

Esculty Contact Informations

### SHP Student Interns for Research and Scholarly Activities Application of Project Proposal Form

#### Instructions:

Please fill out the form and return via email to Michele Sisco (mcoral@shp.rutgers.edu) by March 25, 2024. Please fill each box to the right of each required field. If you are sending attachments, please ensure your contact information is added to all your forms.

| Faculty Contact Inform | ation:  |
|------------------------|---|
| Date submitted:        | 3/3/24  |
| Faculty Name:          | Shankar Srinivasan                              |
| -                      |   |
|                        | Co-Faculty Ken Gill                             |
| Department/Program:    | Health Informatics/Psych Rehab                  |
| Telephone number:      | 9739724279                                      |
| E-mail:                | srinivsh@shp.rutgers.edu; kgill@shp.rutgers.edu |

## Designt Datailu

| Project Detail:  |  |
|--|--|
| Project Title: (56   | Comparative study of the effect of exercise in mitigating  |
| characters max)  | risk of depression in patients with chronic illnesses  |
| Hypothesis:  | Regular Exercise will reduce the risk of depression in patients with chronic illnesses.  |
| Description:<br>(Include design,<br>methodology, data<br>collection, techniques, data<br>analysis to be employed,<br>evaluation and<br>interpretation methodology<br>for research component) | Depression is one of the most common complications of<br>chronic diseases and it is estimated that around 9 to 25%<br>of all patients with chronic illnesses will suffer from<br>depression. Feelings of apathy, pain, fatigue typically<br>associated with chronic diseases increase the risk of<br>depression in such patients. Although regular exercise or<br>physical activity is recommended for otherwise healthy<br>patients with depression, there is, however no large-<br>scale, population-level study done yet to quantify the<br>effects of such exercise or physical activity in patients<br>with depression and chronic illnesses. In this study the<br>Behavioral Risk Factor Surveillance System BRFSS) data<br>will be employed to quantify the effects of<br>exercise/physical activity in various chronic illnesses such<br>as diabetes, heart disease, kidney disease and arthritis. A<br>Logistic Regression Model (with Depression as the<br>Dependent Variable) will be performed to determine the<br>odds ratios besides cross-tabulation analyses and such. |

|                                       | Results from this project can be used to determine<br>appropriate mitigating interventions personalized to the<br>chronic disease and to the demographic category of the<br>patient.   |
|---------------------------------------|--|
| Specific Student<br>Responsibilities: | <ul> <li>The methodology for the project is planned to be as follows:</li> <li>The student will download the BRFSS dataset for a set period (eg: 2018 – 2023)</li> <li>They will determine and isolate the appropriate variables for various types of descriptive, inferential and predictive analyses for the project outcomes.</li> <li>The student will prepare a project report on the analyses and the findings as also prepare a manuscript for a peer-reviewed journal.</li> <li>Note: Since the BRFSS uses complex sampling, the student should have a priori experience in performing analyses on such complex sample data and preferably experience with BRFSS data sets.</li> </ul> |
| Start / end date of project:          | June 1, 2024 to August 30, 2024  |

### Educational:

| WHAT OTHER<br>EDUCATIONAL<br>OPPORTUNITIES ARE<br>AVAILABLE TO<br>STUDENTS?<br>(e.g., journal club,   | Tutorial on conducting literature review using PubMed<br>Opportunity to publish one's findings in a peer-reviewed<br>journal  |
|---|---|
| seminars, clinic, rounds)<br>WHERE DO YOU PLAN TO<br>PRESENT OR PUBLISH<br>THE FINDINGS WITH THE<br>STUDENT?<br>(e.g., national or state<br>meetings, newsletter or<br>journal, SHP poster day) | SHP Research Day Poster presentation and manuscript<br>submissions to peer-reviewed journals. Peer-reviewed<br>Journals such as the <i>American Journal of Psychiatric</i><br><i>Rehabilitation</i> |

# CHECK ALL APPROPRIATE BOXES BELOW AND PROVIDE REQUESTED INFORMATION.

| This project is: | Clinical  | laboratory   | 🛛 behavioral | survey | educational |
|------------------|-----------|--------------|--------------|--------|-------------|
|                  | Other: pl | ease specify |              |        |             |

This project involves the use of human subjects (including chart review, retrospective studies and questionnaires).

|  | Pending |  |
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Approved IRB Protocol Number \_\_\_\_\_

*IRB approval must be obtained by June 2024* 

3/4/24

Signature of Department Chair

Date

OR-For internal use Form: (1) Reviewed date:\_\_\_\_\_ \_ Date processed on website: