#### What Makes This Research Cluster a Leader

Our researchers are leading the province in terms of citation impacts, and prestigious national and international awards and recognitions. Areas of world class excellence include:

**Assessment:** researchers explore all facets of pain. They form one of the world's largest research programs investigating ways of evaluating pain in people with severe dementia, a segment of the population undertreated and under-assessed for pain. Assessment approaches are widely cited, studied and used clinically world-wide.

**Bridging Gaps and New Concepts:** researchers are world renowned pioneers in the study of the co-occurrence of pain and posttraumatic stress disorder (PTSD). Years of research led to the development of the shared vulnerability model, which is the foundation for global research and treatment. Our researchers are leading the work that influences how fear of pain stemming from back pain is treated. Their consistent findings have led to changes in the diagnosis of PTSD.

Online Interventions: researchers are leading the way toward improved access to mental health care for anxiety, depression, and pain through Internet-delivered Cognitive Behaviour Therapy (ICBT). More than 100 community providers have been trained through this program. They oversee delivery of ICBT in Saskatchewan, and work collaboratively with provincial health providers and international researchers.

Resilience to Pain and Anxiety: researchers are delving into why some people are less vulnerable to anxiety and pain than others. In other words, they are exploring the basic building blocks of psychopathology. Beyond identifying building blocks, they are developing computer-based technology for global distribution aimed at reducing vulnerability and increasing resiliency to anxiety and pain.

## **Research Impact**

Our researchers present at conferences, assume academic and clinical positions across the country, and address shortages of doctoral level clinical psychologists within Saskatchewan. They:

- Attract interdisciplinary grants in excess of \$10,000,000 in Principal investigator funding, and equivalent amounts in co-investigator/collaborator
- Publish peer-reviewed articles in leading journals resulting in clinical psychology being one of the few health disciplines in the province with productivity above the world standard according to the Saskatchewan Health Research Foundation
- Attract provincial and national awards (e.g. career awards for research from Canadian Institutes of Health Research, Canadian Pain Society, Canadian Psychological Association), and recognitions for achievement and leadership (e.g. Canadian Academy of Health Science, Fellowship of the Royal Society of Canada)

## Critical Mass of Highly Qualified Personnel (HQP)

Faculty members have well established externally funded research programs, and junior faculty members have competitive emerging programs. Researchers are supported by a large, highly successful nationally accredited graduate program in clinical psychology that trains up to 50 HQP at a time. Researchers from other faculties (e.g. Kinesiology and Health Studies) have established strengths in this area.

## **Interdisciplinary Research**

The Faculty of Arts identifies health and well-being as a strategic research area, which has a strong interface with this cluster. The Faculty of Kinesiology and Health Studies identifies this cluster as representing a number of their strengths (e.g. research examining anxiety, stress and pain in athletes). The Faculty of Education identifies this cluster as being reflective of their work in teacher health/wellness and educational psychology/counseling. Related work (e.g. pertaining to injury) occurs within the Faculty of Nursing.

#### The Office of the Vice-President (Research)



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# **UNIVERSITY OF REGINA RESEARCH CLUSTERS 2016-2021**

Alignment with the Saskatchewan Plan for Growth

Research encompasses creative endeavours and other scholarly activities that foster new knowledge.

Critical to the University's success are its research clusters, which have been identified as a function of their critical mass (highly-qualified personnel), performance (impact) and distinctiveness:

| Anxiety, Stress & Pain | Water, Environment & Clean Energy | | Digital Future | Social Justice & Community Safety | | Integrated Human Health: Equity, Disease & Prevention |

# **Anxiety, Stress & Pain Research Cluster**

Our researchers are tackling complex and costly human problems, their clinical evaluation, manifestation, causal factors and their management, with the goal of improving functional ability and quality of life. Pain is both a physical and psychological experience that is influenced by the social environment, and parameters such as anxiety, depression and trauma. Pain is not only worsened by negative affect (e.g., depression), it also produces it. People with anxiety and stress-related disorders are more than 4 times more likely to develop a significant pain condition than those without. Thus, pain, anxiety, depression and stress can be understood as a vicious self-perpetuating cycle. Understanding, evaluating and managing this cycle is the focus of this cluster, and is key to improving quality of life for millions of people.

# UNIVERSITY OF REGINA'S ANXIETY, STRESS & PAIN RESEARCH CLUSTER ALIGNMENT WITH THE SASKATCHEWAN PLAN FOR GROWTH

The Saskatchewan Plan for Growth sets out the Government's vision for a province of 1.2 million people by 2020. The Anxiety, Stress & Pain Research Cluster aligns with 2 of the 6 Core Growth Activities identified by Government to foster economic growth and address challenges.

Growth Activity	How the Anxiety, Stress & Pain Research Cluster aligns with Growth Activity
Investing in the Infrastructure Required for Growth	<ul> <li>Seniors will represent 23% of the provincial population by 2036, and aging is accompanied by dementia, pain and falls. The Health Psychology Laboratory at the University of Regina is one of the world's most successful and largest programs in pain assessment in seniors with dementia. Research, conducted in close collaboration with the Regina Qu'Appelle Health Region, aims at strengthening the infrastructure for senior care. The value of this research is recognized internationally, with methodologies having been translated into other languages.</li> <li>Police, EMTs and firefighters are more than 3 times likely to develop trauma- and stress-related mental health conditions such as posttraumatic stress disorder. Public awareness and changes in organizational cultures mean that those affected will seek help sooner rather than later or never, thereby decreasing the economic and personal burden of their condition. Research pertains to early identification of those at risk for developing these conditions, as well as effective and easily accessible treatment.</li> <li>The University of Regina, in collaboration with larger SK health regions, is home to the largest internet-based psychotherapy program in Canada. Health region mental health workers are trained at the University Online Therapy Unit for Service, Education and Research (Online Therapy USER) and use this platform to offer services. Internet-based psychotherapy is shown to be as effective as face-to-face therapy.</li> </ul>
Growth Activity	How the Anxiety, Stress & Pain Research Cluster aligns with Growth Activity
Ensuring Ongoing Competitiveness of Saskatchewan's Economy	<ul> <li>Pain assessment and care is costly. The Health Psychology Laboratory at the University of Regina works with both clinicians and policy experts to optimize pain care practices (focusing on elderly) and delivery with minimal budgetary impact. Similarly, pain self-management approaches developed and studied by the researchers result in cost-savings for health care. Work in collaboration with the Regina Qu'Appelle Health region focuses on the implementation of cost effective pain assessment.</li> <li>The Anxiety and Illness Behaviours Lab is associated with increasing health and reducing the economic burden of those experiencing anxiety disorder and/or chronic pain. These conditions are associated with disability, work loss/absenteeism, high health care costs, and suicide. Research on the addition of physical exercise to psychotherapy for posttraumatic stress disorde and other anxiety-related conditions reveals increased effectiveness of psychotherapy, and reduced disabling symptoms with physical exercise alone. Such interventions reduce provincial health care costs, costs associated with disability and absenteeisr and suffering.</li> <li>The University's Online Therapy USER leads to cost-savings in terms of therapist time as psychotherapy clients work through structured modules on their own with asynchronous therapist support via electronic mail. Internet-based psychotherapy reaches clients in remote and rural areas who would otherwise have limited access to psychotherapy services.</li> </ul>