The following guidelines apply to all external research projects involving Crafton Hills College. An external research project is defined as any research project or study which is outside the normal day-to-day operations of Crafton Hills College (CHC) and/or is under the direction of someone other than an employee of the College. A typical example of an external research project is one conducted by a masters or doctoral student who wishes to ask CHC students or employees to participate in a study. Examples of normal day-to-day operations include program review, Student Learning Outcomes/Service Area Outcomes and projects which are part of a CHC course (e.g., research course).

- 1. Any individual, group or agency desiring to conduct research at CHC must obtain the written permission from the Faculty and Administrative Co-Chairs.
- 2. Before permission is granted, a written proposal must be submitted to the Dean of Institutional Effectiveness, Research and Planning. The proposal will include brief summaries of the rationale for the study, the methodology to be used, and the expected outcomes (see below).
- 3. Normally, the CHC IRB cannot provide facilities of any type for external research projects (<u>Click here to</u> access the form to request the use of facilities).
- 4. Unless the College feels that participation in a particular project is both educationally valuable and a natural part of the course content, class time will not be used for any project. In any event, the faculty member's permission must be obtained before class time can be used.
- 5. Participation in any project must be voluntary and all participants should be informed as to the purpose of the project and the scope of their involvement.
- 6. As a condition of approval of the research study, it should be noted that CHC students or employees involved in any research project will not be identified when the findings are published. The name of the College will not be identified in any publications.
- 7. Approval of external research projects is based on many aspects including time involved and whether the project relates to the College's mission, vision, core values and goals.

This *Research Project Approval Form* is to be completed and approval received before research begins. The completed form should be sent to the Institutional Effectiveness, Research and Planning Office. The IRB Committee and/or the IRB Committee Co-Chairs will review the study, discuss changes/implications with the author and make the final approval decision. If the study is approved and the research conducted, a copy of the results must be sent to the Institutional Effectiveness, Research and Planning Office.

PROJECT INFORMATION	
Project Title:	Examining the Moderating Effects of Empathy on the Relationship
	Between Perceived Social Support and Posttraumatic Stress Disorder
Principal Investigator:	Charles K. Wilhite, M.A., J.D.
Educational Institution:	Northcentral University
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Faculty Advisor Name:	Suzanne Robertson , PhD
Faculty Advisor Mailing Address:	10000 E. University Drive, Prescott Valley, AZ 86314
Faculty Advisor Phone Number:	281-610-1796
Faculty Advisor Email:	srobertson@ncu.edu

Answer All of the Following Questions

1. What is the rationale or purpose of the study?

Over 5 million Americans suffer from either newly diagnosed or chronic PTSD each year. Included in that number are approximately 12% of the roughly 3 million veterans of conflicts in Afghanistan and Iraq (National Center for PTSD, 2015). The number of veterans experiencing PTSD symptoms is expected to remain high as the United States continues to engage in military operations across the globe (Castro, 2014). Many of those newly diagnosed veterans are joining the student body at America's colleges and universities. According to the U. S. Veterans Administration (2014), approximately 1 million veterans received educational benefits in 2013. Given the increase in individuals suffering from PTSD, academic interest in PTSD has also increased. A review of the Published International Literature on Traumatic Stress (PILOTS) Database found 1,224 peer-reviewed articles related to PTSD published in 2014. Much of that research has focused on the risk factors associated with PTSD. Additionally, significant research has focused on interventions designed to prevent PTSD development in those exposed to traumatic stressors (e.g., Price, Kearns, Houry, & Rothbaum, 2014) and the treatment of those who have developed PTSD (e.g., Maguen et al., 2014).

One of the most studied risk factors for the development of PTSD is social support (Tsai, Harpaz-Rotem, Pietrzak, & Southwick, 2012). A lack of social support has been identified as a risk factor for the development and maintenance of PTSD symptoms (James, Van Kampen, Miller, & Engdahl, 2013), while the presence of social support has been identified as a protective factor against PTSD development and maintenance (Dinenberg, McCaslin, Bates, & Cohen, 2014.

Much of the variance in the severity of PTSD symptoms is related to levels of PSS. Brewin et al. (2000) reported that 40% of the variance in PTSD symptom severity was attributable to PSS, while Ozer et al. (2003) found that 29% of symptom severity variance was due to PSS. Finally, in a prospective study, high levels of PSS were found to decrease the probability of developing PTSD by 40% (Dinenberg et al., 2014).

Attachment, bonds that individuals form during the life course with significant others, including parents and romantic partners, has also been studied extensively in relation to PTSD and empathy (Franz et al., 2015; Stern, Borelli, & Smiley, 2015). Attachment figures serve as an important source of social support (Myrick et al., 2013) and substantial research has shown an association between the quality of attachment relationships and empathetic abilities (e.g., Dykas & Cassidy, 2011). Additionally, emerging theories of PTSD posit that the quality of attachment relationships affects the development of PTSD and PTSD symptom severity (Monson et al., 2010; Sharp et al., 2012).

In addition to PSS and attachment, social cognition has also been studied in relation to PTSD (Lavoie, Battaglia, & Achim, 2014). Social cognition is the recognition, storage, and processing of information concerning interpersonal relationships and social situations (Sharp, Fonagy, & Allen, 2012). Empathy, the capacity to understand and share the emotions of others, is an important component of social cognition (Nietlisbach, Maercker, Rössler, & Haker, 2010). Several emerging theories of PTSD have focused on the importance of social relationships and

empathy in the development and maintenance of PTSD symptoms (Maercker & Horn, 2012; Monson, Fredman, & Dekel, 2010; Sharp et al., 2012). Empathy is conceptualized as having both an affective element, the ability to perceive and share an emotional experience with others, and a cognitive component, the ability to understand the emotions of others (Krämer, Mohammadi, Doñamayor, Samii, & Münte, 2010). Empathetic resonance, or contagion, the unconscious mimicry of the actions of another, is also a component of social cognition, and is considered a prerequisite for being able to experience empathy (Nietlisbach et al., 2010). The social-cognitive model of PTSD (Sharp et al., 2012) posits that empathetic ability plays a significant role in buffering against the development and maintenance of PTSD symptoms following exposure to a traumatic event.

Nietlisbach and Maercker (2009) proposed that persons experiencing PTSD have impaired empathetic abilities that interfere with the ability to maintain interpersonal relationships that can buffer against PTSD formation and symptom severity. Studies have shown impaired empathetic abilities in cognitive empathy, affective empathy and both cognitive and affective empathy in those experiencing PTSD. Nietlisbach et al. (2010) found that persons with PTSD had lower levels of empathetic resonance, and scored lower on a self-report measure of affective empathy. They suggested that decreases in social cognition, including empathy, might be at least partially responsible for the decline in PSS often reported by those with PTSD. Consistent with Nietlisbach et al.'s (2010) findings, a study of women who experienced maltreatment as children found deficits in cognitive empathy (Nazarov et al., 2014) and a study military policemen exposed to a terrorist attack also found decreased cognitive and affective empathy among those individuals compared to healthy controls (Mazza et al., 2012). Nietlisbach and Maercker also suggested that empathy might be impaired in persons with PTSD to the extent that they are unable to respond appropriately to others in social situations, causing a loss of social support, or in the alternative, a decreased ability to recognize the social support available to them. Finally, according to Sharp et al's (2012) social-cognitive theory of PTSD, one's empathetic abilities, capacity to share traumatic experiences with attachment figures, and the presence or absence of social support, influence whether a person will develop PTSD. Sharp et al. (2012) further predict a relationship between PTSD, empathy, and PSS, such that empathy weakens the strength of the negative relationship between PSS and PTSD symptom severity.

Statement of the Problem

Numerous studies have found a relationship between higher levels of PSS and decreased PTSD symptom severity (Brewin et al., 2000). Recent studies have indicated empathetic deficits in those diagnosed with PTSD, suggesting an impaired ability to recognize supportive emotional cues in others (Mazza et al., 2012). Nietlisbach and Maercker (2009) suggested that greater empathetic abilities act to weaken (i.e., moderate) the established relationship between PSS and PTSD symptom severity, which indicates that lower levels of PSS are associated with higher levels of PTSD symptomology. Those with more empathy may derive greater benefits from PSS, as they may be better able to recognize and make appropriate use of the social support offered to them by others. On the other hand, those with lower levels of empathy would show a stronger relationship between PSS and PTSD, due to deficits in their ability to recognize or make use of available social support. The social-cognitive theory of PTSD (Sharp et al., 2012) predicts a relationship between PTSD, empathy, and PSS, such that empathy moderates the

strength of the relationship between PSS and PTSD symptom severity, diminishing the established association between PSS and PTSD.

The problem addressed by this research is that empathy has not been tested as a moderator of the relationship between PSS and PTSD symptom severity, a relationship that is central to Sharp et al.'s (2012) theory. This research will examine whether levels of total empathy, cognitive empathy, or affective empathy moderate the relationship between PSS and PTSD symptom severity. Both theory and practice can be advanced by examining under what conditions or for whom (e.g., those with high or low levels of empathy) PSS is related to PTSD symptom severity. Examining whether total, cognitive, or affective empathy moderate the relationship between PSS and PTSD symptom severity will test the relationship proposed by Nietlisbach and Maercker (2009) and Sharp et al. (2012), thus advancing Sharp et al.'s (2012) theory. Finally, this research will have practical importance because if empathy moderates the relationship between PSS and PTSD, then interventions aimed at increasing PSS may help those with PTSD.

Purpose of the Study

The purpose of this non-experimental, cross-sectional, quantitative survey study is to examine whether, after controlling for covariates including attachment style, gender, life stress, SES, peritraumatic dissociation, and peritraumatic distress, total, cognitive, or affective empathy moderate the relationship between PSS and PTSD symptom severity in a sample of community college students who have experienced an event described in PTSD Criterion A and meet the diagnostic criteria for PTSD. A traumatic event as defined by Criterion A of the DSM-IV-TR is an event that involves actual or threatened death or serious injury to oneself or others and causes the person to experience intense fear, helplessness, or horror (APA, 2000). Exposure to a PTSD Criterion A event will be measured with the Traumatic Life Events Questionnaire (TLEQ; Kubany et al., 2000; see Appendix A). PTSD symptoms will be measured using the PTSD Checklist-Civilian Version (PCL-C; Weathers, Litz, Herman, Huska, & Keane, 1993; see Appendix B). Based on the recommendations of Blanchard, Jones-Alexander, Buckley, and Forneris (1996), participants with a cut-off score of 44 on the PCL-C (Weathers et al., 1993) will be considered to meet the diagnostic criteria for PTSD, while those with a score below 44 will be excluded from the study. Symptom severity will be assessed based on an overall score between the cutoff of 44 and the maximum score of 85.

Attachment style will be assessed using Bartholomew and Horowitz's (1991) Relationship Questionnaire (see Appendix C). PSS will be evaluated using the 12-item Multidimensional Scale of PSS (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988; see Appendix D), and total, cognitive, and affective empathy will be measured using the four subscales of the Interpersonal Reactivity Index (IRI; Davis, 1983; see Appendix E). Two of the domains, perspective taking and fantasizing, measure cognitive empathy and the other two domains, empathetic concern and personal distress, measure affective empathy. Participants will be recruited from the two multi-campus community colleges in Southern California at which the researcher teaches by sending institution-wide e-mails to faculty and students, visiting classes, and asking for volunteers, recruiting at the student, counseling, and veteran's centers, and placing notices on campus bulletin boards. To participate in the study, participants will log on to a secure survey site and complete the PCL-C (Weathers et al., 1993; see Appendix B), MSPSS

(Zimet et al., 1988; see Appendix D), and IRI (Davis, 1983; see Appendix E). Because gender, life stress, SES, peritraumatic dissociation, and peritraumatic distress and have been shown to be risk factors for the development and maintenance of PTSD (Brewin et al., 2000), they will be controlled for during analysis. Based on a power analysis using G*Power 3.1.2, the required sample size should be at least 123 (Faul, Erdfelder, Buchner, & Lang, 2009). Using Green's (1991) formula for minimum sample size for multiple regression of 104 + k, where k is the number of independent variables (IVs), the sample size should be at least 114. Tabachnick and Fidell's (2007) formula of N > 50 + 8m, where N is the number of participants and m is the number of IVs, provides a minimum sample size of 130. Finally, Stevens' (1996) formula for hierarchical multiple regression of 15 participants per IV, yields a minimum sample size of at least 165, the minimum number that will be used for this study. Baron and Kenny's (1986) causal steps method of moderation analysis will be conducted using SPSS software to address the research questions.

2. What are the main goals or objectives or outcomes or research hypotheses of the study?

The purpose of this research is to examine whether cognitive, affective, or total empathy affect the strength or direction of the relationship between PSS and PTSD symptom severity.

- **Q1.** To what extent, if any, does total empathy, as measured by the IRI, moderate the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity, as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress?
- **Q2.** To what extent, if any, does affective empathy, as measured by the empathetic concern and personal distress subscales of the IRI, moderate the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress?
- **Q3**. To what extent, if any, does cognitive empathy, as measured by the perspective taking and fantasizing subscales of the IRI, moderate the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress?

Hypotheses

H1₀. Total empathy, as measured by the IRI, does not significantly moderate the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity, as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress.

- **H1**_a. Total empathy, as measured by the IRI, significantly moderates the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity, as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress.
- **H2**₀. Affective empathy, as measured by the empathetic concern and personal distress subscales of the IRI, does not significantly moderate the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity, as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress?
- **H2**_a. Affective empathy, as measured by the empathetic concern and personal distress subscales of the IRI, significantly moderates the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity, as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress?
- **H3**₀. Cognitive empathy, as measured by the perspective taking and fantasizing subscales of the IRI, does not significantly moderate the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity, as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress?
- **H3**_a. Cognitive empathy, as measured by the perspective taking and fantasizing subscales of the IRI, significantly moderates the relationship between PSS, as measured by the MSPSS, and PTSD symptom severity, as measured by the PCL-C, among community college students who have experienced a traumatic event, after controlling for gender, life stress, attachment style, SES, peritraumatic dissociation, and peritraumatic distress?
- 3. Who will be the subjects/participants? How many? Will they be compensated? If so, how?
 - College students who have experienced a Criterion A traumatic event and meet the diagnostic criteria for PTSD. The study will require a minimum of 165 participants, who will not be compensated for their participation. I am requesting permission to recruit at five community colleges, including Crafton, so the actual number recruited from Crafton cannot be determined with certainty.
- 4. Describe in detail all procedures to be performed on the participants (e.g., recruitment, surveying, debriefing, exposure to stimuli, etc.)?

With the approval of the Crafton Hills IRB, the following are potential recruitment strategies:

- Sending an e-mail to all students asking them to participate
- Posting announcements on bulletin boards at approved locations on campus
- Posting announcements at the Veterans Center

- Posting announcements at the Student Health Center
- Visiting the Veterans Center (with approval of the director) to recruit veterans in person by explaining the research, the risks and benefits, and asking them to log on and take the survey.
- Visiting classes (particularly Psychology and Human Services classes) with instructor permission and explaining the research, the risks and benefits, and asking them to log on and take the survey.

Recruitment methods will depend on what the Crafton Hills IRB and administration approve.

Potential participants will log on to an online survey site, such as SurveyMonkey® should they wish to participate. Once participants have logged into the survey site, they will be asked if they are 18 years of age or older. If they answer no, advanced skip logic will take them to the disqualification page. If they answer yes, they will be presented with the informed consent document. Those persons who do not give their informed consent will be disqualified and sent to the last page of the survey that gives them referral information. Participants will then complete the TLEQ. Those persons who do not indicate that they have experienced a criterion A traumatic event will be disqualified and will be sent to the last page of the survey containing the referral information. They will not take the other measures. Those who have not been previously disqualified will continue to take the demographic questionnaire, the PCL-C, IRI, MSPSS, PDS, PDEQ, and the Perceived Stress Scale.

Before and after the survey, participants will be offered referral to mental health resources.

All data will be aggregated for analysis.

5. What assessment instrument(s) (e.g., survey, focus group) will be used? Please provide the IRB with copies.

Participants will be asked to complete anonymously the following measures:

- Traumatic Life Events Questionnaire (23 items) 5 minutes
- PTSD Checklist-Civilian Version (17 items) 5 minutes
- Demographic questions (5 items) < 5 minutes
- Multidimensional Scale of Perceived Social Support (12 items) 5 minutes
- Interpersonal Reactivity Index (28 items) 5 minutes
- Perceived Stress Scale (10 items) <5 minutes
- Peritraumatic Dissociative Experiences Questionnaire (10 items) <5 minutes
- Relationship Questionnaire (4) items <5 minutes
- Peritraumatic Distress Inventory (13 items) 5 minutes

There will be no audio or videotaping.

Participants will not be asked for their names, student ID #'s, or any other identifying number. No information concerning the Internet Protocol (IP) address or other data that could be used to identify or trace the participant will be collected. To ensure that privacy and

confidentiality are maintained at the highest possible level, all information will be encrypted using Single-Slot Layer (SSL) technology and IP tracking will be disabled.

Participants will be given a website address where they may obtain the aggregate study findings upon completion of the research.

6. What are the potential risks to the participants?

Some of the questions in this survey may cause participants to recall unpleasant or emotionally upsetting experiences.

Research into PTSD does not appear to warrant extraordinary precautions (Hebenstreit & DePrince, 2012; Newman & Kaloupek, 2009). In a review of risk-benefit assessment in traumatic stress research, Newman and Kaloupek (2009) concluded that persons who are suffering from PTSD do not appear to be significantly more vulnerable to distress as compared to those involved in other mental health research, and indicate they do not regret their participation, and would be willing to participate again. Consistent with these findings, Hebenstreit and DePrince (2012) found that following a study focused on the traumatic effects of interpersonal violence, 92% of the female study participants reported that they would take part in the study again. Online surveys have been used in several recent studies into college student mental health, including studies into PTSD and traumatic life events (Anders, Frazier & Shallcroft, 2012; Read et al., 2011), PTSD and suicide ideations (Poindexter et al., 2015), depression (Tandoc Ferrucci, & Duffy, 2015) and partner emotional abuse with self-esteem, depression, and suicidal ideation (Parker, 2015).

Both as part of the informed consent process, and when the participants have finished the survey, they will be provided information on community and school based resources if they feel the need to speak with a professional counselor. They will also be told that they may stop at any time during the administration of the survey and they will specifically be asked at the end of each page of the survey if they wish to continue. When the participant has completed the survey, or has or has indicated that they do not wish to continue, the community and school referral information will be redisplayed.

7. Describe how you will deal with confidentiality and anonymity?

The researcher does not intend to ask for personally identifiable information, including name, address, or date of birth, on the survey. Other demographic information will be collected, including age, gender, ethnicity, SES, and other study-pertinent information, but not information concerning the Internet Protocol (IP) address or other data that could be used to identify or trace the participant. This information will be conveyed to the participants during the informed consent process, along with information regarding risks and benefits of participation. The data will be password protected, and only the researcher will have access. Confidentiality will further be maintained because reported data will be aggregated for analysis.

8. How will you document informed consent (Provide a copy of the informed consent form.)?

When potential participants log on to the survey site they will be presented with the informed consent letter. They cannot proceed to the survey questions until they have read the informed consent document and agree to participate in the research. The researcher is asking permission to obtain consent without any signature. Because this is an online survey, participants will read the consent form on screen, click "yes or no" to consent, and then proceed to the survey. I believe my study qualifies for a waiver of written documentation of informed consent because the only record linking the participant and research is the consent form, and the primary risk of harm in the study comes from a possible breach in confidentiality.

9. What are the suggested date(s) for the study?

Spring, 2015 semester.

- 10. How will the data be reported (e.g.: articles, thesis, dissertation, presentations, etc.)?
 - Ph.D. Dissertation and possible journal publication.
- 11. If class or work time is needed, do you have an internal contact person who is already willing to comply? Which employees of the college have expressed interest in helping you gather data? (Note: using class time is discouraged)

If the IRB and Administration allow me to use e-mail and post notices, I do not believe it will be necessary to use class time to recruit participants. All data collection will be done online at the student's convenience.

12. Which classes will be used in the study? Have the faculty given permission for the study to be done in class?

None

Also include a HARD copy of your approved full proposal. This copy should include both the signature page of approval (or electronic equivalent) from your IRB and all material reviewed by your IRB.

The Northcentral University IRB will not issue approval for any study unless the application includes permission from the IRB at the institutions from which the study participants will be recruited. The purpose of this application is to gain such approval. No data collection activities will take place until approval is obtained from the Northcentral University IRB and final approval is obtained from the Crafton Hills IRB.

When the project is completed, a summary of the key findings should be sent to the Institutional Effectiveness, Research and Planning Office (kwurtz@craftonhills.edu).

SIGNATURE & DATE	APPROVAL		
Quil Min 10-21-15			
Administrative IRB Co-Chair	□ Not Approved		
Reason	·		
U 10-21-15	Approved (with conditions specified below)		
Faculty IRB Co-Chair	□ Not Approved		
Reason:			
CWilhite September 27, 2015			
Principal Investigator(s) Signature & Date			
Other Notes:			

Source: Mt. San Antonio College, IRB Proposal Form.

The Crafton Hills College IRB has reviewed your proposal and has decided to approve your request to conduct research at Crafton Hills College as long as the following conditions are met.

- 1. Prior to any research being conducted, you must provide the Crafton Hills College Office of Institutional Effectiveness, Research, and Planning with your home institutions IRB approval.
- When you are recruiting students to participate in the study you only send the email to self-identified
 veterans through the Veterans Office. To do this, you will need to construct the email and provide the
 email to Steve Rush. Mr. Rush will send out the email to self-identified Veterans to maintain
 confidentiality.
- 3. You can post announcements on approved campus locations, including the Veterans Office, as long as the announcement receives approval from the Student Life office.
- 4. You will not be allowed to recruit participants in the Veterans Center or in classrooms.