



Stockholm
University



Stress Research Institute

- a knowledge center in the area of stress and health

Stress Research Institute

The Stress Research Institute is a knowledge centre in the area of stress and health. The Institute is part of the Faculty of Social Sciences at Stockholm University, and conducts basic and applied research on multidisciplinary and interdisciplinary methodological approaches. The mission is to study how individuals and groups are affected by different social environments, with particular focus on stress reactions and health factors. The long-term objective of the research is to contribute to improved public health.

Swedish stress research has long been at the front line internationally, and the Stress Research Institute was first to produce facts of how psychosocial stress effects the stresshormones - in the mid-fifties newly identified - adrenaline och noradrenaline. The Institute also developed the Demand/Control/Support-model, which explains work-related stress. A lot of the pioneering research concerning women's typical reaction on stress was made at Stress Research Institute as well as research on stress and health related to sleep, tiredness, resilience, shift-work and the "burnout" syndrome. Furthermore, the Stress Research Institute has made several prominent studies of children's situation and living conditions and of stress related to migration, in particular in the case of post-traumatic stress, so-called PTSD.

Research methods

The main objective of the Stress Research Institute is to produce world-leading research on stress and resilience in a wider sense. This includes the whole chain of social and psychological structures, biological mechanisms and long-term health consequences. The target of the research is to study the relationship between psychosocial habitats and people's physiological responses with effects on both physical and mental health and to clarify the effect of prolonged excessive energy mobilization with the risks of ill health. The research at the Institute is mainly focused on biological indicators on long-term strain, e.g. the balance between mobilization of energy and anabolism and so-called disturbances of regulations. To understand the mechanisms behind these relationships, some studies specifically focus on the physiological stress reactions in the brain and heart as well as in endocrinology and immunological systems.

The research projects performed by the Stress Research Institute includes experimental studies in laboratory environment, studies under field conditions, and epidemiological surveys. The measurement methods used are mainly physiological and medical supplemented by psychological and sociological.

Research themes

The Stress Research Institute has a research division consisting of four research groups with various focus, representing the following research themes:

- working life - organization and variability and its impact on health, quality of life and sickness absence with a special focus on coping and leadership,
- epidemiology and stress associated with health and illness in different population groups,
- psychosomatic disease-mechanisms that arise in the interaction between the social environment and the individual,
- fatigue and restitution, with special focus on stress and burnout and the effects of shift work on sleep and wakefulness, and security,
- fatigue- and burnout conditions and methods of diagnosis and treatment of stress-related diseases,
- migration and integration impact on the psychosocial health of asylum seekers, refugees and other foreign-born,
- children and young people's psychosocial health, with a focus on stress, trauma and vulnerability.

"Developments in society over the past 20 years has meant a significant change in the work environment with high demands on individual responsibility, expectations of constant accessibility, flexible work-hours and fuzzy borders between work and private time. The result has been a significant increase of stress-related illnesses including fatigue and burnout syndrome, which has become a growing problem in more and more professions."

Professor Torbjörn Åkerstedt, Director, Stress Research Institute



Research Laboratory

The Stress Research Institute has its own psycho-physiological laboratory, which consists of two parts - a hormone laboratory and a sleep laboratory. The hormone laboratory makes essentially the analysis of cortisol and other hormones in saliva, and cooperation is underway with the hormone laboratory at the Department of Psychology at Stockholm University.

The sleep laboratory has access to electro-physiological equipment to record the variations in wakefulness, sleep patterns, heart rate, blood pressure and breathing. The laboratory works mainly with:

- electro-physiological parameters, sleep/wake-processes reflected in electroencephalography (EEG), heart rate variability and other important physiological signals, such as blood pressure respiration, oxygen saturation, electroocular (EOG) and electromyographical (EMG) recordings,
- neuropsychological testing of attention, memory processes and executive functions.

There are two noise- and temperature controlled bedrooms, two test-rooms and a fully equipped kitchen, wc, and shower. A large proportion of the electro-physiological recordings are carried out in the field.



Dissemination of knowledge

Stress Research Institute contributes to stress research by publishing a lot of original articles, reviews and popular science publications, which includes a series of scientific reviewed Stress Research Reports. These publications are disseminated to different target groups such as authorities, NGO's and professional groups. Knowledge dissemination also includes seminars, debates, courses, conferences - both national and international. Education efforts are primarily targeted at graduate students in the field of stress and psychosocial health.

Research cooperation

Besides carrying out research, the Stress Research Institute interacts with surrounding society and provide information about its activities, targeting other universities, research institutes, authorities and organisations, industry, and also the general public. The Institute also organizes public lectures and contributes to higher education for students. The researchers often participate in the media and the public debate about new research and comments on current issues.

Knowledge and research results that are produced in the Stress Research Institute is the result of a variety of ongoing projects, including several made in collaboration with other universities, government agencies and research institutions, in particular the Department of Psychology at Stockholm University, Karolinska Institutet, the Royal Institute of Technology, the Stress Research Clinic and Trans-Cultural Center at the Stockholm County Council.

The Stress Research Institute is also the coordinator for the "Swedish Stress Research Network" founded in 2001. The members - about 60 altogether - consists of different research groups in the field of stress and psychosocial health from an epidemiological and psychosomatic perspective, and related national authorities all around Sweden.

Organization

The activities of the Stress Research Institute started in the mid-sixties as the "Laboratory for Clinical Stress Research" within the Institution for Psychiatry at Karolinska Institute, that later became the "Institute for Stress Research". Eventually, in 1980 this institution was separated from KI and established as IPM, the National Institute for Psychosocial Medicine - a research authority under the Ministry of Health and Social Affairs. In 2007 IPM was integrated into Stockholm University under the name "Stress Research Institute", in order to emphasize the new function and tasks.

The Stress Research Institute is headed by a Managing Board and a Director, and has a total of 25 persons employed - 21 researchers/research assistants and 4 with administrative tasks. In addition, the Institute has 6 external co-workers for specific research tasks. The Institute is currently financed to 50% of a budgetary allocation from Stockholm University. External research grant funding represents 41% of the total revenue and outside activities and conference fees represent the remaining 9%. 60% of the employees are paid from the appropriation and the rest - mainly research assistants - are paid by external grants.

