



Proposals to fund studies on the effects of a life review therapy on the mental health of older adults in residential care.

Work Samples

TSOLife/Leave a Legacy Grant
Applications



Dr. Tara Batista

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The development of a digital life review therapy platform
STTR R41/42
Specific Aims

Unipolar mood disorders are a common mental health disorder among older adults¹, and significant evidence suggests that depressive symptomatology increases into later life.² Though late-life depression confers escalated risks for adverse outcomes including frailty³, falls⁴, cognitive decline⁵, and dementia⁶, many older adults with depression go without treatment. The rapidly growing population of older adults⁷, paired with the persistent shortage of clinical gerontologists^{8,9}, highlights the need to focus on translation of evidence-based depression treatments for older adults. Meanwhile, technology is emerging as a critical mechanism by which clinicians can more easily reach those patients who are geographically isolated or otherwise restricted from traveling to the clinic. Thus, the delivery of clinical interventions for later-life depression may be promoted by the availability of well-designed, commercially viable, internet-based platforms that are congruent with psychotherapy goals and methods.

Life review or reminiscence-based therapies have emerged as evidence-based psychotherapeutic interventions for older adults with unipolar mood disorders, and particularly those with cognitive decline or dementia.^{10,11} Substantial meta-analytic evidence demonstrates that life-review or reminiscence therapy interventions are an effective treatment for mood disorders among older adults. Additionally, these interventions have been used flexibly to address various clinical and psychosocial needs with older adults, including life purpose, death preparation, mental health symptoms, positive wellbeing, social integration, and cognitive performance. Findings suggest that, in contrast to treatment as usual, treatment with life review-based interventions dramatically improves outcomes.¹² Life review interventions begin by systematically reviewing life events from childhood to present, and then transition to an integrative component in which patients reflect on their lives as a whole.¹³ The proposed research will refine and beta-test an existing, commercially viable product from TSOLife.com that is purpose-built to facilitate creation of an autobiography or legacy. The prospective integration of technology into life-review psychotherapies will provide clinicians with a purpose-built tool to facilitate administration of therapeutic interventions online or with fewer in-home or office visits, thus reducing burden on patients and increasing practitioners' ability to reach older adults with depression. To be effective, a behavioral web based life review platform needs to be functional, usable, acceptable, and engaging.

Our long-term goals are to translate life-review or reminiscence-based treatments for later-life depression among older adults in internet-facilitated environments. The objective of the proposed research is to develop and refine a commercial product that can be employed in both the study of life-review and the treatment of later-life depression. A local technology firm, TSOLife.com, has developed a platform designed to facilitate reminiscence therapy. With empirically informed refinement and adaptation, this innovative commercial product may serve a role in both healthcare and research. In fact, TSOLife currently has more than 500 paying users. Pilot data gathered through preliminary focus groups suggests the TSOLife platform presents an intriguing activity for older adults. The rationale for the proposed research is that successful completion of the proposed aims will enable a creative and practical adaptation to the practice of life-review therapy for the treatment of depression among older adults.

This Phase I STTR is written in response to PA-15-270 (Small Business Technology Transfer Grant). Janan Smither, PhD will serve as the Co-Investigator and oversee all research at the University of Central Florida. The commercial entity TSOLife will develop an online platform, and will employ refinements to the platform identified through the described research. This novel commercial product will enable clinical research on web-based adaptations of life review therapy.

Aim #1. Evaluate the TSOLife.com online platform using empirically validated human factors principles and guidelines specific to older users. Recommendations will inform efforts to redesign the TSOLife.com application for ease of usability among older adults.

Aim #2. Assess the usability of the redesigned system. Usability testing will be conducted through an iterative prototyping process that will allow for the progressive refinement of the system and will include the development of a stand-alone online tutorial and help features that will facilitate use by older adults.

Aim #3. Assess the usability of the system through an empirical study with a group of rural elderly who represent a

population of prospective tele-health users.

The development of a digital life review therapy platform

STTR R41/42

Research Strategy Section

Significance.

In 2014, adults 65 years or older represented 14.31% of the U.S. population¹⁴ and this demographic is expected to grow to 20% by 2030⁷. An estimated 15%–20% percent of older Americans have experienced depression¹⁵. Furthermore, Medicare beneficiaries with depression have significantly higher healthcare costs¹⁶ and worse prognoses³ than those with chronic diseases alone.

Though empirically supported psychotherapies for treating depression among older adults exist, they are underutilized in large part because therapists practicing evidence-based treatment are currently limited in their ability to reach older adults in general and particularly those who lack access to convenient transportation or live in geographically remote areas^{8,9}. Transitioning delivery of psychotherapies from the clinic to internet-facilitated environments (ie: teletherapy) requires the development of accompanying technologies. Life review or reminiscence therapies have grown increasingly popular as evidence-based interventions for depression among older adults^{10,11,12} and are good candidates for translation to internet-facilitated administration. Currently, a commercially available product from TSOLife.com has been developed to facilitate the creation of an autobiography, which is one key element of life-review therapy. **The proposed research is significant, in our opinion, because it will facilitate the implementation of evidence-based, internet-facilitated psychotherapeutic treatment of depression among older adults.** We view this as a critical step for the development of internet-facilitated psychotherapies. More specifically, this transition will facilitate the study of life-review therapy as an internet-facilitated intervention.

Innovation

The status quo, as it pertains to life review and reminiscence therapies, is that, although the therapies are effective, their reach is limited. Many older adults may benefit from psychotherapy for depression but are unable to access it because they are either homebound or geographically constrained¹⁷. Internet-facilitated therapy has not been broadly generalized to meet the mental health needs of older adults despite the fact that 59% of people older than 65 use the internet and 47% report having a high-speed broadband connection at home^{18,20}. Existing life-review or reminiscence-oriented commercial e-products lack clinical applicability because they use outdated technology stacks and complex user interfaces; have limited feature sets and unintuitive navigation capabilities that are not designed for older adults; are not engaging; and/or contain no social networking aspect. **The proposed research is innovative, in our opinion, because it represents a substantive departure from the status quo by adapting a commercially viable, affordable, engaging, and functional web platform for use with psychotherapy treatment for depression among older adults.** This innovation presents a new horizon where a cost effective therapeutic tool can be used in a variety of ways, including individually from the privacy of one's home or collaboratively in therapy sessions, for a variety of populations in need. An array of therapies, especially life review, can be disseminated more easily because costs are lower and transport of patients is not required.

3. C Approach

The objective of the proposed research is to evaluate and redesign the TSOLife platform so that an untrained older individual can use it successfully and independently.

3.C.1. Preliminary Studies. The current TSOLife Platform was funded to the tune of \$125K that was raised internally by its board members and founders and also by outside angel investors. The platform was built by HIPAA certified software engineers using a Laravel Framework and was tested in a retirement community in Central Florida in the spring of 2015. The goal of the testing was to assess market acceptance and usability of the system. Eighteen WWII veteran volunteers were recruited, and together with trained interviewers, they successfully created their life stories using the TSOLife.com website. Following this preliminary testing, the system was launched in October 2015. Since the launch, more than 500

....THE REMAINDER OF THE GRANT PROPOSAL IS EXCLUDED FOR PRIVACY PURPOSES

THE FOLLOWING ARE EXERPTS FROM UNIVERSITY RESEARCH GRANT APPLICATIONS. ALL WERE FULLY FUNDED.

.....SECTIONS HAVE BEEN REDACTED FOR PRIVACY PURPOSES

Stetson Business School Foundation, Inc.

Faculty or Student Support Application VI

Faculty Member: Please provide the information requested below. Be as specific and clear as possible, remembering that your proposal is likely to be read by persons outside your discipline. Your application should be forwarded to the Treasurer of the Foundation after approval by your Chair and the Associate Dean for Undergraduate Studies.

Type of Request (please check one):

☒ **Faculty Research Support**

☐ **Faculty Travel Support**

☐ **Student Support**

If requesting Faculty Research Support, please address the following questions:

1. What is the title of your project? Names of researchers?

Leaving a Legacy: The effects of a technology-based life review intervention on the mental health of older adults.

2. Describe the issue/problem/hypothesis(es) to be researched, the research methodology, and the program of work that is planned.

Scope of the problem

In 2014, adults 65 years or older represented 14.31% of the U.S. population (World Bank) and is expected to grow to 20% by 2030 (CDC 2013). By 2050, it is anticipated that Americans aged 65 or older will number nearly 89 million people (CDC 2013).

Many problems burden older adults as they age, including chronic illnesses that lead to a diminished quality of life and loss of independence. These illnesses can affect a person's ability to perform instrumental activities of daily living (IADLs), such as managing money, preparing meals, and taking medications as prescribed. As functional ability further declines, people may lose the ability to perform more basic activities of daily living (ADLs), such as feeding themselves, getting dressed, and toileting. The inability to perform daily activities and lack of mobility restricts a person's engagement in life. The loss of independence can often lead to the need for care in an institutional setting. The need for caregiving for older adults by professional caregivers or by family members and for long-term care services will increase sharply during the next several decades, due to the effects of chronic diseases on an aging population (CDC 2013).

Older institutionalized adults have lower levels of life-satisfaction and well-being. The prevalence of major depression is estimated to be 6%-11%, and of minor depression 30% (cited in Bohlmeijer 2007). Depression is associated with a decline

in well-being and levels of daily functioning and a higher risk of functional impairment, mortality, and use of health services (cited in Lange 2011).

Residents are dependent on facility staff for care, which can degrade their sense of dignity (Hall 2011). Loss of dignity for people facing end-of-life is associated with causing psychological and spiritual distress and loss of the will to live (as cited in Hall 2011).

An Intervention to Mitigate the Problems Experienced by Older Adults

There are many interventions designed to address the various problems associated with social exclusion of the elderly. We propose a novel intervention designed to improve the well-being of older people living away from their families. TSOLife is a web platform where users can securely document their life stories to create their digital legacy that will stand the test of time: (see: tsolife.com). The TSOLife program utilizes the online platform as an activity in long-term care facilities. Residents record their life stories on the platform, gaining control over how they are remembered and the opportunity to influence future generations. Outcomes have yet to be measured, but anecdotal evidence from previous program implementation suggests positive effects. The program was first implemented in a retirement community in central Florida, where the anecdotal success made evident the need to conduct a study on the outcomes of the intervention.

Hypotheses

- H1) The TSOLife platform is user-friendly for adults residing in Central Florida who are 65 years+
- H2) The Leave a Legacy intervention can be successfully delivered to a variety of older adults in Central Florida
- H3) Appropriate measures can be designed that capture the ease of usability, satisfaction of users, well being and mental health of users
- H4) The Leave a Legacy intervention improves the mental health and wellbeing of older adult participants
- H5) The TSOLife platform is satisfying to older adult users

Research Methodology

Past

Pilot work is ongoing and will continue. Last spring, students and Dr. Batista successfully performed the intervention on 18 veterans ages 65+ living in the Assisted Living Facility the Cloisters in Deland Florida. This work let researchers know that the intervention is feasible. Researchers began identifying variables they wished to measure, instruments used to measure these variables, and mapping out a conceptual model. It was discovered that the survey measured identified were offensive and therefore participants refused to answer survey questions. The second pilot attempt occurred in the summer of 2015 at an assisted living facility in Port Orange. This second pilot attempt was a complete failure. Not only were residents unwilling to participate in a study, but they were equally unwilling to participate in the intervention due to privacy concerns. Student researcher Stella Parris wrote a detailed 34 page report on both pilot studies that was submitted to Dr. Kimberly Reiter and Dr. Mike Biter. Stella Parris also wrote a 16 page comprehensive literature review following systematic review methodology, which she also submitted to Dr.s Reiter and Bitter. Both pilot attempts failed to produce a community research advisory board (CRAB).

Present

Because the pilot work proved to be more challenging than anticipated, in the fall of 2015 researcher Dr. Tara Batista and student assistants David Sawyer and Stella Parris reached out to Professor Janan Smither, (the Associate Chair of UCF's Psychology Department, Associate Director of the Applied/Experimental & Human Factors Psychology doctoral program, and director of UCF's Technology and Aging lab). They successfully secured an in-person meeting with Professor Smither and Gordon Hogan, (Director of the UCF Business Incubation Program), on January 12, 2015. Dr.

Smither agreed to be a Principle Investigator (PI) for the pilot study and pulled in another colleague, Clinical Psychologist, Dr. Daniel Paulson to be a co-PI on the study. After assembling an appropriate team of experts and research assistants (Prof. Smithers, Dr. Paulson, Dr. Batista, David Sawyer, Will Giberson, and two UCF graduate research assistants), they have decided to apply for a Small Business Technology Transfer (STTR) grant from the National Institute of Health's (NIH) National Institute on Aging (NIA) Division of Behavioral and Social Research (DBSR) under the family and interpersonal relationship priority funding area. The Funding Opportunity Announcement (FOA) is an R41 Phase I grant, which is due April 5, 2016. Essentially a CRAB has been 95% assembled; it only lacks an elderly technology user.

Future/Planned Program of Work

During the spring semester, research methodology will include: developing a timeline; completing and submitting the STTR proposal; securing the final CRAB member; finalizing pilot study measures; expanding the literature review to include information on cognitive theory, reviewing other studies published in other journals searched through scholarly databases (as opposed to Google Scholar), and reviewing the excluded studies; securing letters of support from the agencies where various target populations reside, and any and all duties required to prepare for an official pilot study that will occur in the fall of 2016. The samples we aim to draw are from the populations in the table below:

Name	Description/Location	n of sample/ N of pop	Contact
<i>Life at UCF</i>	<i>Learning Institute for Elders (LIFE) at UCF. These older adults are tech savvy and appreciate science. They like to participate in studies</i>	<i>n=20 N=500 seniors</i>	<i>Dr. Daniel Paulson, clinical psychologist at UCF. Study Co-PI.</i>
<i>Meals on Wheels/Congregate Meal program</i>	<i>Senior Centers that serve minority and low income older adults (mainly African American).</i>	<i>n=10</i>	<i>Senior Resource Alliance; Professor Janan Smither's contact.</i>
<i>Salvation Army Retirement</i>	<i>High rise retirement community in downtown Orlando</i>	<i>n=10</i>	<i>Senior Resource Alliance; Professor Janan Smither's contact.</i>
	<i>Early alzheimer's patients from Memory Disorder Clinic</i>	<i>n=10</i>	<i>Memory Disorder Clinic; Professor Janan Smither's contact.</i>
<i>Alzheimer's Research Center</i>	<i>Patients with a severe diagnosis.</i>	<i>Might not be feasible</i>	<i>Dr. Daniel Paulson</i>

3. What is the intended outcome of the program (publication, paper, presentation, course materials)?

Publication—We intend to submit a manuscript of the results of the pilot intervention during the summer of 2017. More proximally, we intend to turn the expanded literature review into a systematic review with a meta-analysis embedded and have a manuscript drafted by summer of 2016.

Presentation – Dr. Reiter, Stella Parris, David Sawyer, and two of Dr. Reiter’s students have formed a group and submitted an abstract to the Council on Undergraduate Research (CUR) for a 30 minute panel presentation in June 26-28 at the University of South Florida in Tampa, FL. This will be a joint presentation between the Historical Consultants (HC) and Leave a Legacy (LAL) about the experience of doing undergraduate research. We are waiting to hear if our abstract has been accepted.

Additionally, we will present the results of our pilot work and planning at the ENACTUS regional competition on 4/1 in Atlanta. We may also present the results of our research at the Stetson Showcase on Tuesday, April 12, 2016.

4. Please provide a specific time schedule for the project. [Note: You must provide a written statement when project is complete - form attached]

February 29th – Specific Aims Finished, NIA DBSR program officer contacted, successful STTRs reviewed, literature review search expanded to other databases, theoretical section drafted, information from the 3rd failed pilot incorporated into SURE write-up

March 31st – Survey instrument finalized, qualitative survey measures and observational techniques created. Draft of STTR proposal finished. Letters of support from partner agencies secured. IRB proposal submitted.

April 1 – present lessons learned from research at ENACTUS competition

April 5th – STTR proposal submitted: Research Plan (introduction, background, problem, research strategy, timeline human subjects section, other Research Plan Sections) SF 424 Form, Project/Performance Site Locations Form, Other Project Information, Senior/Key Person Profiles, STTR Information, and Cover Page Supplement.

April 30th – First draft of CUR presentation completed. First draft of systematic review started.

May 30th – Systematic Review completed including abstract screening. Critical Appraisal of included studies completed. Meta-Analysis started.

5. Explain how the research project would contribute to the departments of the faculty members involved, and School's objectives.

Dr. Batista would be involving undergraduate students in every aspect of real intervention research including proposal writing. Undergraduate business students will know how a polished Small Business Technology Transfer grant is created. Any subsequent research published would improve the research productivity and notoriety of the entrepreneurship program embedded in the management department at SOBA. SOBA would be participating in cross-disciplinary and cross-institution groundbreaking research. Recently we were accredited and had to upload our publications to the shared drive. We were then told at a SOBA meeting, by our Dean, who specializes in AACSB accreditation, that we need to improve the quality of our research. This intervention research will improve the quantity and quality of SOBA publications and should have an impact on the fields of psychology and social entrepreneurship.

If requesting Faculty Travel Support, please address the following questions:

N/A

If requesting Student Support, please address the following questions:

N/A

For any request, please answer the following:

1. List any other sources of funding that you will receiving (including identity of source and amount expected).

We will apply for SURE funds, but these funds are only available for the summer of 2016. \$2,000

We will also apply for STTR funds, but these will not be awarded until fall 2016. STTR is highly competitive and therefore there is no guarantee that we will win an STTR award. \$150,000

Stetson ENACTUS restricted funds cannot be used for research but will be used to present some of the pilot work at the ENACTUS regional competition on April 1st. \$1,000

2. Describe your efforts to secure funding from Stetson University, the School of Business Administration, related Centers and/or other outside sources (e.g., professional organizations, grants, etc.). [Note: The Foundation should not be viewed as a primary funding source. It is expected that the University will contribute to research support, travel, student support (particularly related to course requirements) and that the Foundation be used only in cases where University funds are not available. Due to limited resources, the Foundation reserves the right to evaluate the merits of the request and determine whether funding is appropriate. Funding is not automatic.]

Fell Scholarship – Summer 2015 \$2,000 awarded to Stella Parris, Fall 2015 \$2,000 awarded to Stella Parris. We are currently applying for a spring Fell award for Will Giberson.

SURE Scholarship – \$2,000 awarded to Stella Parris during the summer of 2015. \$500 awarded to Dr. Tara Batista. We will apply for another award.

STTR grant – We will apply before April 5, 2016. Up to \$150,000 can be awarded.

ENACTUS competition – up to \$13,000 is awarded to the National Champion. UP to \$2,000 to the semi-finalists, and up to \$1,000 to the opening round winners. We did not make it out of the first round. We plan to compete again.

**Stetson Business School Foundation, Inc.
Faculty or Student Support Application IV**

Faculty Member: Please provide the information requested below. Be as specific and clear as possible, remembering that your proposal is likely to be read by persons outside your discipline. Your application should be forwarded to the Treasurer of the Foundation after approval by your Chair and the Associate Dean for Undergraduate Studies.

Type of Request (please check one):

☐ **Faculty Research Support**

☒ **Faculty Travel Support**

☐ **Student Support**

If requesting Faculty Travel Support, please address the following questions:

1. What is the purpose of your travel?

To attend the CUR Biennial Conference on June 26-28, if accepted.

To travel to UCF to meet with our CRAB.

2. Explain how the travel would contribute to the departments of the faculty members involved, and School's objectives.

When SOBA students (Will Giberson and DJ Sawyer) travel with their faculty sponsor, Dr. Tara Batista to engage in original research that has the potential to positively impact the lives of a vulnerable populations, credibility is lent to the nascent social entrepreneurship program that is budding within the entrepreneurship minor in the management department of SOBA. It also provides unique experiential learning opportunities to students.

**Stetson Business School Foundation, Inc.
Fell Research Scholar Application V**

The purpose of the Fell Research Scholar program is to provide business students funding directly from the Foundation to support them to achieve valued educational experiences outside of the classroom by working with a faculty member on a relevant and meaningful project. Keep in mind that a student is not a University or Foundation employee (i.e., not a work-study or cash labor student). As such, the student's activities must not be primarily clerical in nature. It also must not be related to a class the student is taking (i.e., a student may not earn academic credit for the work).

To be completed by the sponsoring faculty member:

Name of Sponsoring Faculty Member: Dr. Tara Batista

Name of Student: Will Giberson

Student's Business Major/Degree Program (e.g., MBA): BBA- Business Administration

Student's Expected Graduation Date: May 10, 2017

Student's Current Cumulative GPA: REDACTED FOR PRIVACY

Academic Semester in which Scholarly Activity will occur: SP 2016

Is the faculty member requesting a full grant or half grant? Half

Is the Scholarly Activity expected to continue in the following term? Yes

Describe the project or projects on which the student will participate (please be as specific and detailed as possible to increase the likelihood of the student being approved; keep in mind that the student is expected to contribute

approximately 100 hours (full grant) or 50 hours (half grant) to the project each semester for which funding is provided, although the student is not required to document his/her hours) (provide attachment if additional space required):

During the spring semester, research methodology for the Leave a Legacy study will include: developing a timeline; completing and submitting the STTR proposal; securing the final CRAB member; finalizing pilot study measures; expanding the literature review to include information on cognitive theory, reviewing other studies published in other journals searched through scholarly databases (as opposed to Google Scholar), and reviewing the excluded studies; securing letters of support from the agencies where various target populations reside, and any and all duties required to prepare for an official pilot study that will occur in the fall of 2016.

.....SECTIONS HAVE BEEN REDACTED FOR PRIVACY PURPOSES

**Stetson Business School Foundation, Inc.
Faculty or Student Support Application III**

Faculty Member: Please provide the information requested below. Be as specific and clear as possible, remembering that your proposal is likely to be read by persons outside your discipline. Your application should be forwarded to the Treasurer of the Foundation after approval by your Chair and the Associate Dean for Undergraduate Studies.

Type of Request (please check one):

☐ **Faculty Research Support**

☐ **Faculty Travel Support**

☒ **Student Support**

If requesting Student Support, please address the following questions:

1. What is the purpose of the request?

To provide funding to a talented undergraduate SOBA student who is taking over the LAL intervention research.

2. Explain how the support would benefit the student(s) and how such support contributes to the School's objectives.

We do not have a senior research project at SOBA, so this experience helps SOBA students engage in research that they normally would not have the opportunity to participate in.

Recently we were accredited and had to upload our publications to the shared drive. I think accreditors would like to see papers co-authored with students during the next accreditation round.

3. Explain why University or School funds are not available to support the student(s) in the manner requested. *We will apply for SURE funds, but these funds are only available for the summer of 2016. We will also apply for STTR funds, but these will not be awarded until fall 2016. The student is currently supported by some scholarship money. Stetson ENACTUS restricted funds cannot be used for research.*

Proposed Budget:

Budget Item Description	Budgeted Amount
Travel to CUR	\$ 131.54
Conference Registration Fee: Stella Parris	\$255.00
Conference Registration Fee : Dr. Batista	\$255.00
Food during Conference	\$100
Participant Incentives for pilot survey	\$100
Total.....	\$ 841.54

...SECTIONS HAVE BEEN REDACTED FOR PRIVACY PURPOSES

Stetson Business School Foundation, Inc.
Fell Research Scholar Application II
Spring 2015

Methods

Planning for a future study. ENACTUS formed a partnership with The Cloisters, a retirement community in Deland, and recruited 18 World War II veterans to participate in interviews. A team of 14 Enactus students and dozens of ROTC students have interviewed, transcribed, and wrote the life stories of these residents. These same students and the 250-member Eagle Battalion ROTC will continue to work with additional Cloister's residents in the fall. This summer, ENACTUS is constructing a community research advisory board (CRAB) to help design the fall research and devise strategies to gain the trust and consent of more residents. Current project participants are enthusiastic about sharing their lives during interviews, but do not want to take a pre and post survey. The board will consist of 1-2 people from the following groups: residents who have participated in the spring interviews, The Cloisters staff members, ENACTUS members, Stetson faculty, and ROTC members. Stella Parris will lead this CRAB. The CRAB will be tasked with devising a research design, constructing consent forms, selecting measures and administration methods, and recruiting participants. Proposed data collection strategies include administering pre and post surveys to caregivers, family members, and relatives, qualitatively interviewing participants before and after the intervention using a semi-structured interview format and recording interviewer observations.

Timeline & Budget

<i>Task</i>	<i>Timeline</i>	<i>Hours</i>	<i>Rate</i>	<i>Total</i>
Recruitment of CRAB	May 18-24	5	\$20/HR	\$100
Literature Review	May 18-24	5	\$20/Hr	\$100
Selection of Instruments	May 25-31	5	\$20/HR	\$100
Recruitment of pilot study participants	June 1-7	5	\$20/HR	\$100
Instrument Administration Pre	June 8-14 &	8	\$20/HR	\$320
Instrument Administration Post	June 29-July 5	8		
Intervention for Experimental Group	June 15-21	4	\$20/HR	\$80
Transcriptions & Personal History Write-up	June 15-24	20	\$20/HR	\$400
Analysis	June 25-28	10	\$20/HR	\$200
Intervention for Controls *	June 29-July 5	4	\$20/HR	\$80
Transcriptions & Personal History Write-up *	July 6-12	20	\$20/HR	\$400
Post Intervention Unveiling	June 29-July 5	2	\$20/HR	\$40
Write-up	July 6-12	4	\$20/HR	\$160

References

- Beck, A. T. (2002). Psychometric properties of the beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, 8(1), 77-100.
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- Cutrona, C.E., & Russell, D. (1987). The provisions of social relationships and adaptation to stress. In W.H. Jones & D. Perlman (Eds.), *Advances in personal relationships* 1, pp. 37-67. Greenwich, Conn.: JAI Press.

**Stetson Business School Foundation, Inc.
Fell Research Scholar Application I
Spring 2015**

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Intervention

The Story of Life project provides nursing home residents with engaged and active listeners whose goals are to understand and document the feelings and stories of the residents by interviewing participants about their lives. A team of 14 Enactus students and dozens of ROTC students have signed up to interview, transcribe, and write the life stories of these and any other interested residents. The stories and pictures collected are hosted forever on a web-platform that future generations can access. The web-platform was developed by an ENACTUS member (<http://www.tsolife.com/>). Web storage is donated by the CEO of TSOLife. The interviews and subsequent memorialization indicates to residents the importance and benefit of their lives to future generations and thereby gives participants a feeling of self-worth and also provides an outlet for the resident to talk about the feelings and experiences of their past, a strategy hypothesized to mitigate depression in nursing home residents. There are at least two core components of the intervention that might affect outcomes: 1) the web-platform 2) the interviews. It is perhaps too ambitious at this stage to untangle which component causes which change. First, we must establish if there is a change at all.

Methods

During the summer of 2015, ENACTUS is constructing a community research advisory board (CRAB) to help design the research and devise strategies to gain the trust and consent of nursing home residents. The board will consist of 1-2 people from the following groups: residents who have participated in the spring interviews, The Cloisters staff members, ENACTUS members, Stetson faculty, and potentially ROTC members. The CRAB will be tasked with devising a research design, constructing consent forms, selecting measures and administration methods, and recruiting participants. Proposed data collection strategies include administering pre and post surveys to caregivers, family members, and relatives, qualitatively interviewing participants before and after the intervention using a semi-structured interview format and recording interviewer observations.

After the above-mentioned measures and techniques have been agreed upon by the CRAB, we will test the measures on eight residents (four who will participate in the intervention and four who will not).

Measurement

Measurement instruments are currently under development as our literature review continues. Current scales under consideration include: self-rated health from the Medical Outcomes Study; Beck's Hopelessness Scale, The Hospital Anxiety and Depression Scale (Zigmond and Snaith-35), the Social Provision Scale, and the Attitude of Active Listening Scale (Mishima, Kubota, & Nagata, 2000) among other valid and reliable measures. Measures can be provided upon request.

ENACTUS devised a preliminary conceptual model that evolves as our literature review develops. Currently, our independent variable is the TSO Life intervention, our mediator is active listening, and our dependent variables are self-rated health, depression, social exclusion, and anxiety.



Sample

In the future, we would like to draw a random probability sample from a list of nursing home residents. Because the pilot study will inform us if random probability sampling is feasible, we are unsure if our sample will be generalizable. If we are able to conduct the study at the Cloisters, we will. If not, we will find another local nursing home. We will use a power calculator to determine sample size. We will use preliminary effect sizes from the pilot study combined with effect sizes from any existing studies to calculate the appropriate sample size. Only those who are willing and able to participate in the study will be included in the sample.

Analysis

During the pilot study, we will conduct reliability (Cronbach's alpha) and validity (confirmatory factor analysis) tests, descriptive statistics and bi-variate correlations. All of these analyses will be used to inform analyses for the full scale study. If we are able to conduct a randomized controlled trial (RCT), then we do not need regression. However, we will likely end up using regression in the case that we are not able to randomize or problems with randomization leave unequal groups. We will use logistic regression for any outcomes that are dichotomous and Ordinary Least Squares (OLS) regression for continuous dependent variables. Control variables will need to be determined by a refined literature review. Potential control variables include: age, gender, existing mental and physical health conditions, and existing physical disabilities. Any qualitative research will be transcribed and coded for themes. Grounded theory will be used to help develop our conceptual model further.

Dissemination

Research results can be disseminated in several ways. We are considering presenting the results at the ENACTUS National Exposition in the spring of 2016 or 2017. Each year, ENACTUS chapters in the United States convene to present their projects and compete to see which universities' projects have the greatest social impact. The teams give 25 minute live presentations with the last five minutes as question and answer time for the judges. The four day competition has multiple rounds through which teams progress towards the championship on the last day (see: <http://enactus.org/what-we-do/national-competitions/>). Presentations in these competitions are highly publicized by ENACTUS and viewable on

youtube. The study will definitely be presented in Stetson Showcase in the Spring of 2016 as well as in the ENACTUS class. We hope to submit a manuscript to the Journal of Aging and Health.

Timeline

Summer: Pilot Study - → Fall: RCT → Spring: Write up and submit manuscript for publication

Budget

<i>Task</i>	<i>Hours</i>	<i>Rate</i>	<i>Total</i>
<i>Recruitment</i>	20	\$10/HR	\$200
<i>Instrument Administration</i>	20	\$10/HR	\$200
<i>Data Entry and Cleaning</i>	20	\$10/HR	\$200
<i>Analysis</i>	20	\$10/Hr	\$200
<i>Literature Review</i>	20	\$10/Hr	\$200

...SECTIONS HAVE BEEN REDACTED FOR PRIVACY PURPOSES

Leaving a Legacy:

An intervention to improve the mental health of nursing home residents

Dr. Tara Batista

Stella Parris

David Sawyer

Stetson University

Summer Research Undergraduate Experience (S.U.R.E.)

Grant Application

Narrative Description

Purpose

The purpose of the Leaving a Legacy pilot study is to explore how to best implement a larger study of the effects of Stetson University ENACTUS's The Story Of Life (TSOLife) project on the mental health of nursing home residents. Stetson University's ENACTUS organization, strives to solve social issues through entrepreneurial actions. ENACTUS is currently working with 18 WWII veterans in the nursing home portion of The Cloisters. We would like to know if our TSOLife intervention is helping them. Specifically, we intend to test the appropriateness of measures, consent forms, recruitment techniques, and relationships between variables to inform a future study that will test a full conceptual model with an adequate sample size.

...SECTIONS HAVE BEEN REDACTED FOR PRIVACY PURPOSES

Dissemination of the Results. The Leaving a Legacy study and the work that follows will be presented at the ENACTUS National Exposition in the spring of 2016. Each year, ENACTUS chapters in the United States convene to present their projects and compete to see which universities' projects have the greatest social impact. The teams give 25 minute live presentations with the last five minutes as question and answer time for the judges. The four day competition has multiple rounds through which teams progress towards the championship on the last day (see: <http://enactus.org/what-we-do/national-competitions/>). Presentations in these

competitions are highly publicized by ENACTUS and viewable on youtube. Additionally, the research conducted in the study will support the TSOLife project presented by the Stetson ENACTUS team and demonstrate the effect of the project. The study will admirably represent Stetson University, Stetson University ENACTUS chapter, and the TSOLife project.

The study will also be presented in Stetson Showcase in the Spring of 2016 as well as in the ENACTUS class. Additionally, the team is open to sharing the results elsewhere as opportunities and events present themselves.

Budget SURE Grant Budget	
BDI Manual and Forms	\$270.00
Administering BDI	\$475.00
TSO Storage	\$780.00
Equipment	\$475.00
Travel to ENACTUS National Exposition	\$500.00
Total	\$2,500.00

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