Due on or before October 21 2016. Forms received after this date will not be posted on the website.

**SUPERVISOR INFORMATION**

Supervisor Name:  **Dr. Zahi Touma**

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Degree (MD, PhD, MD/PhD):  MD, PhD

Academic Rank:  Assistant Professor of Medicine

Field of Research:  Clinical Epidemiology, Systemic Lupus Erythematosus

Graduate School Appointment (IMS, IHPME etc..):  Institute of Medical Sciences and Institute for Health, Policy Management and Evaluation

Research Institute Affiliation (if applicable):  Clinician Scientist, Krembil Research Instite

Allocation of student contact time (# of hours per week you are available to the student for any concerns or to review progress):  5 hours per week

Do you have a student that you have already agreed to work with?  No, we are seeking a student.
PROJECT INFORMATION

Project Title: Improving Access to Depression and Anxiety Care in Systemic Lupus Erythematosus

Project Description (max 500 words):

Background: Systemic Lupus erythematosus (SLE) is a chronic multi-organ autoimmune disease, which is highly variable in patterns of organ involvement and prognosis. The nervous system is commonly affected by SLE and includes 19 neuropsychiatric SLE (NPSLE) manifestations. Mood disorders and anxiety and depression are part of the 19 manifestations. The American College of Rheumatology Ad Hoc Committee defines mood disorder as a “prominent and persistent disturbance in mood characterized by depressed mood or markedly diminished interest or pleasure in almost all activities or elevated, expansive or irritable mood”. Mood disorders are associated with a negative impact on health-related quality of life. Depression is a mood state, as indicated by feelings of sadness, despair, emptiness, discouragement, or hopelessness; having no feelings; or appearing tearful. It is amongst the most common NPSLE, with a prevalence ranging from 2.1% - 78.6%.

Several instruments have been developed and utilized to screen for mood disorders and anxiety disorder in the general population. However, none of these instruments have been validated in SLE and their interpretabilities are not well described in the literature and in particular in patients with lupus. Thus, it is not clear in the setting of SLE how to determine when a patient should be referred for a psychiatric assessment and follow-up using these instruments.

Aims: 1) Assess the diagnostic accuracy of Epidemiological Studies-Depression Scale (CES-D), Hospital Anxiety and Depression Scale (HADS) and Beck Anxiety Inventory (BAI) in the diagnosis of mood disorder and anxiety disorder in patients with SLE when compared to the assessment of the psychiatrist and 2) Study the association between mood disorder, anxiety and depression, cognitive dysfunction with quality of life and sleep pattern.

Study Methods:
Patient Assessment: Patients with a confirmed diagnosis of SLE will complete three self-administered questionnaires; CES-D, HADS and BAI. Patients who screen positive according to standardized cut-offs for either mood disorder or anxiety disorder on any of the questionnaires will be referred for the Mental Health Professional (MHP) interview.

MHP Interview: Concurrent construct validity of CES-D, HADS and BAI will be evaluated against the independent assessment of a psychiatrist. The independent structured MHP interview will involve a social worker/psychiatric nurse and a psychiatrist.

Sleep pattern and health related quality of life assessment: Patients will also be given the following questionnaires: SF-36, Lupus QoL and the Epworth Sleepiness Scale.

Cognitive function: Patient’s cognitive function will be assessed with the MoCA (Montreal Cognitive Assessment) test and they will complete the PDQ-20 (Perceived Deficit Questionnaire).

Analysis: Descriptive statistics will describe patient demographics and prevalence of mood disorder and anxiety disorder. Correlation analysis and receiver operator characteristic curves will be performed to test the convergent validity, interpretability and screening/diagnostic properties of CES-D, HADS and BAI questionnaires. Between groups (patients with mood disorder and/or anxiety disorder compared to patients without mood disorder and/or anxiety disorder) comparison will incorporate Chi-square, 2 sample t-tests and Mann-Whitney U. The quality of life, cognitive function (subjective and objective) and sleep pattern in lupus patients with mood disorder and/or anxiety disorder will be compared to patients without mood disorder and/or anxiety disorder.

If human subjects are involved, has Ethics been obtained?

☐ YES  ☐ NO  ☐ Application Submitted  ☐ N/A

Do you expect this work will be published within 20 months?
Student’s Roles / Responsibilities (Please be as specific as possible) Please indicate who will serve as the student’s direct report. (PI, PDF, PhD student, technician etc…):

The student will be involved in all aspects of the study including completion of background literature review and finalization of the study protocol and ethics submission. He/she will assist in recruitment of patients, obtaining consent and administering study questionnaires. She will collate results and assist in the study analysis. The student will be expected to submit abstracts of her work for presentation at local and national/international meetings and will prepare a manuscript.

The student will have the support of the Lupus Research Program team including research assistants, coordinators, the database manager, biostatisticians and will interact with other trainees at various levels.