*Faculty of Health*

**Integrative Health**

 **Task Force**

**Final Report 2014-2015**

**(Submitted April 30th 2015)**

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**1. INTRODUCTION**

The term “Integrated Health” is a kind of umbrella term which often refers to an array of alternative healthcare services and wellness practices which are integrated with conventional medicine or so-called mainstream healthcare services. The World Health Organization (WHO) provides a working definition of Integrative Health: “**The management and delivery of health services so that clients receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health system**” [1]. Among the challenges in pedagogic understandings in this area is to define the various approaches which characterize Integrative Health and identify the range of practices which constitute a continuum of healthcare services. Integrative health is often characterized as a holistic approach to medicine that is based upon a model of health and wellness, as opposed to a model of disease. Having said that, Integrated Health can mean different things to different people; there are people who use the term Integrative Health interchangeably with the term “Complementary and Alternative Medicine”, or CAM. In this document, we do not consider Integrative Health to be synonymous with CAM, rather we consider CAM therapies to fall under the broader Integrative Health (IH) umbrella. Indeed, consistent with this IH perspective, the recent and growing trends in healthcare are for CAM therapies to be used in tandem with mainstream healthcare services. See *Table 1* below for the differences between conventional and alternative approaches to health.

|  |  |  |
| --- | --- | --- |
| **Factor** | **Conventional Medicine** | **Alternative Medicine** |
| **Definition of health** | Normal function (i.e., absence of specific disease or dysfunction | Optimal balance, resilience, and integrity of the body, mind, and spirit and their interrelationships |
| **Concept of illness** | Disease based: Dysfunction of organs or biochemical processes | Symptom and individual based: Imbalance of body, mind, and spirit |
| **Concept of life force** | Life processes that involve physical and biochemical events and not a nonphysical life force  | A nonphysical life force that unites mind and body, interconnects all living beings, and is the underpinning of health |
| **Understanding of consciousness** | Results only from physical processes in the brain | Not localized to the brain; can exert healing effects on the body |
| **Method of treatment**  | External interventions (e.g. drugs, surgery, radiation therapy) | Support and strengthening of patients’ inherent capacity for self-healing |

**Table 1: Differences Between Conventional and Alternative Medicine**

**Source:** Rosenzweig S. Overview of Complementary and Alternative Medicine; 2010 [cited 2015 April 22]. Available from: <http://www.merckmanuals.com/professional/special-subjects/complementary-and-alternative-medicine/overview-of-complementary-and-alternative-medicine>

The words “Complementary” and “Alternative” are often used together but the terms represent different models of healthcare. *Complementary medicine* usually refers to the use of non-mainstream services and products alongside mainstream medicine, whereas *Alternative medicine* means using them instead of mainstream medicine. Despite the diversity of CAM therapies, there are similarities among CAM therapies, which include an emphasis on a holistic approach, the promotion of self-care and self-healing processes, the integration of mind and body, and the prevention of illness by enhancing the body’s vital energy or balancing energies in the body. The most comprehensive and reliable source of information on CAM therapies in North America are released by the National Center for Complementary and Integrative Health (NCCIH), which is an office of the National Institutes of Health (NIH). Founded in the early 1990s, NCCIH is the U.S. Federal Government’s leading agency that is responsible for defining and researching CAM therapies, and improves the field’s capacity to conduct rigorous research. The agency recently underwent a name change from “National Center for Complementary and Alternative Medicine” to “National Center for Complementary and Integrative Health” as announced by the NIH in December 2014. The new name is a more accurate reflection of the trends for continuum model of healthcare systems that provide a wider range of services delivered by inter-health professionals. The long-range goal of NCCIH is to enable patients, providers and healthcare systems to make better evidence-based decisions on how to best use complementary and integrative health therapies.

Similar to the United States, the growing use of complementary and alternative medicine among Canadians has led to a broader regulatory focus on CAM therapies by Health Canada. Many patients in Canada use CAM therapies in conjunction with conventional medical care. It was estimated that over 5 million Canadians aged 12 and older have used some form of alternative or complementary health products in 2003 [2]. Furthermore, use of complementary medicine has recently risen to between 70% to 90% of the populations in Canada, as well as in France, Germany and Italy [3-5]. CAM therapies often used in conjunction with conventional medical care include but are not limited to Acupuncture, Chinese Herbs, Chiropractic, Ayurveda, Healing Touch, Homeopathy, Massage Therapy, Meditation, Nutritional Supplements, Tai Chi, Qi Gong, and Yoga. The evidence-base for the efficacy of a number of CAM approaches and treatments has grown significantly over the past decade. The majority of patients with cancer and chronic pain seek out therapies that are outside of the conventional healthcare system’s standard of care. This is true for both Canada and the United States. Research has shown that integrative care therapies are increasingly used to reduce anxiety and stress, improve sleep and overall quality of life for patients undergoing standard cancer treatments [6,7]. Furthermore, the healthcare system in Canada is currently being reinvented in response to patient demand of enhanced integration and collaboration across healthcare disciplines [8]. While hundreds of CAM therapies can be used in tandem with mainstream healthcare, the critical factor is to pursue only those therapies proven to be safe, effective, and appropriate for patients.

There are many terms used to describe approaches to health care that are outside the realm of mainstream medicine as practiced in the United States and Canada. This report strategically adapts NCCIH’s key terms and classification of CAM therapies for the purpose of guiding the discussion on a few significant definitions related to CAM therapies [9]. NCCIH generally uses the term “complementary health approaches” when discussing the practices and products for various health conditions. The NCCIH classifies CAM therapies into two broad categories, or domains (**see Table 2 below**).

**A. Natural Health Products**

Therapies that fall under this category include the use of products found in nature, such as herbs, foods, and vitamins. Such products are marketed under dietary or herbal supplements.

**B. Mind and Body Practices**

Mind and body practices involve a variety of techniques designed to enhance the mind’s capacity to affect bodily function and symptoms. CAM therapies that fall under this category include; acupuncture, massage therapy, meditation, movement therapies, relaxation techniques, spinal manipulation, tai chi, qi gong, and various styles of yoga.

**C. Other Complementary Health Approaches**

Other therapies that don’t fit into either of the natural health products or mind & body practices as discussed above. Examples include Traditional Chinese Medicine, Ayurvedic Medicine, Homeopathy, and Naturopathy.

**Table 2:** **National Center for Complementary and Integrative Health classification of CAM practices**

|  |  |  |
| --- | --- | --- |
| **Category**  | **Definition** | **Example** |
| **1. Natural Products** |  Use of substances found in nature, such as herbs, foods, and vitamins | * Dietary supplements
* Herbal products
 |
| **2. Mind and Body Practices** |  A variety of techniques designed to enhance the mind’s capacity to affect bodily function and symptoms. | * ***Acupuncture***
* ***Meditation*** (i.e. mindfulness meditation, transcendental meditation)
* Massage therapy
* Movement therapies (i.e. Feldenkrais method, Alexander technique, Pilates, Rolfing Structural Integration, Trager psychophysical integration)
* Relaxation techniques (i.e. breathing exercises, guided imagery, progressive muscle relaxation)
* Spinal manipulation (chiropractic &Osteopathic)
* Tai Chi & Qi gong (from Traditional Chinese Medicine)
* Yoga
 |
| **3. Other complementary medical systems** | Built upon complete systems of theory and practice that evolved earlier than the conventional medicine | * **Homeopathic Medicine** (Western culture)
* **Naturopathic Medicine** (Western culture)
* **Traditional Chinese Medicine** (Chinese culture)
* **Ayurvedic Medicine** (Indian culture)
 |

**Source:** National Center for Complementary and Integrative Health; 2008 [cited 2015 April 22]. Available from: <http://nccam.nih.gov/health/whatiscam>

**1.1 Context**

Dean Skinner established the Integrative Health Task Force (IHTF) in Summer 2014 to investigate the potential of developing integrative health programs and activities within the Faculty of Health. Task force members have been closely following the important shift in healthcare model in Canada and believe that the term “integrative health” more accurately reflects the new landscape that is evolving around healthcare integration. In proposing the development of new programs, the IHTF focused on CAM approaches that are most promising for consideration in a curriculum. Specifically the challenge was to analyze the strategic opportunities that might exist for developing leading research, education and professional development programs in the field of CAM, including Acupuncture/Traditional Chinese Medicine (TCM) and Mindfulness Meditation (MM). The IHTF was also informed of the importance and timeliness of focusing on these areas, since new programs (for example at University of Toronto and McMaster University) were emerging. These other universities both house medical schools and seem to be moving primarily towards integrating CAM within a traditional medical model. In this context, it seems that a strategic opportunity and direction exists for the York University Faculty of Health to explore a broader health and wellness perspective which avoids direct competition and might possibly lead to collaborations. Further, in encouraging examination of a breadth of training recommendations of the IHTF, the Dean commented on the importance of reviewing all possible certification, diploma, professional development and professional graduate degree options at this time.

Equally important for the IHTF was the requirement that strategies and opportunities related to UG activities be aligned with sustainable processes for both revenue generation and revenue savings (our economic agenda).

**2. INTEGRATIVE HEALTH TASK FORCE**

**2.1 Mandate** – The functions influencing the activities of the IHTF were to:

1. Review the existing landscape and describe the growing use of CAM, especially in the GTA
2. Review and assess the research evidence (high level), and identify approaches that are most promising for Faculty of Health
3. Analyze the need and demand for programs and/or activities in three areas; a) ***Research*** aligned to basic science, person-clinical science, health policy & systems, population health (CIHR pillars); b) ***Education***: certificates, professional masters; and c) ***Professional Development*** aimed at current health professionals (alumni)
4. Identify potential education and research collaborators across a broad range of stakeholders from individuals to clinical sites/organizations
5. Assess potential success factors in securing programs and activities focused on integrative health leading to recommendations for the Faculty of Health

**2.2 Conceptual Model - definitions**

The IHTF reviewed a conceptual model of integrative health that was prepared by the NCCIH. The model was quite extensive and inclusive, which the IHTF agreed included a breadth of practices and services which taken together were beyond the narrow timeline and scope of the present mandate. As a result of preliminary review and discussion among Task Force members and key informants, specific elements of the NCCIH’s integrative health model were identified as the initial targets for our strategic considerations, which included Acupuncture and Mindfulness Meditation (MM). In reaching a Task Force consensus to examine in more detail these specific IH interventions, a number of factors were considered. Indeed, the Task Force felt from the outset that none of the diverse array of Integrative Health services could really be considered more important or more highly valued than others; however the potential for immediate impact and the need to identify evidenced-based/informed practice and market share were key influences upon the IHTF thinking and directions. As well, it was agreed that the final target areas chosen for more detailed examinations were ones which would allow for branding of the Faculty of Health programs/activities.

Following NCCIH’s integrative health model, Acupuncture and MM are defined as follows:

* **Acupuncture:** is a technique in which practitioners stimulate specific points on the body- most often by inserting thin needles through the skin. Acupuncture is one of the practices used in traditional Chinese medicine [10].
* **Mindfulness Meditation:** is a type of meditation that focuses on breathing to develop increased awareness of the present. The intent is to reduce stress and control emotion, in order to improve health [11]. Mindfulness Meditation is also known as Insight Meditation or Vipassana.

Both Acupuncture and Mindfulness Meditation have a substantial evidence-base of reasonable quality and are examples of CAM fields that fall under the classification of “Mind and Body Practices”, which have a history of widespread use within North American populations.

**2.3 Work Plan** – **Areas of Concentration**

In response to refining, and indeed defining, our conceptual model for the Faculty of Health, the IHTF agreed to undertake a literature review for the purposes of identifying the evidence-base for any proposed development of academic programs in Acupuncture and Mindfulness Meditation. Once this was completed then an analysis of the existing professional development activities/programs and a determination of our potential market focus and share was undertaken. Finally the importance of bringing immediate attention to the IH on campus and in particular within the Faculty of Health was considered to be a valuable asset at this time. To help with reputation building, it was agreed that a seminar/speakers series on IF should be developed.

Task Force members commissioned a review of the evidence and an analysis of the professional development opportunities. The research assistant was contracted to collect information about what is currently available in the GTA related to alternative medicine. It was agreed that using a Strength, Weaknesses, Opportunities and Threats (SWOT) framework or template in examining the data collected might have advantages when discussing recommendations. It was proposed and accepted that the academically focused activities (certificates/degrees) and the professional development programs and activities may require different approaches and factors to support decision making within the IHTF. Finally the IHTF members agreed that they, and the research assistant, would review the evidence, identify opportunities and make decisions regarding the approaches to pursue and factors to consider as the work evolved; and then based on their findings, the IHTF would make recommendations.

*Results of these activities are available in the appendices.*

**2.4 Membership**

* Angelo Belcastro (Chair of Kinesiology and Health Science) - task force co-chair
* Joel Goldberg (Chair of Psychology) - task force co-chair
* Dale Stevens (Psychology)
* Nazilla Khanlou (Nursing)
* Farah Ahmad (HPM)
* Paul Ritvo (KHS)
* Roni Jamnik (KHS)
* Tania Xerri (HLLN)
* Arun Chockalingam (Special Advisor to Dean)
* Peoney Chaing (TCM specialist)
* Mary Wiktorowicz (Associate Dean, Community and Global)

**3. OVERVIEW OF ACTIONS/RESULTS**

**3.1 Literature Search**

We conducted a literature review to scan the available evidence on Acupuncture and Mindfulness Meditation interventions for various health conditions. The initial literature search was conducted using the Cochrane Database of Systematic Reviews to identify systematic reviews on Acupuncture and Mindfulness Meditation. However, we were not able to locate any systematic review on Mindfulness Meditation in the Cochrane Database of Systematic Reviews. Alternatively, we searched PubMed to locate systematic reviews on Mindfulness Meditation. For each of the available systematic review, the following characteristics were recorded to summarize the key findings; author(s), article, year, country, type of study, objective of research, methods/data components, selection criteria, subjects, disorder/condition, main findings, adverse effects, and conclusion. We then graded the evidence using the GRADE approach (The Grades of Recommendation, Assessment, Development and Evaluation) to rate the **quality of evidence** for outcomes reported in the systematic reviews. The GRADE approach specifies four levels of quality based on the degree of confidence that an estimate of effect reflects the true effect of the intervention or service (**see Appendix 1; section 6.2 Systematic Review Reports**). There are factors that affect the quality level of a body of evidence such as limitation in the design and implementation of available studies suggesting high likelihood of bias, indirectness of evidence (indirect population, intervention, control, outcomes), unexplained heterogeneity or inconsistency of results, imprecision of effect estimates, and high probability of publication bias [12]. After using the GRADE process, the available evidence was then further translated into letter grades following the guidelines by the US Preventive Services Task Force (USPSTF) [13] and the Canadian Task Force on Preventive Health Care (CTFPHC) [14]. The guidelines prepared by the USPSTF and CTFPHC use a slightly different approach to translate the evidence into clinical recommendations, but both use a standardized language to assign different grades that reflect on the quality of the evidence, the net benefit of the implementation, and the overall recommendation about the use of each intervention or service. More details on the grade definitions used by CTFPHC and USPSTF are provided in the appendix (**see Appendices 2 & 3; section 6.2 Systematic Review Reports**).

**3.1.1 Reviewing the Research Evidence on Acupuncture**

We identified and reviewed a total of 43 systematic reviews on acupuncture through the Cochrane Library. The main results for the direction of evidence regarding Acupuncture are reported in a summary of findings table (**see Appendix 4; section 6.2 Systematic Review Reports**). Following the GRADE system, the quality of evidence for Acupuncture treatment for various health outcomes reported in the systematic reviews ranged from ***very low*** to ***moderate***. The quality of evidence in this practice area was mostly affected by limitations in the design of randomized clinical trials because most of the included trials were small, heterogeneous and had a high risk of bias due to inadequate concealment of allocation and blinding of outcome assessors. Although most of the included studies were of low quality, there was some evidence for certain health conditions where Acupuncture provides benefit to treatment; such as smoking cessation, dysmenorrhea, migraine prophylaxis, neck disorders, peripheral joint osteoarthritis, tension-type headache, irritable bowel syndrome, labor pain, chemotherapy induced nausea or vomiting, or both, and postoperative nausea and vomiting after anesthesia and surgery. Rating the strength of the evidence for most acupuncture studies using the recommendation guidelines by the USPSTF and CTFPHC showed that there was insufficient evidence to determine the efficacy of acupuncture for most health outcomes due to the overall low quality of methodologies employed in most studies. This makes broad implications for practice difficult to determine at this point in time. However, despite these limitations, Peoney Chiang highlighted a research paper on acupuncture that was not included in our original systematic review search, and this paper specifically highlighted a number of high quality randomized clinical trials to show that acupuncture is effective for the treatment of chronic pain. Please see paper by Vickers AJ et al (*Arch Intern Med.*2012;172(19):1444-1453) in the ***Recommended Readings*** under the ***References*** section. In summary, evidence in this practice area is still emerging and there is need for studies with adequate sample size that address the long-term efficacy or effectiveness of acupuncture.

**3.1.2 Reviewing the Research Evidence on Mindfulness Meditation**

We identified a total of 37 systematic reviews on mindfulness meditation through PubMed’s advanced search criteria. The following search criteria were applied a priori; Article Type**:** Systematic Reviews; Text Availability**:** Full Text; Publication Date: 2004/01/01 to 2014/12/31; Species: Humans; Language: English; Search Field: Title/Abstract; Search Keywords: Mindfulness Meditation. For the purpose of our review, we only included reviews that were specific to mindfulness meditation and excluded those that reviewed broader categories of meditation practices. The broader categories of meditation practices included mantra meditation, transcendental meditation, yoga, tai chi, and qigong. After the initial assessment of our inclusion criteria, we reviewed a total of 22 systematic reviews on mindfulness meditation. The main results for the direction of evidence on mindfulness meditation are summarized in **Appendix 5;** **section 6.2 Systematic Review Reports**. The quality of evidence for mindfulness meditation ranged from ***low*** to ***high***. The quality of evidence was mostly affected by limitations in study designs due to a lack of active comparison conditions, small sample size, heterogeneous target populations, lack of allocation concealment, and lack of consistency of outcome measures across studies. A major limitation was represented by the difficult to conduct meditations studies in a double-blind condition. Despite these limitations, the effect sizes were significant for mindfulness meditation with a moderate to large effect sizes in most studies. Specifically, the quality of evidence was high for the following health outcomes; reduction of stress and anxiety among physicians and medical students, treatment of psychological disorders in clinical patients (reducing anxiety, depression, and stress), reducing psychological distress of medical students, relapse prevention in patients with recurrent major depressive disorders, improving mental health and reducing symptoms of stress, anxiety, and depression among clinical and non-clinical populations, reducing stress, anxiety, mood disturbance, and improving quality of life among breast cancer survivors. Furthermore, the strength of the evidence for mindfulness meditation in the treatment of psychological disorders listed above was rated as **Grade B** using USPSTF recommendation guidelines and rated as **Strong** using the CTFPHC recommendation guidelines. In addition, task force members reviewed and discussed 2 research papers (which was included in our original systematic review search) that stood out with respect to highlighting the evidence on mindfulness meditation for the treatment of various psychological disorders. Please see papers by Khoury B et al (*Clin Psychol Rev.*2013;33:763-771), and Goyal M et al (*JAMA Intern Med.*2014;174(3):357-368)*,* which are listed under ***Recommended Readings*** under the ***References*** section. In summary, this area of research is relatively new and therefore more studies are needed to determine the long-term efficacy of mindfulness meditation programs in the treatment of psychological disorders.

**3.2 Environmental Scan**

**3.2.1 Gathering the Evidence for Academic Programs in TCM/Acupuncture**

**TABLE 1: TCM/Acupuncture programs offered in the United States**

|  |  |  |
| --- | --- | --- |
| **University** | [**Tufts University School of Medicine & New England School of Acupuncture joint program**](http://publichealth.tufts.edu/Admissions/Joint-MS-with-New-England-School-of-Acupuncture) | **Other colleges/private universities accredited through Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM)** |
| **Programs** | * **Master of Science in Pain Research, Education and Policy combined with Master of Acupuncture with the New England School of Acupuncture:** the aim of the program is to graduate students with a dual degree in Acupuncture and pain management
 | Approximately 50 colleges/ private universities in the USA have been accredited or are undergoing the accreditation process through the ACAOM. Examples include; * Academy of Five Element Acupuncture (since 1998)
* Academy of Chinese Culture and Health Science (since 1992)
* Acupuncture and Integrative Medicine College (since 1998)
* American Academy of Acupuncture and Oriental Medicine (since 1993)
* Other private TCM universities (i.e. Bastry University, Samra University of Oriental Medicine, South Baylo University, Yo San University of Traditional Chinese Medicine etc.)
 |
| **Target Audience** | **General Health Science Graduates** | **Diverse/various target audiences** |

**TABLE 2: Acupuncture programs offered in Canada**

|  |  |
| --- | --- |
| **University** | [**McMaster University- Health Sciences Continuing Education Department**](http://mcmasteracupuncture.com/program-details/continuing-medical-education-cme-credits/) |
| **Program** | * Contemporary Medical Acupuncture program: Certificate of 300 hours of Continuing Medical Education (126 hours in practical training & 174 hours of self-directed home study)
* Participants get a maximum of 126 continuing education credits under The Royal College of Family Physicians of Canada & The Royal College of Physicians and Surgeons of Canada
 |
| **Target Audience** | Inter-health professionals; physicians, dentists, chiropractors, physiotherapists, naturopaths, osteopaths, registered massage therapies, nurses, chiropractors, occupational therapists, and licensed acupuncturists |

**TABLE 3: TCM/Acupuncture programs offered in the United Kingdom**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **University**  | [**University of Westminster- Faculty of Science and Technology**](http://www.westminster.ac.uk/courses/subjects/complementary-medicine) | [**London South Bank University- Department of Allied Health Sciences**](http://www.lsbu.ac.uk/courses/course-finder/chinese-medicine-acupuncture-masters-m-mac) | [**Middlesex University- Department of Mental Health, Social Work, Inter-professionals Learning and Complementary Health**](http://www.mdx.ac.uk/courses/postgraduate/professional-practice-in-acupuncture) | [**University of Greenwich- International College of Medicine**](http://www2.gre.ac.uk/study/courses/ug/hea/acupuncture) |
| **Programs** | * Chinese Medicine Acupuncture (B.Sc. Honours & M.Sc.)
* Chinese Herbal Medicine (M.Sc.)
* Short courses (Continuing professional development): Tuina Chinese Massage
 | * Chinese Medicine Acupuncture (B.Sc. Honours)
* Chinese Medicine Acupuncture (M.Sc.)
 | * Chinese Medicine (M.Sc.)
* PGDip/ M.Sc. Professional Practice in Acupuncture
 | * TCM Acupuncture (B.Sc. Honours)
 |
| **Target Audience** | Post-secondary science students, TCM, Acupuncture practitioners, Inter-professionals | Post-secondary science students, inter-professionals (healthcare, social care, sciences) | TCM/Acupuncture practitioners, Inter-health professionals (GPs, Physiotherapists, Chiropractors, Osteopaths, Midwives, Nurses) | Post-secondary science students |

**3.2.2 Gathering the Evidence for Academic Programs in Mindfulness Meditation**

**TABLE 1: Mindfulness Programs offered in the United States**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **University** | [**UCSD- Center for Mindfulness Meditation**](http://mindfulness.ucsd.edu) | [**UCLA-Mindfulness Awareness Research Center**](http://marc.ucla.edu) | [**Massachusetts Medical School (Oasis Institute)**](http://www.umassmed.edu/cfm/Training/) | [**University of Pennsylvania-Penn Medicine for Mindfulness Meditation**](http://www.pennmedicine.org/mindfulness/) | [**Antioch University, New England**](http://www.antiochne.edu/teacher-education/mindfulness-for-educators-certificate-program/) |
| **Programs** | 1. **Certification Programs:** MBSR; MSC; MBCT Teacher Certifications
2. **Professional Training (Continuing Education Credits):** ATT; MBCP; MBCT; MBRP; MBSR; MECL1; MSC; Mindfulness for ADHD
3. **Public Programs:** Bridging the Hearts & Minds of Youth; MSC; mPEAK
 | 1. **Certification Programs:** Certification in Mindfulness (CFM)
2. **Professional Training (Continuing Education Credits):** MAP classes; Workshops
3. **Public Programs:** Online classes, Retreats, Drop-in-meditation, IPP, Youth Mindfulness, weekly community practice, C-space for UCLA employees
 | 1. **Certification Programs:** MBSR Teacher Training & Certification
2. **Continuing Education:** Workshops & other initiatives
3. **Professional Consultation**
 | 1. **Certification Programs:** MBSR Teacher Training & Certification
2. **Professional Development and Training:** Mindfulness in Healthcare (CE credits); Mindfulness in Education; Mindfulness at work and in leadership
3. **Advances Courses**
 | 1. **Mindfulness for Educators (Med)**
2. **Mindfulness for Educators Certificate Program**
 |
| **Target Audience** | **Inter-health Professionals**Psychology, coaching, nursing, teaching, physician, researchers, members of the general public |  **Open to the general public** | **Inter-Professionals**Medicine, psychology, educators, business, healthcare providers | **Inter-Professionals**Healthcare (psychologists, nurses, doctors), Educators, Work site leaders & employees | **Educators** |

**TABLE 2: Mindfulness Programs offered in Canada**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **University**  | [**University of Toronto: Faculty of Social Work, Continuing Education**](http://socialwork.utoronto.ca/conted/programs-and-workshops/certificates/mind/) | [**McMaster University: Program for Faculty Development**](http://fhs.mcmaster.ca/facdev/) | [**Queen’s University: School of Medicine**](http://meds.queensu.ca/education/postgraduate/wellness/mbsr) | [**McGill University: Programs in Whole Person Care**](http://www.mcgill.ca/wholepersoncare/medicalpractice) | [**University of Calgary: Faculty of Social Work**](http://www.ucalgary.ca/pd/mbsr) | [**York University, Psychology Clinic**](http://www.yorku.ca/yupc/group-programs.htm) |
| **Programs** | **Certificate Programs:*** Applied Mindfulness Meditation Certificate:Co-certified with Royal Roads University, Continuing Education
* Mindfulness and Compassion on End of Life Care(Under-development)
 | **Workshop:*** MBSR for Health Care Professionals
 | **Postgraduate Medical Education:*** Mindfulness Training program
 | **Workshop:*** Mindfulness based Medical Practice:physicians may get continuing medical education credits (MAINPRO-M1)
 | **Workshop:*** MBSR for helping professions: professional development credits (ACSW Continuing Competency)
 | **Group Programs:*** Mindfulness based Cognitive Behavior (MBCBT): also available online
* Mindfulness Meditation
* Healthy Student Initiative (HSI): mindfulness meditation sessions for students & staff
 |
| **Target Audience** | **Inter-Professionals**Psychotherapy, education, contemplative arts | **Healthcare Professionals** | **Medical students and postgraduate medical trainees** | **Physicians & Healthcare Professionals** | **Inter-Professionals**Healthcare, education, social service settings | Lay Audience |

**TABLE 3: Mindfulness Programs offered in the United Kingdom**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **University**  | [**Bangor University-Centre for Mindfulness Research and Practice (CMRP)**](http://www.bangor.ac.uk/mindfulness/) | [**University of Aberdeen-School of Education**](http://www.abdn.ac.uk/education/degrees-programmes/studies-in-mindfulness-pgcertpgdipmsc-407.php) | [**University of Exeter- Clinical Education Development and Research (CEDAR)**](http://cedar.exeter.ac.uk/programmes/pgmindfulness/) | [**King’s College London-The Institute of Psychiatry**](http://www.kcl.ac.uk/ioppn/depts/psychology/study/mscs/MSc-Mindfulness-Neuroscience-and-Clinical-Applications.aspx) | [**University of Oxford- Continuing Education Department**](http://oxfordmindfulness.org/train/) | [**University of Salford, Postgraduate Studies**](http://www.salford.ac.uk/pgt-courses/mindfulness-based-approaches-with-cbt-single-module) |
| **Programs** | **MSc in Mindfulness-Based Approaches (MBAs):*** Postgraduate Diploma & Certificate in MBAs
* Postgraduate Diploma in Teaching Mindfulness
* Public Program:8-weeks mindfulness course
 | **MSc studies in Mindfulness:** * Postgraduate Certificate in Mindfulness (PGCert, Year1)
* Postgraduate Diploma in Mindfulness (PGDip, Year2)
* Masters in Education (M.Ed, Year 3)
 | **Mindfulness Based Cognitive Therapies & Approaches:** * Postgraduate Certificate in MBCT/MBA (Year 1)
* Postgraduate Diploma in MBCT/MBA (Year 2)
* Masters in MBCT/MBA (Year 3)
* Supervised pathway training in MBCT/MBSR: flexible & adapted to individual needs
 | **MSc studies in Mindfulness:*** MSc Mindfulness: Neuroscience and Clinical Applications (Full-time, 1-year)
 | **Train to Teach Programs:** * Master of Studies in MBCT (part-time, 2-year)
* Foundations course in teaching MBCT and MBCP
* 5-day experiential course in MBCT
* Public programs in MBCT & MBCP
* Mindfulness Summer school
 | **Single Course:** * Mindfulness based Approaches with CBT- Single Module Course
 |
| **Target Audience** | **Inter-health Professionals & Lay Audience** | **Inter-Professionals:** healthcare, education, social service settings | **Inter-Professionals:** healthcare, education, social service settings | **Inter-Professionals:**Medicine, Neuroscience, education, social service settings **& Lay Audience** | **Inter-Professionals:** Healthcare, education, social service settings **& Lay Audience** | **Inter-professionals:** Health, social care, counseling, psychotherapy, education, human resources |

**3.3 Seminar Series – Partnerships and Collaborations**

The Faculty of health supported several presentations on campus to help consolidate the awareness and education related to integrative health. These included:

* “Integrating Traditional Medicine and Indigenous Knowledge into Primary Health Care”

By Dr. Sekagya, President, PROMETRA Uganda

September 23, 2014

* “Mindfulness Meditation: Scientific Assessment of Ancient Asian Wisdom”

By Dr. Paul Ritvo

October 28, 2014

* “Health without Boundaries: Rethinking Global Health”

Dr. Julio Frenk and Dr. Felicia Knaul

November 17, 2014

* “Ayurvedic Medical System - An Integrated approach for Systems Biology"

Dr. Ravishankar-Polisetty and “The Co-Innovation Network” Dr. Raju Goteti

December 4,2015

* “Chinese Medicine: Theory & Therapy”

Dr. Peoney Chiang

January 27, 2015

* “Tai Chi: An Intervention for Healthier Canadian Adults”

Dr. Hala Tamim

February 11, 2015

* “Health and Sustainability”

Dr. Tee Guidotti

February 25, 2015

* “Change We Can Believe In: The Affordable Care Act (ACA) and the Politics of US Health Care and Reform”

Dr. Claudia Chaufan

April 14, 2015

**4. Recommendations**

Building on its findings, partnerships and the current and future teaching and research strengths within the Faculty of Health, the Integrative Health Task Force (2014-2015) recommends the following:

1. That the Faculty of Health forms an **Integrative Health Curriculum Advisory Committee** to lead this ‘made at York/FoH’ solution

Rationale and Comments: Although the IHTF has provided evidence-based decision-making to the recommendations; for them to move forward and endure that the opportunities are not lost, the IHTF believes it essential to have a group oversee the development and implementation of the academic and professional development programs/courses. One of the first essential tasks is to complete a detailed inventory of all existing courses at York University.

1. That the Faculty of Health maintain and growth the **Seminar Series**

Rationale and Comments: The IHTF unanimously supported the inclusion of a regular seminar series. Moreover there is a high potential to build collaborative and cooperative ventures with existing activities on campus (in Health and Society; CRASP) and other like-minded agencies and organizations within the GTA.

1. Certificates

**C.1** That the Faculty of Health Introduce a Certificate in **Integrative Health in Mindfulness Meditation**

Rationale and Comments: there is a body of evidence in support of the practice; there are local faculty/experts to deliver the content, which is contained within existing courses across the Faculty; the high potential for links with internationally recognized integrative psychotherapy approaches through Psychology; and the variety of formats currently being used to deliver this topic on the York campus and in the GTA. The conclusion was that this could be developed through the Dean’s Office in a very effective and expeditious manner in the near future. This would be the first certificate to be developed starting 2015-2017 for a potential launch in 2017.

**C.2** That the Faculty of Health introduce a Certificate in **Integrative Health in Acupuncture**

Rationale and Comments: Several reasons where cited to support this initiative, however the expertise/evidence, which exists for most practices in this field, warrants further development at York University. In addition, the ‘controlled act’, regulatory nature of acupuncture may provide barriers to any offerings, as a result the IHTF suggestions that training in non-puncturing practices (e.g. acupressure, cupping, moxibustion etc.) are critical in any certificate offering to allow a portion of the training to be taken by the general public or clinicians for whom acupuncture is not within their professional scope of practice. The introduction of this certificate should follow quickly behind implementation of the certificate in Mindfulness Meditation.

**C.3** That the Faculty of Health introduce a Certificate in **Integrative Health in Movement Therapies**

Rationale and Comments: there are local faculty/experts to deliver the content, which is contained within existing courses across the Faculty; the high potential for links with local and global communities particularly through Kinesiology and Health Science; and there are a variety of formats currently being used to deliver this topic (Tai Chi, Yoga, etc) on the York campus and in the GTA. Although a distinct certificate is being recommended, the IHTF recognizes the synergy that such a certificate could have with the proposed certificate in Mindfulness Meditation; and suggestions the advisory committee review possible future linkages. One of the first essential tasks is to complete a detailed inventory of all existing courses at York University.

**C.4** That the Faculty of Health introduce a Certificate in **Integrative Health in Ayurvedic Medicine**

Rationale and Comments: Ayurvedic medicine - also known as Ayurveda - is one of the world's oldest holistic (whole-body) healing systems developed thousands of years ago in India and is still practiced by millions of people in India. It is based on the belief that health and wellness depend on a delicate balance between the mind, body, and spirit. The primary focus of Ayurveda is to promote good health, rather than fight disease. Although there is abundant knowledge of Ayurveda in the world literature, its scientific evidence is not well documented. In light of the proposed “Integrated Health” at York U, it is to the best advantage of York University, Faculty of Health to explore this ancient art of health and healing. At present there is no capacity within the Faculty of Health. Over the next few years the Faculty of Health could develop both internal strengthening and external collaboration to formulate a certificate program on ‘Integrated Health in Ayurvedic Medicine’.

1. That the Faculty of Health Consider the Development of **Professional Development Courses/Programs in Integrative Health**

Rationale and Comments: Creation of Professional Development Programs/Courses in Integrative Health – that focus on the strengths and opportunities within other professional groups such as Education, Social Work, etc… The development process must be inclusive and focus on IH and what it brings to these other professions. In addition to working with specific focus groups, all offerings via HLLN should bridge from the Faculty development of Certificates in Mindfulness Meditation and in Acupuncture (C1 and C2 in the recommendations), where these areas will be more extensively outlined and give guidance to HLLN development of courses/workshops. The timeline for offerings in HLLN would be in tandem with the development of C1 and C2. Not only would HLLN be in line with the academic offerings of the Faculty, this would give HLLN the opportunity to incorporate faculty members who could instruct in both, and benefit from the networking and marketing that the Faculty would undertake. Offerings will focus on open enrolment, short courses/certificates.

1. That the Faculty of Health Further Consider the Need for **Undergraduate Degree Offerings**

Rationale and Comments: It was clear that the IHTF did NOT envision the creation of an undergraduate degree program for several years – and not before the certificates have been introduced and well subscribed. The discussion of introducing an UG degree focused on the developed of a ‘Curriculum Network Model’ where the certificates could be separate and/or blended into a degree offering. This approach was viewed as coming from a position of strength in future years.

1. That the Faculty of Health Further Consider the Following Planning and Implementation Schedule

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Actions** | **2015-2016** | **2016-2017** | **2017-2018** | **2018-2019** | **2019-2020** |
| AdvisoryCommittee | Implementation |
| Seminar Series Update | Maintain and Grow |
| MindfulnessMeditation | Planning Implementation |
| Acupuncture |  | Planning Implementation |
| Movement Therapies |  |  | Planning Implementation |
| Ayurvedic Medicine |  |  |  |  |  |
| Professional Development |  | Planning Implementation |
| Degree |  |  |  |  | ? |
|  |

**5. REFERENCES**

**1.** World Health Organization. Integrated Health Services- What and Why?; 2008 [cited 2015 March 20]. Available from: <http://www.who.int/healthsystems/service_delivery_techbrief1.pdf>

**2.** Statistics Canada. Health Reports: Use of Alternative Health Care; 2005 [cited 2015 April 2]. Available from: <http://www.statcan.gc.ca/daily-quotidien/050315/dq050315b-eng.htm>

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**5.** Health Canada (prepared by Ipsos Reid). Natural Health Product Tracking Survey- 2010 Final Report; 2011 [cited 2015 April 28]. Available from: <http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/health/2011/135-09/report.pdf>

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**7.** Boon H, Stewart M, Kennard MA, Gray R, Sawka C, Brown JB, et al. Use of complementary/alternative medicine by breast cancer survivors in Ontario: prevalence and perceptions. *J Clin Oncol.* 2000;18(13)2515-21.

**8.** Canadian Nurses Association. Transformation to Integrated Care; 2013 [cited 2015 April 2]. Available from: <https://www.cna-aiic.ca/en/on-the-issues/better-care/transformation-to-integrated-care>

**9.** National Center for Complementary and Integrative Health. Complementary, Alternative, or Integrative Health: What’s In a Name?; 2008 [cited 2015 April 4]. Available from: <https://nccih.nih.gov/health/whatiscam>

**10.** National Center for Complementary and Integrative Health. Acupuncture: What You Need to Know; 2007 [cited 2015 April 4]. Available from: http://nccam.nih.gov/health/acupuncture/introduction

**11.** National Center for Complementary and Integrative Health. Meditation: What You Need to Know; 2007 [cited 2015 April 4]. Available from: <https://nccih.nih.gov/health/meditation/overview.htm>

**12.** Schunemann H, Brozek J, Oxman A. GRADE handbook for grading the quality of evidence and strength of recommendations. 2009.

**13**. US Preventive Services Task Force. Procedure manual; 2011 [cited 2015 April 15]. Available from: <http://www.uspreventiveservicestaskforce.org/Page/Name/procedure-manual>

**14**. Canadian Task Force on Preventive Health Care. Procedure manual; 2014 [cited 2015 April 15]. Available from: <http://canadiantaskforce.ca/methods/procedural-manual/>

**Recommended Readings**

***Acupuncture***

Vickers AJ, Cronin AM, Maschino AC, Lewith G, MacPherson H, Victor N, et al. Acupuncture for chronic pain: individual patient data meta-analysis. *Arch Intern Med.* 2012;172(19):1444-1453.

***Mindfulness Meditation***

Khoury B, Lecomte T, Fortin G, Masse M, Therien P, Bouchard V, et al. Mindfulness-based therapy: A comprehensive meta-analysis. *Clin Psychol Rev.* 2013;33:763-771.

Goyal M, Singh S, Sibinga EMS, Gould NF, Rowland-Seymour A, Sharma R, et al. Meditation programs for psychological stress and well-being: A systematic review and meta-analysis. *JAMA Intern Med.* 2014;174(3):357-368.

***Natural Health Products***

Barnes PM, Bloom B, Nahin RL. Complementary and alternative medicine use among adults and children: United States, 2007. *Natl Health Stat Report.* 2008;12:1-23.

World Health Organization. Traditional Medicine Fact Sheet; 2003 [cited 2015 April 28]. Available from: <http://www.who.int/mediacentre/factsheets/2003/fs134/en/>

Health Canada (prepared by Ipsos Reid). Natural Health Product Tracking Survey- 2010 Final Report; 2011 [cited 2015 April 28]. Available from: <http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/health/2011/135-09/report.pdf>

**6. APPENDICES**

**6.1. Faculty of Health’s IHTF – Dean’s Instructions to IHTF – June 18 2015**

**Integrative Health Task Force: Terms of Reference**

**One Definition:** *'Integrative Health means the integration of conventional, complementary and alternative health care options to address wellness, health promotion and the healing process. Integrative health focuses on the individual's wholeness encompassing body, mind and spirit as well as all aspects of lifestyle. It emphasizes the therapeutic relationship and makes use of all appropriate therapies - conventional, complementary and alternative.'*

**Aim**

To analyze the strategic opportunity for the Faculty of Health and York University to develop leading research, education and professional development programs in the field of Complementary and Alternative Medicine (CAM), including Acupuncture/Traditional Chinese Medicine (TCM) and Mindfulness Meditation (MM), and to recommend which (if any) areas should be considered for detailed proposal development, approval and implementation.

**Terms of Reference**

1. Environmental Scan: Describe the growing use of CAM, especially in the GTA
2. Review the research evidence (high level): what approaches are most promising
3. Analyze the need and demand for:
	1. Research: CIHR 4 pillars – basic science, person-clinical science, health policy & systems, population health
	2. Education: certificates, professional masters,
	3. Professional Development aimed at current health professionals (alumni)
4. Vision: how could this enhance the vision and strategic directions of the Faculty of Health and York University
5. Identify potential collaborators
	1. Clinical sites/organizations
	2. Research
6. Critical Success Factors
7. Recommendations

**Membership**

* Angelo Belcastro (Chair of KHS) - task force co-chair
* Joel Goldberg (Chair of Psychology) - task force co-chair
* Dale Stevens (Psychology)
* Nazilla Khanlou (Nursing)
* Farah Ahmad (HPM)
* Paul Ritvo (KHS)
* Roni Jamnik (KHS)
* Tania Xerri (HLLN)
* Chris Mellon (EE Coordinator)
* Arun Chockalingam (Special Advisor to Dean)
* Peoney Chiang (TCM specialist)
* Will Gage (Associate Dean: Research & Innovation)
* Susan Murtha (Associate Dean: Teaching & Innovation)
* Mary Wiktorowicz (Associate Dean: Community and Global)

**Timeline**

**July 1:** Task Force created: review and sign off on theTerms of Reference and Timeline

**July - October:** Analysis and Consultation

**November 1:** Interim Report submitted

**November:** Consultation and Feedback on Interim Report

**December 1:** Final Report presented to Dean Harvey Skinner

**6.2. Systematic Review Reports**

**Appendix 1: GRADE Approach: Assessment of the Quality of Evidence**

| Quality of Evidence | Definition |
| --- | --- |
| **High** | We are very confident that the true effect lies close to that of the estimate of the effect |
| **Moderate** | We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different |
| **Low** | Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect |
| **Very Low** | We have very little confidence in the effect estimate: The true effects is likely to be substantially different from the estimate of effect |

**Source:** GRADE Handbook: <http://www.guidelinedevelopment.org/handbook/>

**Appendix 2: Canadian Task Force on Preventive Health Care**

| **Grade**  | **Definition** | **Suggestions for Practice**  |
| --- | --- | --- |
| **STRONG** | We are confident that the desirable effects of an intervention outweigh its undesirable effects **(strong recommendation for an intervention)** *or* that the undesirable effects of an intervention outweigh its desirable effects **(strong recommendation against an intervention)** | Most individuals will be best served by the recommended course of action |
| **WEAK** | The desirable effects *probably* outweigh the undesirable effects **(weak recommendation for an intervention) or undesirable effects (weak recommendation against an intervention)** but uncertainty exists. The balance between desirable and undesirable effects is small, the quality if evidence is lower, and there is more variability in the values and preferences of individuals.  | Most individuals would want the recommended course of action but many would not. Clinicians must recognize that difference choices will be appropriate for different individuals, and they must support each person in reaching a management decision consistent with his/her values and preferences. Policymaking will require substantial debate and involvement of various stakeholders.  |

**Source:** Adapted from Grades of Recommendation, Assessment, Development, and Evaluation (GRADE) Working

**Appendix 3: The U.S. Preventive Services Task Force Grade Definitions**

| Grade  | Definition | Suggestions for Practice  |
| --- | --- | --- |
| **A** | The USPSTF recommends this service. There is **high certainty that the net benefit is substantial** | Offer or provide this service  |
| **B** | The USPSTF recommends this service. There is high certainty that **the net benefit is moderate** or there is moderate certainty that the net benefit is moderate to substantial | Offer or provide this service  |
| **C** | The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is **at least moderate certainty that the net benefit is small** | Offer or provide this service to selected patients depending on individual circumstances |
| **D** | The USPSTF recommends against this service. There is **moderate or high certainty that the service has no benefit or that the harms outweigh the benefits.**  | Discourage the use of this service  |
| **I** | The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. **Evidence is lacking, of poor quality, or conflicting, and the balance of benefits & harms cannot be determined**  | If the statement is offered, patients should understand the uncertainty about the balance of benefits and harms |

**Source:** Adapted from U.S. Preventive Services Task Force. Grade Definitions. <http://www.uspreventiveservicestaskforce.org/Page/Name/grade-definitions>

**Appendix 4: Summary of the Quality of Evidence and Recommendations for Acupuncture**

| Quality of Evidence | Disorder/Condition | Recommendation (USPSTF) | Recommendation (CTFPHC) |
| --- | --- | --- | --- |
| **HIGH** | No conditions identified | **A or B** (Persuasive or Suggestive) | **STRONG** |
| **MODERATE** | Smoking cessation; Dysmenorrhoea/period pain; Migraine Prophylaxis; Neck Disorders; Peripheral Joint Osteoarthritis; Tension-type Headache; Irritable Bowel Syndrome; Labour Pain; Chemotherapy induced nausea or vomiting, or both; Postoperative nausea and vomiting after anaesthesia and surgery | **C**(Inconclusive) | **WEAK** |
| **MODERATE** | Acute Stroke | **D**(Tentatively Negative) | **WEAK** |
| **LOW** | Acute/subacute or chronic low back pain; Traumatic brain injury (TBI); Autism Spectrum Disorders (children 3-18 yrs of age); Cancer pain; Chronic asthma; Depression; Epilepsy; Induction of labour; Insomnia; Lateral elbow pain; Mumps (children 1-15 yrs of age); Pain from endometriosis; Schizophrenia; Shoulder pain; Stress urinary incontinence; Stroke rehabilitation; Fibromyalgia; Assisted conception; Cocaine dependency | **I** (Insufficient Evidence) | **WEAK** |
| **VERY LOW** | Joint pain associated with RA; Attention deficit hyperactivity disorder (ADHD); Bell’s palsy; Dysphagia; Glaucoma; Hypoxic ischemic encephalopathy (HIE); Menopausal hot flushes; Polycystic ovarian syndrome (PCOS); Restless leg syndrome; Myopia; Acute ankle sprains; Uterine fibroids; Vascular dementia | **I** (Insufficient Evidence) | **WEAK** |

**Appendix 5: Summary of the Quality of Evidence and Recommendations for Mindfulness Meditation**

| Quality of Evidence | Disorder/Condition | Recommendation (USPSTF) | Recommendation (CTFPHC) |
| --- | --- | --- | --- |
| **HIGH** | No conditions identified | **A** (Persuasive) | **STRONG** |
| **HIGH** | Stress and Anxiety (among physicians & medical students); Psychological disorders (anxiety, depression, and stress in clinical patients); Stress management (stress, anxiety, mood status among medical students); Relapse prevention in patients with recurrent major depressive disorders); Mental health (among clinical and non-clinical populations); Quality of life, stress, anxiety, mood disturbance among breast cancer survivors | **B**(Suggestive) | **STRONG** |
| **MODERATE** | Maladaptive eating behaviors (binge eating and emotional eating); Telomerase activity; Age-related cognitive decline (i.e. attention & memory); Stress related outcomes (mood, mental health related quality of life, attention, substance use, eating habits, sleep and weight) among diverse clinical populations; Smoking cessation; Post-traumatic stress disorder (PTSD); Pain intensity; Low back pain; pain intensity and back related disability; Cancer Care; quality of life (QOL), mood distress; Cognitive functions (attention, memory, executive function) | **C**(Inconclusive) | **WEAK** |
| **MODERATE** | No conditions identified | **D** **(**Tentatively Negative) | **WEAK** |
| **LOW-VERY LOW** | Overall (physical & mental) quality of life among cancer patients; Pain and depression symptoms in patients with chronic pain | **I** (Insufficient Evidence) | **WEAK** |