SECONDARY ENURESIS AND THE IMPACT ON EMOTIONAL STRESS
IN A SAMPLE OF HOMELESS SCHOOL AGE CHILDREN

A Research Grant Proposal

Presented to the faculty of the School of Nursing
California State University, San Marcos

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF SCIENCE
in
Nursing
Family Nurse Practitioner

by
Kaitlin Darlene Hartman

SPRING
2016
CALIFORNIA STATE UNIVERSITY SAN MARCOS

PROJECT SIGNATURE PAGE

PROJECT SUBMITTED IN PARTIAL FULLFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE

MASTER OF SCIENCE

IN

NURSING

PROJECT TITLE: Secondary Enuresis and the Impact on Emotional Stress in a Sample of

Homeless School Age Children

AUTHOR: Kaitlin Darlene Hartman

DATE OF SUCCESSFUL DEFENSE: 4/22/2016

THE PROJECT HAS BEEN ACCEPTED BY THE PROJECT COMMITTEE IN
PARTIAL FULLFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE IN NURSING.

Susan Andera, DrPH, MN, RN, NP-C
PROJECT COMMITTEE CHAIR

Deb Bennett, Ph.D, RN
PROJECT COMMITTEE MEMBER

4/22/16

4/22/16
Student: Kaitlin Darlene Hartman

I certify that this student has met the School of Nursing format requirements, and that this project is suitable for shelving in the Library and credit is to be awarded for the project.

Dr. Amy Carney, Graduate Director

April 22, 2016

Date

School of Nursing
College of Education, Health, and Human Services
California State University San Marco
Abstract

of

SECONDARY ENURESIS AND THE IMPACT ON EMOTIONAL STRESS
IN A SAMPLE OF HOMELESS SCHOOL AGE CHILDREN

by

Kaitlin Darlene Hartman

Statement of Problem

Secondary enuresis, bedwetting that resurfaces after a period of 6 consecutively dry months, is a medical condition theorized within the literature to be an indication of high levels of psychological stress within a child’s life. This phenomenon has not yet been studied within the context of homelessness, and as such, research is needed to explore the use of secondary enuresis as an indicator of high levels of emotional stress among the homeless pediatric population.

Identifying alternative opportunities for identifying high levels of stress among vulnerable populations of children, such as those within the homeless community is of high importance. Current research completed by the American Academy of Pediatrics, as well as the Centers for Disease Control indicates that high levels of stress experienced during childhood can negatively impact lifelong health and development. Research is needed that begins to look at alternative ways primary care providers can identify children most at risk of experiencing poor health outcomes later in life.

Purpose: The following study serves to look at two groups of homeless school age children, one group with secondary enuresis and one group without secondary enuresis. Parents of these children will fill out a questionnaire pertaining to the emotional stress levels of their child, and then the mean emotional stress levels of the two independent groups will be compared.

Dr. Susan Andera, Committee Chair

April 22, 2016
Date
DEDICATION

I would like dedicate this work to my mom, Marty Hartman, who has never failed to show me the true meaning of compassion. You truly are the hands and feet of Jesus.

ACKNOWLEDGEMENTS

I would like to acknowledge my family, Dad, Mom, Brittany, Brandon, Hartley, Maisy, Brock, Betsy, Taylor and Andrea for their unending support.

I would to thank my committee chair, Dr. Susan Andera and my committee member, Dr. Deb Bennett for their guidance and passion for the underserved.

I want to thank Piotr Kostecki for his support and love throughout my final year in school.

Lastly, I want to thank the women, children and staff of Mary’s Place for their incredible commitment to ending family homelessness.
# TABLE OF CONTENTS

Abstract .......................................................................................................................... 5  
Dedication........................................................................................................................ 6  
Acknowledgements.......................................................................................................... 6  
Table of Contents............................................................................................................. 7  
SF 424 (R&R) .................................................................................................................. 8  
Biographical Sketches.................................................................................................... 18  
Initial Budget Period Direct Costs ................................................................................. 20  
Entire Budget Period....................................................................................................... 21  
Budget Justification ....................................................................................................... 21  
Specific aims.................................................................................................................. 24  
  Purpose ..................................................................................................................... 24  
  Research Question .................................................................................................... 24  
  Hypothesis ................................................................................................................ 24  
Conceptual Model.......................................................................................................... 25  
Significance.................................................................................................................... 26  
Background.................................................................................................................... 27  
Literature review ........................................................................................................... 28  
  Stress During Childhood .......................................................................................... 28  
  Secondary Enuresis .................................................................................................. 31  
Research plan................................................................................................................. 33  
  Research Question .................................................................................................... 33  
  Hypothesis ................................................................................................................ 33  
  Variables ................................................................................................................... 33  
  Design ....................................................................................................................... 33  
  Setting ....................................................................................................................... 34  
  Sampling ................................................................................................................... 34  
  Instrument ................................................................................................................ 35  
  Data Collection and Management ............................................................................ 36  
  Data Analysis ........................................................................................................... 38  
Ethical Considerations................................................................................................. 38  
References...................................................................................................................... 40  
APPENDIX ..................................................................................................................... 45  
  A: G*Power Sample Size Calculation ...................................................................... 45  
  B: Strength and Difficulties Questionnaire ............................................................... 47  
  C: Strength and Difficulties Scoring Guideline ......................................................... 49  
  D: Purposive Sampling Tool ..................................................................................... 53  
  E: Information Sheet ................................................................................................ 55  
  F: Purposive Sampling Targets ................................................................................. 57  
  G: Letter of Support ................................................................................................ 59  
  H: IRB Application .................................................................................................... 61
<table>
<thead>
<tr>
<th><strong>Opportunity Title:</strong></th>
<th>Child Development and Behavior Branch (CDBB)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Offering Agency:</strong></td>
<td>National Institutes of Health</td>
</tr>
<tr>
<td><strong>CFDA Number:</strong></td>
<td>93.865</td>
</tr>
<tr>
<td><strong>CFDA Description:</strong></td>
<td>PAR-15-170</td>
</tr>
<tr>
<td><strong>Opportunity Number:</strong></td>
<td>FORMS-C</td>
</tr>
<tr>
<td><strong>Opportunity Open Date:</strong></td>
<td>09/05/2015</td>
</tr>
<tr>
<td><strong>Opportunity Close Date:</strong></td>
<td>09/07/2018</td>
</tr>
<tr>
<td><strong>Agency Contact:</strong></td>
<td>Lisa Freund, Branch Chief (301)435-6879 NICHD</td>
</tr>
</tbody>
</table>

This opportunity is only open to organizations, applicants who are submitting grant applications on behalf of a company, state, local or tribal government, academia, or other type of organization.

**Application Filing Name:** Kaitlin Hartman

---

**Select Forms to Complete**

**Mandatory**

- SF424 (R & R)
- PHS 398 Research Plan
- PHS 398 Cover Page Supplement
- Research and Related Senior/Key Person Profile (Expanded)
- Research And Related Other Project Information
- Project/Performance Site Location(s)

**Optional**

- Planned Enrollment Report
- PHS 398 Cumulative Inclusion Enrollment Report
- R & R Subaward Budget Attachment(s) Form 5 YR 30 ATT
- Research & Related Budget
- PHS 398 Modular Budget

---

**Instructions**

*Show Instructions >>*

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here. If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.
APPLICATION FOR FEDERAL ASSISTANCE
SF 424 (R&R)

1. TYPE OF SUBMISSION
   - Pre-application
   - Application [X]
   - Changed/Corrected Application

2. DATE SUBMITTED
   - Applicant Identifier
   - 05/20/2016

5. APPLICANT INFORMATION
   - Legal Name: Kaitlin Darlene Hartman
   - Department: CSUSM, School of Nursing
   - Street1: 2685 C Street
   - City: San Diego
   - State: CA: California
   - Country: USA: UNITED STATES
   - Phone Number: (760) 750-7550
   - Email: sandera@csusm.edu
   - Person to be contacted on matters involving this application
     - First Name: Susan
     - Last Name: Andera
     - Prefix: Dr.
     - Position/Title:
     - Street1: 333 S. Twin Oaks Valley Road
     - City: San Marcos
     - State: CA: California
     - Country: USA: UNITED STATES
     - Phone Number: (760) 750-3646

6. EMPLOYER IDENTIFICATION (EIN) or (TIN):
   - 12-3456789

7. TYPE OF APPLICANT:
   - H: Public/State Controlled Institution of Higher Education
     - Other (Specify):
     - Small Business Organization Type
       - Women Owned
       - Socially and Economically Disadvantaged

8. TYPE OF APPLICATION:
   - New [X]
   - Resubmission
   - Renewal
   - Continuation
   - Revision

9. NAME OF FEDERAL AGENCY:
   - National Institutes of Health

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:
   - TITLE:

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
    - Secondary Enuresis and the Impact on Emotional Stress in a Sample of Homeless School Age Children

12. PROPOSED PROJECT:
    - Start Date: 06/01/2016
    - Ending Date: 12/01/2018

13. CONGRESSIONAL DISTRICT OF APPLICANT
    - CA-50
SF 424 (R&R)  APPLICATION FOR FEDERAL ASSISTANCE  Page 2

14. PROJECT DIRECTOR/PRINCIPAL INVESTIGATOR CONTACT INFORMATION
Prefix: Dr.  First Name: Susan  Middle Name: L.
Last Name: Andera  Suffix: 
Position/Title: Dr.PH, MN, RN, NF-C
Organization Name: California State University, San Marcos
Department: School of Nursing  Division: 
Street1: 333 S. Twin Oaks Valley Road
Street2: 
City: San Marcos  County / Parish: 
State: CA: California  Province: 
Country: USA: UNITED STATES  ZIP / Postal Code: 92096-0001
Phone Number: (760)750-7550  Fax Number: 
Email: sandera@csusm.edu

15. ESTIMATED PROJECT FUNDING
a. Total Federal Funds Requested  140,365.00
b. Total Non-Federal Funds  0.00
c. Total Federal & Non-Federal Funds  0.00
d. Estimated Program Income  0.00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?
a. YES □  THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:
DATE: 
b. NO □  PROGRAM IS NOT COVERED BY E.O. 12372; OR □  PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. By signing this application, I certify (1) to the statements contained in the list of certifications* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)

☐ I agree

*The list of certifications and assurances, or an Internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

18. SFLLL (Disclosure of Lobbying Activities) or other Explanatory Documentation

19. Authorized Representative
Prefix: Miss  First Name: Kaitlin  Middle Name: Darlene
Last Name: Hartman  Suffix: 
Position/Title: Graduate Student
Organization: California State University
Department: School of Nursing  Division: 
Street1: 333 S. Twin Oaks Valley Road
Street2: 
City: San Marcos  County / Parish: 
State: CA: California  Province: 
Country: USA: UNITED STATES  ZIP / Postal Code: 92096-0001
Phone Number: (206)412-7656  Fax Number: 
Email: hartm027@cougars.csusm.edu

Signature of Authorized Representative 
Completed on submission to Grants.gov

Date Signed 
Completed on submission to Grants.gov

20. Pre-application

21. Cover Letter Attachment
# PHS 398 Research Plan

Please attach applicable sections of the research plan, below.

<table>
<thead>
<tr>
<th>Section</th>
<th>Attachment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction to Application</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>(for RESUBMISSION or REVISION only)</td>
<td></td>
</tr>
<tr>
<td>2. Specific Aims</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>Specific Aim.docx</td>
<td></td>
</tr>
<tr>
<td>3. *Research Strategy</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>Research Plan.docx</td>
<td></td>
</tr>
<tr>
<td>4. Progress Report Publication List</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
</tbody>
</table>

### Human Subjects Sections

<table>
<thead>
<tr>
<th>Section</th>
<th>Attachment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Protection of Human Subjects</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>IRB HARTMAN.pdf</td>
<td></td>
</tr>
<tr>
<td>6. Inclusion of Women and Minorities</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>7. Inclusion of Children</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
</tbody>
</table>

### Other Research Plan Sections

<table>
<thead>
<tr>
<th>Section</th>
<th>Attachment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Vertebrate Animals</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>9. Select Agent Research</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>10. Multiple PD/PI Leadership Plan</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>11. Consortium/Contractual Arrangements</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>Letter of Support.docx</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>12. Letters of Support</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
<tr>
<td>13. Resource Sharing Plan(s)</td>
<td>Add Attachment, Delete Attachment, View Attachment</td>
</tr>
</tbody>
</table>

### Appendix (if applicable)

<table>
<thead>
<tr>
<th>Section</th>
<th>Attachment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Appendix</td>
<td>Add Attachments, Remove Attachments, View Attachments</td>
</tr>
</tbody>
</table>
1. Project Director / Principal Investigator (PD/PI)

Prefix: Dr.
*First Name: Susan
Middle Name: L.
*Last Name: Andera
Suffix: 

2. Human Subjects

Clinical Trial? ☒ No  ☐ Yes
*Agency-Defined Phase III Clinical Trial?  ☐ No  ☐ Yes

3. *Disclosure Permission Statement

If this application does not result in an award, is the Government permitted to disclose the title of your proposed project, and the name, address, telephone number and e-mail address of the official signing for the applicant organization, to organizations that may be interested in contacting you for further information (e.g., possible collaborations, investment)?

☒ Yes  ☐ No

4. *Program Income

*Is program income anticipated during the periods for which the grant support is requested?

☐ Yes  ☒ No

If you checked "yes" above (indicating that program income is anticipated), then use the format below to reflect the amount and source(s). Otherwise, leave this section blank.

*Budget Period  *Anticipated Amount ($)  *Source(s)

☐ ☐ ☐

☐ ☐ ☐

☐ ☐ ☐

☐ ☐ ☐

☐ ☐ ☐

☐ ☐ ☐

☐ ☐ ☐
5. Human Embryonic Stem Cells

*Does the proposed project involve human embryonic stem cells?  □ No □ Yes

If the proposed project involves human embryonic stem cells, list below the registration number of the specific cell line(s) from the following list: http://stemcells.nih.gov/search/registry/. Or, if a specific stem cell line cannot be referenced at this time, please check the box indicating that one from the registry will be used:

Cell Line(s): □ Specific stem cell line cannot be referenced at this time. One from the registry will be used.

6. Inventions and Patents  (For renewal applications only)

*Inventions and Patents: □ Yes □ No

If the answer is "Yes" then please answer the following:

*Previously Reported: □ Yes □ No

7. Change of Investigator / Change of Institution Questions

□ Change of principal investigator / program director

Name of former principal investigator / program director:

Prefix: □

*First Name: □

Middle Name: □

*Last Name: □

Suffix: □

□ Change of Grantee Institution

*Name of former institution: □
RESEARCH & RELATED Senior/Key Person Profile (Expanded)

### PROFILE - Project Director/Principal Investigator

<table>
<thead>
<tr>
<th>Prefix:</th>
<th>* First Name:</th>
<th>Middle Name:</th>
<th>Suffix:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr.</td>
<td>Susan</td>
<td>L.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Last Name:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andera</td>
<td>School of Nursing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization Name:</th>
<th>Division:</th>
</tr>
</thead>
<tbody>
<tr>
<td>California State University, San Marcos</td>
<td></td>
</tr>
</tbody>
</table>

| * Street1: | | * Street2: |
|------------|-------------|
| 333 S. Twin Oaks Valley Road | |

<table>
<thead>
<tr>
<th>City:</th>
<th>County/ Parish:</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Marcos</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State:</th>
<th>Province:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA: California</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country:</th>
<th>* Zip / Postal Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA: UNITED STATES</td>
<td>92096-0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>* Phone Number:</th>
<th>Fax Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(760) 750-7550</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E-Mail:</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:sandera@csusm.edu">sandera@csusm.edu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credential, e.g., agency login:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>* Project Role:</th>
<th>Other Project Role Category:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI/PI</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree Type:</th>
<th>Degree Year:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>*Attach Biographical Sketch</th>
<th>Attach Current &amp; Pending Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biographical Sketch Andera.d</td>
<td>Add Attachment</td>
</tr>
<tr>
<td>Attach Current &amp; Pending Support</td>
<td>Add Attachment</td>
</tr>
</tbody>
</table>

### PROFILE - Senior/Key Person 1

<table>
<thead>
<tr>
<th>Prefix:</th>
<th>* First Name:</th>
<th>Middle Name:</th>
<th>Suffix:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss</td>
<td>Kaitlin</td>
<td>Darlene</td>
<td></td>
</tr>
</tbody>
</table>

| Last Name: | |
|------------||
| Hartman    |

<table>
<thead>
<tr>
<th>Position/Title:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSN, RN, MSN-C</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization Name:</th>
<th>Division:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| * Street1: | |
|------------||
| 2685 C Street |

<table>
<thead>
<tr>
<th>City:</th>
<th>County/ Parish:</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Diego</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State:</th>
<th>Province:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA: California</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country:</th>
<th>* Zip / Postal Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA: UNITED STATES</td>
<td>92102-0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>* Phone Number:</th>
<th>Fax Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(206) 412-7656</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E-Mail:</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:hartm027@cougars.csusm.edu">hartm027@cougars.csusm.edu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credential, e.g., agency login:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>* Project Role:</th>
<th>Other Project Role Category:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-Investigator</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree Type:</th>
<th>Degree Year:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>*Attach Biographical Sketch</th>
<th>Attach Current &amp; Pending Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biographical Sketch Hartman.d</td>
<td>Add Attachment</td>
</tr>
<tr>
<td>Attach Current &amp; Pending Support</td>
<td>Add Attachment</td>
</tr>
</tbody>
</table>

---

To ensure proper performance of this form; after adding 20 additional Senior/ Key Persons; please save your application, close the Adobe Reader, and reopen it.
1. Are Human Subjects Involved? [ ] Yes [ ] No
   1.a. If YES to Human Subjects
       Is the Project Exempt from Federal regulations? [ ] Yes [ ] No
       If yes, check appropriate exemption number. [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6
       If no, is the IRB review Pending? [ ] Yes [ ] No
       IRB Approval Date: __________________________
       Human Subject Assurance Number: __________________________

2. Are Vertebrate Animals Used? [ ] Yes [ ] No
   2.a. If YES to Vertebrate Animals
       Is the IACUC review Pending? [ ] Yes [ ] No
       IACUC Approval Date: __________________________
       Animal Welfare Assurance Number: __________________________

3. Is proprietary/privileged information included in the application? [ ] Yes [ ] No
4. a. Does this Project Have an Actual or Potential Impact - positive or negative - on the environment? [ ] Yes [ ] No
   4.b. If yes, please explain: _________________________________________________________________
   4.c. If this project has an actual or potential impact on the environment, has an exemption been authorized or an environmental assessment (EA) or environmental impact statement (EIS) been performed? [ ] Yes [ ] No
   4.d. If yes, please explain: _________________________________________________________________

5. Is the research performance site designated, or eligible to be designated, as a historic place? [ ] Yes [ ] No
5.a. If yes, please explain: _________________________________________________________________

6. Does this project involve activities outside of the United States or partnerships with international collaborators? [ ] Yes [ ] No
6.a. If yes, identify countries: _______________________________________________________________
6.b. Optional Explanation: _________________________________________________________________

7. Project Summary/Abstract: [ ] Project Abstract.docx
8. Project Narrative: [ ] Project Narrative.docx
9. Bibliography & References Cited: __________________________
10. Facilities & Other Resources: __________________________
11. Equipment: __________________________
12. Other Attachments: __________________________
Project/Performance Site Location(s)

Project/Performance Site Primary Location  
☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: California State University, San Marcos

DUNS Number: 

* Street1: 333 S. Twin Oaks Valley Road

Street2: 

* City: San Marcos  County: San Diego

* State: CA: California

Province: 

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92096-001  * Project/Performance Site Congressional District: CA-050

---

Project/Performance Site Location 1  
☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Mary's Place North Seattle Family Shelter

DUNS Number: 

* Street1: 1830 9th Avenue

Street2: 

* City: Seattle  County: King

* State: WA: Washington

Province: 

* Country: USA: UNITED STATES

* ZIP / Postal Code: 98101-9759  * Project/Performance Site Congressional District: WA-007

---

Project/Performance Site Location 2  
☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Mary's Place Emergency Family Shelter (EFS)

DUNS Number: 

* Street1: 314 Bell Street

Street2: 

* City: Seattle  County: King

* State: WA: Washington

Province: 

* Country: USA: UNITED STATES

* ZIP / Postal Code: 98121-5226  * Project/Performance Site Congressional District: WA-007
Project/Performance Site Location(s)

Project/Performance Site Location 3

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Mary's Place Jackson Street Shelter

DUNS Number: 

* Street1: 832 32nd Avenue

Street2: 

* City: Seattle

County: King

* State: WA: Washington

Province: 

* Country: USA: UNITED STATES

* ZIP / Postal Code: 98122-8443

* Project/Performance Site Congressional District: WA-007

Additional Location(s) 

Add Attachment  Delete Attachment  View Attachment
NAME: Susan L. Andera

eRA COMMONS USER NAME (credential, e.g., agency login): DrPH, MN, RN, NP-C

POSITION TITLE: Principal Investigator

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>Completion Date</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle University</td>
<td>BSN</td>
<td>1984</td>
<td>Nursing</td>
</tr>
<tr>
<td>University of California, Los Angeles</td>
<td>MN</td>
<td>1989</td>
<td>Nursing</td>
</tr>
<tr>
<td>Loma Linda University</td>
<td>DrPH</td>
<td>2009</td>
<td>Nursing</td>
</tr>
</tbody>
</table>

Dr. Susan Andera, DrPH, MN, RN, NP-C will serve as the principal investigator (PI) for this project. Dr. Andera is a Professor of Nursing at California State University, San Marcos. She is a Board Certified Nurse Practitioner with a background in pediatrics and family medicine, specializing in undeserved populations. Dr. Andera will assist in data analysis, team meetings, presentation to the IRB, coordinating efforts of personnel and review of the budget for the project.
NAME: Kaitlin D. Hartman

eRA COMMONS USER NAME (credential, e.g., agency login): RN, BSN, MSN-C

POSITION TITLE: Associate Investigator

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>Completion Date</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>California State University, San Bernardino</td>
<td>BSN</td>
<td>2012</td>
<td>Nursing</td>
</tr>
<tr>
<td>California State University, San Marcos</td>
<td>MSN</td>
<td>Expected Spring 2016</td>
<td>Nursing, Family Nurse Practitioner</td>
</tr>
</tbody>
</table>

Kaitlin Hartman, RN, BSN, MSN-C will serve as the associate investigator (AI) for the proposed project. Kaitlin is currently a Registered Nurse with 4 years of experience working with acute trauma patients. She has been a volunteer within the homeless community for 15 years, specifically with the organization Mary’s Place. Kaitlin is currently in her final year of the the Masters of Science in Nursing program at California State University, San Marcos. She has successfully completed a graduate level research and statistics course. Kaitlin will assist with the training of research assistants, data collection and analysis, team meetings, presentation to the IRB, coordinating efforts of personnel and review of the budget for the project.
### DETAILED BUDGET FOR INITIAL BUDGET PERIOD
**DIRECT COSTS ONLY**

**FROM** TBD  **THROUGH** 1 year

List PERSONNEL *(Applicant organization only)*
Use Cal, Acad, or Summer to Enter Months Devoted to Project
Enter Dollar Amounts Requested *(omit cents)* for Salary Requested and Fringe Benefits

<table>
<thead>
<tr>
<th>NAME</th>
<th>ROLE ON PROJECT</th>
<th>Cal. Mnths</th>
<th>Acad. Mnths</th>
<th>Summer Mnths</th>
<th>INST. BASE SALARY</th>
<th>SALARY REQUESTED</th>
<th>FRINGE BENEFITS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Susan Andera, DrPH, MN, RN, NP-C</td>
<td>PD/PI</td>
<td>12</td>
<td></td>
<td></td>
<td>100,000</td>
<td>20,000</td>
<td>9,600</td>
<td>29,600</td>
</tr>
<tr>
<td>Kaitlin Hartman, RN, MSN-C</td>
<td>AI</td>
<td>12</td>
<td></td>
<td></td>
<td>80,000</td>
<td>20,000</td>
<td>9,600</td>
<td>29,600</td>
</tr>
<tr>
<td>Research Assistant #1</td>
<td>Undergrad Student</td>
<td>4</td>
<td></td>
<td></td>
<td>1,600</td>
<td>768</td>
<td></td>
<td>2,368</td>
</tr>
<tr>
<td>Research Assistant #2</td>
<td>Undergrad Student</td>
<td>4</td>
<td></td>
<td></td>
<td>1,600</td>
<td>768</td>
<td></td>
<td>2,368</td>
</tr>
<tr>
<td>Research Assistant #3</td>
<td>Undergrad Student</td>
<td>4</td>
<td></td>
<td></td>
<td>1,600</td>
<td>768</td>
<td></td>
<td>2,368</td>
</tr>
<tr>
<td>Data Analyst Assistant</td>
<td>Undergrad Student</td>
<td>8</td>
<td></td>
<td></td>
<td>1,050</td>
<td>504</td>
<td></td>
<td>1,554</td>
</tr>
</tbody>
</table>

**SUBTOTALS** 45,850  67,858

**CONSULTANT COSTS**
Dr. Deb Bennett, PhD., RN (mentor); Dr. Linnea Axman, DrPH, FNP-C (statistician)  7,500

**EQUIPMENT (Itemize)**

0

**SUPPLIES (Itemize by category)**
Laptop computer; printer; SPSS IMB 22.0; computer CD; copier expenses; general office supplies; copy paper; lock box (3)  3,603

**TRAVEL**
2 trips to Seattle, WA (train research assistants, collect data)  1,625

**INPATIENT CARE COSTS**
0

**OUTPATIENT CARE COSTS**
0

**ALTERATIONS AND RENOVATIONS (Itemize by category)**
0

**OTHER EXPENSES (Itemize by category)**
Incentive Walgreens Gift Cards  4,200

**CONSORTIUM/CONTRACTUAL COSTS**

<table>
<thead>
<tr>
<th>DIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 84,786</td>
</tr>
</tbody>
</table>

**SUBTOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD (Item 7a, Face Page)**

$ 84,786

**CONSORTIUM/CONTRACTUAL COSTS**

<table>
<thead>
<tr>
<th>FACILITIES AND ADMINISTRATIVE COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 6,781</td>
</tr>
</tbody>
</table>

**TOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD**

$ 91,567
## BUDGET FOR ENTIRE PROPOSED PROJECT PERIOD

**DIRECT COSTS ONLY**

<table>
<thead>
<tr>
<th>BUDGET CATEGORY TOTALS</th>
<th>INITIAL BUDGET PERIOD (from Form Page 4)</th>
<th>2nd ADDITIONAL YEAR OF SUPPORT REQUESTED</th>
<th>3rd ADDITIONAL YEAR OF SUPPORT REQUESTED</th>
<th>4th ADDITIONAL YEAR OF SUPPORT REQUESTED</th>
<th>5th ADDITIONAL YEAR OF SUPPORT REQUESTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONNEL: Salary and fringe benefits. Applicant organization only.</td>
<td>67,858</td>
<td>31,846</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSULTANT COSTS</td>
<td>7,500</td>
<td>7,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EQUIPMENT</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUPPLIES</td>
<td>3,603</td>
<td>1,050</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRAVEL</td>
<td>1,625</td>
<td>4,037</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INPATIENT CARE COSTS</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTPATIENT CARE COSTS</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERATIONS AND RENOVATIONS</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER EXPENSES</td>
<td>4,200</td>
<td>750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIRECT CONSORTIUM/CONTRACTUAL COSTS</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTAL DIRECT COSTS</strong> <em>(Sum = Item 8a, Face Page)</em></td>
<td>84,786</td>
<td>45,183</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F&amp;A CONSORTIUM/CONTRACTUAL COSTS</td>
<td>6,781</td>
<td>3,615</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL DIRECT COSTS</strong></td>
<td>91,567</td>
<td>48,798</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL DIRECT COSTS FOR ENTIRE PROPOSED PROJECT PERIOD**

$140,365

## JUSTIFICATION

Follow the budget justification instructions exactly. Use continuation pages as needed.

Dr. Susan Andera, DrPH, MN, RN, NP-C will serve as the principal investigator (PI) for this project. Dr. Andera is a Professor of Nursing at California State University, San Marcos. She is a Board Certified Nurse Practitioner with a background in pediatrics and family medicine, specializing in undeserved populations. Dr. Andera will assist in data analysis, team meetings, presentation to the IRB, coordinating efforts of personnel and review of the budget for the project. She will devote 20% of her time to this grant and be awarded $30,200 dollars for the 1.5-year project period. A 2% increase in salary was awarded for year 02 to account for cost of living increases.

Kaitlin Hartman, RN, BSN, MSN-C will serve as the associate investigator (AI) for the proposed project. Kaitlin is currently a Registered Nurse with 4 years of experience working with acute trauma patients. She has been a volunteer within the homeless community for 15 years, specifically with the organization Mary's Place. Kaitlin is currently in her final year of the the Masters of Science in Nursing program at California State University, San Marcos. She has successfully completed a graduate level research and statistics course. Kaitlin will assist with the training of research assistants, data collection and analysis, team meetings, presentation to the IRB, coordinating efforts of personnel and review of the budget for the project.
period. She will work and consult with subject matter experts for the study. She will devote 25% of her time to the grant. Kaitlin will be provided with $30,200 dollars for the 1.5-year project period. A 2% increase in salary was awarded for year 02 to account for cost of living increases.

Dr. Deb Bennett, Ph.D., RN will serve as a mentor on this proposed project. Dr. Bennett is a Professor of Nursing at California State University, San Marcos who specializes in the care of vulnerable populations. Dr. Bennett will be a paid consultant beginning after receiving a project start letter and every three months until full completion and dissemination of the research results. She will oversee the progress of the overall direction of the project, attend team meetings and oversee the budget. She will provide 50 hours of consultation at $100.00/hr for a total of $5,000 dollars for the entire project period.

Dr. Linnea Axman, DrPH, FNP-C will serve as a paid consultant to aid and complete quantitative statistical analysis. Dr. Axman is a Nurse Practitioner with over 29 years of experience in nursing. Dr. Axman will provide 50 hours of statistical consultation at $200/hr for a total of $10,000 for the entire project period.

Research assistants will be recruited from the University of Washington’s Bachelors of Science in Nursing program. Students who have completed Nursing 410 (Research) will be able to apply. The research assistants will be responsible for purposively sampling participants, obtaining verbal consent, answering questions, keeping the PI/AI informed of progress and data collection. Three research assistants will be recruited, one for each Mary’s Place shelter location where data collection is to take place. Research assistants will be paid $15/hour and spend 2 hours a night, 3 days a week preforming data collection for a total of 4 months. Research Assistants will attend an IRB class as well as a five-hour training detailing childhood stress, homelessness, secondary enuresis and project specifics.

One data analysis assistant will be recruited from California State University, San Marcos. This undergraduate student will assist the PI/AI in data entry. This assistant will be paid $10.50/hour for a total of 100 hours, totaling $1,050 dollars for the 1.5-year project period.

Research Related Participant costs.

Supplies.

A laptop computer and dedicated printer. A laptop computer and dedicated printer are needed to collect, analyze, store data and create correspondence. The total cost is $1548 for year 01 of the project.

SPSS IMB 22.0. IMB Statistics Pack 22.0 comes as a standard 12-month license and can be installed on up to two computers. SPSS will be used for data management and analysis. The cost for year 01 will be $1,170 plus an additional $600 for a second year extension for year 02 of the project period. Total cost for software for the entire proposal period will be $1,770.

Computer CD. Computer CD will be used to back up data to and from the hard drive. Estimated cost will be $200 in year 01.

General office supplies. General office supplies including copy paper for questionnaires, information sheets, training materials at $30/case, 5 cases/year for total of $150/yr, total of $300 for entire project period.

General office supplies will average $300/year, totaling $600 for the entire project period.

Copier Expenses. Information sheets and questionnaires for each participant. Total estimated cost $100/year 01. Travel. The AI will travel to Seattle, WA twice in year 01. One trip will be for training of the research assistants and the second trip will be for collection and transportation of data back to California State University, San Marcos. First trip will be 3 days and total $958 ($330 flight, $280 2-night hotel stay, $183 rental car, $30 down town parking expenses, $135 meal stipend). Trip 2 will be 2 days and total $667 ($330 flight, $130 1-night hotel stay, $96 rental car, $20 downtown parking expense, $90 meal stipend). Trip 3 will be in year 02 when the AI will return to Seattle to present findings of the study to Mary’s Place members. The trip will be two days and total $667 ($330 flight, $130 1-night hotel stay, $96 rental car, $20 downtown parking expense, $90 meal stipend). Trip 4 will be for the PI/AI to travel to Orlando, FL for the National American Academy of Pediatrics Conference November 3-6, 2018 for dissemination of findings. The trip will total $3,370 ($1200 flights, $1400 hotel stays, $280 shared rental car, $450 meal stipend).
Lock Box. Three lock boxes will be used for participants to place completed questionnaires. Total cost $135 for year 01 of project period.

Other Expenses.
Incentive Gift Cards. As incentive to participate participants will be given a $15 Walgreens gift card. N=226, 280 gift cards will be bought and dispersed between three sites. Total cost $4,200 during year 01 of the project period.
Conference Registration. National AAP conference registration is $550 to be paid in year 02 of project period.
Publications/Dissemination Expenses. One poster will be needed to disseminate the research findings. Estimated cost is $200 in year 02 of the project period.
Specific Aim

Secondary enuresis, bedwetting that resurfaces after a period of 6 consecutively dry months, is a medical condition theorized within the literature to be an indication of high levels of psychological stress within a child’s life (American Academy of Family Physicians [AAFP], 2014). This phenomenon has not yet been studied within the context of homelessness, and as such, research is needed to explore the use of secondary enuresis as an indicator of high levels of emotional stress among the homeless pediatric population.

Identifying alternative opportunities for identifying high levels of stress among vulnerable populations of children, such as those within the homeless community is of high importance. Current research completed by the American Academy of Pediatrics (AAP), as well as the Centers for Disease Control (CDC) indicates that high levels of stress experienced during childhood can negatively impact lifelong health and development. Research is needed that begins to look at alternative ways primary care providers can identify children most at risk of experiencing poor health outcomes later in life.

Purpose: The following proposed study serves to look at two groups of homeless school age children, one group with secondary enuresis and one group without secondary enuresis. Parents of these children will fill out a questionnaire pertaining to the emotional stress levels of their child, and then the mean emotional stress levels of the two independent groups will be compared.

Research Question: “Do school age homeless children with secondary enuresis experience higher levels of emotional stress than homeless school age children without secondary enuresis?”

Hypothesis: Based on a review of available literature, the following directional alternative hypothesis will be used: “Homeless school age children with secondary enuresis will have higher parental reported emotional stress levels as compared to homeless school age children without secondary enuresis.”
The conceptual model used for this study will be the Eco-Bio-Developmental Model of Human Health and Disease (Figure 1). This model is a relatively new framework that was published in 2012 by the American Academy of Pediatrics. The model presents a new understanding for the evolution of health and disease across the lifespan (Siegel et al., 2012). The main idea behind the model is the concept that development is driven by the complex interactions between ecology, the social and physical environments of childhood, and biology, one’s genetic predispositions. The model provides a visual explanation that displays the relationship of how stressful events in childhood can genetically alter a child’s biology and ultimately result in poor development.

Prior to the development of the Eco-Bio-Developmental Model, it was easy for society to assume that children who are exposed to stressful situations develop poor health behaviors such as smoking and alcohol use as a way to cope with arduous circumstances. These common and simple beliefs held by society have lead many to the simple conclusion that poor health outcomes such as liver cirrhosis, lung cancer and depression are the result of poor coping behaviors used to deal with stress. However, the Eco-Bio-Developmental Model offers
actual scientific reasoning as to why these children are more inclined to develop poor health as they mature into adulthood. Researchers have found that high levels of stress in childhood can negatively impact several areas of brain functioning, the first being the nucleolus accumbens, an area which is known as the pleasure and reward center of the brain. Additionally, high levels of childhood stress have been shown to inhibit the prefrontal cortex, an area responsible for impulse control and executive functioning. Lastly, magnetic resonance imaging (MRI) evidence indicates there is an actual measurable difference in the size of the amygdala, the fear response center of the brain. These changes in executive brain functioning alter the way a child’s deoxyribonucleic acid (DNA) is read and transcribed, essentially altering the genome (Siegel et al., 2012).

Children who experience prolonged stress in childhood undergo hormonal and chemical changes that can damage and alter the body. Constant exposure to high levels of stress result in activation of the sympathetic nervous system (SNS), also known as the flight or flight response. Prolonged activation of this natural bodily response to fear results in prolonged exposure to stress hormones including cortisol, norepinephrine and adrenaline. These hormones in excess are damaging and can lay the groundwork for stress related diseases later in life. These alterations to a child’s biology, brought on by changes within the environment result in severe damage to the immune and hormonal systems which ultimately result in lifelong consequences on learning ability, development and health status (Siegel et al., 2012).

**Significance**

Identifying high levels of stress among vulnerable populations of children is of high importance. Homeless children are constantly exposed to high levels of stress as they struggle to have their daily basic needs met, such as access to shelter, food, clothing and safety. Daily uncertainty and high levels of stress in the lives of these children can lay the ground work for poor health outcomes as outlined by the Eco-Bio-Developmental model.

If emotional stress levels are found to be higher among homeless school age children with secondary enuresis, potentially strong implications exist among healthcare providers working with this population. Secondary enuresis can be used as a clinical indicator for identifying homeless children at the highest risk for
poor health outcomes. Primary care providers, including family nurse practitioners can then provide assistance to these children first as research suggests they are at the highest risk for poor health as they mature into adulthood. Appropriate intervention for these children and families will include referral to resources, parenting classes, stress reduction and connection to community support.

**Background**

Homelessness is a traumatic, devastating, and unfortunate reality for as many as 1.6 million children in the United States (National Center on Family Homelessness, 2015). This highly vulnerable population of families with children constitutes the fastest growing segment of the homeless population (National Coalition for the Homeless, 2016). Homelessness for many families is often times the collective result of extreme poverty, lack of affordable housing, decreasing governmental supports, and the presence of a dysfunctional family typified by domestic violence or substance abuse (Burns, Dunn, Brady, Starr & Blosser, 2013; The National Child Traumatic Stress Network, 2013).

The United States Department of Housing and Urban Development (HUD) offers a limited definition of homelessness that is widely accepted by federally funded homeless organizations. The HUD definition states that a homeless individual is, “an individual who lacks a fixed, regular, and adequate nighttime residence.” The definition goes on to list inadequate nighttime sleeping arrangements that includes sleeping in a park, car, motel, abandoned building, bus, train station, airport, or camping ground. The definition also includes persons staying in emergency or transitional homeless shelters as well as those who will imminently lose their housing within 14 days (United States Department of Housing and Urban Development, 2015).

The Annual Homeless Assessment Report (AHAR) made to congress on behalf of the United States Department of Housing and Urban Development is a point-in-time estimate of the number of homeless individuals and subpopulations (i.e., families) in the United States. For 2015, the AHAR reported that 206,286 people in 64,197 families were homeless on a single night in January of 2015. These numbers were published and reported to reflect a 5% decrease in the number of homeless families from the 2014 point-in-time count, and
an 12% decrease from the 2007 report. These numbers are widely criticized by homeless advocacy organizations to be an inaccurate account of the extent of family homelessness within the United States (National Center on Family Homelessness, 2015). The criticism stems from the use of the point-in-time estimates. Critics argue that this type of estimate fails to reflect the numerous families and children who are “doubled up” with friends or relatives, living in low cost motels and campgrounds, residing in vehicles, or simply families who avoid being counted.

A more accurate display of the extent of family homelessness is offered through the educational system. A report published by the State of Washington Superintendent of Public Education (2015) indicates that the number of homeless children continues to rise each year. Washington state teachers reported 32,539 children were believed to be homeless during the 2013-2014 school year, more than a 20% increase from the 2008-2009 report of 20,780 reported homeless students. Despite the controversy surrounding the fact whether homelessness continues to be on the rise or slowly declining, the fact remains that homeless children are a vulnerable population prone to high levels of stress and ultimately poor health later in life (American Academy of Pediatrics, 2013).

**Literature Review**

The following literature review was conducted by searching the UpToDate, CINHAL, PubMed, PsychINFO, and Google Scholar databases for articles published between 2009 and 2015 pertaining to the search terms: “homelessness;” “secondary enuresis;” “stress;” “children;” “homeless;” “family homelessness;” “bedwetting;” and “trauma.” Articles published prior to 2011 were included if the information presented was deemed pertinent to the proposed study. Organizations specializing in the medical care of children were consulted for current practice guidelines, and those organizations were: Centers for Disease Control (CDC); American Academy of Family Physicians (AAFP); and the American Academy of Pediatrics (AAP).

**Stress During Childhood**

Stress is an inevitable and unavoidable part of everyday life (Burns et al., 2013). A certain amount of stress in life is normal and can aid in the process of healthy development as children learn the valuable coping
skills needed to deal with stress as they age (Middlebrooks & Audage, 2014). Support from a concerned parent or caregiver is recognized as a vital aspect in order for children to learn how to respond to stress in a physically and emotionally healthy manner. The beneficial aspects of stress decrease over time when symptoms of stress begin to interfere or overwhelm a child’s ability to cope (Siegel et al., 2012). Three types of stress are recognized in relationship to pediatrics and they are: (1) positive stress; (2) tolerable stress; and (3) toxic stress. Positive stress results from adverse experiences that are generally mild and short lived. Examples of positive stress include getting a shot at the pediatrician’s office, attending a new day care, or having a toy taken away. The second type of stress, tolerable stress, is described as non-normative experiences that are still generally short lived in nature. Sources of tolerable stress applicable to children may include the death of a family member, a serious illness or injury, hospitalization, or the separation and divorce of a child’s parents (Middlebrooks & Audage, 2014). Lastly, toxic stress is described as the result of intense and adverse experiences over a period of extended time (Siegel et al., 2012). Examples of toxic stress include homelessness, abuse, neglect, or exposure to a dysfunctional family system (Barner, 2014; Centers for Disease Control [CDC], 2014; Hutto and Viola, 2014).

Toxic stress is focused on in the literature and considered to be the most damaging and contributory factor to adverse outcomes in later life through physiologic processes described in the eco-bio-developmental model (Siegel et al., 2012). The driving force behind these findings are the results from ongoing research, The Adverse Childhood Experiences (ACE) Study (CDC, 2014). The ACE study began in 1995 as a collaborative effort between the Centers for Disease Control (CDC) and Kaiser Permanente’s Health Appraisal Clinic in San Diego, California. The study defines adverse childhood experiences as abuse (physical, emotional, sexual), neglect (emotional, physical), witnessing domestic violence, and growing up with substance abuse, mental illness, parental discord, or crime in the home. The retrospective study involves a sample of 17,337 Kaiser members who all underwent a routine physical exam and then voluntarily responded to a questionnaire asking about the above events in childhood. Surprisingly, the study found that adverse childhood experiences are
common, with 64% of the sample having had experienced one or more adverse childhood event. Participants with four or more adverse childhood experiences had significantly higher rates of heart disease and diabetes than those with zero adverse childhood experiences. In addition, participants with four or more adverse childhood events were compared to participants with no adverse events and the results displayed a 390% increase in chronic obstructive pulmonary disease, a 240% increase in hepatitis, a 460% increase in the rates of diagnostic depression, and a 1,220% increase in suicide rates. Ongoing research has shown that members of the study with six or more adverse childhood events died nearly twenty years earlier than those without adverse childhood experiences, a life expectancy of 60.6 years versus 79.1 years (CDC, 2014).

The original ACE study was completed with a sample of insured, predominately white, and stably housed set of individuals. As a result, findings were not entirely generalizable to low income and homeless individuals. In order to study adverse childhood experiences in relationship to housing status, the Institute for Children, Poverty, and Homelessness (ICPH) analyzed data from the Fragile Families and Well Being Study, a collaborative effort by Columbia and Princeton University. The analysis utilized a sample of 2,410 families separated into three groups: (1) homeless (living outside, sheltered or a place not intended for habitation); (2) at risk families (difficulty with paying bills or probable eviction); and (3) stably housed children up to 9 years of age (Ezratty, 2013). The ICPH analysis reported that homeless children experienced significantly more adverse childhood experiences than at risk or stably housed individuals. Results indicated 75% of homeless children analyzed were found to be living with a mentally ill parent, while one-third of homeless children were living with an adult suffering from substance abuse issues (Ezratty, 2013).

In 2012, Larkin and Park completed a study to explore the number Adverse Childhood Experiences (ACEs) experienced in a sample of 224 adult homeless subjects. Results from the exploratory study indicated that 53.2% of homeless subjects reported experiencing four or more adverse events in childhood. This study is yet another example highlighting the vulnerability of homeless children and individuals to experience severe and toxic levels of stress that can fuel the potential for poor health outcomes later in life.
Secondary Enuresis

Enuresis is defined by the Diagnostic and Statistical Manual (DSM-5) as the involuntary loss of urine that is inconsistent with one’s developmental age (American Psychiatric Association [APA], 2013). The DSM-5 (2013) recognizes three main types of enuresis; (1) nocturnal (night-time) only; (2) diurnal (daytime) only; and (3) nocturnal and diurnal. In order for a diagnosis to be made, the child must be greater than 5 years old, the age at which normal 24-hour bladder control is usually achieved (APA, 2013). Nocturnal enuresis can be classified as either primary or secondary depending upon the onset of symptoms. Children who have never achieved a satisfactory period of dryness have primary enuresis, while children who develop enuresis after a period of at least six months of being dry at night have secondary enuresis (AAFP, 2014). It is estimated that enuresis affects approximately five to seven million children in the United States, with slightly less than twenty-five percent of cases being attributed to secondary enuresis (Ramakrishnan, 2009). The prevalence of secondary enuresis among a population of low socioeconomic or homeless children was unable to be found within the literature.

Despite a lack of sound evidence beyond theoretical position and anecdotal reports, there is an understanding within the literature that secondary enuresis is the result of psychological and emotional stress when the condition surfaces during a time of stress in the child’s life (AAFP, 2013; APA, 2013; National Association for Continence [NAFC], 2013). When secondary enuresis is not accompanied by a psychologically stressful event, contributing causes of the condition have been studied to include constipation, obstructive sleep apnea, urinary tract infection, and bladder dysfunction (AAFP, 2014; Prynn, 2012; Tu, Baskin & Arnhym, 2014). A strong genetic component has been demonstrated in the presence of primary enuresis, however, the reports are inconclusive as to the hereditary involvement associated with secondary enuresis (Burns et. al., 2013; National Association for Continence [NAFC], 2014; Tu et. al., 2014).

The most commonly referenced events within the literature for the development of secondary enuresis are similar to the adverse childhood experiences stated above. The events include the birth of a new sibling,
the separation of parents, experiencing abuse, involvement with a motor vehicle accident, and family conflict (APA, 2013; AAFP, 2014; Humphreys, Lowe & Williams, 2009; Patel et al., 2012; Von Gontard, 2012).

Anderson et al. (2014) found that out of a sample of 1,280 children presenting for non-acute examination of sexual abuse allegations, 13% of 5-9 year olds, 14.7% of 10-16 year olds, and 18.2% of 14-17 year olds presented with complaints of secondary enuresis. Similar findings are common within the literature for children exposed to stressful events. Humphreys, Lowe, and Williams (2009) studied mothers and children affected by domestic violence and found that a majority of women in the study self-reported their children started wetting the bed after previously being dry as a reaction to the violence. Additionally, several studies have linked stress following a motor vehicle accident to the development of secondary enuresis in school age children (Iglesias & Iglesias, 2008; Eidlitz-Markus, Shuper, & Amir, 2000). The above studies have lead to the widely held assumption that secondary enuresis is best understood as a regressive symptom response to the stressors involved with psychological trauma and a good indicator of stress among children (Gold, Kant & Hyeon, 2008).

Enuresis, both in primary and secondary forms are capable of causing a multitude of emotional symptoms due to social implications for children (Kanaheswari, Poulsaeman & Chandran, 2012). Enuretic children report enuresis as an extreme difficulty and have been found to experience low self-esteem and difficulty forming relationships (Butler & Heron, 2008; Kanaheswari, Poulsaeman & Chandran, 2012). One study found that enuresis was associated with poor school performance (Mahmoodzadeh, Amestejani, Karamyar & Nikibakhsh, 2013). Further information is needed about the implications of secondary enuresis in a population of homeless children.
Research Plan

**Research Question**

“Do school age homeless children with secondary enuresis experience higher levels of emotional stress than homeless school age children without secondary enuresis?”

**Hypothesis**

Based on a review of available literature, the following directional alternative hypothesis will be used:

“Homeless school age children with secondary enuresis will have higher parental reported emotional stress levels as compared to homeless school age children without secondary enuresis.”

**Variables**

For the purpose of this study, the dependent variable, secondary enuresis, will be defined as children of normal development who have started wetting the bed after a period of 6 consecutively dry months. This information will be obtained by verbally asking parents of homeless children prior to completing the questionnaire about emotional stress.

The independent variable, emotional stress, will be defined using the American Psychological Associations definition that states emotional stress is “the combination of anger or irritability, anxiety, and depression, the three stress emotions” (American Psychological Association, 2014). By measuring emotional stress, results will reflect symptomatic expressions of stress displayed by children.

Demographic variables including age, gender and length of time homeless will be collected in order to describe the population of participants being analyzed.

**Design**

In order to answer the above research question, a cross-sectional, non-experimental exploratory study will be conducted. An independent t-test will be used to compare the mean emotional stress scores of the two independent groups, homeless children with secondary enuresis and homeless children without secondary enuresis.
Setting

Data collection for the proposed research study will take place at three overnight emergency family homeless shelters located in Seattle, Washington, all of which are run by the nonprofit organization Mary’s Place. Mary’s place is a leading voice for homeless women, children, and families in emergent situations (Mary’s Place, 2016). In 2015 Mary’s Place was able to provide shelter to 763 children and 518 mothers and fathers. The organization currently operates six overnight family shelters, three of which are operated by volunteers and three of which are run by full time staff. The three shelters that will be used as data collection sites in this study will be the North Seattle Family Center, Jackson Street Shelter and the Emergency Family Shelter (EFS). The average length of stay for a family at a given shelter is 34.9 days, the average length of time it takes for transitional or permanent housing to become available. The North Seattle Family Center can accommodate up to 140 family members per night, while EFS and Jackson street are slightly smaller and can accommodate 40-45 family members per night. In 2015 Mary’s Place saw 267 children ages 6-10 and 158 children ages 11-13.

Sampling

The target population for this study consists of homeless school age children between the ages of 5-12 and located in Washington State’s King County. The Washington State Office of Superintendent of Public Education (2015) has published a report stating that there are currently 2,861 homeless students enrolled in kindergarten through sixth grade in King County.

The sample size for this proposed study was calculated using the software program, G*Power 3.1. The sample was calculated for an independent t-test using a medium effect size of 0.35, a predetermined alpha level of 0.05, and a power of 0.80. The necessary sample was calculated to be 102 for each group, arriving at a total sample size of 204 (Appendix A). A small to medium effect size was chosen based on the fact that no data was found within the literature regarding effect sizes for this research question. According to Polit and Beck (2012) health science studies with no prior research generally base the effect size between 0.20 and 0.40.
for a 10% loss factor in the consequence of incomplete questionnaires, this would give rise to a total sample of 225, or 113 per group. Incomplete questionnaires will attempt to be used in data analysis by coding “somewhat true,” a numerical score of 1 on the 0-2 scale of the SDQ.

Potential subjects will be recruited from the three overnight emergency homeless shelters. Convenience sampling over the course of 4 months will be used as the sampling method. Three undergraduate Bachelors of Science in Nursing students from the University of Washington will be hired and responsible for purposively sampling 113 parents of children with secondary enuresis and 113 parents of children without secondary enuresis. Mary's Place staff members will aid with recruitment. Participation will be by word of mouth from the shelter staff only and all participants who are selected to participate will be given a fifteen dollar Walgreens gift card as an incentive.

Inclusion criteria for the proposed study includes: parents of homeless children ages five through twelve, currently homeless and residing in one of the three selected Mary's Place emergency shelters, ability to read and speak English, and lastly, parents of developmentally normal children as evidenced by the absence of a development delay diagnosis. Exclusion criteria for the study will include: parents with no children inside the specified age range 5-12, parents of children who have never achieved a satisfactory period of 6 months of dryness, parents of children with developmental delays, parents of children with one or more of the following medical conditions: current urinary tract infection, diabetes insipidus, diabetes mellitus, obstructive sleep apnea, severe constipation, spina bifida, encopresis, chronic kidney disease, bladder disorder, day time incontinence and pinworms.

Instrument

The Strengths and Difficulties Questionnaire (SDQ) will be utilized to assess the emotional stress levels of children (Appendix B). British Psychiatrist Robert Goodman published the SDQ in 1997, and since that time the instrument has been translated into 40 languages and utilized in over 44 countries (SDQ, 2014). The SDQ is a brief, 25 question screening instrument that assesses emotional and behavioral symptoms in children. A three-
point likert-type scale is used to indicate how much an attribute applies to the child of the parent answering the survey (0 = not true, 1 = somewhat true, 2 = certainly true). The SDQ produces five subscales: (1) conduct problems, (2) hyperactivity, (3) emotional problems, (4) peer problems and (5) pro-social behavior (SDQ, 2014). The scales can be interpreted individually or by combining the four subscales with exception of pro-social behavior for a total difficulties score referred to as total stress on the scoring guideline (Appendix D, E).

The total difficulties (stress) score is scored out of a possible 40 points and will be used to answer the research question. The total difficulties score has a high affinity for predicting mental health problems in children (SDQ, 2014). The scale has two versions: (1) a parental report for parents of children ages 4-17 and (2) a self-report version for children ages 11-17. Version 1 of this instrument was selected due to the fact it is based on caregiver reported data and no involvement from the homeless children will be necessary. In addition, the scale is easy and quick to use as it takes on average 10 minutes to complete and is administered with paper and pencil.

The SDQ parental report version was utilized by the National Center for Health Statistics and Centers for Disease Control in 2001 as a part of the National Health Interview Survey (The National Child Traumatic Stress Network, 2012). The SDQ was administered to a large sample of 9,878 American children and this data is readily available for comparison. Reliability for the emotional subscale of the SDQ has been found acceptable according to Advanced Practice Nursing Research Standards published by Poilt and Beck (2012) with an average Pearson’s correlation of 0.72 (The National Child Traumatic Stress Network, 2012). The average Cronbach’s alpha representing internal consistency for the parental report version is 0.71 (The National Child Traumatic Stress Network, 2012).

**Data Collection and Management**

Research assistants that are hired to aid with data collection and management will be required to complete the on-line CITI training. Research assistants will be trained the week of June 6th-10th, 2016. During this
training period, research assistants will be educated about the proposed study, family homelessness, emotional
stress of homeless children and secondary enuresis. Purposive sampling and inclusion criteria will be reviewed
and each research assistant will practice and provide a successful return demonstration for proper use of the
purposive sampling tool and demographic questionnaire created for this study (Appendix D). Research assistants
will interview shelter residents and if deemed able to participate, correctly assign participants to either group one
(parents of children with secondary enuresis) or group two (parents of children without secondary enuresis).
Research assistance will provide those in group one with a questionnaire on green paper, and those in group two
with a questionnaire on yellow paper.

Beginning June 13th, 2016, research assistants will start sampling parents at the three selected Mary's
Place overnight family shelters. Research assistants will be responsible for administering the information sheet
and answering questions about the study (Appendix D). If participants have questions that are unable to be
answered, the primary and associate investigators will be contacted. In addition, participants will have the
number for California State University, San Marcos Institutional Review Board provided on the information
sheet (Appendix E).

Research assistants will keep tally of how many parents they have surveyed in group one and two in order
to keep track of sample targets, 113 per group (Appendix F). The associate investigator will communicate with
research assistants by email every Monday, Wednesday and Friday during the sampling time frame to keep
informed of purposive sampling targets. Parents may take as much time as needed to fill out the questionnaire
and when completed will drop it into a locked drop box. Participants will be given the option to complete the
survey in a staff office so that confidentiality may be maintained. Volunteers will be available to help with
childcare for the 5-15 minutes it takes to complete the survey. Once the participant has completed the survey, the
locked drop box will remain in a locked staff office.

Once the questionnaire is completed, research assistants will provide each participant with a $15
Walgreen's gift card per questionnaire completed. Upon completion of the sampling period, the associate
Data Analysis

Data will be scored according to parental reported scoring guidelines provided by the SDQ (Appendix F). Using the statistical software package, SPSS IBM 22.0 for Mac, an independent t-test will be run to determine if the mean total stress scores of homeless children who experience secondary enuresis are statistically higher than homeless children without secondary enuresis. The t-test statistic will be compared to the predetermined alpha level of 0.05 to determine significance.

Ethical Considerations

Homeless mothers, fathers and children are a vulnerable population due to the lack of resources available to them. These families often struggle to have their most basic needs met such as clothing, food, hygiene needs, shelter and safety. Homeless families have limited financial means and therefore may be taken advantage of. In addition, many of these families often live in fear of having their families split up and separated by Child Protective Services due to lack of sufficient housing and access to running water.

According to Liz McDaniel, the Director of Family Services at Mary's Place, the homeless mothers and fathers they serve generally wish to remain anonymous when able. This logic stems from the fact homeless mothers and fathers at Mary's Place often present to the shelter after having left a potentially dangerous situation such as domestic violence. Mary's Place has communicated that if parents are requested to provide their name on a consent, it may be a potential barrier to recruitment. In order to accommodate this, an information sheet will be given to all potential study participants. If parents wish to proceed and fill out the questionnaire for the study, Risks for participants in the study are mild to moderate and include potential feelings of distress or embarrassed about reporting stress levels or admitting to bed-wetting habits of children. The study involves a minimum of a 10-minute time commitment to complete the questionnaire and parents may be worried about
keeping an eye on their children during this timeframe. Lastly, there may be associated fear about the confidentiality of provided responses.

In order to address these concerns, all participants will be provided with instructions on how to contact the Mary’s Place Nurse Practitioner who will be available to support participants should they develop an emotional response as a result of participating in the proposed study. Resources for parental support groups and parenting classes will be available upon request at anytime from the undergraduate research assistants and any Mary’s Place staff member. Volunteers will be available at each of the three shelter locations to aid with childcare for participants during the time it takes to complete the questionnaire. Lastly, all completed questionnaires will be kept locked at the shelter so no one except the primary and associate investigators can see the responses. No information such as names or birth dates will be collected in order to maintain confidentiality.

This study has the potential to yield data that could potentially benefit a vast number of homeless children in the future. The potential to prevent poor health outcomes in a vulnerable population outweigh the risks encountered by the participants selected to participate in the study. Current participants will all be offered referral to the Mary’s Place Nurse Practitioner who can aid parents in obtaining medical insurance and a primary care provider so that treatment for bedwetting can be initiated. All participants will be referred to Seattle Children's Hospital Odessa Brown Children's Clinic (OBCC). The OBCC provides routine check-ups as well as care for complex medical conditions such as asthma, mental health issues, sickle cell, obesity and more.
References


APPENDIX A:
G*Power Sample Size Calculation
Central and noncentral distributions

Critical t = 1.6524

Test family
- t tests

Statistical test
- Means: Difference between two independent means (two groups)

Type of power analysis
- A priori: Compute required sample size – given α, power, and effect size

Input parameters
- Tail(s): One
- Effect size d: 0.35
- α err prob: 0.05
- Power (1-β err prob): 0.8
- Allocation ratio N2/N1: 1

Output parameters
- Noncentrality parameter δ: 2.4994999
- Critical t: 1.6524320
- Df: 202
- Sample size group 1: 102
- Sample size group 2: 102
- Total sample size: 204
- Actual power: 0.8012966
APPENDIX B:
Strength and Difficulties Questionnaire
Strengths and Difficulties Questionnaire P or T 4-10

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of the child's behavior over the last six months or this school year.

Child's name ..........................................................................................................................

Date of birth.................................................................

<table>
<thead>
<tr>
<th></th>
<th>Not True</th>
<th>Somewhat True</th>
<th>Certainly True</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considerate of other people's feelings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restless, overactive, cannot stay still for long</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often complains of headaches, stomach-aches or sickness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shares readily with other children, for example toys, treats, pencils</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often loses temper</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rather solitary, prefers to play alone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generally well behaved, usually does what adults request</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Many worries or often seems worried</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helpful if someone is hurt, upset or feeling ill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constantly fidgeting or squirming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has at least one good friend</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often fights with other children or bullies them</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often unhappy, depressed or tearful</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generally liked by other children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easily distracted, concentration wanders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nervous or clingy in new situations, easily loses confidence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kind to younger children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often lies or cheats</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picked on or bullied by other children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often offers to help others (parents, teachers, other children)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thinks things out before acting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steals from home, school or elsewhere</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gets along better with adults than with other children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Many fears, easily scared</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good attention span, sees work through to the end</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature .......................................................................................... Date .................................................................

Parent / Teacher / Other (Please specify):

Thank you very much for your help

© Robert Goodman, 2005
APPENDIX C:
Strength and Difficulties Scoring Guideline
Scoring the Strengths & Difficulties Questionnaire for age 4-17

The 25 items in the SDQ comprise 5 scales of 5 items each. It is usually easiest to score all 5 scales first before working out the total difficulties score. ‘Somewhat True’ is always scored as 1, but the scoring of ‘Not True’ and ‘Certainly True’ varies with the item, as shown below scale by scale. For each of the 5 scales the score can range from 0 to 10 if all items were completed. These scores can be scaled up pro-rata if at least 3 items were completed, e.g. a score of 4 based on 3 completed items can be scaled up to a score of 7 (6.67 rounded up) for 5 items.

Table 1: Scoring symptom scores on the SDQ for 4-17 year olds

<table>
<thead>
<tr>
<th>Scale</th>
<th>Item</th>
<th>Not True</th>
<th>Somewhat True</th>
<th>Certainly True</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emotional problems scale</strong></td>
<td>ITEM 3: Often complains of headaches… (I get a lot of headaches…)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 8: Many worries… (I worry a lot)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 13: Often unhappy, downhearted… (I am often unhappy…)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 18: Nervous or clingy in new situations… (I am nervous in new situations…)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 24: Many fears, easily scared (I have many fears…)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Conduct problems Scale</strong></td>
<td>ITEM 5: Often has temper tantrums or hot tempers (I get very angry)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 7: Generally obedient… (I usually do as I am told)</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ITEM 12: Often fights with other children… (I fight a lot)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 18: Often lies or cheats (I am often accused of lying or cheating)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 22: Steals from home, school or elsewhere (I take things that are not mine)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Hyperactivity scale</strong></td>
<td>ITEM 2: Restless, overactive… (I am restless…)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 10: Constantly fidgeting or squirming (I am constantly fidgeting…)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 15: Easily distracted, concentration wanders (I am easily distracted)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 21: Thinks things out before acting (I think before I do things)</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ITEM 25: Sees tasks through to the end… (I finish the work I am doing)</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Peer problems scale</strong></td>
<td>ITEM 6: Rather solitary, tends to play alone (I am usually on my own)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 11: Has at least one good friend (I have one good friend or more)</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ITEM 14: Generally liked by other children (Other people my age generally like me)</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ITEM 19: Picked on or bullied by other children… (Other children or young people pick on me)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 23: Gets on better with adults than with other children (I get on better with adults than with people my age)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Prosocial scale</strong></td>
<td>ITEM 1: Considerate of other people’s feelings (I try to be nice to other people)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 4: Shares readily with other children… (I usually share with others)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 9: Helpful if someone is hurt… (I am helpful if someone is hurt…)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 17: Kind to younger children (I am kind to younger children)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ITEM 20: Often volunteers to help others… (I often volunteer to help others)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
**Total difficulties score:** This is generated by summing scores from all the scales except the prosocial scale. The resultant score ranges from 0 to 40, and is counted as missing if one of the 4 component scores is missing.

**‘Externalising’ and ‘internalising’ scores:** The externalising score ranges from 0 to 20 and is the sum of the conduct and hyperactivity scales. The internalising score ranges from 0 to 20 and is the sum of the emotional and peer problems scales. Using these two amalgamated scales may be preferable to using the four separate scales in community samples, whereas using the four separate scales may add more value in high-risk samples (see Goodman & Goodman, 2009 Strengths and difficulties questionnaire as a dimensional measure of child mental health. J Am Acad Child Adolesc Psychiatry 48(4), 400-403).

**Generating impact scores**

When using a version of the SDQ that includes an ‘impact supplement’, the items on overall distress and impairment can be summed to generate an impact score that ranges from 0 to 10 for parent- and self-report, and from 0 to 6 for teacher-report.

**Table 2: Scoring the SDQ impact supplement**

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Only a little</th>
<th>A medium amount</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parent report:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties upset or distress child</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with HOME LIFE</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with FRIENDSHIPS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with CLASSROOM LEARNING</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with LEISURE ACTIVITIES</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Teacher report:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties upset or distress child</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with PEER RELATIONS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with CLASSROOM LEARNING</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Self-report report:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties upset or distress child</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with HOME LIFE</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with FRIENDSHIPS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with CLASSROOM LEARNING</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Interfere with LEISURE ACTIVITIES</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Responses to the questions on chronicity and burden to others are not included in the impact score. When respondents have answered ‘no’ to the first question on the impact supplement (i.e. when they do not perceive themselves as having any emotional or behavioural difficulties), they are not asked to complete the questions on resultant distress or impairment; the impact score is automatically scored zero in these circumstances.
Cut-points for SDQ scores: original three-band solution and newer four-band solution

Although SDQ scores can be used as continuous variables, it is sometimes convenient to categorise scores. The initial bandings presented for the SDQ scores were ‘normal’, ‘borderline’ and ‘abnormal’. These bandings were defined based on a population-based UK survey, attempting to choose cutpoints such that 80% of children scored ‘normal’, 10% ‘borderline’ and 10% ‘abnormal’.

More recently a four-fold classification has been created based on an even larger UK community sample. This four-fold classification differs from the original in that it (1) divided the top ‘abnormal’ category into two groups, each containing around 5% of the population, (2) renamed the four categories (80% ‘close to average’, 10% ‘slightly raised, 5% ‘high’ and 5% ‘very high’ for all scales except prosocial, which is 80% ‘close to average’, 10% ‘slightly lowered’, 5% ‘low’ and 5% ‘very low’), and (3) changed the cut-points for some scales, to better reflect the proportion of children in each category in the larger dataset.

Table 3: Categorising SDQ scores for 4-17 year olds

<table>
<thead>
<tr>
<th></th>
<th>Original three-band categorisation</th>
<th>Newer four-band categorisation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Borderline</td>
</tr>
<tr>
<td><strong>Parent completed SDQ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total difficulties score</td>
<td>0-13</td>
<td>14-16</td>
</tr>
<tr>
<td>Emotional problems score</td>
<td>0-3</td>
<td>4</td>
</tr>
<tr>
<td>Conduct problems score</td>
<td>0-2</td>
<td>3</td>
</tr>
<tr>
<td>Hyperactivity score</td>
<td>0-5</td>
<td>6</td>
</tr>
<tr>
<td>Peer problems score</td>
<td>0-2</td>
<td>3</td>
</tr>
<tr>
<td>Prosocial score</td>
<td>6-10</td>
<td>5</td>
</tr>
<tr>
<td>Impact score</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Teacher completed SDQ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total difficulties score</td>
<td>0-11</td>
<td>12-15</td>
</tr>
<tr>
<td>Emotional problems score</td>
<td>0-4</td>
<td>5</td>
</tr>
<tr>
<td>Conduct problems score</td>
<td>0-2</td>
<td>3</td>
</tr>
<tr>
<td>Hyperactivity score</td>
<td>0-5</td>
<td>6</td>
</tr>
<tr>
<td>Peer problems score</td>
<td>0-3</td>
<td>4</td>
</tr>
<tr>
<td>Prosocial score</td>
<td>6-10</td>
<td>5</td>
</tr>
<tr>
<td>Impact score</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Self-completed SDQ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total difficulties score</td>
<td>0-15</td>
<td>16-19</td>
</tr>
<tr>
<td>Emotional problems score</td>
<td>0-5</td>
<td>6</td>
</tr>
<tr>
<td>Conduct problems score</td>
<td>0-3</td>
<td>4</td>
</tr>
<tr>
<td>Hyperactivity score</td>
<td>0-5</td>
<td>6</td>
</tr>
<tr>
<td>Peer problems score</td>
<td>0-3</td>
<td>4-5</td>
</tr>
<tr>
<td>Prosocial score</td>
<td>6-10</td>
<td>5</td>
</tr>
<tr>
<td>Impact score</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note that both these systems only provide a rough-and-ready way of screening for disorders; combining information from SDQ symptom and impact scores from multiple informants is better, but still far from perfect.
APPENDIX D:

Purposive Sampling Tool
1.) How old is your child?

_______ Years

2.) What sex is your child?

_______ Male ________ Female ________ Other

3.) Does your child have any of the following medical conditions right now?

______ Urinary tract infection (burning, frequency, urgency)?
______ Diabetes (mellitus or insipidus)?
______ Obstructive Sleep Apnea (stops breathing at night)?
______ Severe constipation?
______ Encopresis (no control over bowel movements)?
______ Medical condition affecting the kidneys or bladder?
______ Spina bifida?
______ Daytime incontinence?
______ Pinworms?

4.) Does your child wet the bed at night?

_______ Yes ________ No

5.) If yes, how often does your child wet the bed? (Circle one)

_____ Every night
_____ Almost every night
_____ Few times a week
_____ Once a week
_____ Twice a month
_____ Once a month
_____ Less than once a month

6.) Has your child had a stretch of six months of dry nights in the past?

_______ Yes ________ No

7.) How long have you been homeless?

____________________________________________________________________________
APPENDIX E:

Information Sheet
Hello Parents of Mary’s Place Kiddos!

My name is Kaitlin Hartman. I am a Masters student at California State University San Marcos and a Registered Nurse at Scripps Health in San Diego, CA. I would like to invite you to be apart of a research study I am currently working on that will look at bedwetting and emotional stress levels of currently homeless children. Information that is learned from this study will help doctors and nurses provide better care to homeless children and hopefully result is fewer health problems as your children age into adulthood.

If you currently have a child/children between the ages of 5-12 years old and who are of normal development you will be asked several questions by a Mary's Place staff member about the bedwetting habits of your child/children. This is so you will be placed in the right group for the study. Once the staff members know what group you are in, they will give you a one-page questionnaire to complete. This will take about 10 minutes to fill out. This questionnaire will determine how much emotional stress your child has. Once you are finished, you will place the completed questionnaire in the locked drop box in the office you complete questionnaire in. The office will remain locked when not in use.

Risks are mild to moderate in this study and include:

1. You may feel distressed about reporting the stress levels of your child
2. It will take about 10 minutes to complete the questionnaire
3. You may be worried about the confidentiality of your responses

Safeguards to minimize risk include:

1. If at anytime during or after the study you experience an emotional response, please inform a Mary’s Place staff member who can refer you to the Mary’s Place Nurse Practitioner. She can provide you with emotional support and resources for counseling. Resources for parental support groups and parenting classes are available upon request at anytime from any MP staff member
2. Shelter volunteers are available to help with childcare during this time
3. All questionnaires will be kept locked at the shelter so no one except the researcher can see the responses. No information such as names or birthdates will be collected.

Your participation is entirely voluntary, and you may choose to not be in the study at anytime. There are no consequences if you choose not to participate. As an incentive to participate you will be given a $15 Walgreen’s gift card per questionnaire completed.

Contact Information: If you have any questions about this study I will be happy to answer them. You may reach me at 206.412.7656 or hartmo27@cougars.csusm.edu. If you have any questions about your rights as a research participant, you may contact the CSUSM’s Institutional Review Board at 760.750.4029.
APPENDIX F:
Purposive Sampling Targets
<table>
<thead>
<tr>
<th><strong>Group #1- Green</strong></th>
<th><strong>Group #2- Yellow</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeless School Age Children <strong>Without</strong> Secondary Enuresis</td>
<td>Homeless School Age Children <strong>With</strong> Secondary Enuresis</td>
</tr>
</tbody>
</table>
APPENDIX G:
Letter of Support
February 2nd, 2016

California State University, San Marcos
School of Nursing
333 S Twin Oaks Valley Road
San Marcos, CA 92078

Dr. Andera and Ms. Hartman,

On behalf of Mary’s Place, it is my pleasure to write a letter of support for the proposed research study: Secondary Enuresis and the Impact on Emotional Stress in a Population of Homeless School Aged Children. As you know, Mary’s Place works diligently to empower the lives of homeless women, children and families by providing shelter, nourishment, resources, healing and hope. It would be our pleasure to partner with you in your efforts to seek funding from the National Institute of Health in order to fund the proposed research study.

Ms. Hartman has been a valued volunteer for over 15 years and has a passion for the women and children of Mary’s Place. We would be honored to be included as the data collection site for this project. As homeless children constitute a vulnerable population, any knowledge that will help doctors and nurses better care for this population would be useful to us. We would like to offer the use of three shelter locations and knowledgeable staff that can aid research assistants in purposively sampling potential participants.

Thank you for including us in this potential study. We look forward to being a part of this exciting research and the potential results that can help impact the homeless families of Mary’s Place and the Seattle homeless community at large. Let us know if any further information is needed. We look forward to meeting with you soon.

With heartfelt thanks,

Liz McDaniel
Mary’s Place Director of Family Services

EMPOWERING HOMELESS WOMEN & CHILDREN RECLAIM THEIR LIVES
APPENDIX H:
IRB Application
Submission Procedures:
1. The researcher completes application
2. If the researcher is a student, their faculty advisor reviews application and completes signature field (last page) then returns the signed document to the student. Instructions for signing this document.
3. The researcher submits the application and accompanying documents at http://csusmirb.submittable.com

For assistance completing this form, please review the resources located at www.csusm.edu/irb.
If you have any questions, please refer to the IRB website or contact the IRB staff at (760) 750-4029 or irb@csusm.edu.

Please answer each section completely and as succinctly as possible. Use lay terms as IRB members have diverse backgrounds.

☐ Full Review ☑ Expedited Review

Proposed Start Date: May 2016

Project Title: Emotional Stress and the Impact of Secondary Enuresis in a Sample of Homeless School Age Children

Faculty/Staff Investigator:
Name: Susan Andera
Department/College: CSUSM School of Nursing
Phone Number: (760)750-7550
E-mail: sandera@csusm.edu
Date CITI Completed: April 3, 2015

Student Investigator: (if the student is the primary investigator)
Name: Kaitlin Hartman
Department/College: CSUSM School of Nursing
Phone Number: (206)412-7656
E-mail: hartmo27@cougar.s.csusm.edu
Date Training Completed: Mar 19, 2015
CITI: ☑ IRB Workshop:

Faculty Advisor Name: Susan Andera
Department/College: School of Nursing
Phone Number: (760)750-7550
E-mail: sandera@csusm.edu
Date CITI Completed: April 3, 2015

Checklist: Check which of the following items are included, as applicable:

☑ Certification of Human Subjects Protection training for each researcher and the faculty advisor.

☑ Letter/email of organizational support (Required if recruiting or interacting with participants at a specific site or through a specific organization outside of CSUSM.) If sent in an email, must include organization and position of the person who approved.

☐ Recruitment flier(s) or advertisements, scripts for radio or TV.

☑ Survey(s), questionnaires, or interview questions. If this is an online survey, please provide a pdf copy of the survey.

☑ Consent and/or child assent form(s) or information sheet(s). For online surveys, provide a pdf copy of the introduction/information screens.
  1. Provide unique forms for each population in your research.
  2. Use official letterhead or the masthead found in the samples on the IRB website
  3. Include contact information for the Researcher, faculty mentor, and IRB office.
  4. Be sure the information in your consent/information sheet MATCH your application information!

☐ Ed.D Students ONLY: Attach the required UCSD-CSUSM-JDP IRB Cover Sheet, Please be sure to sign the form, scan it, and submit it with your application as a separate document.

Revised 9/27/2013
1. Purpose of Project and Project Background

Describe your research question, including why the question is important, and how your study will attempt to answer it. Include how your literature review supports this with at least three citations. (Do not exceed one page—Use lay language.)

**Research Question:** The research questions for the proposed study is: “Do school age homeless children with secondary enuresis experience higher levels of emotional stress than homeless school age children without secondary enuresis?”

Secondary enuresis, bedwetting that resurfaces after a period of 6 consecutively dry months, is a medical condition theorized within the literature to be an indication of high levels of psychological stress within a child’s life (American Academy of Family Physicians, 2014). This phenomenon has not yet been studied within the context of homelessness, and as such, research is needed to explore the use of secondary enuresis as an indicator of high levels of emotional stress among the homeless pediatric population.

Identifying high levels of stress among vulnerable populations of children, such as those within the homeless community is of high importance. In 2012, the American Academy of Pediatrics (AAP) published the Eco-Bio-Developmental model (Siegel et al., 2012). This model illustrates that high levels of stress experienced in childhood can be detrimental to development. Simply stated, prolonged exposure to toxic stress and the hormones involved in the stress response, such as cortisol and epinephrine, can result in actual changes to a child’s brain. These changes can have a lasting negative impact on a child’s learning ability, behavior and development. Further research published in the Adverse Childhood Experiences (ACE) Study support the findings of the AAP’s new model (CDC, 2014). It has been found that children who are exposed to toxic stress in childhood have poor health outcomes such as increased rates of depression, suicide, cancer, and die earlier than those who experience less stress in childhood. As homelessness has been linked with a type of toxic stress itself, identifying children with the highest levels of stress should be a priority in order to prevent poor health outcomes such as early death and depression as homeless children mature into adulthood.

Families are among the fastest growing segment of the homeless population (National Coalition for the Homeless, 2013). The following study is to take place in Washington State’s King County. School districts within this county report that homeless students continue to increase yearly, with an over 20% rise from the 2008-2009 school year to the 2013-2014 school year (Office of Superintendent of Public Instruction, State of Washington, 2014). As the amount of homeless families continues to expand, more children are at risk for experiencing toxic stress and poor health outcomes in later life. The following study serves to look at two groups of homeless school age children, one group with secondary enuresis and one group without secondary enuresis. Parents of these children will fill out a questionnaire pertaining to emotional stress levels of their child, and then the mean emotional stress levels of the two independent groups will be compared. If emotional stress levels are found to be higher among homeless school age children with secondary enuresis, potentially strong implications exist among healthcare providers working with this population. Secondary enuresis can be used as a clinical indicator for identifying homeless children at the highest risk for poor health outcomes. Appropriate intervention for these children and families include referral to resources, parenting classes, stress reduction and connection to community support.

References:


### 2. Recruitment Procedures & Participant Population

A) List the expected number of participants for each population group included in this study.  

<table>
<thead>
<tr>
<th>Population Group</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>226 total</td>
</tr>
<tr>
<td></td>
<td>(113 participants per group)</td>
</tr>
</tbody>
</table>

B) Describe all characteristics relevant to being selection of participants. (e.g., demographics, ethnicity, vulnerabilities, etc.) Explain why you are targeting this specific population.

- Parents of homeless children ages 5-12 (24 hour bladder control is generally achieved at 5 years of age, this study is choosing to focus on school age children up to 12 years of age)
- Currently homeless (population of interest)
- Able to read and speak English (So that information sheet may be understood)
- Parents of developmentally normal children as evidenced by the absence of a development delay diagnosis

C) Indicate whether anyone might be excluded from participating and explain why.

- Parents with no children inside the specified age range 5-12. This study is meant to look at emotional stress levels in relationship to secondary enuresis for school age children only.
- Parents of children who have never achieved a satisfactory period of 6 months of dryness. This is to exclude children with primary enuresis as the focus of this study is to determine emotional stress levels of children with secondary enuresis.
- Parents of children with developmental delays. This is to due to the fact that children of normal development generally achieve 24 hour bladder control by 5 years of age. If children are diagnosed with a developmental delay, they may not follow this general time line.
- Parents of children with one or more of the following medical conditions: current urinary tract infection, diabetes insipidus, diabetes mellitus, obstructive sleep apnea, severe constipation, spina bifida, encopresis, chronic kidney disease, bladder disorder, day time incontinence and pinworms. As the purpose of this study is to look at secondary enuresis related to psychological stress, it is favorable to exclude children with a possible underlying medical cause for enuresis.

D) How will you find, recruit, or identify potential subjects? How will you select, from the volunteers, the final group of participants? Submit flyers, posters, or other oral or written invitations used to recruit potential participants.

Potential subjects will be recruited from three over night emergency homeless shelters operated by the nonprofit organization Mary's Place located in Seattle Washington. Three undergraduate Bachelors of Science in Nursing students from the University of Washington (UW) will be hired and responsible for purposively sampling 113 parents of children with secondary enuresis and 113 parents of children without secondary enuresis. Mary's Place staff members will aid with recruitment. Participation will be by word of mouth from the shelter staff only.

E) Will you be offering an incentive?
If yes, please explain procedure for any incentives that will be offered. Include how much participants must do to be eligible to receive credit.

A $15 Walgreen’s gift card will be offered to parents who complete the questionnaire. Parents may receive one gift card per questionnaire completed if they have multiple children within the specified age group (5-12).

   Explain for each population participating in your research.
   See the IRB web page on Informed Consent. See also Language Requirements.

A) How and when will you explain the study and the required elements of Informed Consent? Will you be doing this or will it be handled by a research assistant?

A waiver for informed consent is requested for this research study. Parents of homeless children usually desire to maintain confidentiality and as such, efforts to respect this will be made. An information sheet outlining the invitation to participate will be provided to each parent. Verbal consent will be obtained by trained research assistants only after the information sheet has been provided and all questions answered. If the research assistants are unable to answer questions, the associate investigator (AI) will be available by text, email and phone.

B) How much time will participants have to consider participating between the explanation described above, the receipt of the consent document, and the beginning of study?

Participants will be offered an opportunity to participate in the research study by research assistants who have been trained by the associate investigator. After reading the information sheet, participants may take as much time as they would like before consenting to be a part of the study. The data collection period is planned for a span of 4 months. At any point during this time frame, families can choose to participate.

C) If there are subjects under the age of 18, how will the study be explained to them? How will parental consent and child assent be handled?

This study requires that parents have a child between the ages of 5-12. In Washington state, underage mothers and fathers are considered emancipated minors, and therefore, no parental consent will be needed.

D) If you are requesting a Waiver of Consent or a Waiver of Documentation of Consent, explain why this waiver is needed. Outline alternative procedures for obtaining consent or providing study information (e.g., information sheet, introduction screen for web survey, etc.).

According to Liz McDaniel, the Director of Family Services at Mary’s Place, the homeless mothers and fathers they
serve generally wish to remain anonymous when able. Mary’s Place has communicated that if parents are requested to provide their name, it may be a potential barrier to recruitment. In order to accommodate this, an information sheet will be given to all potential study participants. If parents wish to proceed and fill out the questionnaire for the study, verbal consent will be assumed. Homeless mothers and fathers at Mary’s Place often present to the shelter after having left a potentially dangerous situation such as domestic violence. Many of these parents are involved with legal issues and may have a fear of authority, specifically child protective services and are trying their best to keep the family unit intact. Despite measures to keep consents confidential and protected, parents may chose not to participate under the fear their information may be used against them or provided to local authorities.

E) Indicate the primary language(s) of your participants. If any participants’ is not fluent and comfortable with English, explain how you will ensure that participants’ understanding of the activity for which they are giving consent.

Families at Mary’s Place speak a wide variety of languages including English, Spanish, Somali and Amharic. Every effort will be made to meet data collection targets with English speaking participants. However, if more participants are needed for the study, it is a possibility to offer the Strengths and Difficulties Questionnaire (tool used in this study to measure emotional stress) in Spanish and Somali as it has been published and provided for use in these languages. The use of an interpreter will be sought at this time if needed to publish informations sheets in these languages as well.

4. Procedures and Methodology
Provide descriptions of each distinct procedure and each population group.

A) Provide a step-by-step explanation of your research activities and methodologies that involve human subjects.
Be thorough.

Research Question
“Do school age homeless children with secondary enuresis experience higher levels of emotional stress than homeless school age children without secondary enuresis?”

Hypothesis
Based on a review of available literature, the following directional alternative hypothesis will be used:
“Homeless school age children with secondary enuresis will have higher parental reported emotional stress levels as compared to homeless school age children without secondary enuresis.”

Variables
For the purpose of this study, the dependent variable, secondary enuresis, will be defined as children of normal development who have started wetting the bed after a period of 6 consecutively dry months. This information will be obtained by verbally asking parents of homeless children prior to completing the questionnaire about emotional stress.

The independent variable, emotional stress, will be defined using the American Psychological Associations definition that states emotional stress is “the combination of anger or irritability, anxiety, and depression, the three stress emotions” (American Psychological Association, 2014). By measuring emotional stress, results will reflect symptomatic expressions of stress displayed by children.

Demographic variables including age, gender and length of time homeless will be collected in order to describe the population of participants being analyzed.

Design
In order to answer the above research question, a cross-sectional, non-experimental exploratory study will be conducted. An independent t-test will be used to compare the mean emotional stress scores of the two independent groups, homeless children with secondary enuresis and homeless children without secondary enuresis.
Sampling
The target population for this study consists of homeless school age children between the ages of 5-12 and located in Washington State’s King County. The Washington State Office of Superintendent of Public Education (2015) has published a report stating that there are currently 2,861 homeless students enrolled in kindergarten through sixth grade in King County.

The sample size for this proposed study was calculated using the software program, G*Power 3.1. The sample was calculated for an independent t-test using a medium effect size of 0.35, a predetermined alpha level of 0.05, and a power of 0.80. The necessary sample was calculated to be 102 for each group, arriving at a total sample size of 204 (Appendix A). A small to medium effect size was chosen based on the fact that no data was found within the literature regarding effect sizes for this research question. According to Polit and Beck (2012) health science studies with no prior research generally base the effect size between 0.20 and 0.40. Accounting for a 10% loss factor in the consequence of incomplete questionnaires, this would give rise to a total sample of 225, or 113 per group. Incomplete questionnaires will attempt to be used in data analysis by coding “somewhat true,” a numerical score of 1 on the 0-2 scale of the SDQ.

Potential subjects will be recruited from the three over night emergency homeless shelters. Convenience sampling over the course of 4 months will be used as the sampling method. Three undergraduate Bachelors of Science in Nursing students from the University of Washington will be hired and responsible for purposively sampling 113 parents of children with secondary enuresis and 113 parents of children without secondary enuresis. Mary’s Place staff members will aid with recruitment. Participation will be by word of mouth from the shelter staff only and all participants who are selected to participate with be given a fifteen dollar Walgreens gift card as an incentive.

Inclusion criteria for the proposed study includes: parents of homeless children ages five through twelve, currently homeless and residing in one of the three selected Mary’s Place emergency shelters, ability to read and speak English, and lastly, parents of developmentally normal children as evidenced by the absence of a developmental delay diagnosis. Exclusion criteria for the study will include: parents with no children inside the specified age range 5-12, parents of children who have never achieved a satisfactory period of 6 months of dryness, parents of children with developmental delays, parents of children with one or more of the following medical conditions: current urinary tract infection, diabetes insipidus, diabetes mellitus, obstructive sleep apnea, severe constipation, spina bifida, encopresis, chronic kidney disease, bladder disorder, day time incontinence and pinworms.

Instrument
The Strengths and Difficulties Questionnaire (SDQ) will be utilized to assess the emotional stress levels of children (Appendix B). British Psychiatrist Robert Goodman published the SDQ in 1997, and since that time the instrument has been translated into 40 languages and utilized in over 44 countries (SDQ, 2014). The SDQ is a brief, 25 question screening instrument that assesses emotional and behavioral symptoms in children. A three-point Likert-type scale is used to indicate how much an attribute applies to the child of the parent answering the survey (0= not true, 1 = somewhat true, 2 = certainly true). The SDQ produces five subscales: (1) conduct problems, (2) hyperactivity, (3) emotional problems, (4) peer problems and (5) pro-social behavior (SDQ, 2014). The scales can be interpreted individually or by combining the four subscales with exception of pro-social behavior for a total difficulties score referred to as total stress on the scoring guideline (Appendix D, E). The total difficulties (stress) score is scored out of a possible 40 points and will be used to answer the research question. The total difficulties score has a high affinity for predicting mental health problems in children (SDQ, 2014). The scale has two versions: (1) a parental report for parents of children ages 4-17 and (2) a self-report version for children ages 11-17. Version 1 of this instrument was selected due to the fact it is based on caregiver reported data and no involvement from the homeless children will be necessary. In addition, the scale is easy and quick to use as it takes on average 10 minutes to complete and is administered with paper and pencil.

The SDQ parental report version was utilized by the National Center for Health Statistics and Centers for Disease Control in 2001 as a part of the National Health Interview Survey (The National Child Traumatic Stress Network, 2012). The SDQ was administered to a large sample of 9,878 American children and this data is readily available for comparison. Reliability for the emotional subscale of the SDQ has been found acceptable according to Advanced Practice Nursing Research Standards published by Poilt and Beck (2012) with an average Pearson’s correlation of 0.72 (The National Child Traumatic Stress Network, 2012). The average Cronbach’s alpha representing
internal consistency for the parental report version is 0.71 (The National Child Traumatic Stress Network, 2012).

Data Collection and Management

Research assistants that are hired to aid with data collection and management will be required to complete the on-line CITI training. Research assistants will be trained the week of June 6th-10th, 2016. During this training period, research assistants will be educated about the proposed study, family homelessness, emotional stress of homeless children and secondary enuresis. Purposive sampling and inclusion criteria will be reviewed and each research assistant will practice and provide a successful return demonstration for proper use of the purposive sampling tool and demographic questionnaire created for this study (Appendix C). Research assistants will interview shelter residents and if deemed able to participate, correctly assign participants to either group one (parents of children with secondary enuresis) or group two (parents of children without secondary enuresis). Research assistance will provide those in group one with a questionnaire on green paper, and those in group two with a questionnaire on yellow paper.

Beginning June 13th, 2016, research assistants will start sampling parents at the three selected Mary’s Place overnight family shelters. Research assistants will be responsible for administering the information sheet and answering questions about the study (Appendix D). If participants have questions that are unable to be answered, the primary and associate investigators will be contacted. In addition, participants will have the number for California State University, San Marcos Institutional Review Board provided on the information sheet.

Research assistants will keep tally of how many parents they have surveyed in group one and two in order to keep track of sample targets, 113 per group (Appendix E). The associate investigator will communicate with research assistants by email every Monday, Wednesday and Friday during the sampling time frame to keep informed of purposive sampling targets. Parents may take as much time as needed to fill out the questionnaire and when completed will drop it into a locked drop box. Participants will be given the option to complete the survey in a staff office so that confidentiality may be maintained. Volunteers will be available to help with childcare for the 5-15 minutes is takes to complete the survey. Once the participant has completed the survey, the locked drop box will remain in a locked staff office.

Once the questionnaire is completed, research assistants will provide each participant with a $15 Walgreen’s gift card per questionnaire completed. Upon completion of the sampling period, the associate investigator will collect all questionnaires in person and transport them back to California State University, San Marcos where data entry, cleaning and analysis will take place.

Data Analysis

Data will be scored according to parental reported scoring guidelines provided by the SDQ (Appendix F). Using the statistical software package, SPSS IBM 22.0 for Mac, an independent t-test will be run to determine if the mean total stress scores of homeless children who experience secondary enuresis are statistically higher than homeless children without secondary enuresis. The t-test statistic will be compared to the predetermined alpha level of 0.05 to determine significance.

B) Where will the research will be conducted? Describe any risks or confidentiality issues related to using this location.

Setting

Data collection for the proposed research study will take place at three overnight emergency family homeless shelters located in Seattle, Washington, all of which are run by the nonprofit organization Mary’s Place. Mary’s place is a leading voice for homeless women, children, and families in emergent situations (Mary’s Place, 2016). In 2015 Mary’s Place was able to provide shelter to 763 children and 518 mothers and fathers. The organization currently operates six overnight family shelters, three of which are operated by volunteers and three of which are run by full time staff. The three shelters that will be used as data collection sites in this study will be the North Seattle Family Center, Jackson Street Shelter and the Emergency Family Shelter (EFS). The average length of stay for a family at a given shelter is 34.9 days, the average length of time it takes for transitional or permanent housing to
become available. The North Seattle Family Center can accommodate up to 140 family members per night, while EFS and Jackson street are slightly smaller and can accommodate 40-45 family members per night. In 2015 Mary’s Place saw 267 children ages 6-10 and 158 children ages 11-13. 
The risks to using a shelter environment for data collection are that the participants will be familiar with each other as it is a place of residence. Participants will be provided with a private area to complete the questionnaire so that others may not see specific responses selected on the questionnaire.

C) State the specific dates/timeframe in which you plan to conduct your research.

This study plans to take place over a year and half, beginning June 2016. Research assistants will be trained the week of June 6th-10th. Data collection will begin June 13th and terminate October 14th. If the desired sample sizes are not reached at this time, the sampling period may be extended an additional 2 months, to December 16th.

5. Participant Debriefing or Feedback.
   If deception is involved in your research, participants should be debriefed about the nature of the study as soon as possible.
   Participants should be given the opportunity to request a copy of the results of the study/your final report.

A) Describe any feedback or information you will offer participants.

Participants will be given the opportunity to learn about the results upon completion of the research study. A visual poster as well as a presentation will be provided for all former participants and currently homeless families of Mary’s Place once the study is published. Individual participants will not be contacted directly in order to maintain confidentiality.

6. Risks
   List risks for each population participating in the research and for each methodology.
   Please be sure the risks listed here match the risks mentioned in your consent letter or information sheets.
   Consider all risks very carefully. For more information on risks, see Examples of Risk.

A) Explain potential risks to your participants. Risks may be physical, psychological (e.g., strong emotional reactions to research questions), or inconveniences (e.g., time required).

1.) You may feel distressed or embarrassed about reporting the stress levels or admitting to bed-wetting habits of your child/children
2.) It will take about 10 minutes to complete the questionnaire
3.) You may be worried about the confidentiality of your responses

B) Vulnerable Subjects: Select which, if any, of the following vulnerable subjects will be involved in your research.

☐ Pregnant women, human fetuses, neonates (see Federal Guidelines, 45CFR26, subpart B)
☐ Prisoners (see Federal Guidelines, 45CFR26, subpart C)
☐ Children (see Federal Guidelines, 45CFR26, subpart D)
☒ Other Vulnerable Populations such as persons with cognitive disabilities, economically or educationally disadvantaged persons, etc.

C) Describe and special risks to vulnerable populations or your population profile

Homeless mothers, fathers and children are a vulnerable population due to the lack of resources available to them. These families must often struggle to have their basic needs met such as clothing, food, shelter and safety. Homeless
families have limited financial means and therefore may be taken advantage of. In addition to not having all basic needs met, these families often live in fear of having their families split up and separated by Child Protective Services due to lack of sufficient housing and access to running water.

D) List risks related to confidentiality of data. What could happen if an unauthorized person accessed the data? For instance, participant's identify or personal information could be known by others.

If any data was to be accessed inappropriately, no identifiable information will be collected to trace responses back to specific participants. No names, birth dates or other contact information will be collected in order to protect participants.

E) Will any personal identifying data be recorded? If so, what information will be recorded? (e.g., Social security number, drivers license number, student id, address, phone number, birth date, personal email address)

No identifying information will be needed or collected for accurate results in this study. Demographic information such as age, sex and length of time homeless will be collected.

7. Safeguard Procedures to Minimize Risks.

A) Please respond to each risk that you listed in #6 above. State how you will minimize each risk and protect confidentiality.

1.) If at anytime during or after the study you experience an emotional response, please inform a Mary’s Place staff member who can refer you to the Mary’s Place Nurse Practitioner. She can provide you with emotional support and resources for counseling. Resources for parental support groups and parenting classes are available upon request at anytime from any MP staff member
2.) Shelter volunteers are available to help with childcare during this time
3.) All questionnaires will be kept locked at the shelter so no one except the primary investigator can see the responses. No information such as names or birth dates will be collected.

B) How will you safeguard data? Where/how will data be stored? Who will have access to the data? How will access be limited?

Questionnaires will be placed in a locked drop box by the participant at each shelter location after completion. The box will not allow submissions to be retrieved once placed in the box. The locked drop box will be stored in a locked cabinet at each shelter location. This will ensure that shelter staff and outside parties do not have access to results. Only the research assistant at each location will have a key to the cabinet. At the end of data collection for the day, the office will be locked where the drop box and cabinet are. At the close of the sampling period, the primary investigator will collect all questionnaires and safely transport them back to California State University, San Marcos for data entry, cleaning and analysis.
C) List referrals and/or resources that may be offered if a participant has a strong emotional response or a physical injury (e.g., clinics or shelters, medical or psychological referrals).

1.) Mary's Place Nurse Practitioner: Can be reached at 206.621.8474 and is on site at Mary's Place day center Monday-Friday 0800-1600. The Mary's Place nurse can provide you with resources for counseling, help get you signed up for medical insurance, referrals to parenting classes and provide care for general medical conditions. Address: 1830 9th Avenue Seattle, WA 98101

2.) Atlantic Street Family Resource Center: Free parenting classes. Address: 5150 S. Cloverdale Place, Seattle WA 98118

3.) Fremont Community Therapy Project: The Fremont Community Therapy Project (FCTP) offers low-fee psychotherapy and psychological assessment to people whose financial resources make it difficult to get help for problems in their lives. Address: 3417 Fremont Pl. N. #319 Seattle, Washington 98103

8. Study Benefits

A) Discuss any potential individual and/or societal benefits. Note, often there is no direct benefit for the participants. However, the study may contribute to the literature and/or future research.

This study will not directly benefit the children of the participants in this study. However, data collected and analyzed from this study will aid healthcare workers in the identification of homeless children with high levels of emotional stress so that prompt intervention may be attempted and resources given in order to prevent poor health outcomes as homeless school age children mature into adulthood.

B) Do the benefits from this study exceed the risks to participants? Please explain.

This study has the potential to yield data that could potentially benefit a vast number of homeless children in the future. The potential to prevent poor health outcomes in a vulnerable population outweigh the risks encountered by the participants selected to participate in the study. Current participants will all be offered referral to the Mary's Place Nurse Practitioner who can aid parents in obtaining medical insurance and a primary care provider so that treatment for bedwetting can be initiated. All participants will be referred to Seattle Children's Hospital Odessa Brown Children's Clinic (OBCC). The OBCC provides routine check-ups as well as care for complex medical conditions such as asthma, ADHA, sickle cell, obesity and more. The clinic is located in downtown Seattle at 2101 East Yesler Way, Seattle, WA 98122. The number for the OBCC is (206)987-7210 (press 1 for appointments).

9. Researcher(s) qualifications and experience.

A) Briefly outline the primary researcher(s)'s qualifications and experiences relative to the subject of this research.

The primary investigator (PI) for the following study will be Dr. Susan Andera. Dr Andera is a Professor of Nursing at California State University, San Marcos. She is a Board Certified Nurse Practitioner with a background in pediatrics and family medicine, specializing in undeserved populations.

The associate investigator (AI), Kaitlin Hartman, is currently a Registered Nurse with 4 years of experience working with acute Level I trauma patients. She has been a volunteer within the homeless community for 15 years, specifically with the organization Mary's Place. Kaitlin is currently in her final year of the the Masters of Science in Nursing program at California State University, San Marcos. She has successfully completed a graduate level research and statistics course.
B) If this is a student project, include faculty sponsor's qualifications.

Please see Dr. Andera's qualifications above.

C) If using student or research assistants, please state how you will ensure that these assistants are trained and qualified to assist. All assistants should complete the CITI training on the protection of human participants in research.

Kaitlin Hartman has successfully completed graduate level classes in both research and statistics. As such, she is deemed competent to train undergraduate nursing students who will be responsible for data collection. The undergraduate nursing students will complete on-line CITI training prior to being considered.
Time to Review:

Expedited reviews are reviewed by one committee member with an average approval time of approximately three weeks. Questions from reviewers and approval paperwork will be sent to the email address provided on the application at the time of submission.

Full reviews are reviewed by the full committee at an IRB meeting. Approvals on full reviews may take 4-6 weeks. Questions from the committee and approval paperwork will be sent to the email address provided on the application at the time of submission. All "full review" applications are copied to Risk Management.

Electronic Submission:

1. Once the student has completed the application they should e-mail this application to their faculty advisor for review.
2. The faculty should sign in the signature field below and then return the application to the student. Instructions on how to sign this document can be found here.
3. The student will then submit through the online submission system at:
http://csusmirb.submittable.com

Faculty Signature __________________________