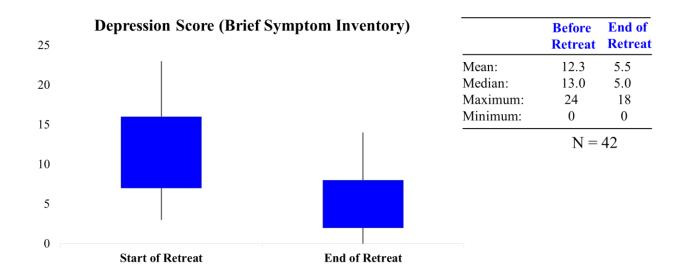


Figure 3. Box Plot of Distribution of Depression Scores Before and at the End of the Retreat Program.

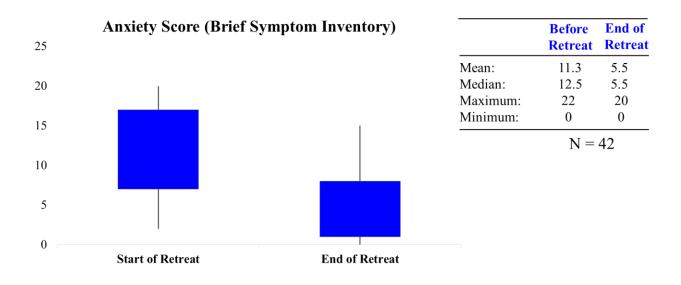


Figure 4. Box Plot of Distribution of Anxiety Scores Before and at the End of the Retreat Program.

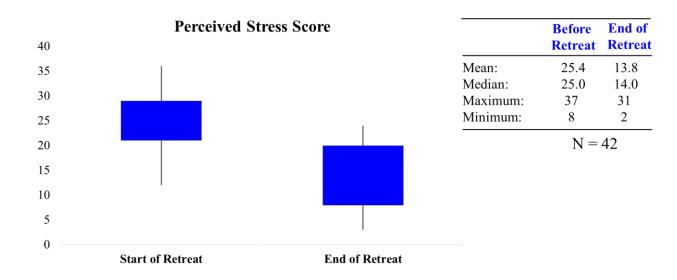


Figure 5. Box Plot of Distribution of Perceived Stress Scores Before and at the End of the Retreat Program.

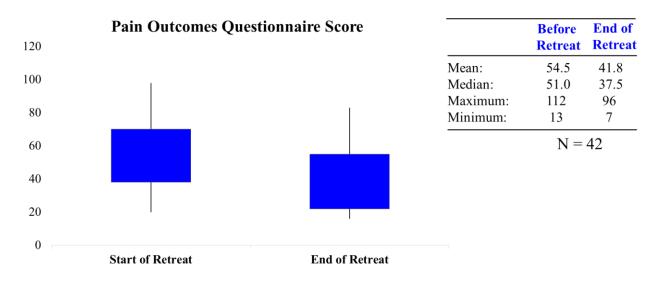


Figure 6. Box Plot of Distribution of Pain Scores Before and at the End of the Retreat Program.

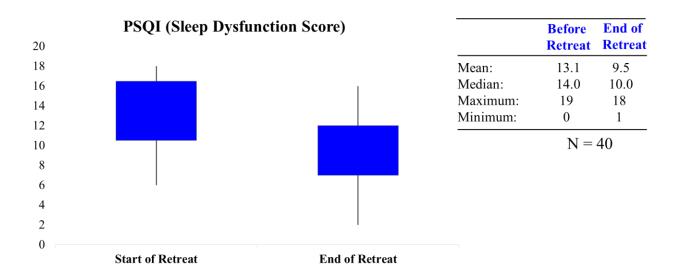


Figure 7. Box Plot of Distribution of Sleep Dysfunction Scores Before and at the End of the Retreat Program.

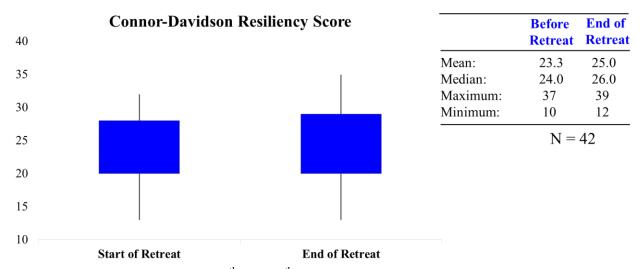


Figure 8. Box Plot of Distribution of Resiliency Scores Before and at the End of the Retreat Program.

4.0 ESTIMATE OF RETURN ON INVESTMENT (ROI):

According to the Congressional Budget Office (CBO) report (February 2012) entitled "The Veterans Health Administration's Treatment of PTSD and Traumatic Brain Injury Among Recent Combat Veterans"(1), average annual health care costs of veterans treated within the Veterans Health Administration (VHA) are \$8,300 for veterans with post-traumatic stress disorder (PTSD), versus \$2,400 in the absence of PTSD. Of note, annual treatment costs are higher in the presence of comorbidities associated with PTSD which are common and may include mild traumatic brain injury (mTBI). Moreover, it should not be assumed that all annual healthcare costs for a given veteran are represented within the VHA system. Nonetheless, these data are used to formulate conservative estimates of return on investment (ROI) associated with the Veterans Alternative Retreat Program.

From the above, the net difference in annual health care costs in the presence versus absence of PTSD are \$8,300 - \$2,400 = \$5,900 per veteran.

In the Veterans Alternative Retreat Program, not all veterans served are required to present with a high level of PTSD symptomatology. However, given the purposeful recruitment of veterans with previous combat experience/trauma and/or military sexual trauma (MST), the majority of veterans served in the program do present with high levels of PTSD symptomatology.

The evaluation of data presented in this report from 42 veterans served in the Veterans Alternative Retreat Program indicate a presenting (beginning of retreat) mean score of 44.7 on the 20-item PCL-5 which is a validated measure of PTSD symptom severity. The corresponding mean score on the PCL-5 at the end of the retreats is 24.4. This represents a 45.4% reduction in PTSD symptom level severity associated with the retreat program. Applying this symptom reduction level to the net annual treatment costs associated with PTSD within the VHA system equates to an estimated annual savings of \$2,679 per veteran (i.e. \$5,900 x 0.4541).

The therapeutic programs offered at the Veterans Alternative Retreat program include Accelerated Resolution Therapy (ART), integrated restoration (iREST), yoga, kali, and physical fitness. These programs alone and in combination are believed to have sustained health benefits.

Therefore, to be conservative, we estimate total ROI based on 10 years of benefits obtained from participation in the retreat program, recognizing that many veterans may experience benefits long beyond 10 years.

Therefore, the estimated ROI for each veteran served in the Veterans Alternative Retreat program is:

$$2,679 \times 10 \text{ years} = 26,790 \text{ per veteran.}$$

With 42 veterans served in the retreat program, 10-year cumulative savings are estimated at: $\$26,790 \times 42 \text{ veterans} = \$1,125,180 \text{ total savings}.$

Again, the above estimates do not consider alternative sources of cost benefits realized, such as those among family members associated with veterans served, reductions in interactions with the criminal justice system, and many other societal benefits.

(1) http://www.cbo.gov/sites/default/files/cbofiles/attachments/02-09-PTSD.pdf

5.0 DE-IDENTIFIED LISTING OF VETERANS AND SPOUSES SERVED

VETERANS

ID	Retreat	Retreat Start Date	Retreat End Date
04J72	1	7/11/2016	7/15/2016
10R11	1	7/11/2016	7/15/2016
08A82	1	7/11/2016	7/15/2016
03M06	2	7/18/2016	7/22/2016
03S57	2	7/18/2016	7/22/2016
01R94	2	7/18/2016	7/22/2016
07S02	3	7/25/2016	7/29/2016
04J84	3	7/25/2016	7/29/2016
01L29	3	7/25/2016	7/29/2016
08R70	3	7/25/2016	7/30/2016
11R72	4	8/8/2016	8/12/2016
05K98	4	8/8/2016	8/12/2016
04L39	5	8/15/2016	8/19/2016
03T14	5	8/15/2016	8/19/2016
10B11	5	8/15/2016	8/19/2016
05L02	5	8/15/2016	8/19/2016
11W92	6	8/22/2016	8/26/2016
07R70	6	8/22/2016	8/26/2016
10J26	7	8/29/2016	9/2/2016
09B28	8	9/19/2016	9/23/2016
11L15	8	9/19/2016	9/23/2016
09L81	8	9/19/2016	9/23/2016
02J11	8	9/18/2016	9/23/2016
01C36	8	9/19/2016	9/23/2016
07S71	8	9/19/2016	9/24/2016
06A33	9	10/3/2016	10/7/2016
12M58	9	10/3/2016	10/7/2016
01G48	9	10/3/2016	10/7/2016
06M52	10	10/10/2016	10/14/2016
01G72	10	10/10/2016	10/14/2016
02D58	11	10/24/2016	10/28/2016
05J25	11	10/24/2016	10/28/2016
02R58	11	10/24/2016	10/28/2016
08N23	11	10/31/2016	11/4/2016
12R94	12	11/7/2016	11/11/2016
08E66	12	11/7/2016	11/11/2016
05L56	12	11/14/2016	11/18/2016
06S69	13	11/14/2016	11/18/2016
12M68	14	11/28/2016	12/2/2016

09A58	14	11/28/2016	12/2/2016
03C28	15	12/12/2016	12/16/2016
06C56	15	12/12/2016	12/16/2016
06E96	15	12/12/2016	12/16/2016
02P44	15	12/12/2016	12/16/2016

SPOUSES

ID	Retreat	Retreat Start Date	Retreat End Date
12A64	10	10/10/2016	10/14/2016
05R68	15	12/12/2016	12/16/2016
07C91	15	12/12/2016	12/16/2016
06J68	15	12/12/2016	12/16/2016
08L36	15	12/12/2016	12/16/2016

6.0 ABOUT THE AUTHOR:

Kevin E. Kip, Ph.D. FAHA
President, KMS Research LLC, Tampa, FL
Distinguished Health Professor
University of South Florida
College of Public Health
Department of Epidemiology and Biostatistics
Tampa, FL 33612
kkip@health.usf.edu
(813) 974-9266



- PhD, Epidemiology, University of Pittsburgh, 1998
- MSPH, Epidemiology, University of Alabama, 1994
- MS, Industrial/Organizational Psychology, University of Central Florida, 1987
- BA, Psychology, University of Central Florida, 1984

Kevin E. Kip, Ph.D. is a tenured Distinguished Health Professor, epidemiologist, and biostatistician with 16 years of experience on U.S. Federal, Department of Defense, and industryfunded studies. His background is interdisciplinary with more than 160 peer-reviewed publications. With multi-million dollar funding from the U.S. Department of Defense, he previously established the Research to Improve Emotional Health/Quality of Life of Service Members with Disabilities, (RESTORE LIVES) Center at the University of South Florida. He is the leading researcher worldwide in the study of Accelerated Resolution Therapy (ART), an emerging, brief, and evidence-based method of psychotherapy for treatment of post-traumatic stress disorder (PTSD) and related comorbidities. Dr. Kip is previous Principal Investigator of the National Heart, Lung, and Blood Institute (NHLBI) Dynamic Registry of Percutaneous Coronary Intervention (PCI) which enrolled approximately 10,000 patients. He is a former member of the Institute of Medicine (IOM) - Committee to Review the Health Effects in Vietnam Veterans of Exposure to Herbicides. Dr. Kip is current chair of the Data Safety and Monitoring Board (DSMB) for the NIDDK-funded Look AHEAD (Action for Health in Diabetes) multicenter trial, and is a frequent grant reviewer for the National Institutes of Health (NIH). He had developed and administers program evaluation services for a variety of veteran services programs including Veterans Alternative Retreat Program, Quantum Leap Farm Retreat Program, and Lone Survivor Program.