



RESEARCH AREAS (KNAW-erkenningsaanvraag 1994)

Five research areas have been identified:

Area I. Mental function: acquisition, dysfunction, and compensation

Area II. Critical life events and mental health

Area III. Work, stress, and health

Area IV. Health behavior: determinants, consequence, and strategies of change

Area V. Psychology and psychobiological factors in adjustment to chronic illness

Area I. Mental Function: Acquisition, dysfunction and compensation.

Focus

Experimental and theoretical research in cognitive psychology studies human sensory and cognitive functions, such as perception, memory, language processing and thought. The aim of this research program is to further the understanding of the processes which underlie these functions in normal subjects, the development of these functions through the lifespan, and the disruption of these processes after neurological disease. Improved understanding should increase the precision and validity of the diagnostic arsenal, and the development of compensation procedures. Fundamental research into human cognitive functioning also forms the basis for ergonomic adaptations to man-machine interaction in the normal and clinical setting, and for insight into the formation of perceptions and mental representations of the body in relation to health and illness.

Past Performance

Research in this program area contributed to the understanding of the human perceptual apparatus (visual and chemical), the development and functional structure of the language and memory system, and the processing strategies people employ in cognitive tasks such as reading and problem-solving. Theoretical contributions led to an improved conceptualization of the role of mental representations (e.g. body schema) in human thought and action. Since De Haan became professor at the Department of Experimental Psychology, a strong research line in cognitive neuropsychology has been developed. This research has led to a better understanding of cognitive deficits after brain injury, resulting in a more detailed taxonomy of impairments, more focused theory-based assessment techniques and in rehabilitation programs. Experimental psychologists at Utrecht University also contributed to theory development concerning man-machine interactions, and these new insights were utilized for designing tools for practical applications.

Developmental psychologists in this research area elaborated a model of the general characteristics of situations in which competencies are acquired (so-called 'developmental tasks'). A 'behavioral management model' was formulated to serve as the basis for the construction of new diagnostic procedures for developing competencies. Within the context of Psychology & Health, a research program is being pursued which applies this model to health issues such as the development of lay theories of health and illness or developmental aspects in coping with stressful life events. Thus the contribution of developmental psychology to the school will focus on health issues.

Area membership:

Core members: dr. E.M.H. Assink, prof.dr. E.F.H. de Haan, dr. T. Ferguson, dr. R. van Hezewijk, dr. J.H.A. Kroeze, dr. A. Postma, dr. A. Tuiten, prof.dr. P.A. Vroon

Staff members: dr. J. Boom, dr. L. Elbers, prof. dr. P. Heymans, dr. J.J.F. ter Laak, dr. W.A. van Loon-Vervoorn, dr. H. van Oostendorp, dr. G. Panhuysen, dr. E. Singer

Area coordinators: Prof.dr. E.H.F. de Haan & prof.dr. P. Heymans

Key publications:

Assink, E.M.H. & J.v.d. Linden (1990) Designing Computer Aided Instruction. *Performance Improvement Quarterly*, 3, pp. 65-76.

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Ganzevles P.G.J. & J.H.A. Kroeze (1988) Adapation and cross-adaptation of hydrochloric acid and acetic acid mixtures. *Perception and psychophysics*, 43, pp. 331-338.

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Panhuysen, G. & A. Tuiten (1993) How mental and physiological mechanisms gear into one another. H. Stam, L. Mos, W. Thorngate & B. Kaplan (eds). Recent trends in theoretical Psychology, Vol. III, New York: Springer Verlag, pp. 283-293.

Panhuysen, G. (1994) The strength of weak points: the contribution of heuristics to theory development, illustrated by Freud's case. *Theory & Psychology*, 4, (in press).

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Area II. Critical life events and mental health.

This area is one of the major research areas in psychology and health at the participating universities. Therefore, it seemed advisable to divide it into two closely related research sub-areas, namely "Grief and Trauma" and "Suicide, depression and related conditions". The close collaboration between these sub-areas will not only be assured by the thematic affinities of the two research topics, but also by the fact that a number of researchers at Leiden and Utrecht will be associated with both sub-areas.

Focus

The focus of the program is on the understanding of the psychological processes which mediate the relationship between acute and chronic stressors on the one hand, and depression, physical health deterioration, and self-destructive behaviors on the other.

The sub-area of **Grief and trauma** focuses on the study of psychological and physical consequences of traumatic life experiences, and of the psychological and physiological processes which mediate this relationship. Previous research, including longitudinal studies conducted by the Utrecht and Leiden groups, has established the psychological and physical health consequences of loss and trauma, life events which count among the most stressful of all.

The general framework shared by researchers in both sub-areas is cognitive stress theory. This theory has been adapted by the Utrecht group to increase its relevance to these particular stressful life events. For example, in the bereavement area, researchers are working within the framework of a newly developed "Dual Process Model of Coping with Loss". Emphasized in the many studies on trauma is the analysis of normal and healthy processes of coping with extreme stress events. While the guiding force behind the program is clearly fundamental, application is a major concern: the theory has implications for changing principles of counselling and therapy. A newly developed scale should facilitate the identification of high risk subgroups and individuals, and the researchers themselves (some of whom are also trained therapists) have close connections with national organizations that interact professionally (e.g. funeral directors) or intervene (e.g. following disasters) with bereaved or traumatized people.

The sub-area **Suicide, depression, and related conditions** focuses on the understanding of psychosocial determinants of depression and self-destructive behaviors. Suicide is a major cause of death among the adolescents and young adults (among the three leading causes of death) and also among the elderly (in absolute numbers and expressed per 100,000). Suicide attempts pose a considerable drain on resources in both primary and secondary health care. Depression is a major public mental health problem which affects a substantial part of the general population.

The program aims to study the psychological and psychosocial determinants of depression and selfdestructive behaviors to provide a scientific basis for treatment and prevention. The factors are being studied from a life-span developmental point of view, which takes into consideration multiple causes such as personality traits, childhood experiences, coping styles, social support, vulnerability factors, conditions of physical and social impairment, and feelings of competence versus feelings of hopelessness and helplessness. The theoretical approach combines a social learning perspective with a coping paradigm, taking into consideration life-span development of personality formation. Psychiatric comorbidity and biochemistry as well need to be included in a biopsychosocial approach.

Past Performance

In the sub-area of **Grief and trauma**, researchers from the Department of Social and Organizational Psychology at UU (W. Stroebe, Schut) will continue their close collaboration with researchers from the Utrecht Department of Clinical and Health Psychology (Kleber, Van den Bout, M. Stroebe). The basis of the research program on grief was provided by two longitudinal studies on the impact of partner loss on mental and physical health. One of these studies was conducted by Schut under the supervision of Van den Bout. The other study was conducted in Germany by Wolfgang and Margaret Stroebe. These studies have led to international publications and presentations at conferences, and (through comparison of the data sets) contributed significantly to the development of the current theoretical ideas and research plan of the group. International connections for (ongoing) research are well-established (e.g. Rime in Belgium and Pennebaker in the USA, for the research on social sharing; Hansson in the USA, for research on bereavement in the context of the family; Lund, in the USA, for comparative research on loss in the elderly).

Coping was also investigated in studies on the psychological and psychobiological aspects of homesickness (M. & W. Stroebe, Schut, Vingerhoets, Van Heck, Eurelings-Bontekoe). This latter research is directed at personal and situational factors, including critical life events, that play a role in the etiology of homesickness. Furthermore, the research scrutinizes the manifestations of homesickness, the long-term effects of chronic homesickness (e.g. in refugees and asylum seekers), and the quality of coping strategies employed in dealing with homesickness.

Research on trauma has focused on major societal problems such as the growing problem of physical and sexual assaults, as well as the psychological consequences of acts of war, nuclear disasters and refugees. Just recently comprehensive studies on the long term health problems of World War II victims and their children have been completed (Kleber). Another major focus of attention in both research and intervention is work-related trauma (e.g. the after-effects of violence in banks, police departments). This has resulted in a general paradigm on traumatic stress, coping and risk factors that has been utilized widely in intervention programs. This research which has also been published internationally has been conducted in close collaboration with the Institute of Psychotrauma (Kleber). A project aimed at the construction and validation of an instrument for the assessment of Quality of Life in refugees has been started in close cooperation with the World Health Organization (Van Heck).

In the sub-area **Suicide, depression and related conditions** two groups of researchers will continue a long-established collaboration. In Leiden there is a tradition of fifteen years of fundamental and applied empirical research into depression and suicidal behaviour resulting in numerous publications on epidemiology (Diekstra, Van

Egmond, Kerkhof), on suicidal behavior among the elderly (Diekstra, Kerkhof), on suicidal behaviour in detainees (Kerkhof). Numerous articles and book chapters have been published on topics dealing with primary and secondary prevention of suicidal behaviour (Diekstra, Kerkhof), the improvement of services (Diekstra), the management of suicide attempters in general hospitals (Kerkhof) and in general practice (Van Egmond). There is also a link to research on the consequences of suicide bereavement, as compared with other types of loss (Kerkhof, Diekstra). The Utrecht group headed by Van Son will continue their research, combining social learning theory and coping to stress-approaches to depression with an emphasis on attribution processes as causes and characteristics of depression (Van Son, Van den Bout).

Area membership:

Core members: dr. J. van den Bout, prof.dr. R.F.W. Diekstra, dr. M. van Egmond, prof.dr. G.L. van Heck, dr. A.J.F.M. Kerkhof, dr. R.J. Kleber, dr. G.J. Methorst, prof.dr. M.J.M. van Son, dr. M.S. Stroebe, prof.dr. W. Stroebe, dr. A.J.J.M. Vingerhoets

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Area coordinators: prof.dr. R.F.W. Diekstra & prof.dr. M.J.M. van Son

Key publications:

Bout, J. van den & J.M. Havenaar (1994) Radiation-attributed health problems in areas contaminated by the Chernobyl disaster: the role of cognitive stressors. In: R.J. Kleber, C. Figley & B. Gersons (eds). *Beyond trauma: cultural and societal dynamics*. New York: Plenum (in press).

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Area III. Work, Stress and Health.

Work-related stress and ill-health constitute a major social problem in today's society. For instance, it is estimated that in the Netherlands 30% - 50% of workers' absenteeism is caused by psychosocial problems at work. Moreover, an increasing number of workers - at present over 35% - have become eligible for work disablement benefits because of mental disorders (e.g burnout). The tremendous social and economic costs of work-related stress and ill-health recently stimulated the introduction of the Dutch Work Environment Act. The purpose of this Act is to create a healthier work environment by reducing psychosocial risks at work. These recent social and legal developments have created a new professional field for psychologists who are specialized in the relationship between work, stress and health.

Focus

The focus of the research program is on the psychological processes in the development of work-related stress and illness. Although studies on occupational stress have identified a number of psychosocial risk factors, theoretical understanding of the underlying psychological processes is still very limited. The research program that is grounded in social psychological theory and in personality theory, tries to fill this gap. More particularly, negative individual reactions like burnout, absenteeism and dissatisfaction are considered as withdrawal behaviors that result from social comparison and social exchange processes at work. By withdrawing - either behaviorally (absenteeism) or psychologically (burnout) - the employee restores equity in his or her relationship with the organization. Furthermore, the role of individual coping resources in the development of withdrawal reactions is investigated at four levels: task level (i.e. autonomy), interpersonal level (i.e. social support), organizational level (i.e. leadership) and individual level (i.e. personality). The research program mainly includes (longitudinal) field studies in different kinds of organizations (human services organizations, like schools and hospitals; profit organizations, such as construction and computer firms). In addition, investigations are conducted in settings where no sharp boundaries exist between work and private life (e.g. farming and the work-home interface). Although most of the research in the program is fundamental in nature, part of it is applied (i.e. the implementation and evaluation of stress prevention programs) and part concerns the evaluation of the implementation of total health promotion programs. This area includes the study of organizations and the effects of resulting work practices and job contents on stress risks, absenteeism and withdrawal of employees as well as research on organizational change.

Past performance

Two projects concentrated on psychometric issues in the field of stress and coping and have yielded widely used self-report instruments: the Utrechts Coping List (Schreurs) and the Dutch version of the Maslach Burnout Inventory (Schaufeli). In another methodological project a sophisticated linear structural model has been developed to assess the waxing and waning of psychological distress over time (Schaufeli). A couple of longitudinal studies investigated non-work stress, that is the psychological consequences of unemployment among school-leavers and among long-term unemployed (Schaufeli). The most substantial research contribution relates to the study of burnout in human services professionals (e.g. nurses, physicians, prison guards, teachers). This has resulted in a number of international publications with co-authors from various countries like France, Germany, the United States, Poland, and Spain (Schaufeli). Part of the burnout research program, notably with Poland, was funded by TEMPUS. Specific applications (i.e. the development and evaluation of burnout prevention programs) were granted by the Dutch Ministry of Social Affairs, the Home Office, and the Social Security Council for the Human Services (BVG) (Van Gorp, Van Dierendonck). Some fundamental work on social comparison and social exchange processes was carried out; these processes were also investigated in relation to absenteeism and burnout (Schaufeli, Van Dierendonck, Van Gorp). Research on coping resources has concentrated on the role of personality, autonomy, leadership, and social support.

Recent research at RUL aimed to develop and implement total worksite health promotion programs. For example, a quasi-experimental study by Maes, Kittel, Scholten and Verhoeven was a health promotion project, developed by the Leiden Health Psychology Department, with support of the Dutch Ministry of Health and the Ministry of Social Affairs. In another project the effects influencing eating behavior in work settings has been investigated. This project, by Maes, Scholten and Van der Doef, combined an information program on nutrition with promotion of healthy eating habits.

Area membership:

Core Members: dr. F. Kittel, prof.dr. S. Maes, prof.dr. W.B. Schaufeli, prof.dr. W. Stroebe

Staff Members: prof.dr. P.T.W. Hudson, dr. H.F.M. Lodewijkx, prof.dr. F.D. Pot, dr. H. Steensma, prof.dr. W.A. Wagenaar

Area coordinator: dr. F. Kittel & prof.dr. W.B. Schaufeli

Key publications:

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Area IV. Health behavior: Determinants, consequences and strategies of change.

There is a great deal of empirical evidence that a substantial proportion of the mortality from the leading ten causes of death in industrialized countries is due to modifiable life-style factors such as smoking, alcohol abuse, overeating, dangerous sexual practices or lack of exercise. It is also well-known that life-style factors play an important role in the development of many chronic diseases, such as coronary heart disease and many forms of cancer.

Focus

The focus of this program of research is on the primary prevention of illness through the study of the determinants of health impairing behavior patterns, of processes that mediate health consequences and of strategies of change. This type of health research offers a challenging task to social psychologists, whose main research area for decades has been the study of determinants of behavior as well as of processes of persuasion and of attitude/behavior change. It also offers the possibility of close collaboration with clinical psychologists. With behaviors such as excessive eating, smoking, and drug abuse, individuals may need therapy to enable them to act on their intention to stop. With behavior patterns involving overeating or substance abuse, collaboration may also be fruitful with psychologists taking a biological approach or with colleagues from clinical medicine. At Utrecht, the two areas of health impairing behaviors which are being studied extensively are sexual risk behavior and uncontrolled eating.

At Leiden, Maes and his colleagues have developed and tested intervention programs aimed at changing health behavior in schools and at the worksite.

Past Performance

With the arrival at UU of Wolfgang Stroebe as professor of social, organizational and health psychology at the Department of Social and Organizational psychology, a research group was instituted that focuses on attitude change research in the area of health behavior. Stroebe, who has published empirical and theoretical papers on

attitude and behavior change was joined by De Wit (Post Doctoral Fellow), who has been involved in research on sexual risk behavior among homosexual men (Amsterdam AIDS Cohort Study) and has published nationally and internationally. Stroebe and his group will collaborate with Sandfort (Werkgroep Homostudies).

At Leiden University, Maes and Chatrou developed and evaluated a school-based smoking prevention program for 12 to 14 year old youngsters in collaboration with Howard Leventhal (Rutgers University, USA). In addition the change of health impairing behavior patterns is also the aim of the research conducted by Maes and Kittel on worksite health promotion, and of research on secondary prevention in patients with coronary heart disease carried out by Maes, Van Elderen and Chatrou, described elsewhere. This research has resulted in the development of a model of health behavior change (Health Behaviour Goal Model) and its application to life styles such as physical exercise and smoking.

Area membership:

Core Members: dr. Th. van Elderen, dr. F. Kittel, prof.dr. S. Maes, prof.dr. W. Stroebe

Staff Members: dr. M. Chatrou, prof.dr. J. Groebel, dr. A. Kalma, dr. Th.G.M. Sandfort, dr. E. de Vroome, dr. J. de Wit

Area coordinators: prof.dr. S. Maes & prof.dr. W. Stroebe

Key Publications:

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Area V. Psychological and psychobiological factors in coping with chronic illness.

In industrialized countries, like the Netherlands, chronic diseases have become a burden for the population as well as for the health care system. For this reason 'chronic illness' is placed high on the research agenda of many disciplines: epidemiology, medicine, psychology, sociology and economy. In this multidisciplinary research field, psychology has a distinctive contribution to make.

Focus

The focus of this program is on the interface between biological, psychological, and social factors in chronic illness. There is growing evidence that the course and outcome of chronic diseases are influenced and can be influenced by demographic, environmental and personality factors, probably in conjunction with psychobiological processes. 'Chronic illness' is conceptualized as a multifaceted stressor with a wide range of potentially stressing elements (e.g. anxiety, uncertainty, pain, life style and social adjustments, increased dependency), which ask for different coping strategies. Understanding the underlying psychological and psychobiological mechanisms is an important challenge for psychological researchers working in close collaboration with the medical disciplines. While much of the research in this area is fundamental in nature, studying the interrelationships between stress, coping, social support and/or psycho-immunological parameters in experimental and longitudinal designs, part of the research program is also focused on the efficacy of intervention programs in which psychological techniques are applied to chronic

patients to prevent aggravation of the illness (e.g. in the case of migraine, coronary heart disease) or to relieve the burden of illness.

Since for chronically ill patients 'cure' is no longer a realistic option, care-goals have become more important: enhancing the quality of life, stimulating self-care and self-reliance, strengthening patient's coping behavior, providing emotional support. Therefore, one focus of research in this area is on the impact of the quality of health services on the quality of life of patients suffering from chronic illness. Since these care-goals require effective and affective communication to be studied in a comprehensive research program, a second emphasis of fundamental and applied research in this area is on provider-patient communication.

Past performance

Close cooperation in the field of psychoimmunology exists between the Department of Clinical Psychology and Health Psychology (Godaert) and the Faculty of Medicine (Ballieux, Janus Jongbloed Research Institute), which has led to three dissertations and twelve international publications. Productive cooperation in migraine research (Sorbi, Godaert) exists with Harvard Medical School (Spierings) and with the Headache Research Foundation in Boston. On behalf of the Dutch National Committee on Chronic Diseases a review study has been done on 'coping, social support and chronic illness' (De Ridder and Schreurs). In collaboration with the Faculty of Medicine (Winnubst, Ros) a series of related projects on coping and social support of cancer patients has been developed. Funds have been acquired from prestigious research funds (e.g. NWO, Reumafonds, Koningin Wilhelminafonds). Cooperation exists with the Department of Health Sciences and Epidemiology (Schrijvers) and the Department of General Practitioners (Touw-Otten) at the Faculty of Medicine of Utrecht University.

With the arrival of Bensing as professor of Clinical Psychology and Health Psychology a formal cooperation has started with the Netherlands Institute of Primary Health Care Research (NIVEL), which has a longstanding research program on doctor-patient communication, resulting in three dissertations, several international publications, and many international contacts. Recently the research program has extended itself to include medical as well as non-medical specialists (nurses, physiotherapists, pharmacologists). Together with the Dutch Association of General Practitioners a two-yearly international workshop on doctor-patient communication is organized, which results in publications and international collaboration (e.g. John Hopkins University, Roter, and the University of Heidelberg, Szechenyi).

At Leiden there is an extensive research program on psychosocial aspects of chronic disease. This research has originally been started at Tilburg University and is now being continued at Leiden. In addition to review studies on the effectiveness of health education and stress management interventions, various health education programs were developed and evaluated. One program aimed at CHD patients was developed by Maes and Van Elderen in collaboration with Oldenburg from Sydney University. Another program aimed at patients with chronic non-specific lung disease (CNSLD) was developed by Maes and Schlösser. The intervention studies for CHD patients resulted in consensus about guidelines for cardiac rehabilitation programs among psychologists in the Netherlands. Several projects focused on the interrelationship between characteristics of CHD and CNSLD, demographic and environmental variables, personality factors and the progression of the disease (Maes, Van Elderen, Schlösser). Much of this research has been financially supported by funds such as the Netherlands Heart Foundation, the Praevention Fund, the Asthma Fund, the Department of Public Health, the Dutch National Committee for Chronic Disease.

At Tilburg University, Van Heck and Vingerhoets are working on the psychological adaptation to chronic illness (essential hypertension, cancer, multiple sclerosis, and chronic fatigue syndrome) and difficult situations (living in refugee camps, being prenatally exposed to DES). Research on the stress process is directed at the mediating and moderating roles of personality (e.g. stress tolerance, repressive defensiveness, self-esteem), social support (e.g. self-help groups) and coping (e.g. emotional self-disclosure). The program features a combination of large-scale questionnaire studies with experimental work in laboratory settings. An additional feature of the Tilburg program is the emphasis on the assessment of health, well-being and life satisfaction. A core issue is Quality of Life. Tilburg University is the Dutch center that participates in the WHO-program aimed at the construction of the World Health Organization Quality of Life assessment-instrument, the so-called WHOQOL.

Area membership:

Core Members: prof.dr. J.M. Bensing, dr. Th. van Elderen, dr. G. Godaert, prof.dr. G.L. van Heck, dr. A.A. Kaptein, prof.dr. S. Maes, prof.dr. P. Schnabel, prof.dr. A.J.P. Schrijvers, dr. M.J. Sorbi, dr. A.J.J.M. Vingerhoets, prof.dr. J. Winnubst

Staff Members: dr. A.N. Brand, dr. G.H.M.M. ten Horn, dr. G. Sinnema, prof.dr. F.W.M.M. Touw-Otten, prof.dr. W.H.G. Wolters

Area coordinators: prof.dr. J.M. Bensing & prof.dr. G. van Heck

Key publications:

Assies, J., A.J.J.M. Vingerhoets & K. Poppelaars (1992) Psychosocial aspects of hyperprolactinemia. *Psychoneuroendocrinology*, 17(6), pp. 1-7.

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