JYVÄSKYLÄ STUDIES IN EDUCATION, PSYCHOLOGY AND SOCIAL RESEARCH

117

Timo Suutama

Coping with Life Events in Old Age

UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 1995

JYVÄSKYLÄ STUDIES IN EDUCATION, PSYCHOLOGY AND SOCIAL RESEARCH 117

Timo Suutama

Coping with Life Events in Old Age

Esitetään Jyväskylän yliopiston yhteiskuntatieteellisen tiedekunnan suostumuksella
julkisesti tarkastettavaksi yliopiston vanhassa juhlasalissa (S212)
joulukuun 5. päivänä 1995 kello 12.

Academic dissertation to be publicly discussed, by permission of
the Faculty of Social Sciences of the University of Jyväskylä
in Auditorium S212 on December 5, 1995 at 12 o´clok noon.

UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 1995

Coping with Life Events in Old Age

JYVÄSKYLÄ STUDIES IN EDUCATION, PSYCHOLOGY AND SOCIAL RESEARCH 117

Timo Suutama

Coping with Life Events in Old Age

UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 1995

Editor
Tapani Korhonen, PhD
Department of Psychology
University of Jyväskylä

URN:ISBN:978-951-39-8272-0
ISBN 978-951-39-8272-0 (PDF)
ISSN 0075-4625

ISBN 951-34-0634-2
ISSN 0075-4625

Copyright © 1995, by Timo
Suutama and University of
Jyväskylä

Jyväskylä University Printing House
and Sisäsuomi Oy, Jyväskylä 1995

ABSTRACT

Suutama, Timo
Coping with life events in old age
Jyväskylä: University of Jyväskylä, 1995. 110 p.
(Jyväskylä Studies in Education, Psychology and Social Research,
ISSN 0075-4625; 117)
ISBN 951-34-0634-2
Yhteenveto. Elämän muutos- ja ongelmatilanteiden käsittely iäkkäillä ihmisillä.
Diss.

The purpose of this study was to examine the coping strategies, resources and processes of elderly people in response to various life events and other stressful situations. The subjects were 75-year-old men and women (born 1914) living in Jyväskylä, Central Finland. 301 persons answered the first coping questionnaire in 1989. About one and a half year later 226 (75 %) of these subjects answered another questionnaire on ways of coping and a sentence completion test on coping resources. 30 subjects also participated in a theme interview concerning the process of coping and adaptation.

Some of the subjects were either unable or unwilling to respond fully to the questionnaires. Consequently, the questionnaires need further development. In particular, processes of coping and adaptation proved to be difficult to investigate by either questionnaire or theme interview, as people are not used to describing their coping behaviour. The use of a sentence completion test among the elderly subjects gave encouraging results.

The most common stressful events or situations experienced by the subjects were the deaths of close persons and health problems. However, experiencing several stressful life changes during a short period of life was rare. Most of the subjects seemed to rely on their own resources to handle stressful situations. The majority used a variety of cognitive, behavioural and emotional ways of coping, from very active to more passive, social support and problem solving being the most important strategies. The content and the subjective experience of an event, but also individual preferences had effects on the choice of strategies. Coping strategies and resources were to some extent related to gender and other factors such as mood, cognitive functioning and socio-economic status. It was concluded, however, that great interindividual differences make it hard to predict the coping behaviour of elderly persons on the basis of various internal and external factors.

Keywords: coping strategies and resources, contextuality of coping, types of coping behaviour, life events, coping questionnaires, sentence completion test, theme interview, elderly people, functional abilities

AKNOWLEDGEMENTS

Many persons and institutions have, one way or another, influenced the start, progress and completion of this study. I wish to thank my supervisors Professor Isto Ruoppila and Dr. Carl-Erik Mattlar for their guidance and encouragement, Professor Stig Berg and Dr. Jan-Erik Ruth for reviewing the manuscript, Lea-Mari Pulkkinen for doing half of the theme interviews, Leena Hakala for transcribing the interview recordings, Markku Kauppinen for help in the statistical analyses and automatic data processing, and Michael Freeman for checking the language of the manuscript. The Academy of Finland, the University of Jyväskylä, the Foundation for the Promotion of Physical Culture and Health, the Artturi and Ellen Nyyssönen Foundation and the Emil Aaltonen Foundation supported the study financially. I thank my family and friends for being interested in my work. Finally, I wish to thank all those elderly people who participated in the study as subjects.

Jyväskylä, October 1995

Timo Suutama

CONTENTS

1 **Introduction** 9

2 **Review of related literature** 12
2.1 Life events 12
2.2 Definitions and views on coping 16
2.3 Methods used in studying coping 22
2.4 Coping and old age 24
Effects of ageing on coping behaviour 24
Coping of elderly people 28
2.5 Concluding remarks 34

3 **Aims of the study** 37

4 **Methodology** 39
4.1 Subjects and procedure 39
4.2 Methods 40
The Coping with Life Events Questionnaire 40
The Ways of Coping Questionnaire 41
The Sentence Completion Test 42
The theme interview 43
Methods used to study physical, psychological and social functioning 44
4.3 Data analyses 45

5 **Results** 46
5.1 Response rates and drop-out analysis 46
5.2 Events experienced by the subjects 49
5.3 Ways and strategies of coping 51
5.4 Contextual differences and similarities in coping 60
5.5 Coping in experienced vs. hypothetical events 61
5.6 Internal coping resources 64
5.7 Connections between coping and other factors 65
Sociodemographic variables 66
Cognitive functioning 68
Physical and mental health 68
Social functioning 68
Regression analyses for coping resources and strategies 70
5.8 Types of coping behaviour 72

6 **Discussion** 76
6.1 Methods 76
6.2 Results 80
6.3 Implications for theory and research 85

7 Yhteenveto: Elämän muutos- ja ongelmatilanteiden käsittely iäkkäillä ihmisillä 89

References 92

Appendices 105

Appendix 1. The Coping with Life Events Questionnaire 105
Appendix 2. The Sentence Completion Test 107
Appendix 3. The outline of the theme interview 108
Appendix 4. The factors of the Coping with Life Events Questionnaire 109
Appendix 5. Statistical parameters of variables of sociodemographic background and functional abilities 110

1 INTRODUCTION

The subject of this study is elderly people's "coping", their handling of problematic or stressful life events and the changes they are face with. Ways and processes of coping were little studied before the 1970s, since when the interest of researchers and practitioners in coping has increased steadily. Internationally, studies on coping proliferated and developed, especially during the 1980s. So far a considerable number of papers in international (and national) journals as well as important books representing different views on and conceptions of coping have been published (e.g. Coelho & al. 1974, Haan 1977, Antonovsky 1979, Lazarus & Folkman 1984, Moos 1986). In Finland coping has not been studied much, and the studies which have been done have mainly focused on the stress experienced by people working in different occupations (e.g. Kalimo 1980, Pöyhönen 1987, Heinälä & Ruoppila 1988, Heinälä 1989, Kinnunen 1989, Salo & Kinnunen 1993). Quite recently, coping has been examined in relation to various illnesses (Lindfors & al. 1986, Estlander 1991, Härkäpää 1992, Saarinen 1992) and rehabilitation (Järvikoski 1994). It has also been included in studies concerning the mental health of students (Saari 1981), divorce (Myyrä & Niemelä 1984), preparation for retirement (Tikkanen 1989) and widowhood (Tuominen 1994).

The psychosocial stress process includes several phases such as cognitive appraisal of the stressor or problem, assessment of mediating internal and external resources, coping and adaptation. The claims of the conventional stress perspective that any given experience has the same impact on everyone and that the degree of change experienced defines the degree of stress are not much supported nowadays. On the contrary, it is generally thought that what becomes a stressor differs from person to person. The meaning of the situation to the individual is a very central matter, as is the nature of the event: for example, whether it is expected or unexpected, chosen by one self or imposed by others or external forces (e.g. George & Siegler 1982). Some stressors may be short-lived while others may have longer and more serious effects. The stress

process leads to adaptation, which may be good, moderately effective or poor. Poor adaptation may result in higher morbidity.

Stress research has in most cases had medical and biological origins. Pioneers such as Cannon and Selye examined the psychosomatic and physiological consequences of stress and created the basis for the examination of relations between life changes and health changes. Kinnunen (1986) distinguishes between two different models or theories in research on connections between stress and illness: activation theory explains how mental strain (stress) leads to somatic changes, and coping theory explains how getting ill can be avoided. The first theory is usually connected with psychosomatic and physiological stress research and the second one with psychological stress and adaptation research, concentrating especially on personality factors which may prevent one from becoming ill in consequence of social strain. However, these two models or views have often been mingled (see e.g. Burchfield 1985, Achté & Pakaslahti 1986).

Chiriboga wrote in 1980 that gerontological stress research had not followed the mainstream of stress research. Life-event inventories were not developed for older adults in the same way as for children, adolescents and young adults or for some special occupational or other groups. In fact, gerontological stress research did not increase, it even decreased, during the 1970s. It focused on a few specific questions such as relocation, bereavement and retirement. Also, there were almost no longitudinal data on the nature and meaning of stress in later life. Chiriboga (1980) also concluded that a specific subset of stress research, coping, was in a very early stage of development at the turn of the decade. Lazarus & DeLongis (1983) confirmed this statement as well as the need for longitudinal studies in stress and coping research.

Already in the 1970s stress and coping were, to some extent, examined in relation to different life or age phases (e.g. Coelho & al. 1974), but, especially recently, the attempt has been made to examine them in developmental and life span perspectives. However, in various collections of articles (e.g. Moos 1986, Field & al. 1988, Cummings & al. 1991) it seems to have been difficult to find a perspective which really shows the developmental aspects of stress and coping across the life span; instead, discrete papers have simply been collected between the same covers. Moreover, late adulthood has not always been included in studies (e.g. Moos 1986, Field & al. 1988).

With few exceptions (Lindholm & Tulla 1982, Achté & al. 1986, Salminen & al. 1990) coping with and adaptation to life changes among elderly people has not been studied in Finland. Even in these exceptions, coping and adaptation has not been the only or main focus of study. In western Europe, and especially in North America, it has been studied more, but there too the need for much more research and for conceptual, theoretical and methodological development has been emphasized. There is, in particular, a shortage of empirical studies on the process or processes of coping, and this also holds true in examining the frequency, subjectivity and effects of life events in old age.

The aim of this study is to describe the cognitive, emotional and behavioural ways that elderly people use when they cope with changes and problematic events in their lives and the possible stress caused by these events. Also examined are the mental resources which are closely related to the ways

of coping as well as relationships between coping and health and functional abilities. The development and experimentation of methods of studying coping are also central to this study. Both quantitative and qualitative methods are used in studying the coping of the elderly subjects and in analyzing the data collected.

The main focus of the study is on coping, not on stress. Stress theories are not much reviewed; little is said about what kind of factors cause stress, what kind of stress reactions can be found or how strong or long-lived stress is. On the other hand, stress and coping are closely related to each other. For example, when considering the effects of stress on diseases, it is not only the stress that leads to disease but also the inappropriateness or ineffectiveness of the coping behaviour (Cohen 1979). The interest is mainly on major, significant events and problems which cause or may cause stress, reactions to these events and the ways in which they are handled.

What are the arguments in support of this kind of research? Why is it important to examine the problems studied here? First of all, there is little data on the difficulties associated with and effects of life changes in elderly people. A study of this kind also tells - in an ecologically valid way - about the mental resources of elderly people in real-life situations. It tells about their ability to adjust, mastery of life and tolerance of stress. In addition, it tells about their ways of reacting and acting in difficult situations, and about their need for help, which are important to know when planning services for elderly people. As McCrae (1989) writes, basic research on coping offers a basis for interventions to help elderly people handle such stressful changes as physical impairment, cognitive decline and bereavement.

According to Kaszniak (1990) the importance of multidimensional assessment cannot be overemphasized when providing guidance in structuring interventions and baseline data against which to evaluate the effectiveness of the interventions. Among other things, psychological assessment of older adults' strengths and deficits must take into account stressful events, coping styles and adaptive skills.

This study is in part a response to the need for multidimensional assessment. It forms part of the Evergreen project, which is a multidisciplinary research and intervention program aiming at collecting information about elderly people and developing services for them. Several research materials have been and will be collected in the project (Heikkinen & al. 1990, Heikkinen & al. 1991, Heikkinen & Suutama 1991). One of them is a population study on the health and functioning of people born in 1914 and resident in Jyväskylä, the data for which were collected in the end of 1989. The data for the first stage of this coping study was collected at that time.

The frame of reference of this study is psychogerontological. The reviewed literature comes mainly from this field of psychology and social science. The literature has been reviewed critically, the attempt being to find and present different conceptions and viewpoints on the subject under study. In reviewing empirical studies, a critical approach has also meant drawing attention to the samples, methods and procedures used. If these aspects have been regarded as unreliable or poorly described, the studies in question have been either rejected or given little weight in the review.

2 REVIEW OF RELATED LITERATURE

2.1 Life events

Interest in examining life events has markedly increased during the last two decades. There are various views on the nature and effects of life events, but all of them emphasize the great importance of life events on the development of an individual. Life events may be examined as markers or as processes. As markers they are transition points which change and direct the course of an individual's life. At the same time they are processes which have their own context, history and course; they do not take place in a vacuum but interfere with other events (Danish & al. 1980, Danish & al. 1983).

Life events have some structural characteristics or properties which are common to all events (Danish & al. 1980). Some of the main properties are event timing, duration, sequencing, cohort specificity, contextual purity and probability of occurrence. In addition to these properties, life events can be classified either as individual or cultural. Cultural life events are societal and historical events that shape the environments where people live and grow up. Individual life events, which are examined in this study, are points in the course of a person's life that specifically influence his or her development. They can be biological (e.g. menopause, severe illness) or social (e.g. retirement, grandparenthood, death of a close person).

According to Brim and Ryff (1980) life events are basically biological, social or physical. They may also be psychological, but Brim and Ryff prefer to view psychological changes as outcomes of the biological, social and physical events. They present a typology of life events which is based on three (of the many) properties of such events. These properties are social distribution (whether the event is experienced by many or few), age relatedness (strong or weak correlation with age) and likelihood of occurrence (high or low probability of occurrence). All these properties affect an individual's anticipation as to

whether he or she will experience the event and at what age. For example, retirement is an event experienced by many, has high probability of occurrence and is strongly correlated with age.

In earlier studies life events were not seen only as markers or turning points, but they were often regarded as crises, leading to physical or mental illness, if individuals are not able to solve them or adjust to them (e.g. Holmes & Rahe 1967, Dohrenwend & Dohrenwend 1974). On the basis of this kind of crisis conception and empirical findings, Holmes and Rahe (1967) developed a scale to evaluate the effects of life events (the Social Readjustment Rating Scale). This method has since been widely used and later methods - mostly questionnaires - have often, at least to some extent, been based on it, even if their developers have found fault with it (e.g. Sarason & al. 1985). It has been much criticized for its restricted conception of stress, ignorance of age effects, lack of differentiation between positive and negative events and limited psychometric properties (for a review, see e.g. Chiriboga & Cutler 1980). In Finland the method of Holmes and Rahe has been critically evaluated in the life change studies of Aro (1981; metal industry workers as subjects), Hurme (1981; children) and Saari (1981; students).

Some researchers examine life events mainly from the viewpoint of their influence on the mental growth or changes in behaviour of an individual (Danish & al. 1983). Life events may also be classified according to their probability. They may be normative or non-normative, probable or unlikely in certain life stages of most individuals. It is difficult to foresee the beginning, duration and other factors of non-normative events, and they make more or different kinds of demands on adaptation than do normative events (Baltes & Willis 1979). Brim and Ryff (1980) classify life events on the basis of their probability, but they write also about unnamed or hidden events which may vary with culture or community. These events faced by individuals are not generally known about or have been thought to be too sensitive in nature to be the object of study.

The stressfulness of life events depends on the meaning of the event to the individual. But there are also a number of common features affecting stress and well-being, such as whether the event is unexpected or expected (and anticipated), and whether the event is positive or negative. In most cases only negative events have been regarded as stressful, also by the subjects of life event studies (e.g. George & Siegler 1982). Stressfulness depends also on the "social timetable" of the events. Life changes can take place on-time or off-time, too early or too late, that is, either as normally expected or unexpected. Early off-time changes (e.g. death of spouse in young adulthood to middle age) have more negative effects on psychological well-being and greater demands on adaptation than late off-time or on-time events (Cohler 1991; cf. Brim & Ryff 1980).

It is thought that age, gender and socioeconomic status are factors which affect not only adjustment to the stress caused by life events but also the amount of life events and the ways in which they are experienced (Whitbourne 1985). In particular, age is often thought to be in close relation to the amount and nature of experienced life events. The view that in old age there are fewer life events on the whole but more negative life events (and, consequently, more stress too; Chiriboga & Cutler 1980) than in younger adulthood, has recently

been highly criticized. Murrell et al. (1988) examined studies on life events among elderly people. They concluded that negative events and their influence on physical and mental well-being have been over-emphasized. Many events in late life are neither stressful nor dramatic, but normative (e.g. death of a close person, retirement, relocation, changes in health). Furthermore, they seem to be easier to cope with than the same events at a younger age. The effects of these old age normative events on physical and mental health or well-being may be smaller than the effects of the same events at a younger age. Murrell et al. (1988) also drew a similar conclusion on the basis of their own prospective studies.

Lindholm and Tulla (1982) collected data on the frequency of various life events in three age groups (31 to 35, 51 to 55 and 71 to 75 years) of Finnish men. The events were most frequent in the youngest and least frequent in the oldest age group. Also their affectivity was strongest in the youngest group, but the proportion of negative events was highest in the oldest group. However, there were problems connected with the list of life events, because it included many (positive) events (e.g. in family and work) which, quite naturally, are more common in younger than older adulthood, and also negative events (especially in health) which always are more common in older age groups.

In a Danish study (Holstein & al. 1992), almost half of over 900 subjects aged over 70 and living in the community had experienced at least one of seven major stressful events mentioned in the questionnaire during the preceding 12 months. Over half of the subjects had not experienced any of the events during the year, one fourth had experienced one of the events, while one fifth had experienced more than one. The most common events were the death of a close person (22 %), one's own illness (18 %) and the illness of a close person (17 %). Far fewer had experienced any of the other four events (accident, conflict with a close person, being a victim of crime and housing problems). These figures imply that negative events (losses and threats) are not necessarily very common in old age. On the other hand, they imply that events cumulate to some extent; a significant minority of elderly people may experience many major stressful events in a relatively short period.

In an eight-year follow-up study of 45- to 70-year-old Americans the effects of five major life events (retirement, spouse's retirement, major medical event, widowhood, departure of last child from home) on physical and social-psychological adaptation were much smaller than a crisis orientation would suggest (Palmore & al. 1979). On the other hand, if the same individuals (especially those with poor psychological and social resources) experienced many of these events within a short time, their effects were more serious.

There may be interactions between stressful life events and personality characteristics. Cohen (1979, 78) emhasized the importance of examining life events and personality in combination when trying to predict health outcomes. She wrote that "... personality characteristics could influence whether stressful life events are encountered or avoided and whether an appraisal of stress is made, and such traits could also affect the outcome of the person-environment transaction. On the other hand, stressful life experiences could influence the development of personality." Miller and Birnbaum (1988) also underline the importance of examining personal features, individual's dispositional coping

skills, together with the features of the event when analysing the impact of life events.

Life events can be construed as losses (or harms), threats or challenges (Lazarus & Launier 1978, Lazarus & Folkman 1984, McCrae 1984). Loss means damage that has already happened (e.g. death of a close persons), threat refers to the anticipation of damage (e.g. hospitalization). Challenges (e.g. new job) are usually regarded as more or less positive events. That is why they have not been studied in stress research as much as losses and threats. Whether a situation or event is regarded as a loss, threat or challenge depends on the appraisal of the person who faces it. A situation may also be regarded simultaneously as both a threat (or loss) and a challenge (or a start for growth), and losses may be seen as threatening to the future of an individual (Achté & al. 1986, Sek 1991, Lieberman & Peskin 1992). But these categories may also be considered as objective attributes of stressful events (McCrae 1984), and it has been concluded that the concept of threat is generalizable over samples of younger and older adults (Davies & al. 1987). In any case, it is important to differentiate between types of events, because they influence the choice of coping strategies, and the categories make it easier to understand the diversity of events. For a somewhat different classification of stressful events (losses, attacks, restraints and threats), see e.g. Coleman (1990).

Life events may also be classified according to the domain of the event: for example, whether it concerns self, family, health, work or economics (George & Siegler 1982); or family, health, self-esteem or a loved one's well-being (Folkman & al. 1987). That is, what is at stake in the event. These kinds of classifications are closely related to the primary appraisal of the situation made by individuals discussed later in this review. In life event and coping studies the appraisal of the situation has often been made (retrospectively) by the researchers and not the subjects themselves.

Major life events are regarded as the main sources of stress in younger as well as in older adulthood. But there are also other, often overlooked sources of stress, perhaps the most important of which are chronic minor events or stressful situations and problems in the everyday lives of individuals, which are often called daily hassles (e.g. Lazarus & Folkman 1984, Edwards & Cooper 1988, Cohler 1991). On the basis of their studies on daily hassles and major life events of adults in different age phases, both Chamberlain and Zika (1990) and Landreville and Vezina (1992) conclude that daily hassles are even a better predictor of psychological well-being and mental health than major life events. That is why minor events should be examined more closely also in stress and coping studies. However, daily hassles have often been studied as an important source of stress to be coped with because of the short time span in many coping questionnaires.

In their interview and questionnaire study of people over 65 years old, Russell and Cutrona (1991) assessed relations between social support, negative life events, daily hassles and depression during a 12-month period. Initial levels of social support and depressive symptomatology predicted the number of daily hassles but not the number of major life events. The incidence of daily hassles also depended on previous life events, and daily hassles mediated the effects of negative life events on subsequent depression. The results suggest that both major life events and daily hassles may have simultaneous effects on mood, and

both should thus be examined to gain a broad perspective on factors behind stress.

Besides major and minor life events, Edwards and Cooper (1988) name other factors which have been overlooked as potential sources of stress. Social information (information provided by others) may become a stressor, if it negatively influences an individual's perceptions of and responses to the environment. Also inner, personal sources of stress have usually been neglected. These may arise from anticipation, imagination or a person's own behaviour. Finally, even the ways of handling stress may become a source of a new stress: difficulties in selecting effective coping strategies, depleting effects of coping, failure in coping, etc.

After reviewing the literature concerning life events and adjustment to them, Whitbourne (1985) presents a model on the relationships between life events and some mediating and moderating factors. A life event causes stress, because it means change and exhausts the individual's physical and mental resources. Stress is considered as the degree of readjustment demanded by the event. Coping strategies are formed out of the abilities, attitudes and knowledge that the person uses to adjust to the event and to reduce the stress caused by the event. Social skills also have their effects on the formulation of coping strategies. The final outcome of the process is either becoming physically or mentally ill (if one has not succeeded in reducing the stress) or in the opposite case, attaining balance. An individual's physical, mental and social resources influence his or her responses and adjustment to life events, especially through coping processes (cf. Fry 1989). These resources have been discovered (Palmore & al. 1979) to have a strong impact on adaptation (or lack of them on non-adaptation) to major life events, for example in the second study of the Duke Longitudinal Studies of Aging (see Palmore & al. 1985).

2.2 Definitions and views on coping

People's adaptation or adjustment to external and internal changes, to stress caused by these changes, as well as to physical and mental strain has been studied in psychology for many decades. But coping, as a concept which can be used in describing these behaviours, was hardly used before the 1960s. Coping is closely related to the concepts of adaptation and adjustment which, however, are broader concepts than coping. Coping is behaviour, the meaning or purpose of which is to maintain the ability to adapt in stressful events and situations.

Coping is closely related to many other concepts, such as antidepressive behaviour, competence, hardiness (Kobasa 1979, Ouellette 1993), learned resourcefulness (Rosenbaum 1990), problem solving (e.g. Cox 1987, Ostell 1991), self-efficacy (Bandura 1977, 1982) and sense of coherence (Antonovsky 1979, 1987) (see also Rohde & al. 1990, Salminen & Suutama 1985). These concepts refer primarily to personal resources which influence coping processes. Many of these concepts (sense of coherence, learned resourcefulness, antidepressive behaviour) come from the field of health psychology, where coping is seen as

a mediating or moderating factor between stress and health outcomes. Edwards and Cooper (1988) identify a number of confounding elements and other problems associated with approaches of this kind.

Of the above mentioned concepts, the sense of coherence by Antonovsky (and perhaps hardiness by Kobasa) has had the strongest influence on western coping research. Antonovsky (1979, 1987) distinguishes his stress-coping-health model from other corresponding models by a "salutogenic", in contrast to a pathogenic, frame of reference. That is, how coping and "sense of coherence" (an internal resource) can lead to positive health outcomes in stress situations. Coherence refers to the comprehensibility, manageability and meaningfulness of events. "Generalized resistance resources" refer to, mostly, external resources (social, socioeconomic, etc.) that affect coping process and adaptation. Pathogenic models (e.g. Parekh & al. 1988) concentrate on the negative effects of stressful life events, certain coping strategies and the lack of coping resources on health and well-being.

There is no single, clear and unambigious definition of the concept of coping. Holstein (1986) distinguishes between four conceptually different points of view on coping. Perhaps the oldest view, which is still influential, defines coping as defensive ego processes. These processes are used more for reducing anxiety than for solving problems. The second view combines coping with personality traits, and classifies people as, for example, active or passive copers in problematic situations, and sees these strategies as stable from situation to situation. In the third point of view, the attempt has been made to define coping according to the internal or external resources (social relations, health, socioeconomic status, self-esteem, etc.) that individuals have. The fourth view sees coping as behavioural (general or situation-oriented) responses to life strains. The fourth view is nowadays most commonly adopted in the coping literature. Generally speaking coping is regarded as adaptive behaviour (thoughts and activities) the purpose or function of which is to maintain the ability to adapt in stressful events and situations.

Cohler (1991) differentiates between three different conceptions of coping in the contemporary literature. The first of these is the egopsychological or individual differences approach, the best representative of which is propably Haan (1977). The second is the social psychological approach pioneered by Lazarus and Moos (e.g. Lazarus & Folkman 1984, Moos & Schaefer 1986), and the third is the sociological perspective based on the work by Pearlin and Schooler (1978). According to Coleman (1990), in gerontological stress and coping research there are two distinct research traditions. The first is that carried out by psychiatrists, which concentrates on affective disorders, especially depression, and has dominated research in Britain. The second one is associated with theories of appraisal and coping within the social sciences and has been more popular in the United States and continental Europe.

Definitions of coping generally refer to the things that people do to minimize or diminish the negative effects of stressful situations. The best known and most often quoted definitions have been those proposed by Pearlin and Schooler (1978) and Lazarus and Folkman (1984). Pearlin and Schooler refer by coping to "the things that people do to avoid being harmed by life-strains". Coping means the kinds of behaviour or reactions to external strains which prevent, decrease or regulate emotional stress. Coping reactions can be divided

into three main types on the basis of their function: they either change the situation which is causing stress, control the meaning of the situation before stress is experienced or control the experienced stress.

Lazarus and Folkman (1984, 141) define coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person". Coping is a process, not a constant trait, and it is differentiated from automatized adaptive behaviour. Coping is conscious behaviour that requires effort; it refers to efforts, not to a final outcome. Coping is not the same as mastery of a situation. There is no hierarchical order leading from good to bad ways of coping, but each way can be evaluated only on the basis how well it helps a person to adapt in specific situations.

Lazarus and his colleagues have, since the 1960s, developed a cognitive-phenomenological theory (or model) of stress, which also includes coping. This theory has been regarded (Silver & Wortman 1980) more versatile than other stress and coping theories developed in the 1970s. It has also been regarded as more "positive" than the other theories, which emphasize the negative consequences of stress.

The theory by Lazarus has a transactional frame of reference; the individual and the environment, the context of the adaptation process and its phases, have a continuous reciprocal influence. This interrelationship has two mediating processes, coping and appraisal. Appraisal is a cognitive process which has two phases or levels. Primary appraisal refers to the evaluation of the situation or event causing stress (what is at stake, who are involved, etc.). Secondary appraisal refers to the evaluation of the controllability of the situation and the resources and ways an individual can mobilize to master or handle the situation and the stress (Folkman & Lazarus 1980, Lazarus & Folkman 1984). For changes in the relationship between the individual and the environment, continuous reappraisal of both the situation and coping capacity is also needed. The concept of secondary appraisal is closely related to the concept of self-efficacy by Bandura (1977, 1982); expectations of self-efficacy, of ability to handle a difficult situation, refer to the secondary appraisal of the situation.

When coping has been studied, the phases of appraisal have usually been examined only partly, if at all. This has been the case, even though appraisal has generally been seen as a very important factor in coping and adaptation, and, indeed, the whole process of coping has been seen as a succession of appraisal, activity and reappraisal (Cohler 1991). If appraisal has been measured, the measures have usually included only one item for primary and another one for secondary appraisal (Moos & Schaefer 1993). In primary appraisal, subjects have for example evaluated, whether the situation means a threat, loss or challenge to them. In secondary appraisal, they have had to assess whether the situation can be changed (and to what extent) or whether it has to be accepted.

The conceptualizations of coping and adaptation have become more cognitive in their orientation and have at the same time neglected developmental or age-related changes in the use of cognitive resources in adaptation process (Rybash & al. 1986). The theory of stress and adaptation by Lazarus and his colleagues is overtly cognitive; by cognitive activity it is (or may be) possible to control and even master stressful life events.

Not all researchers regard coping as purely a cognitive and behavioural phenomenon. Coping may also be presented as an emotional way, even in the form of an emotional outburst, of handling a specific stressor or a problem situation (e.g. Silver & Wortman 1980). Rybash et al. (1986) argue, that Lazarus emphasizes the significance of cognition over affect in the process of adaptation. They also criticize Lazarus' conception that problem- and emotion-focused coping strategies are equally effective, and regard his view of appraisal as nondevelopmental. A three-dimensional or componential concept of coping, which also emphasizes the significance of affective responses, has been proposed, for example, by Linville and Clark (1989; cognitive, affective, behavioural) and Taylor and Schneider (1989; cognitive, emotional, social activity). Silver and Wortman (1980) see coping as a broad concept which includes both overt behaviour and covert modes of coping: cognitions, emotional reactions and physiological responses.

The process-oriented approach to coping by Lazarus concentrates on the actual thought and actions that people have in specific events or situations as well as on changes in these thoughts and actions. It differs from the traditional trait or disposition approaches, because it is not trying to identify what a person usually does (Folkman & Lazarus 1988).

The choice and use of coping strategies may partly depend on the personality characteristics of an individual. For example, low self-esteem may lead to seeing situations as stressful and impossible to cope with, resulting in anxiety or depression. And those who easily use repression as a defence or a way of coping might not even try to alter a problematic situation, thus prolonging the stress (Cohen 1979). Many researchers (e.g. Silver & Wortman 1980, Heikkinen 1986, Cohler 1991, Costa & al. 1991) have suggested that personality type should be related to coping behaviour. Self-esteem and personality styles, especially locus of control (Rotter 1966), have been examined as personal resources in a few coping studies (e.g. Husaini & von Frank 1985, Krause 1986, Blanchard-Fields & Irion 1988, Reich & Zautra 1991). Breakwell (1986) also emphasized the significance of personality factors (especially identity) on coping behaviour, but not at the expense of the importance of situational constraints or demands on behaviour. These two factors are related to each other. For example, identity mediates between the situation and the interpretation of the situation's meaningfulness to the individual.

Several coping resources have been mentioned in the literature, including health status, cognitive abilities, financial reserves and social support. These may vary across the life cycle, and many of them often decline with age, but at least one resource - accumulated knowledge - is likely to increase (Wortman & Silver 1990). Elderly people may find themselves coping simultaneously with various life events and changes such as the loss of spouse, impaired health, lowered physical capacity, and cognitive impairments. In such cases coping resources are especially important. However, at least in gerontological studies, most of these resources have been studied seldom, if at all. Some of them have been studied more as matters to be coped with or as outcomes of stress, health status being a good example, than as resources for coping. It is also hard to find studies where the relations between cognitive abilities and coping behavior have been examined more closely. One resource

that has been studied and conceptualized over and above the others is social support.

Social support has often been regarded as a resource for coping, but it (or seeking social support) is also one, and perhaps even the most often observed, strategy of coping. In the first meaning there have been two main (competing) models or hypotheses. In the direct-effect model (general assets-benefits hypothesis; social support as a mediator) social support is assumed to be a benefit under all circumstances whether stress is present or not. The stress buffer model (stress buffering hypothesis; social support as a moderator) holds that high levels of support aid people in coping with stress but that social support is not helpful (or harmful) if there is no stress (Fleming & al. 1985, Cohen 1991).

According to one definition (Monat & Lazarus 1985) social support involves a sense of being loved, accepted and cared for by significant others. However, social support can be both formal and informal; help, advice and support may come from professional help systems or from relatives, friends, neighbours, etc. Support can be mental, such as consolation or advice, or it can be concrete, such as help in daily activities.

Social support has usually been divided to two different forms or categories: 1) emotional support, which is shown in expressing a person's feelings towards and receiving sympathy from other persons, without necessarily seeking advice; and 2) problem-oriented or informational support, which means seeking assistance (advice, help, information) from other persons. Sometimes information seeking is seen as a coping category of its own (e.g. Stone & al. 1988); it refers then only to professional, formal help. In practice, it is not always easy to distinguish between these two forms of support, because people may be seeking both of them at the same time.

In particular, emotional support (such as encouragement, opinion validation and reassurance from close persons) has been assumed to have a protective function in stress situations. Research has indicated that in stress situations or life changes people manage better when they get social support. However, it remains less clear whether social support helps in daily hassles and stressors of routine daily life (Stone & al. 1988). Social support (especially emotional support) has also been observed to be related to negative outcomes in various stress situations. However, seeking social support may be, and often is, an effective means of coping with stressful problems (Stone et al. 1988, Antonucci 1991).

Many studies have shown significant sex differences in all age groups: women use social support more often than men. It has also been suggested that there are likely to be sex differences as to which types of social support are most protective; emotional support (intimacy and close ties) would be protective especially for women, and instrumental support and social companionship for men (Maughan & Champion 1990). However, these sex differences are complex and they have not yet been studied sufficiently. Also, it is hard to find studies where seeking social support has been related to background variables other than sex. Another problem is that the amount of social contacts has been used as the indicator of social support. However, these matters are not equivalent to each other; decreasing contacts may sometimes even lead to stronger support (Carstensen 1991).

Coping responses have been classified in very many ways, based either on theoretical considerations or empirical findings using factor analyses (Rohde & al. 1990). However, most classifications have distinguished between active, problem-oriented strategies, and strategies aiming at reducing tension and avoiding dealing with the problem itself. The best known categorization of problem-focused and emotion-focused coping strategies is that of Lazarus (Folkman & Lazarus 1980, Lazarus & Folkman 1984). Roth and Cohen (l986) differentiate between approach and avoidance coping, Billings and Moos (1982) between appraisal-focused, problem-focused and emotion-focused coping. Holahan and Moos (1987) classify coping strategies in three categories: active-cognitive, active-behavioral and avoidance strategies. In Thoits' (1991) classification strategies are either behavioural or cognitive, both of which are directed towards situation, physiology and emotions.

After reviewing the classifications of the ways of coping by several writers and researchers, Stone et al. (1988) ended up differentiating between seven distinct dimensions: social support, information seeking, religiosity, situation redefinition, avoidance, tension reduction and problem solving. Tobin et al. (1989) also found seven strategies which have most often been presented in factor-analytic studies: problem solving, wishful thinking, problem avoidance, social support, cognitive restructuring, self-criticism and emotional expression. They wanted to study the structure of coping, or the organization of coping strategies, at more abstract levels of analysis. With over 1,400 university students as subjects in three studies and using a modified version of the Ways of Coping Checklist (Folkman & Lazarus 1980), they were able to formulate a three-level hierarchical model of coping strategies. It included eight primary factors (the above-mentioned seven plus social withdrawal), four secondary factors (problem and emotion engagement and disengagement), supporting the hypothesis of problem- and emotion-focused coping, and two tertiary factors (engagement and disengagement), supporting the idea of approach and avoidance coping.

Breakwell (1986) has conceptualized and examined the relationships between threat, identity and coping. According to her, coping behaviour defends personal identity against different kinds of threats but is also affected by identity. She has also proposed a hierachical model of coping strategies. She distinguishes between intra-psychic, interpersonal and intergroup coping strategies, and each of these strategies operate at one or more levels. The intra-psychic strategies focus on cognitions, emotions and values, and the other strategies on relationships with other people. The choice of coping strategies depends on the type of threat, social context, identity structure and cognitive resources.

Conciousness of coping, and the relations between coping and defences are two of the important questions with conflicting conceptions in the coping literature. In the theory of stress and coping by Lazarus (e.g. Lazarus & Folkman 1984) coping is regarded as conscious behaviour. Thomae (1992a) accepts the unconscious (or at least not fully conscious) side of coping, when he concludes that coping does not always mean rational calculation in choosing between different response classes. Breakwell (1986) thinks that coping is not always conscious activity. Defences, which she includes in coping, are examples of unconscious coping. Freeman (1988) also distinguishes between conscious

(and intended) and unconscious (and unintended) coping. The unconscious features of coping help to explain why one's own coping is often quite difficult to describe.

Some researchers have made a clear distinction between defences and coping. For example, Haan (1977, 1993) sees defences as immature, rigid and reality distorting, whereas coping is seen as mature, future-oriented and adaptive behaviour. Vaillant (1977) sees that people use normally both immature and mature defences (the latter being synonymous with coping) when dealing with conflict situations. Others (e.g. Cohen & Lazarus 1979) have seen that even optimally functioning people use both problem-focused and palliative (defensive) coping strategies in handling problematic situations. However, in practice it is not easy to distinguish between the concepts of coping and defence. Cohler (1991) thinks that it is not even relevant to try to make a distinction between defences and coping. In any case, research on age differences or changes in the use of defences has been scarce and has not extended to old age (Costa & al. 1991).

2.3 Methods used in studying coping

The methods that are used in the studies reflect certain theoretical or conceptual views behind the examination of coping (Holstein 1986). For example, clinical evaluation is closely related to views on egopsychological processes, and personality tests are used if the idea of coping focuses on personality traits. If it is assumed that coping is manifested especially in behavioural reactions and activities, observation of behaviour in natural, real-life situations is needed or people have to be asked to tell about their behaviour in coping situations. Probably there are no observational studies on coping, and it is also hard to find studies where subjects have freely described their coping behaviour.

Sometimes there has been an attempt to examine coping and adaptation holistically, using long and demanding interviews and a variety of different tests. Usually these techniques were originally developed for other purposes, and are often not repeatable in their original form to confirm the results. Even in simpler studies, using only one method, coping has often been examined indirectly by methods originally developed for studying other phenomena (certain projective methods and observation techniques). However, a few of these methods have been of some value in studying coping and adaptation in old age (see Kahana & al. 1982).

In a few studies (e.g. Koenig & al. 1988, Salminen & al. 1990, Wilken & al. 1993) coping ways or strategies have been examined using a quite limited number of open-ended interview questions. The classifications made by the researcher(s) from the answers to these questions have usually ended up as rather few coping strategy dimensions.

In most cases coping has been studied using questionnaires based on self-evaluations. These questionnaires have included either hypothetical changes and problematic situations, or situations which the subjects have really

experienced. The hypothetical situations have been described with varying accuracy. In the case of really experienced events, the subjects have usually been asked to think about the most difficult or stressful situation in their life during the preceding week, month, year or some other time span. Hence, a wide range of events to be coped with have characterized studies of this kind. Often it has been a question of major life events and changes, but coping behaviour in habitual everyday situations has also been examined (e.g. Stone & Neale 1984).

The questionnaires have usually given numerous, even dozens of, ways of coping. The subjects have had to indicate, whether, or to what extent they have used each of the ways in the situations they are thinking about. These different ways are meant to represent the various coping dimensions discussed above.

The best known and most often used coping questionnaire is the Ways of Coping Questionnaire (WOCQ; originally Ways of Coping Checklist, Folkman & Lazarus 1980), which was developed by Lazarus and his colleagues. It is based on earlier methods, empirical findings and Lazarus' own theory about stress and coping. The respondent is asked to think about the most stressful event or situation in his/her life recently and to indicate which of the given ways of coping he/she has used in the situation. The original questionnaire included 68 ways of coping and a two-point response scale (yes/no). Later versions have had somewhat fewer items and a four-point scale (from not used to used a great deal). Sometimes the questionnaire has also included a few questions concerning appraisal of the situation and one's own possibilities of handling the situation. Several versions of the questionnaire have been presented, both by Lazarus and other researchers (e.g. Lazarus & Folkman 1984, Folkman & al. 1987, Labouvie-Vief & al. 1987, Blanchard-Fields & Irion 1988, Folkman & Lazarus 1988).

The WOCQ is meant to measure coping processes, and dynamic and changing strategies in specific situations, not coping dispositions or styles. If it were used as a coping style instrument, it would have to be used in many kinds of stressful encounters to evaluate consistencies in coping behaviour (Folkman & Lazarus 1988).

Other coping questionnaires with either experienced or hypothetical problematic situations, with various amounts of items (ways of coping) and different response scales, are, for example, the Coping Inventory (Horowitz & Wilner 1980), Coping Strategies Inventory (Quayhagen & Quayhagen 1982, Tobin & al. 1989), Coping Strategy Indicator (Amirkhan 1990), ECRC Coping Scale (Kahana & al. 1987), Geriatric Coping Schedule (see Kahana & al. 1982) and the Life Situation Inventory (Feifel & Strack 1989). In addition to these, a large number of more or less similar questionnaires can be found in the coping literature.

According to Rohde et al. (1990), a number of interview methods have also been developed to study coping. However, in most cases it has been more a question of using a few open-ended interview questions (or perhaps an oral presentation of a questionnaire with some extra questions) than of specific interview methods. The Stress in Life Coping Scale developed by Pearlin and Schooler (1978) is one of the few exceptions. It includes numerous questions which are used to evaluate general coping responses over different life areas, but not in relation to specific life events. These questions form a part of a wider

structured interview concerning psychological resources, strain and coping in stressful situations. The whole method has not been used much, because it is rather laborious, and it is hard to find recent studies where only some part of the method has been used.

The in-depth or theme interview to study coping has been used very seldom, but there are some exceptions, such as the Duke Longitudinal Studies of Aging (George & Siegler 1982, Siegler & George 1983), the Bonn Longitudinal Study on Aging (e.g. Rudinger & Thomae 1990, Thomae 1992a), the Jerusalem Longitudinal Study of Midadulthood and Aging (Shanan & Jacobowitz 1982, Shanan 1993) and a Danish study by Holstein et al. (1992) as well studies concentrating on certain specific problems (e.g. Myyrä & Niemelä 1984, divorce in middle-age; Cain 1988, divorce in old age; Reich & Zautra 1991, internal control among the elderly; see also Carlsson & al. 1991a and b, adjustment to very old age). However, in most such cases the method has not been described in detail, and it is difficult to evaluate the interview methods used to date in coping studies.

In addition to the methods mentioned above, coping (or adaptation) has sometimes been studied more or less indirectly by methods which were originally developed to examine concepts close to coping. This category includes, at least, questionnaires and other methods by which to evaluate activity, mood, recent life events and internal vs. external locus of control (see Kahana & al. 1982). Coping and adaptation has also been touched on by studying competence, using either a sentence completion test (Salminen 1987, Salminen & al. 1990) or an interview method (Kruse 1987).

The validity of the methods used in studying coping has not been adequately examined. The construct validity of the methods is questionable, partly because of the somewhat incoherent use of the concept of coping as well as other concepts close to it, as described above. There are problems in the external validity of the methods too. Many of them were originally used in younger age groups, and they have not been revalidated when used in elderly populations. Information on the reliability of the method has too often been missing too (Kahana & al. 1982, Holstein 1986).

2.4 Coping and old age

Effects of ageing on coping behaviour

The ways, processes and resources of coping of elderly people were not widely studied before the 1980s. The significance or effects of age on coping were studied more among younger adult age groups than among elderly people. Moreover, the views and the results of the studies that were done on old people's ability to handle or master life events and stress (studies on adaptive abilities) were conflicting. Nonetheless, both regression and growth hypotheses (McCrae 1982) were proposed. According to the regression hypothesis, people become more rigid and primitive in their coping behaviour and use less

successful forms of coping as they age (e.g. Pfeiffer 1977). Contrary to that hypothesis, the growth hypothesis claims that people become more mature or effective in their coping behaviour as they grow older (e.g. Vaillant 1977). Gutmann (1977) proposed that men turn from active to more passive coping strategies when they age, whereas women become more active in their coping behaviour.

The above mentioned hypotheses represent the developmental interpretation of changes in coping behaviour. Its counterpart, contextual interpretation, sees age differences in coping as arising from changes in the events and situations people have to cope with when they age. Age-related differences may be explained also from a third point of view, the cohort intrepretation, which suggests that differences in the historical and cultural conditions in which people grow up have permanent effects on their behaviour, including coping (Folkman & al. 1987).

Brandtstädter and Renner (1990) have distinguished between assimilative and accommodative strategies of coping. Assimilative coping refers to a tendency to adjust life circumstances to personal preferences, and accommodative coping, on the contrary, to a tendency to adjust personal preferences and goals to situational constraints. These two modes of coping operate simultaneously, either one dominating, and they are both related to an internal locus of control. In their study among 34- to 63-year-old German adults, the authors found a shift from assimilative (tenacious goal pursuit) to accommodative coping strategies (flexible goal adjustment) with increasing age.

Some studies have shown younger adults to be more successful copers than older adults, others have had opposite results, and the rest have found no or only modest age differences. In one of the earliest studies, Pearlin and Schooler (1978) found that among adults 18 to 64 years the older subjects coped less effectively than the younger ones. In later studies, the differences have usually been less clear and sometimes even quite the opposite. Labouvie-Vief et al. (1987) studied an even wider age range of subjects (10 to 77 years) than Pearlin and Schooler, and the sample was very selected, comprising one hundred well-educated, high-income persons. The older subjects used more mature coping and defense strategies, but the use of strategies was also in quite a complex way connected with sex, the source of stress, and a measure of ego level.

One often-cited study with very wide age range of subjects and a small (compared to the age range) and selective sample is that of Blanchard-Fields and Irion (1988). In that study age proved to be a moderating factor in the relations between the locus of control and coping. The connections were varied. For example, the internal locus of control was positively related to escape-avoidance, hostile reaction and self-blame among younger subjects, but negatively related among older persons. It was concluded that both the locus of control and coping contexts have different meaning for older than younger persons.

When studying chronically ill middle-aged and elderly persons, Felton and Revenson (1987) found that elderly people used emotional expression and information seeking (also self-blame to some extent) less than younger persons in coping with illness. There were no differences between the age groups in using other coping strategies, cognitive restructuring, wish-fulfilling fantasy and

threat minimization. In another study (Rohde & al. 1990) age-related differences were not found in relations between coping and depression among a sample of 50- to over 80-year-old subjects. Similarly, only minor or no differences between age groups in coping strategies and resources have been found in the few other studies with varied age ranges of subjects (from young to middle-aged to older adults) and coping contexts such as depression (Husaini & von Frankl 1985; Fondacaro & Moos 1987, 1989), physical illness (Keyes & al. 1987, Rofe & al. 1987), interpersonal loss (Feezel & Shepherd 1987) or a variety of adverse events (Headey & Wearing 1990).

In a Finnish study among men of different ages (31-35, 51-55 and 71-75 years) (Lindholm & Tulla 1982), two different "self-made" coping methods were tried out: one general question with 28 ways of coping, and four (hypothetical) life events with eight styles of coping. These methods revealed very few significant differences between the age groups; the most significant difference was that the middle-aged group sought social support less often than the other groups. However, there were indications of a shift from active behavioural ways of coping in the youngest group to passive cognitive ways in the oldest group. Feifel and Strack (1989) also discovered in their American study among middle-aged and elderly men in five conflict situations, that differences between the groups were rare in use of the three identified coping strategies: problem solving, avoidance and resignation. Both groups preferred to use problem solving strategies in handling all of the conflicts. In decision-making and authority conflict situations, elderly subjects used avoidance strategies less often than the middle-aged subjects.

One rather common finding in these studies has been that there are quantitative differences: on the whole, the older age groups seem to use fewer ways or strategies of coping than the younger age groups. But these quantitative differences, in turn, may be connected with qualitative differences in the study contexts (Meeks & al. 1989). When asked of situations that are common at all ages, it seems that the use of ineffective strategies decreases with age. In events that are more common in old age (new challenges without previous experience) it seems that adaptive strategies diminish as people age. In their own studies, Meeks et al. (1989) found that an age-related decrease in the amount of different ways of coping did not mean that coping became more inefficient, rather just the opposite. Murrell et al. (1988) concluded that different kinds of hypotheses about age-related changes in coping strategies have not received much support from empirical studies.

It has been proposed that the differences in coping ways and processes between age groups may depend more on cohort differences, differences in experienced life events (as noted above) and differences in external resources than on age (Felton & Revenson, 1987; Folkman et al. 1987). Perhaps the most important factor is the nature of the events experienced, that is whether they are regarded as losses, threats or challenges (e.g. McCrae 1984). This is connected with the differences in the ways of coping between age groups, and probably also between women and men as well as socioeconomic groups. According to Folkman and Lazarus (1988), studies using the WOCQ have shown that age differences in coping strategies are partly explained by differences in the stress or the events experienced by different age groups (e.g. younger adults meet more challenges and older adults meet more losses or threats). But there have

been contradictory findings concerning the use of different strategies in different age groups, even when the effects of different encounters have been controlled.

It must be remembered that almost all of the coping studies concerned with the age effect have been cross-sectional studies. This means that the differences observed between age groups may show cohort or generational differences more than the effects of ageing. Nonetheless, some large scale longitudinal studies including coping have been conducted.

McCrae (1989) reports a seven-year longitudinal study of coping in a wide age range (20 to 90 years) of adult persons participating in the Baltimore Longitudinal Study of Aging. The data allowed him to conduct also cross-sectional as well as cross- and time-sequential analyses (Schaie 1977). On the whole, there were about 600 subjects in these coping studies. The coping questionnaire of the study included the 68-item Ways of Coping Checklist (Folkman & Lazarus 1980) and 50 additional items based on the coping literature. The cross-sectional data showed significant correlations between age and about half of the 28 coping strategies identified. However, the longitudinal and cross-sequential analyses did not confirm the cross-sectional results, and the time-sequential analyses showed some time-of-measurement effects (differences in test administrations). There were only few and modest changes with age and time in the coping strategies over the seven-year period. Also two broad coping factors, neurotic coping and mature coping (cf. Vaillant 1977), which were factor analytically derived from the coping strategies, showed significant stability in the longitudinal and sequential data.

In the Bonn Longitudinal Study of Aging, adjustment and coping behaviour were observed to be very constant over a 10-year period among people aged 60 to 75 years (e.g. Thomae 1983, 1992a, Rudinger & Thomae 1990). The same pattern of persisting competence was observed both among healthy and chronically ill persons (Kruse & Lehr 1989). The conception of coping in this study was quite consistent with that of Lazarus and Folkman (1984) and was based on Thomae's (1988, 1992b) cognitive theory of adjustment to ageing. In this theory motivational factors are important when experiencing life events. In the Jerusalem Longitudinal Study of Midadulthood and Aging (Shanan 1993) which studied an almost 20-year time span, the majority of the subjects preserved their original coping pattern and a minority changed it, e.g. from active to more passive coping, when they turned from middle-age to late adulthood. The development depended greatly on the personality type of the subjects.

Some other longitudinal studies of a few years' time span and often a wide age range of subjects have also been done (Haug & al. 1989, Patterson & al. 1990, Reich & Zautra 1991, Chipperfield 1993). However, the (main) interest of these studies has not been age-related changes in coping, but other matters such as coping consistency or predictors (e.g. coping resources) of mortality/survival. To examine age-related changes in coping, as distinguished from temporary or situational variations, studies should need a follow-up longer than just few years.

There are a few shorter (from a few weeks to one or two years) follow-up studies (e.g. Husaini & von Frankl 1985, Lund & al. 1986, Folkman & al. 1987, Kahana & al. 1987, Winocur & al. 1987, Krause 1988, Rohde & al. 1990, Smith & al. 1990, Russell & Cutrona 1991, Koenig & al. 1992), which cannot

yield much information, if any, about age-related changes in coping behaviour from a longitudinal developmental perspective. The main purposes of these studies have been to examine the consistency of coping behaviour during a short term and the effects of various events or situations on mental well-being or certain other factors. Or they have been made to study how certain coping strategies predict changes in mood or well-being. Studies of this kind have usually also had a wide age range of elderly subjects, or sometimes subjects from all adult age groups with a small proportion of elderly people. Differences between age groups have not been much examined, or they have not been found or at least not reported. Of course, if the samples are small, it is not even possible to make cross-sectional age comparisons which are reliable and generalizable.

Shanan and Jacobowitz concluded in 1982 that there was no clear evidence in normal older people of a decrement in the ability to adjust to on-time stressful life events. They drew the same conclusion about the ability to cope with stress: studies using interview or self-report techniques give little evidence of an age-related decrement in coping ability. However, according to studies using projective tests, age-related changes in coping styles might exist because of changes in personality structure.

At the moment, the most popular view regarding the relationship between ageing and coping may be what McCrae (1982, 1984, 1989; see also Costa & al. 1991) observed in his cross-sectional and longitudinal studies (cf. Labouvie-Vief & al. 1987, Feifel & Strack 1989). According to this view, elderly people cope with life events and stress in very much the same ways that younger adults do. However, elderly people use "immature" ways of coping, such as hostile reactions, escape and avoidance, less than younger ones. Where the opposite has been observed (e.g. Folkman & al. 1987), it has been explained by situational differences: effective coping in changeable situations involves problem-oriented coping, but in unchangeable situations (which older people face more than younger adults) emotion-focused coping is more important. It may also be that ageing does not have as important an effect on coping as do changes and interindividual differences in internal and external resources (health, socioeconomic status, education, supporting social network etc.) (Murrell & al. 1988, Meeks & al. 1989).

Coping of elderly people

The purpose of this section is to present results from those relatively few studies in which the coping ways and resources of elderly people in particular have been examined without being compared them with those of younger age groups. The interest here is mainly on recent research, published since the mid-1980s. However, these studies have focused on various themes, which makes it difficult to find common points of view which would facilitate comparison between them. Nonetheless, it is attempted here to examine the results concerning both coping in different kinds of situations or events and the use of various coping strategies. Also examined is elderly people's coping in connection with factors behind the coping behaviour, that is internal and external resources affecting coping.

Very few studies on the coping of elderly people have been done in Finland or the other Nordic countries. There are two Finnish studies in which coping of elderly people with major life events is referred to more or less indirectly. In a study of 75-year-old people living at home (Achté & al. 1986) some of the most important ways of adapting to stressful events were living one day at a time (and not thinking about the future), reminiscence or life review, and social support (emotional, informational and tangible support), specially from children and grandchildren.

Coping and adaptation were also touched upon in another Finnish study concerning living conditions and psychological and social functioning among 75- to 84-year-old people (Suutama & al. 1988, Salminen & al. 1990). The subjects were asked to tell about the most difficult events or periods in their lives; wartimes and the deaths of close persons emerged as the most important. It was very difficult for many of the subjects to mention any specific ways of overcoming such situations; they were just lived through and the ways used were not much thought about later. However, two "ways" were quite common: reliance on one's own mental resources on the one hand, and reliance on the healing effect of time on the other. Furthermore, the ways of managing difficulties were elicited, on a general level, using the question: "What do you think a person should do, when he/she is facing difficult problems in his/her life?" One quarter of the subjects were not able to answer the question. The strategies of coping mentioned most often were as follows: a person should find the ways him/herself, religion, help from others, resignation or submission, a positive and peaceful attitude, and perseverance and struggle. Those who had worked in white collar or professional occupations (and having more education) mentioned the active ways more often than the other occupational groups, and they also were able to answer the question better than the other groups. Women mentioned religious ways more often than men.

In a Danish study by Holstein and his colleagues (Holstein et al. 1992), the 70- to 95-year-old subjects generally had used many kinds of strategies (informal and formal social support, problem solving, thinking over the event, escape-avoidance strategies) when coping with major life events. The most commonly-used coping strategy was informal social support. The type of event was related to the chosen coping strategies, but at the same time many subjects used similar strategies from event to event, especially if their strategies were active ones. The choice of strategies was not related to the gender, age or socioeconomic status of the subjects, but it was related to their health status, social contacts and self esteem. Subjects with many internal and external resources used more active coping strategies, and they were more confident about their ability to solve their problems and get through the stressful events than were the subjects with less resources.

Coping and adaptation among demented persons has been studied in Sweden. It has been shown (Hagberg 1990) that the coping behaviour of demented persons is the more primitive or regressive the more severely demented they are. In another study (Johanson & al. 1990) it was found that adaptation and the use of defensive strategies by demented elderly persons were related to the type of brain disorder and its localization. For example, signs of projection and depression were typical among persons with frontotemporal degeneration, and anxiety among persons with Alzheimer's

disease. In a study on adjustment in very old age, using in-depth interviews, Carlsson et al. (1991a and b) differentiated between eight types of adjustment among 85-year-old persons living independently.

Bereavement on the death of a close person and personal physical (or mental) illness are the two events or factors which have been regarded as having the most significant impact on the well-being of elderly people. In particular, the qualitative aspects of social support had significant - even if modest - positive effects on bereavement for the first two years after the death of a spouse in a follow-up study among 50-93-year-old persons (Dimond & al. 1987). In the same study it was found that those persons who, on the basis of the stability of self-esteem, were initially evaluated as effective copers remained effective throughout the first year of bereavement. Correspondingly, those who were very stressed soon after the death of spouse reported high levels of stress one year later (Johnson & al. 1986). It was also found that there were no significant differences between women and men in the bereavement processes during the two-year period (Lund & al. 1986).

In a study on grief resolution among institutionalized 65-94-year-old persons (Herth 1990), the absence of other concurrent losses was positively related to successful adjustment to the loss of spouse after 12-18 months. Confrontive, optimistic, supportant and self-reliant coping styles predicted good adaptation shown by a high level of hope.

The effects of three coping response dimensions on physical health status and life satisfaction were studied among almost 300 elderly women (Lohr & al. 1988). Some of the main findings were that direct-action coping had little effect on health and satisfaction, passive-cognitive coping had deleterious effects on health status, and positive-cognitive coping buffered the effects of negative physical conditions. As could be expected, poor subjective health lowered life satisfaction. There are also other studies where connections between various physical or mental health factors and coping behaviour and resources have been discovered among elderly women (e.g. Becker 1985, McNaughton & al. 1990).

A prospective study of elderly persons living independently was conducted to examine connections between coping and health status (Smith et al. 1990). Subjects who were more likely to use self-blame, wishful thinking and avoidance when coping with stressful events showed more psychological disturbance four months later. In particular, avoidance led to more symptoms. However, coping strategies did not predict physical health status. It was concluded that coping strategies do moderate the effects of life events on health, but that the influence may be different on physical than on mental health.

When reviewing the literature on stress and depression, Coleman (1990) finds support for the idea that depressed elderly people have experienced adverse life events and negative changes more than the nondepressed persons. Experiences that make elderly people vulnerable and increase the risk of developing depression are, in particular, severe physical illnesses and bereavement. As some of the most important coping resources, which also protect against depression, Coleman mentions social support, particularly having a confidant, and high self-esteem. These two factors may also be interrelated; for example, effective social support may have a positive, boosting effect on self-esteem.

In the Bonn Longitudinal Study of Aging depressive reaction was a rather frequent response to problems concerning family and health, while it was less frequent in regard to other branches of life (housing, income). According to Thomae (1992a), this difference does not indicate the use of specific coping strategies, but is an expression of the centrality of these life areas as well as of the limited possibilities of elderly persons to cope with these problems.

In a study of 32 nondepressed and 32 depressed subjects (Foster & Gallagher 1986) the depressed ones used avoidance and emotional discharge coping strategies in recent major life events more than the nondepressed subjects. The nondepressed persons evaluated all ways of coping as more helpful than did the depressed persons, no matter how often they were used.

Coping with other specific events or matters have also been studied in gerontological research. However, many of them have only received occasional attention. For example, Krause (1987a, b) studied coping with chronic financial strain among a community sample of elderly people. Cain (1988) studied divorce among a small sample of elderly women, and Folkman et al. (1987) studied the misuse of drugs among older adults. An interesting finding in the last-mentioned study was, that the misusers did not cope differently or report more hassles than the others, but they experienced their hassles as more intense; they felt more threat and were more dissatisfied with their coping efforts.

A Canadian study (Johnson 1989) examined, using a small sample, differences between 'adapters' and 'at-risk' elderly women. That is, persons who are successfully maintaining an independent life vs. persons who have an inability to live independently for various reasons. The two groups did not differ in age, physical health assessment, mental status or social support. The differences were in life events and coping strategies. The adapters reported having experienced far more life events than the at-risk persons. The adapters used more instrumental or problem solving strategies, whereas the at-risk persons used more affective-aggressive strategies of coping.

It is worth mentioning here that the coping behaviour of the carers of demented and other elderly people has also been studied recently (for reviews see Gatz & al. 1990, Worcester 1990). The carers have usually been spouses, who often are older people themselves, too, and other family members. It has been found that coping strategies such as problem solving, information seeking and positive focus or modifying meaning as well as social support have positive effects on the well-being or adjustment of the carers (Gatz & al. 1990, Borden 1991), whereas tension reduction has negative effect (Hinrichsen 1991). But contrary observations have also been made. In Sistler's (1989) study seeking social support and problem solving were not related to the subjective well-being of the spousal carers.

One of the coping strategies which have been discovered most regularly among all adult age groups is social support or seeking social support. At the same time, social support is one of the most important coping resources (see p. 20). Emotional support, in particular, has been regarded as having a protective function in stress situations. But this, too, depends on the features of the situation. For example, Krause (1987a) found that in the case of financial strain, emotional (and tangible) support was less effective than informational support in preventing depressive symptoms among elderly people. In any case, this

study supported the stress buffer hypothesis that social support is an important coping resource.

The importance of social support as a coping resource was also found in a longitudinal study of Americans over 65 years old (Haug & al. 1989). Social support and physical health were the most important factors in preventing a decline in mental health over nine years, and social resources also predicted survival over this time span. Also the shorter follow-up studies of Cutrona et al. (1986) and Schwarzer (1992) have confirmed the significance of social support on the health of elderly people. In the study by Cutrona and her colleagues, social support predicted physical health status over a six-month period (cf. direct effect hypothesis). In the case of mental health, the positive effects interacted with the feelings of stress, supporting the buffering hypothesis. This hypothesis was also supported in Schwarzer's study on relations between bereavement and anxiety. However, after 12 months, social support had lost part of its influence on anxiety and life satisfaction, perceived health being now the most influential predictor. These findings support the idea that the effects of social support, as well as other coping resources and strategies, depend perhaps on situational factors but also on the nature of the dependent variables.

When connections between personality features (traits, styles) and coping have been studied, the locus of control has probably been the factor examined most often. Concerning age differences in the locus of control, it is worth mentioning that in the Duke Longitudinal Studies of Aging it was found, cross-sectionally, that the oldest subjects (over 60) were the most internal and the subjects of a young control group (students) were the most external (Siegler & Gatz 1985). However, longitudinally the older subjects became slightly more external over the six-year follow-up.

In a five-year longitudinal study on coping with major life events (physical disability, bereavement) in old age (Reich & Zautra 1991), it was shown that the life event itself influences the beliefs that people have about their ability to control the event. Another important finding was that more externally controlled people benefit greatly from dependence and reliance on other people. In the longitudinal analysis it was seen that bereavement did not effect later perceptions about ability to control or cope with negative events. Physical disability had more significance and led to a lowered sense of control and increased feelings of fatalism. It has also been found (Krause 1987b) that internally controlled persons did not suffer from the adverse effects of financial strain as much as externally controlled subjects. Later (Krause 1988), it was discovered in an 18-month follow-up study that elderly persons with an internal locus of control made fewer visits to a physician in cases of severe stress than did persons with an external locus of control. Visits to a physician were also associated with low social support.

Also Thomae (1992a) has emphasized the importance of control beliefs on the coping of elderly people. But internally controlled persons are not necessarily better copers than externally controlled people. Krause (1986) has observed that both elderly people with an extremely internal and those with an extremely external locus of control are vulnerable to the advers effects of life stress.

Personality, life events and coping as predictors of mental health were examined (Martin & al. 1992) in the Georgia Centenarian Study (see Poon,

Sweaney & al. 1992). Differences were found in personality traits and coping strategies between the age groups (65 to 100+ years). Centenarians had higher scores on dominance, suspiciousness and imagination than younger subjects. They used active behavioural coping strategies less and cognitive strategies more than the younger age groups when coping with health and family events. These few, and mostly rather one-sided, studies among elderly people do not reveal much about the possible connections between personality features and coping.

Very few studies have been made among elderly - or younger - adults on the relations between coping behaviour (strategies, resources, processes) and cognitive functioning. Furthermore, evaluation of cognitive capacity may have been done using rather imprecise methods such as screening tests for dementia. Such methods cannot give a reliable picture of the level of cognitive functioning and its relations with coping behaviour. Sometimes the subjects have only been evaluated as 'cognitively intact', if they seem to understand the oral or written questions and can answer them.

In a study of coping and postinstitutional outcomes (Kahana & al. 1987), active coping strategies were associated with good cognitive functioning (evaluated by a cognitive screening test) and high morale, whereas affective coping was associated with poor cognitive functioning. Active strategies were also associated with good outcome, and coping behaviour remained stable during institutionalization over three months. A ten-month follow-up study of very old institutionalized people (Winocur & al. 1987) touched upon this matter. They found that cognitive performance was related to personal control and, especially, that changes in cognitive functioning were significantly associated with control.

A significant connection was found between cognitive and coping variables among 60- to 100-year-old cognitively intact persons dwelling in the community in the Georgia Centenarian Study (Poon, Messner & al. 1992). Cognitive functioning was evaluated by several methods, including four subtests of the WAIS. Taken together, personality, coping and cognition predicted well the adaptational outcomes of the subjects. Centenarians with higher fluid intelligence managed better the demands of everyday life. Most of the few studies on the subject have shown connections between coping and cognitive functioning. However, contradictory results can also be found. In their study among men of different ages (including elderly men), Lindholm & Tulla (1982) observed that the use of the various coping strategies showed no correlation at all with the level of cognitive functioning measured by four subtests of the WAIS. The reasons for these contradictory findings may lie in different coping methods and contexts.

Recently, religion as a resource for coping and religious ways of coping have been emphasized in the gerontological literature. Reviews by Koenig (1990, 1991) and ideas put forward by Holt and Dellmann (1992) stress the positive effects of religious behaviour on health, well-being and quality of life in old age as well as the importance of religious coping in adjustment to illnesses and other life changes among elderly people. In a study by Koenig et al. (1988) 55-80-year-old persons answered open-ended coping questions concerning stressful periods in their lives (whole life, present, past ten years). Almost half of the subjects stated that they had used religious ways of coping during at least one

of these periods. The results did not support the view that only poor and uneducated people use religion to adapt to life changes. Even greater use of religious coping was found in another study (Koenig & al. 1992), the subjects of which were elderly male medical patients. The significance of religious coping behaviour has also been observed, for example, in a study concerning divorce after age 60 among elderly women (Cain 1988) as well as in findings concerning elderly people's views of managing difficult problems in life (Salminen & al. 1990). These studies as well as findings among younger adults (e.g. Pargament & al. 1990) raise a demand for better integration of the dimension of religious belief into coping literature and research.

As indicated above, in the Bonn Longitudinal Study of Aging the aged subjects were quite consistent over many years in their response patterns and hierarchies when dealing with the same problem area (Thomae 1992a). The same consistency of coping behaviour was seen in a longitudinal study in Israel (Shanan 1993). Few other gerontological studies have examined consistency or stability of coping over a longer period than a few months. In their four-year longitudinal study of elderly people Patterson & al. (1990) found that coping strategies were more a function of event type than consistency in coping styles. The primary and secondary appraisals of the event (degree of threat, changeability of the event, courses of action) were associated with the chosen ways of coping. Problem solving and growth were the most consistent coping strategies, and advice seeking the least consistent. The more threatening the event, the more was seeking social support used as a way of coping. It was also found that the older elderly subjects used less problem-focused coping and fewer strategies on the whole than the younger elderly subjects. Other demographic variables (sex, social position, marital status) did not affect coping patterns. In a shorter follow-up Kahana et al. (1987) concluded that elderly subjects used individual coping styles which were characteristic of them in a wide range of different situations. They regard coping as primarily traitlike behaviour which has dynamic components.

2.5. Concluding remarks

The focus of this study is mainly on coping with major life events in old age. By life events is meant those important changes or problem situations - not necessarily crises - in the life of an individual, as a result of which long-lasting or permanent changes take place in the individual him/herself or in his/her physical or social environment. Minor daily events (hassles) are also touched upon to some extent.

After reviewing the literature, it has to be concluded that there is little information, based on generalizable results of empirical studies, about the amount and nature of life events and their effects among elderly people. It is not adequately known how much stress these events cause elderly people and, especially, whether the same events are experienced differently in different age phases or whether the differences are mostly generational.

On the basis of the recent coping literature, it may be concluded that coping is usually regarded as a process (of even long duration) and not as a single response or momentary behaviour in the stress situation. It is often thought that choice of ways of coping is more strongly determined by the contexts of coping than the features of individuals (e.g. their personality traits), but contrary views have also been proposed. It is possible, and even probable, that the choice of coping strategies is affected by both of these factors. There may be situationally specific coping "ways" but also more permanent coping "styles". The various ways of coping belong to different dimensions or strategies of coping. The word "strategy" refers to the conception that coping is conscious, considered and goal-directed activity or behaviour. However, it might be that coping is not always conscious, but partly unconscious, which makes it difficult for a person to describe his/her coping behaviour. In any case, it is seen that many kinds of ways of coping, from defensive reactions to active problem solving, are generally used at the same time or at least in the same process of adaptation.

Coping ways are not simply good or bad, but the same ways may be both good (efficient, adaptive) in some situations and bad (inefficient, maladaptive) in others. The effectiveness of certain ways of coping is related, for example, to the controllability of the event. If it is thought that it is not possible to influence the event, it is usually more effective or successful to use emotion-focused than problem-focused coping strategies. For example, avoidance may, in some health care situations, where a person is largely unable to control the situation, have significantly more positive outcomes than more active coping ways such as information seeking (see Cohen 1980).

In this study, the term coping refers to cognitive, behavioural and emotional ways of handling stress and/or problematic situations or changes which cause stress. Coping is understood as a broad concept which also includes defences. It is thought here that coping is not always fully conscious, considered and strictly purposeful behaviour. The conception adopted here also means that in different situations coping is (or may be) influenced by both the nature of the situation and the personality features of the coping individual as well as his/her other internal (cognitive functioning, mental and physical health) and external (social contacts, socioeconomic status) resources.

In studies concerning coping in adult populations the age range or the proportion of elderly people has not always been given. Sometimes the samples have been too small to yield generalizable information on the coping behaviour of subjects with a very wide age range. Such studies have seldom utilized individuals older than 75 years as a separate age group. Therefore, little is known about coping behaviour in the oldest age groups. When the oldest age groups have been included, their representativeness in the samples has not been too good. And, most of all, it has generally been the case that all the elderly subjects, e.g. 55 to 90 or 65 to over 100 years, have been examined as a single age group only.

A few more or less popular themes may be found in gerontological coping research, despite the paucity of the research on the life events, stress and coping of elderly people so far. In any case, it is difficult to find ideas or points of view which would connect the varied studies. This is why it is difficult to compare studies with each other or to draw definite conclusions from their

results. Comparisons are also difficult because of the variety of methods, samples and subjects (where they come from, how old they are, etc.) in these studies. It is also important to pay attention to cultural differences when comparing studies from different countries. For example, Coleman (1990) has noticed that religious ways of coping are more common in the United States than in Britain. Here it is worthy of consideration that most of the coping research and literature reviewed above comes from the United States, since European, especially Nordic and Finnish literature, is scarce.

Problems with methods as well as lack of examination concerning the factors connected with coping behaviour are important shortcomings in this research area. Both life events and coping have mainly been researched via questionnaires, and interview methods, which could give more profound information on these matters, have not been much developed and used. It is also unclear how suitable the methods developed for studying younger age groups are in case of elderly people. The factors behind or related to coping behaviour, such as sociodemographic variables and internal and external resources, have not been much examined. Even connections between coping and gender have not always been examined properly; quite a few studies have been done either among women or men only. With regard to Finnish research, reliable descriptive data on coping strategies among elderly people do not even exist. One purpose of the present study is to satisfy the need for this basic information. Also examined, for example, are the internal coping resources of elderly people, the stability of coping strategies and the connections between coping and gender and certain other factors. Finally, some new methods are also used in studying coping strategies, resources and processes.

3 AIMS OF THE STUDY

The main purpose of the study was to describe ways and strategies of coping among elderly people in various events and situations. Stability of coping or the contextual influences on ways of coping, types of coping behaviour and adaptation, gender differences in coping, and connections between coping and certain sociodemographic variables and variables of functional abilities were also studied. Information on the frequency of certain events was obtained, as coping was examined specifically in connection with life events, i.e. how such events are handled. Detailed data on the amount, duration and effects of stress experienced by elderly people is not given, since a study of stress itself was not one of the aims of this study.

Specific hypotheses were not proposed because the lack of information concerning coping among elderly people (almost no Finnish data) was thought to preclude the formulation of meaningful hypotheses. Furthermore, the data collected so far is conflicting. The study is descriptive by nature, aiming at charting a new research area and also trying out a number of new methods.

The main research problems addressed in the study were:

1. What kinds of ways and strategies of coping do elderly persons use in various events and situations?

2. Do the ways of coping differ from event to event?

3. Do the ways of coping differ between experienced and hypothetical life events?

4. What kinds of coping resources do elderly people have?

5. How are coping strategies and resources connected with gender and other sociodemographic factors, cognitive functioning, health, mood and social resources?

6. Is it possible to differentiate between different types of coping behaviour? What types of reaction and action are there and how successful are they?

4 METHODOLOGY

4.1 Subjects and procedure

The health and physical, psychological and social functioning of 75-year-old persons (cohort born in 1914) living in Jyväskylä, Central Finland, were studied in 1989 using both home interviews and laboratory examinations. The laboratory examinations included a thorough health examination by a physician, measurements of physical and psychomotor functioning and a psychological assessment of cognitive abilities. The study was a population study (N=382) and a part of a multidisciplinary research and intervention program known as the Evergreen project, which aims at improving the health and functional capacity of elderly people as well as services for elderly people (Heikkinen & al. 1990, 1991; Heikkinen & Suutama 1991). 355 persons, 92.9 % of the 75-year-old population, were interviewed at home or in institutions, and 80.4 % participated in the laboratory examinations (including a few persons who participated in the medical examination and psychological assessment either at home or in an institution). The first data used in this coping study were gathered on this occasion, and the remainig data in two later stages.

Stage 1. The planning of the coping study and development of the methods to be employed began in spring 1989. The first coping questionnaire of the study was tried out in summer 1989. Thirty persons aged 60 to 80 years from a pensioner group in Jyväskylä and a rehabilitation study in Turku participated in the trial. The interview and questionnaire studies as well as the laboratory examinations for the Evergreen project were done in October to December of the same year. The subjects were asked to fill in a questionnaire on ways of coping in different life events or situations. The questionnaire was returned by 301 persons (198 women and 103 men; 78.8 % of the population, 84.8 % of those interviewed), almost all of whom participated in the laboratory examinations.

Stage 2. The Sentence Completion Test used in the second stage of the data collection was tried out in a pensioner group in Jyväskylä in January 1991. Thirty persons aged 60 to 85 years did the test. Stage 2 was carried out in February to April 1991, approximately 16 months after the first data collection. A new questionnaire was sent to those who had returned the coping questionnaire in stage 1, excluding those who had died (n=9), were not assessed by cognitive tests (n=3) or were living in institutions (n=7). 282 forms were mailed. One more person had died, and six persons had moved away from Jyväskylä or to an unknown address and one person to an institution. The number of the subjects contacted was 274. The mailed questionnaire included a revised version of the Ways of Coping Questionnaire (Folkman & Lazarus 1988) and the Sentence Completion Test. After the first round, 194 forms (70.8 %) were returned. A new form was sent to those who had not responded, resulting in a further 32 responses. After two rounds, the participation rate was 82.5 % (n=226).

Stage 3. Stage 3 was carried out in spring 1991. Thirty subjects, 15 women and 15 men, were selected from those who had filled in the questionnaires in the previous stages and who had experienced at least one major life change in old age. The subjects had to be cognitively intact (no major deterioration according to the test results) to be able to participate in the theme interview. Thirty-eight persons were contacted to get the required amount of subjects. Four persons refused, because they no longer wanted to participate in the study and also for health reasons. Four persons could not participate or were not contacted due to temporary institutional care or travel.

The interview method was tried out with two women and two men from the same target population. The interviews were carried out in April to May by two interviewers, each of whom interviewed 15 subjects. The interviews were tape-recorded and transcribed.

4.2 Methods

The data were collected by a variety of methods, questionnaires and a theme interview, and using samples of different sizes. What kinds of analysis can be done and what kind of information is obtainable depends partly on methods and sample sizes.

The Coping with Life Events Questionnaire (CLEQ)

The questionnaire used in the first stage of the study was developed by the author of this thesis and was based on previous coping questionnaires and articles about the dimensions of coping and life events in old age. The purpose behind planning the method was to obtain information on the effects of situation on coping. Five different life events or situations, which the subjects

may or may not have faced, are briefly described in the questionnaire. The situations are as follows:

- You have to move to new accommodation which suits you worse than the place you had previously, or to an old people's home.
- You fall seriously ill or get injured or your physical condition worsens for some other reason.
- Your spouse or one of your close relatives or friends dies.
- You break up with a person who is important and close to you because of a serious disagreement between you and her/him.
- You have to give up an activity or interest which is important to you because your health is impaired or for some other reason.

For every event the subjects are asked to think about what they think, how they feel, what they do (or would think, feel and do). The life events and situations described in the questionnaire were chosen to represent different fields of life. At the same time they were to be events that elderly people presumably experience quite often, according to the literature concerning life changes (e.g. Murrell & al. 1988). The events were to be important change, problem or crisis situations, not habitual problem situations in everyday life. The subjects were also asked if they have lived through the events and, if so, how long ago they were faced with these situations.

Most of the previous coping questionnaires have included a large number of various coping ways, and the respondent has been asked to indicate, usually on a two- to five-point scale, how much he/she has used them in the situation in question (how well they apply to the situation). The questionnaire used here lists 14 ways of coping, the same for each event, and a three-point response scale (not at all - to some extent - a great deal). Items such as "I seek support and consolation from persons who are close to me" and "I think about different ways of managing the new situation and act on them" are included (see Appendix 1). The ways represent different dimensions of coping such as problem solving, social support, tension reduction, information seeking, religiosity and avoidance. They are based on items from previous methods, but are meant to be broader and less specific in content.

The Ways of Coping Questionnaire (WOCQ)

In order not to rely on the results of only one new method concerning the ways of coping of the elderly subjects, it was decided to use a second questionnaire. The newest version of the Ways of Coping Questionnaire (WOCQ) seemed to be a reasonable choice. Folkman and Lazarus (1988) shortened their questionnaire on the basis of the results from two large studies and decided to keep those 50 items which had proved to be the most reliable in factor analyses.

In the Finnish version of the WOCQ formulated for this study, the subjects were asked to think about the most difficult or stressful situation they had experienced within the past two or three months and then to indicate to what extent (scale 0-3, not at all...much) they had used the different ways of coping described in the 50 statements. The questionnaire also included a four-

item secondary appraisal question concerning the respondent's possibilities of acting in the situation or handling it.

The factor analyses using Varimax-rotation did not yield interpretable and reliable factor structures. Six was the highest number of factors that was possible to obtain using the rotations, not eight as in the original studies, and even these six factors were theoretically quite incoherent. In the present case, it was decided to use the eight scales of the original questionnaire, because their reliabilities were satisfactory and mostly on the same level as in the original studies (Folkman & al. 1987, Folkman & Lazarus 1988). One scale (Escape-avoidance) included three items which had very low correlations with the other items. When they were omitted, the reliability of the scale improved. The reliabilities (Cronbach's alphas) of the final eight scales were as follows (number of items in brackets):

	α
- Confrontive coping (6)	0.64
- Distancing (6)	0.59
- Seeking social support (6)	0.71
- Self-controlling (7)	0.80
- Accepting responsibility (4)	0.62
- Escape-avoidance (5)	0.62
- Planful problem solving (6)	0.65
- Positive reappraisal (7)	0.70

The Sentence Completion Test (SCT)

The Sentence Completion Test was used to obtain information on personal resources (personality traits, styles of behaviour, self-reliance, etc.) which may have effects on the situation-specific ways of coping as well as on the process of adaptation. The test was to some extent based on one previously used to study the competence of elderly people (Salminen 1987, Salminen & al. 1990). Hints on analyzing and scoring the sentences were derived from Rotter (1951), Rohde (1957) and Loevinger & Wessler (1970), but in the main the scoring system was specially developed for this study.

The method originally had 31 items (sentence beginnings). Some of these were taken from a previous test (Salminen & al. 1990) to study the sense of competence, and the others were developed for this study. The test items refer to mental and social resources and ways of managing different situations. Their number was reduced on the basis of a small pilot study. The final version has 21 items (Appendix 2), and includes only one item as such from the previous test. The focus here is on the quantitative aspects of the method. Each item was scored using a five-point scale showing the amount of personal resources the subject was evaluated to have (1 = no resources, 2 = few resources, 3 = some resources [or a neutral answer, or "on the one hand...on the other hand"], 4 = quite a lot of resources, 5 = plenty of resources). One item (God helps...) was excluded from the sum score because it did not correlate with the other items. The reliability (Cronbach's alpha) of the 20-item sum score was 0.82. Factor analyses confirmed that the test yielded only one factor. Each

subject was also given a general score using the same scale. This was based on evaluation by the rater after reading all the subject's answers.

Two experienced raters independently scored the responses to all the items for 30 subjects. The correlation (Spearman) between the two sum scores was 0.88. The corresponding correlation between the two general evaluation scores was 0.86. This consistency in the scoring of two independent raters shows that the scoring system is reliable and that the variance in the scores due to the rater is not a significant source of error.

The theme interview

The interview method was the theme interview or semi-structured qualitative research interview. It was used to obtain information on the different phases of coping and adaptation which questionnaires cannot elicit, especially if they are used only once during the process of coping. The method was tried out by interviewing four persons (two women, two men) out of those who had answered the two coping questionnaires. On the basis of the preliminary interviews, the method was slightly modified. This mostly meant that some of the interview questions had to be made more explicit.

At the beginning of the interview session a check was made to find out whether any important changes had occurred in the life of the interviewee since the date of the first questionnaire about 18 months previously. The interviewee was then asked to think about the most difficult or stressful event which he/she had experienced in old age (within the last few years or since retirement). The interviewee was allowed to talk freely about what had happened, about the course of the event and its effects on his/her life. The questions, which were asked, where necessary, concerned the timing of the event, anticipation and first reactions, stress and emotions, ways of coping, the adaptation phase, possible changes in the subject's mental resources or personality and the interviewee's contentment with him/herself in managing the event (Appendix 3).

The interview, including the discussion before and after the actual theme, lasted from about 45 minutes to two hours. The actual research interview about coping with and adaptation to a difficult life event took about 20 to 90 minutes, mostly 25 to 40 minutes (or about 30 minutes on an average). In general the interviewees took a very positive attitude toward the interviews and their atmosphere was confidential. Few interviewees were uncertain at the beginning as to whether they would be able to answer the questions properly or give the right kind of answer. Such difficulties were easy to overcome, and the interviews proceeded with no major problems, although the theme of the interview had a strong emotional impact on many of the interviewees. On the basis of the evaluations by the interviewers, only few subjects failed to speak openly about their thoughts and feelings. Three of the interviewees were evaluated to have minor mental health problems (chronic depression, anxiety, paranoia). However, these problems did not give cause to reject their interviews.

The interviews were tape-recorded and transcribed. The transcriptions were checked by the author reading the texts while simultaneously listening to the tapes. Only a few sentences were found where errors in transcription changed the meaning of the answer.

This report does not include any citations from the responses of the subjects, because the spoken language, with its many indeterminate phrases, repetitions and degressions, is difficult to translate while preserving the different shades of meaning. Preparing a Finnish report on the qualitative aspects of the theme interview (and the Sentence Completion Test), in which citations will be included, was regarded as a better procedure.

Methods used to study physical, psychological and social functioning

Information obtained from other methods used in the interview and laboratory study of the Evergreen project is used in this study. The home interview data includes information on the sociodemographic background of the subjects and their social contacts as well as self-evaluations of health and physical functioning. During the home interview the subjects filled in a questionnaire concerning mood and social skills (see Heikkinen 1991). It included two methods:
- Center for Epidemiological Studies Depression Scale (CES-D; Rabkin & Klein 1987); 30 items, reliability 0.84; and
- Battery of Interpersonal Capabilities (BIC; Paulhus & Martin 1987); 16 items, reliability 0.67, evaluating social flexibility. The 7-point Likert scale items refer to socially desirable and undesirable traits. The answers are used to evaluate a person's ability to take into account the demands of a situation in his/her behaviour.

For closer examination of the variables and the Finnish translations of the two questionnaires see Heikkinen & Suutama (1991).

The laboratory examinations included psychometric tests on memory and other cognitive abilities. The methods were:
- Digit Span, Logical Memory (one story) and Visual Reproduction from the Wechsler Memory Scale (WMS; Wechsler 1945),
- Digit Symbol from the Wechler Adult Intelligence Scale (WAIS; Wechsler 1955, 1958),
- Raven's Standard Progressive Matrices (Raven 1958, Raven & al. 1977) with a five-minute time limit, and
- Word Fluency from the Schaie-Thurstone Adult Mental Abilities Test (Schaie 1985) as an oral test with a three-minute time limit.

Two indices (sum scores) were calculated from the test scores to show the cognitive functioning of the subjects: the Memory score, including the Digit Span, Logical Memory and Visual Reproduction, and the Intelligence score, including the Digit Symbol, Raven's SPM and Word Fluency. The two indices were used, when the relations between cognitive functioning and answering the coping questionnaires on the one hand and using different coping strategies on the other hand were examined. In the statistical analyses, the raw scores of the tests were changed to standardized z-scores before calculating the indices, to prevent the possible effects of differences in the variances of the raw scores. The correlation of both of the indices based on z-scores with the corresponding raw score index was 0.98. The reliability (Cronbach's α) of the Memory score was 0.60 when using the raw scores and 0.65 using the z-scores. The corresponding reliabilities of the Intelligence score were 0.70 and 0.77. The cognitive test results

were also used when selecting subjects for the theme interviews. Subjects with results showing major cognitive deterioration were not selected.

Also a 12-item Metamemory Questionnaire developed for the study (Fromholt & al. 1990, Suutama & al. 1991) was used in analysing the coping data. A nine-item Memory difficulties score (rel. 0.75) and a five-item Short term memory (STM) difficulties score (rel. 0.60) were based on the method.

4.3 Data analyses

The statistical methods used in analysing the questionnaire data were tests for differences in distributions and means (χ^2, one-way analysis of variance, t-test), correlations (Pearson and Spearman) and multi-variable techniques (factor and regression analyses). The statistical analyses were done using the SPSSx program (1988). Descriptive qualitative methods, especially content analysis, were used in analysing the theme interview data.

5 RESULTS

5.1 Response rates and drop-out analysis

Tables 1 and 2 show the response rates at stages 1 and 2. At both stages about 70 % of the subjects answered with no or only some missing data. More than one fifth of the subjects returned a quite or almost empty form. In stage 1 some of the subjects responded to only one or two of the five events, and in stage 2 about 10 % answered either SCT or WOCQ. Some of those who failed to respond fully gave explanations for this, especially in stage 2. They were not capable because of poor health, tremor, poor sight or other problems in physical functioning; they were unwilling to answer because of "bad questions", or they were unwilling to participate any further in the study; they had difficulties understanding the questions or knowing what to do or how to answer; they had not experienced any stressful situations recently.

TABLE 1 Response rate at stage 1 (%)

Answered	Men	Women	All
Perfectly	67.0	52.6	57.5
Slightly imperfectly	13.6	14.6	14.3
1 or 2 events	3.9	4.5	4.3
Very imperfectly	9.7	16.7	14.3
Not at all	5.8	11.6	9.6
	100.0	100.0	100.0
(n)	(103)	(198)	(301)

TABLE 2 Response rate at stage 2 (%)

Answered	Men	Women	All
Both SCT and WOCQ	64.0	59.6	61.1
Only WOCQ	12.0	4.6	7.1
Only SCT	5.3	7.3	6.6
Very imperfectly	4.0	3.3	3.5
Not at all	14.7	25.2	21.7
	100.0	100.0	100.0
(n)	(75)	(151)	(226)

There were no significant differences in respect of either mood (CES-D score) or life satisfaction between those who didn't participate in the coping study at all, those who answered incompletely and those who answered fully in the first stage of the study (see Table 3). However, those with complete answers seemed to have somewhat higher socioeconomic status (income, education) than those with unusable answers. Those who did not participate in the coping study had evaluated their health as somewhat better than did the subjects who gave incomplete answers. But many of the subjects who did not participate in the coping study (and having perhaps worse physical functioning) had not responded to the question on self-evaluated health.

TABLE 3 Differences in background variables between three groups formed on the basis of answering the coping questionnaire in stage 1 (means and standard deviations, one-way analysis of variance)

	Answer			One-way		
	1 No	2 Incompl.	3 Compl.	F	p	Scheffe
Years of education	5.96 (3.46)	5.28 (2.68)	6.38 (3.44)	3.070	0.048	-
Family net income per month (FIM)	4115.00 (2384.00)	3964.00 (1969.00)	4965.00 (2371.00)	5.750	0.003	2 / 3
Self-evaluated health (1-5)	3.32 (0.58)	2.90 (0.71)	3.04 (0.53)	4.206	0.016	1 / 2
CES-D score	13.62 (9.15)	13.96 (9.82)	13.32 (7.58)	0.165	0.847	-
Life satis-faction (1-4)	3.23 (0.71)	3.25 (0.83)	3.37 (0.65)	1.259	0.285	-
(n)	(19-46)	(63-72)	(209-229)			

Those who answered properly in stage 1 had somewhat better cognitive functioning than those with unusable answers (see Table 4). No data exists concerning the cognitive functioning of those who did not participate in the coping study or the laboratory examinations. Tables 4 and 5, as well as Table 29 (p. 73), include Memory and Intelligence scores based on the raw scores of the tests, since they are more descriptive than standardized z-scores (cf. page 44). The z-scores were also used in the analyses, and the significances of the t- and F-values were about the same as in the raw score based analyses.

TABLE 4 Differences in cognitive functioning scores between two groups formed on the basis of answering the coping questionnaire in stage 1 (means and standard deviations, t-tests)

	Answer		t-test	
	Incompl.	Complete	t	p
Memory score (raw score)	21.42 (6.64)	23.91 (6.16)	-2.82	0.005
Intelligence score (raw score)	60.31 (19.55)	67.42 (20.00)	-2.49	0.013
(n)	(62-66)	(221-225)		

As a group the drop-outs in stage 2 had the lowest and those who gave complete answers the highest level of cognitive functioning, as can be seen in Table 5. In particular, this was the case among the women. These results show that, with respect to cognitive functioning, the group whose coping behavior can be evaluated is to some extent selected. It may be that the coping questionnaires were too difficult for some of the elderly subjects. On the other hand, the selected group still constitutes a majority of those who originally participated in the study.

TABLE 5 Differences in cognitive functioning scores between three groups formed on the basis of answering the coping questionnaire in stage 2 (means and standard deviations, one-way analysis of variance)

	Answer			One-way		
	1 No	2 Incompl.	3 Complete	F	p	Scheffe
Memory score (raw score)	19.77 (8.16)	23.11 (6.22)	24.46 (5.58)	14.095	0.000	1 / 2, 3
Intelligence score (raw score)	53.36 (22.07)	64.63 (21.80)	70.34 (18.20)	18.562	0.000	1 / 2, 3
(n)	(73-81)	(54-55)	(164-166)			

5.2 Events experienced by the subjects

Studying the experiences of various life events was not one of the actual research problems of this study, but they were touched upon in different methods. The first coping questionnaire gave information about some events in the lives of the subjects. Table 6 shows how many of the subjects had experienced the life events or situations which were included in the questionnaire. In all of the events about half of those who had faced the situation had last faced with it at or after age 65. About one fifth (22 %) had never experienced any of the events, and 44 % none of them in old age. After age 65, 30 % had faced more than one of the events. Within the last year only 16 % had lived through any of the events.

The most common events were death of a close person - especially among the women - and serious health problems (illness, injury). The differences between women and men in these events is (at least partly) explained by the difference in the average ages of Finnish men and women. Nowadays life expectancy at birth is about 79 years for women and 71 years for men (World Health Statistics Annual 1991). Men die younger, but most of those men who reach age 75 have a better functional capacity than women. Giving up hobbies or other activities for health or other reasons was also rather common among both sexes. Involuntary relocation and break up between close friends were less common even if not quite unusual. This study did not attempt to determine the total amount of life events in old age or possible differences in this between women and men.

TABLE 6 Life events ever and after age 65 among men and women (%)

	Men		Women	
Event	ever	>65	ever	>65
Involuntary relocation	15.4	7.7	21.7	10.2
Serious health problems	35.6	17.8	40.0	26.7
Death of spouse, close relative or friend	47.1	28.2	82.7	48.0
Break-up with friends	20.5	10.8	16.6	10.3
Giving up activities	39.8	22.9	36.2	21.3
(n)	(78-84)		(126-139)	

In the WOCQ the subjects were asked to describe briefly the most difficult or stressful situation they had experienced during the previous two or three months. Of those who had otherwise completed the questionnaire, about 12 % had not answered this item. Furthermore, as can be seen in Table 7, 20 % of those who had answered the item stated that they had not experienced any difficult situations in the near past. Most common problem was that of the subject's personal health, especially among the women. Among the men, the illness of a close person was quite common too. The men also described, more

than the women, various situations which could not be included in any of the categories shown in Table 7.

TABLE 7 Percentage distributions of the stressful situations in the Ways of Coping Questionnaire among men, women and the total sample

Situation	Men	Women	All
Health problems, accidents, etc.	20.4	39.1	33.1
Death of a close person	4.6	4.3	4.4
Illness of a close person	13.6	7.6	9.6
Problems with everyday living (housing, economy, etc.)	9.1	7.7	8.0
Problems with family affairs	2.3	8.7	6.6
Problems with personal relationships	6.8	9.8	8.8
Other difficult situations	18.2	5.4	9.6
No difficult situations in the recent past	25.0	17.4	19.9
	100.0	100.0	100.0
(n)	(44)	(92)	(136)

The WOCQ included a four-item question concerning the subject's evaluation of his/her possibility of coping with the situation (secondary appraisal). Over 80 % of the subjects thought that the situation had to be accepted or got used to, and less than 40 % thought that they could change the situation or do something about it (see Table 8). About half of those who responded to the items (n=141-151) thought that they needed to know more before they could act, or that they had to hold themselves back from doing what they wanted. The differences between the men and women in these evaluations were non-significant.

TABLE 8 Secondary appraisal of the stressful situation in the WOCQ among men, women and the total sample (%)

	Men		Women		All	
Appraisal	Yes	No	Yes	No	Yes	No
Situation could be changed	38.2	61.8	38.5	61.5	38.4	61.6
Situation had to be accepted	78.6	21.4	85.3	14.7	82.8	17.2
More information was needed	58.9	41.1	55.7	44.3	56.9	43.1
Could not do as wished	47.3	52.7	53.5	46.5	51.1	48.9
(n)	(55-56)		(86-95)		(141-151)	

Those subjects (n=113) who had responded positively to more than one of the secondary appraisal items were asked to indicate which one of the items was the best description of the situation. The most common choice (70 % of women and 46 % of men) was that the situation had to be accepted. The next best description was that more information was needed (14 % of women, 26 % of

men). On the whole, appraising the situation as one which had to be accepted was much more common than the other appraisals.

The classification of the difficult situations in the WOCQ (as shown in Table 7) was changed to a three-point variable, which included those responses which concerned either the subject's own illness, problems with close persons or problems with everyday living. The four secondary appraisal variables mentioned above were examined in relation to these three situational categories. For this purpose, the number of subjects was reduced, as many had either not identified the event (or the event could not be included in the three most common categories) or answered the secondary appraisal items. None of the appraisals had significant contextual variability (see Table 9). The biggest difference was that problems with close persons were less often (25 %) evaluated as capable of change than the other problem areas (45-50 %). Many of the elderly subjects seemed to believe that they could have little or no influence on other people. Other smaller differences were that the situation had more often to be accepted in the case of personal illness than in the case of other events. Furthermore, subjects felt that they were more often prevented from acting in relation to problems with close persons than problems with daily living. The differences were not statistically significant because of the small number of subjects in the three groups.

TABLE 9 Secondary appraisal of the situation in relation to the difficult situations in the WOCQ (%)

	Problem area		
Appraisal	Own illness	Close persons	Daily living
Situation could be changed	45.0	25.0	50.0
Situation had to be accepted	90.2	82.5	80.0
More information was needed	59.0	59.0	50.0
Could not do as wished	48.7	55.3	40.0
(n)	(39-41)	(38-40)	(10)

5.3 Ways and strategies of coping

Coping with Life Events Questionnaire. The questionnaire used in the first stage of the study included five life events and 14 ways of coping. Table 10 shows for each event the proportion of those subjects who responded that they have used much/would make much use of (in parenthesis: use at least to some extent) the way in question. Some ways were indicated rather seldom: accusing others (a defence mechanism "projection"), using drugs/medication (coping dimension "tension reduction") and getting depressed, which all are often regarded as inefficient or immature ways of coping.

TABLE 10 Much (at least to some extent) used ways of coping in different life events (%)

Way of coping	Event: relocation	illness	death of a close person	break-up with friends	giving up activities
Concentrating on more pleasant things	17.4 (84.4)	26.8 (91.8)	23.6 (79.2)	28.9 (86.3)	37.6 (92.6)
Seeking help from religion	28.0 (75.1)	34.7 (79.0)	32.6 (80.0)	26.8 (68.7)	29.6 (68.5)
Being angry/bitter, accusing others	4.0 (22.9)	2.7 (13.9)	2.3 (9.3)	2.6 (23.0)	4.3 (13.0)
Explaining the situation	39.8 (92.0)	41.4 (96.3)	46.7 (97.7)	41.8 (93.9)	39.5 (95.6)
Seeking support and consolation	18.9 (82.4)	24.9 (87.3)	30.4 (92.1)	20.0 (75.4)	19.5 (75.6)
Using drugs	4.0 (26.3)	4.6 (38.9)	2.8 (28.4)	1.5 (21.1)	2.0 (25.2)
Accepting the situation	21.6 (79.3)	27.7 (80.0)	38.8 (86.0)	20.2 (74.2)	31.2 (77.1)
Collecting information	37.0 (86.8)	48.2 (90.0)	36.8 (85.4)	32.8 (83.3)	35.6 (89.6)
Solving the problem alone	22.5 (78.4)	15.1 (73.1)	20.9 (81.4)	23.2 (78.4)	23.5 (76.0)
Getting depressed, feeling powerless	6.8 (53.8)	6.9 (49.4)	11.8 (63.0)	8.9 (62.1)	5.9 (53.2)
Wishful thinking	14.5 (59.1)	15.3 (63.3)	13.1 (50.2)	30.4 (76.8)	16.6 (62.0)
Asking advice from fellow sufferers	19.5 (74.6)	27.9 (82.6)	18.6 (79.5)	17.1 (66.8)	19.5 (76.1)
Making plans and acting on them	39.4 (91.2)	44.5 (94.5)	42.5 (93.0)	45.6 (94.9)	42.9 (94.6)
Maintaining a positive attitude	49.8 (96.9)	54.5 (97.7)	54.6 (96.8)	50.5 (97.5)	58.2 (96.6)
(n)	(216-227)	(215-223)	(211-218)	(190-198)	(196-208)

Problem-focused and/or cognitive ways of coping - explaining the situation to oneself, getting information, making plans - were indicated quite often, but also seeking social support and help from religion, concentrating on more pleasant things (avoidance) and accepting the situation were common. "Trying to maintain a positive attitude toward things" was stated most often, showing

optimism and efforts not to give in. Almost all the subjects indicated that they had used or would use this way of coping at least to some extent. Some other ways, especially active or positive ones, were used at least to some extent very often (80-90 %) too, but there were differences in these items in choosing the option "much".

Differences between women and men in coping ways were mostly non-significant and changed somewhat from event to event. The most significant difference was in "seeking help from religion", which the women used significantly more than the men in every event (t-tests, $p<0.001$). "Accepting the situation and thinking that nothing can be done" and "seeking support and consolation" were indicated significantly more often by the women than men in four and "getting depressed" in three of the five events ($p<0.05$-0.01).

The differences between women and men are also shown in Table 11. As a whole "maintaining a positive attitude", "explaining the situation to oneself" and "making plans and acting on them" were the three most often indicated ways of coping both among men and women. Also the three least often indicated ways ("getting depressed", "using drugs", "being angry...accusing others") were same among both sexes. The summed up means confirm the observation that seeking help from religion, seeking social support, getting depressed and accepting the situation were used, or were evaluated as would be used, more often by women than men.

The 14 ways of coping were factor analyzed for all five events, using the principal axis method and Varimax rotations and two to six factor solutions. These analyses did not result in any clearly interpretable factor structures, and the solutions were different for different events. When the same procedure was used in the two most often experienced situations (death of a close person, personal illness) excluding those subjects, who had not lived through them, the results were quite the same. However, when each of the 14 way-of-coping items was summed up over the five situations, and these 14 sum scores were factor analyzed, three interpretable and reliable factors were found:

- I: Controlling emotions; 6 items,
- II: Problem-focused behaviour; 4 items,
- III: Accepting the situation; 4 items.

The factor structure explained 41.4 % of the variance (Appendix 4). Because of skew distributions and very low communalities three items were excluded from the corresponding sum scales: two from the first scale ("being angry or bitter", "using drugs") and one from the third scale ("wanting to solve the problem alone"). After these exclusions the reliabilites of the sum scales were 0.69 (4 items), 0.76 (4 items) and 0.57 (3 items). Among the men, all three scales correlated significantly with each other ($0.32/p<0.05$ to $0.43/p<0.001$). Among the women, Controlling emotions correlated significantly with Problem-focused behaviour (briefly Problem solving) ($0.31/p<0.01$), but the other two correlations were negligible. The means of the scales for the five situations separately and combined among men and women are shown in Table 12.

In all of the events, the women used emotion-regulating strategies significantly more than men. With two minor exceptions, there were no significant gender differences in using problem-solving and acceptance strategies. However, there was a trend for the men to use Problem solving more than the women and Accepting the situation less than the women.

TABLE 11 14 ways of coping summed up over 5 situations - means (standard deviations) in the total sample from highest to lowest and differences between men and women by t-tests

Way of coping	All	Men	Women	p
Maintaining a positive attitude	7.65 (2.10)	7.63 (2.08)	7.66 (2.13)	ns
Explaining the situation	7.05 (2.16)	7.19 (2.29)	6.95 (2.07)	ns
Making plans and acting on them	7.02 (2.22)	7.00 (2.21)	7.03 2.23)	ns
Collecting information	6.46 (2.42)	6.75 (2.34)	6.26 (2.46)	ns
Concentrating on more pleasant things	5.75 (1.89)	5.60 (1.90)	5.87 (1.89)	ns
Seeking support and consolation	5.38 (2.44)	4.69 (2.04)	5.83 (2.58)	<0.01
Accepting the situation	5.38 (2.63)	4.79 (2.75)	5.76 (2.47)	<0.05
Seeking help from religion	5.35 (3.36)	3.99 (3.17)	6.23 (3.19)	<0.001
Solving the problem alone	4.98 (2.53)	4.90 (2.43)	5.03 (2.61)	ns
Asking advice from fellow sufferers	4.89 (2.55)	5.21 (2.35)	4.67 (2.67)	ns
Wishful thinking	4.05 (2.52)	4.19 (2.61)	3.95 (2.47)	ns
Getting depressed, feeling powerless	3.35 (2.51)	2.67 (2.20)	3.82 (2.61)	<0.01
Using drugs	1.50 (2.17)	1.55 (1.98)	1.46 (2.29)	ns
Being angry/bitter, accusing others	1.04 (1.69)	1.13 (1.76)	0.98 (1.64)	ns
(n)	(172-187)	(69-75)	(98-114)	

When the strategy score means were divided by the number of items, it could be seen that the men used Problem solving most and Controlling emotions least in every event. The women also used emotion regulation least, but they used acceptance strategies as much as problem-solving strategies.

The men used Controlling emotions most in the case of death of a close person and least in giving up activities, whereas the women used it most in

health problems and deaths and least in involuntary relocation, as can be seen in Table 12. Both the men and women used Problem solving most in health problems, the men least in break-ups with friends and the women in involuntary relocation. Accepting the situation was also used most in the same situation, giving up activities, by both sexes. The men used it least in involuntary relocation, the women in relocation and in break-ups with friends. The use of the coping strategies depended to some extent on the nature of the event.

TABLE 12 Means (standard deviations) of three coping strategy scales for the five situations separately and combined among men and women

	Controlling emotions			Problem solving			Accepting the situation		
Event	M		W	M		W	M		W
Relocation	3.01	*	3.58	5.07		4.70	3.28	*	3.64
	(1.62)		(1.69)	(1.73)		(1.86)	(1.16)		(1.14)
Illness	3.19	***	4.03	5.42		5.17	3.66		3.88
	(1.65)		(1.70)	(1.68)		(1.86)	(1.21)		(1.18)
Death of a close person	3.35	**	4.00	5.31	*	4.82	3.65		3.91
	(1.75)		(1.66)	(1.64)		(1.71)	(1.31)		(1.24)
Break-up with friends	3.27	*	3.95	4.97		4.78	3.52		3.62
	(1.62)		(1.86)	(1.87)		(1.66)	(1.08)		(1.32)
Giving up activities	2.75	***	3.65	5.04		4.89	3.76		4.03
	(1.87)		(1.76)	(1.73)		(1.75)	(1.47)		(1.38)
Total	15.67	***	19.83	26.26		24.98	18.01		19.29
	(7.55)		(7.83)	(7.25)		(7.07)	(5.00)		(4.70)
(n)	(66-79)		(92-132)	(69-80)		(91-129)	(69-82)		(95-131)

* = p<0.05 ** = p<0.01 *** = p<0.001

Ways of Coping Questionnaire. The Ways of Coping Questionnaire used in the second stage of the study is composed of 50 items to be answered on the scale 0 (not used at all) to 3 (much used). Table 13 shows in succession the means of the most and least used ways of coping among all the subjects, as well as their rank order among the men and women. Most of the ten most as well as the ten least used ways were the same among both sexes, even if in partly different order. Almost half of the least used ways belonged to the coping strategy Escape-avoidance, but this strategy was also represented among the most used ways as much as was Planful problem solving. It is also noteworthy that none of the six items of Seeking social support were included in the most (or least) indicated ways of coping.

TABLE 13 The highest and lowest means (standard deviations) of the WOCQ items (corresponding coping scales) in the total sample (n=150-162) and their rank order among men and women

Item	(Scale)	Mean (sd)	Men	Women
1. Wished that the situation would go away	(E-A)	1.77 (1.05)	2.	1.
2. Tried to look on the bright side of things	(D)	1.64 (0.93)	1.	2.
3. Concentrated on what to do next	(PPS)	1.48 (0.90)	5.	5.
4. Rediscovered what is important in life	(PR)	1.46 (1.03)	4.	6.
5. Doubled efforts to make things work	(PPS)	1.45 (1.01)	3.	8.
5. Thought over what to say or do	(S-C)	1.45 (1.05)	9.	4.
7. Tried to keep feelings to oneself	(S-C)	1.40 (0.95)	6.	9.
8. Prayed	(PR)	1.35 (1.16)	20.	3.
9. Hoped for a miracle	(E-A)	1.32 (1.15)	10.	11.
10. Drew on past experiences	(PPS)	1.31 (0.95)	7.	15.
10. Had fantasies about how things might turn out	(E-A)	1.31 (0.99)	8.	14.
41. Came up with a couple of solutions	(PPS)	0.69 (0.79)	40.	41.
42. Expressed anger to the person(s) responsible	(CC)	0.62 (0.88)	42.	42.
43. Apologized or did something to make up	(AR)	0.52 (0.82)	41.	46.
44. Refused to believe what had happened	(E-A)	0.51 (0.80)	44.	45.
45. Found new faith	(PR)	0.48 (0.80)	46.	44.
46. Kept others from knowing how things were	(S-C)	0.45 (0.77)	48.	43.
47. Tried to feel better by eating, drinking, smoking etc.	(E-A)	0.36 (0.72)	45.	47.
48. Avoided being with people	(E-A)	0.24 (0.57)	47.	48.
49. Took a big chance	(CC)	0.17 (0.53)	49.	50.
50. Took it out on others	(E-A)	0.14 (0.51)	50.	49.

AR = Accepting responsibility, CC = Confrontive coping, D = Distancing, E-A = Escape-avoidance, PPS = Planful problem solving, PR = Positive reappraisal, S-C = Self-controlling

In only three of the 50 items of the WOCQ were the means for the men and women significantly different. The women "prayed.." (coping strategy Positive reappraisal) more than the men (p=0.003), "talked to somebody..." (Seeking social support) more than the men (p=0.007) and "came out better than went in" (Positive reappraisal) more often than the men (p=0.033). Hence the eight scales did not have significant gender differences either. The most significant difference was in Seeking social support, the women having higher mean than the men (p=0.053). Other trends not quite reaching statistical significance were the women using Self-controlling and Positive reappraisal more than the men (Table 14).

The scales of the WOCQ refer to a few broad strategies or dimensions of coping. Among the men, the most common strategies were Planful problem

solving and Seeking social support, among the women the same two strategies in reverse order. The least common strategy among both sexes was Confrontive coping, which also includes accusing others. Especially among the women, Accepting responsibility (including self-blame) also differed from the other strategies in its relatively rare use. The means also reveal that, on the whole, the women had indicated the use of various ways of coping somewhat more than the men.

TABLE 14 Means (standard deviations) of the eight scales of the WOCQ for the total sample and for men and women separately, and means divided by the number of items for men and women separately

Scale (number of items)	Mean			Mean/nr of items	
	All	Men	Women	Men	Women
Seeking social support (6)	6.93 (4.25)	6.05 (3.73)	7.43 (4.46)	1.01 (0.62)	1.24 (0.74)
Planful problem solving (6)	6.82 (3.38)	6.81 (3.35)	6.83 (3.41)	1.13 (0.56)	1.14 (0.57)
Self-controlling (7)	7.21 (3.92)	6.56 (3.76)	7.61 (4.00)	0.94 (0.54)	1.09 (0.57)
Positive reappraisal (7)	7.00 (3.98)	6.44 (3.81)	7.34 (4.06)	0.92 (0.54)	1.05 (0.58)
Escape-avoidance (5)	5.07 (2.94)	4.95 (2.83)	5.14 (3.01)	0.99 (0.57)	1.03 (0.60)
Distancing (6)	5.94 (2.90)	5.95 (2.88)	5.94 (2.92)	0.99 (0.48)	0.99 (0.49)
Accepting responsibility (4)	3.27 (2.50)	3.56 (2.41)	3.09 (2.54)	0.89 (0.60)	0.77 (0.63)
Confrontive coping (6)	4.30 (3.12)	4.42 (3.24)	4.22 (3.06)	0.74 (0.54)	0.70 (0.51)
(n)	(146-153)	(55-57)	(91-97)		

According to the intercorrelations (Table 15), the different scales were related to each other at least to some extent. Some of the intercorrelations were even sufficiently high (over 0.50) for the different strategies to be seen to partly evaluate the same coping dimensions. The connections between items belonging to theoretically different categories was also observed in the difficulty in obtaining a coherent and reliable factor structure.

TABLE 15 Intercorrelations of the WOCQ scales in the total sample (n=146-150)

	1.	2.	3.	4.	5.	6.	7.
1. Confrontive coping							
2. Distancing	0.20*						
3. Self-controlling	0.39***	0.51***					
4. Seeking social support	0.24**	0.16	0.28***				
5. Accepting responsibility	0.36***	0.45***	0.43***	0.25**			
6. Escape-avoidance	0.32***	0.36***	0.52***	0.26**	0.29***		
7. Planful problem solving	0.50***	0.43***	0.64***	0.36***	0.33***	0.32***	
8. Positive reappraisal	0.30***	0.30***	0.52***	0.25**	0.45***	0.44***	0.43***

* = p<0.05 ** = p<0.01 *** = p<0.001

About 100 persons completed both the first and the second coping questionnaire. In this group, the correlations between the scales of the first questionnaire and the WOCQ-scales are shown in Table 16. High correlations between the scales were not expected to be many because of the time interval between the study stages, the differences in the situations that were included, and the differences between the methods.

TABLE 16 Correlations between the scales of the Coping with Life Events Questionnaire and the Ways of Coping Questionnaire among men and women

	Men (n=40-44)			Women (n=51-54)		
WOCQ-scale	CE	PS	AS	CE	PS	AS
Confrontive coping	0.20	0.31*	0.09	0.10	0.18	-0.01
Distancing	0.06	0.07	0.37*	-0.05	0.30*	0.17
Self-controlling	0.24	0.49***	0.37*	0.18	0.28*	0.28*
Seeking social support	0.06	0.07	0.20	0.41**	0.01	0.09
Accepting responsibility	0.29	0.35*	0.35*	0.39**	0.21	0.03
Escape-avoidance	0.21	0.16	0.24	0.14	0.18	0.27
Planful problem solving	0.17	0.46**	0.32*	0.15	0.17	0.26
Positive reappraisal	0.28	0.25	0.20	0.35*	0.19	0.20

CE = Controlling emotions, PS = Problem solving (Problem-focused behaviour), AS = Accepting the situation
* = p<0.05 ** = p<0.01 *** = p<0.001

Most of the correlations were low or at least non-significant among both sexes, but there were also some differences between the sexes. Among the men, Controlling emotions did not correlate significantly with any of the WOCQ scales. Accepting the situation was connected with scales having similar items (Distancing, Self-controlling and Accepting responsibility), but also with Planful problem solving. Problem-focused behaviour was quite logically connected with Planful problem solving, but also with Accepting responsibility and Confrontive

coping, and most significantly with Self-controlling. Among the women, Accepting the situation correlated only with Distancing, and Problem-focused behaviour with Distancing and Self-controlling. Contrary to the men, the highest correlations were between Controlling emotions and Seeking social support and Accepting responsibility. Controlling emotions correlated also with Positive reappraisal. These two scales included the items showing religious ways of coping.

Sentence Completion Test. The kinds of coping strategies that emerged from the answers to the SCT items were studied. Seventeen quite independent ways were found which, on the basis of the factor analyses, could not be combined into broader strategies. Some of these ways were proposed in the test items, some were not. One specific way, getting or using information, was mentioned only under its own heading (72 % relied on information and knowledge). When looking at those ways which were included in at least two items, it was seen that the most often mentioned ways were support and help from others (28 % mentioned in at least two items), help from religion (22 %), cognitive ways of solving the problem (15 %) and trusting one's own strength (14 %). The next in order were more passive or negative ones: depression, anxiety and other mood changes (9 %) and avoidance (forgetting) (8 %). The total number of the different ways of coping mentioned in the sentences was 5.3 (sd = 1.3) on average, and the difference between the men (5.2±1.5) and the women (5.4±1.2) was negligible.

Theme interview. In the theme interviews the interviewees were asked to describe the ways they had used to ease or decrease feelings of stress (or depression, anxiety, etc.) in the event which was discussed. Women produced five and men four different coping ways on average. The number of ways ranged usually from two or three to six or seven, but a few interviewees indicated fairly many ways and a few only one or two ways of coping.

Qualitatively, there were not many differences between the sexes. Several broader strategies could be formed on theoretical grounds from the indicated ways of coping. The most common strategy both among the men and women was concentrating on different kinds of activities (domestic tasks, hobbies, physical exercise, television, reading, etc.) to ease stress by forgetting or avoiding the stressful situation at least temporarily. The next two strategies among the women were seeking social support and positive thinking or accepting the situation, and among the men the same strategies in reverse order. Other, less common strategies among both sexes were reliance on one's own ability to manage the event and reliance on the healing effects of time. To an even lesser extent, women had recourse to medication and religion, and were thinking over the event, whereas men were seeking information and thinking over the event or trying to forget it.

On the whole, the free responses concerning the ways of coping did not include as many problem-solving strategies as the questionnaire data did, and emotion-focused and avoidance strategies became emphasized. This may greatly depend on the differences between the methods. In the questionnaires the subjects were asked to indicate how they had managed or would manage certain given situations, and they had to choose between listed ways of coping.

In the theme interview they were asked to tell how they had managed stress in a specific event chosen by themselves for discussion.

5.4 Contextual differences and similarities in coping

There were some differences in the use of different ways of coping between the events of the CLEQ as can be seen in Table 10 (p. 52) and in Table 11 (p. 54). This observation lends support to the idea of the meaningfulness of the situation to what ways are chosen. To see how stable the different ways were, the means of the intercorrelations of each of the 14 ways of coping in the five events of the questionnaire are shown in Table 17. Higher correlations refer to greater stability, or lesser dependence on the context, of the ways of coping.

The correlations in Table 17 suggest that there were differences in the stability of the different ways of coping. The content of the event had the smallest effects on the religious ways of coping among the men and religious ways and "using drugs" among the women. These ways were usually used, or not used (especially "using drugs"), regardless of the nature of the event. "Concentrating on more pleasant things" and "being angry and accusing others" among both sexes, and also "wishful thinking" and "accepting the situation" among the women, were the ways most dependent on the event.

TABLE 17 Means of intercorrelations of 14 ways of coping over five events from the highest to the lowest in the total sample; correlations among men and women

Way of coping	All	Men	Women
I pray or otherwise seek help from religion.	0.78	0.80	0.74
I take drugs to make me feel better.	0.66	0.53	0.75
I get depressed and feel powerless.	0.57	0.54	0.57
I want to solve the problem by myself.	0.53	0.49	0.55
I seek support and consolation from persons who are close to me.	0.51	0.45	0.53
I ask for advice from persons who have experienced the same kind of situation.	0.49	0.52	0.48
I try to maintain my positive attitude.	0.49	0.43	0.53
I try to explain to myself what the situation means concerning my life as a whole.	0.48	0.54	0.44
I think about different ways of managing the new situation and act on them.	0.47	0.49	0.46
I think that I cannot do anything and that I have to accept the situation as such.	0.44	0.50	0.38
I try to get as much information as possible concerning the situation.	0.43	0.47	0.40
I refuse to believe what has happened, or I wish that I could change the situation back to how it was.	0.38	0.46	0.33
I am angry or bitter and accuse others for what has happened.	0.37	0.35	0.39
I try to concentrate on more pleasant things.	0.24	0.30	0.22
(n)	(180-217)	(71-83)	(108-135)

The correlations in Table 18 show that where broader coping strategies were concerned, Controlling emotions was least dependent on the contextual effects. That is, coping ways belonging to that category were often used regardless of the nature of the stressful event. Problem solving was somewhat more and Accepting the situation most dependent on the event. There was a little more contextual dependency in using coping strategies among women than men, but the differences were insignificant.

TABLE 18 Means of intercorrelations of three coping scales over five situations among men, women and the total sample

Scale	Men	Women	All
Controlling emotions	0.72	0.70	0.71
Problem solving	0.64	0.59	0.61
Accepting the situation	0.53	0.45	0.48
(n)	(69-78)	(101-121)	(173-199)

In the WOCQ, all the subjects indicated their ways of coping in only one situation. Hence it is not possible to make the same kind of evaluation on the contextuality of coping as in case of the CLEQ. However, the secondary appraisal items of the WOCQ allowed some possibilities for this purpose. It was studied, whether differences existed in the use of different coping strategies between those who had appraised the situation in a certain way and those who had not. The results based on differences in means tested by the t-test are shown in Table 19.

Being prevented from doing what one wanted led to greater use of Distancing and Self-controlling. Almost as significant were the relations between needing more information on the situation and Seeking social support more, having to accept the situation and using less Confrontive coping, as well as using Planful problem solving more when the situation was appraised as changeable. The Escape-avoidance strategy was related to different kinds of situational evaluations. A few other connections can also be seen in Table 19, but in about two thirds of the all cases there was no connection (or it was negligible) between the appraisal and the use of any of the coping strategies.

5.5 Coping in experienced vs. hypothetical events

The events to think about were the same for all subjects completing the CLEQ. Each of the events was in fact experienced by only some of the subjects, and they were thus hypothetical to the others. This has also been the case in many previous coping studies, but possible differences in the use of different coping strategies in experienced vs. hypothetical events has not been widely studied.

TABLE 19 Means (standard deviations) of the WOCQ scales according to the secondary appraisal of the situation; significance of the differences in means tested by t-test

	Appraisal of the situation											
	Could be changed			Must be accepted			Needed more info			Could not act		
Coping scale	Yes		No	Yes		No	Yes		No	Yes		No
Confrontive coping	5.05 (3.46)	*	3.87 (2.86)	3.98 (2.91)	**	5.85 (4.04)	4.37 (2.92)		4.36 (3.47)	4.42 (3.02)		4.19 (3.33)
Distancing	6.43 (2.88)		5.52 (2.84)	6.19 (2.88)	*	4.77 (2.69)	6.27 (3.11)		5.41 (2.55)	6.80 (3.00)	***	4.91 (2.50)
Self-controlling	7.45 (3.58)		6.94 (3.85)	7.28 (3.79)		6.81 (4.11)	7.82 (3.76)	*	6.31 (3.54)	8.20 (4.02)	***	5.99 (2.85)
Seeking social support	7.57 (4.46)		6.73 (4.15)	7.07 (4.12)		6.77 (4.92)	7.99 (4.10)	**	6.02 (4.31)	7.41 (4.25)		6.93 (4.38)
Accepting responsibility	3.48 (2.46)		3.10 (2.57)	3.22 (2.50)		3.42 (2.61)	3.44 (2.55)		2.98 (2.53)	3.71 (2.63)	*	2.76 (2.41)
Escape-avoidance	4.49 (2.58)	*	5.51 (3.08)	5.16 (2.92)		4.76 (2.99)	5.59 (3.10)	*	4.52 (2.55)	5.64 (2.95)	*	4.54 (2.80)
Planful problem solving	7.78 (2.81)	**	6.13 (3.40)	6.84 (3.20)		6.81 (3.94)	7.24 (3.14)		6.25 (3.41)	7.20 (3.20)		6.37 (3.40)
Positive reappraisal	7.31 (3.69)		6.77 (4.23)	7.11 (4.05)		6.44 (3.96)	7.52 (3.97)		6.33 (4.07)	7.54 (4.01)		6.44 (4.00)
(n)	(54-56)		(86-89)	(117-122)		(25-26)	(77-81)		(60-62)	(69-71)		(66-69)

* = p<0.05 ** = p<0.01 *** = p<0.001

Here both the single items and sum scales were examined to see whether this factor has an effect on choice of ways of coping.

There were only a few significant differences, according to both t- and χ^2-tests, between the two groups on the single item level. In the event of serious illness, those who had experienced this indicated "making plans and acting on them" and "maintaining a positive attitude" more than those who had to imagine how they would react and act ($p<0.05$-0.01). In case of death of a close person, as well as in giving up activities, "accepting the situation" was more common among those who had experienced the event ($p<0.05$). Those with the experience also indicated more often than those without the experience "accepting the situation" ($p<0.001$) and "concentrating on more pleasant things" ($p<0.05$) in the event of a break-up with friends.

The results of the sum scales confirm the observations made on the single item level. Generally, those who had experienced the events indicated the use of emotion-regulation and acceptance strategies somewhat more than those who had not been faced with the events (Table 20). However, among both the men and the women, the differences were significant only for some of the events, and only concerning Accepting the situation. A similar trend was not found concerning Problem-focused behaviour.

TABLE 20 Differences/similarities between experienced and hypothetical events in the use of three coping strategies among men and women; means (standard deviations) tested by t-test

	Men (n=70-80)			Women (n=105-129)		
Coping scale/Event	Exp.		Hyp.	Exp.		Hyp.
Controlling emotions						
- relocation	3.17 (2.17)		2.98 (1.55)	3.73 (1.57)		3.52 (1.75)
- illness	3.63 (1.55)		2.94 (1.69)	4.11 (1.81)		3.91 (1.60)
- death of a close person	3.38 (1.95)		3.31 (1.64)	3.96 (1.74)		4.25 (1.12)
- break-up with friends	3.44 (1.63)		3.28 (1.66)	3.35 (2.01)		4.07 (1.83)
- giving up activities	2.97 (2.18)		2.64 (1.65)	3.77 (2.01)		3.58 (1.61)
Problem solving						
- relocation	4.92 (2.75)		5.08 (1.49)	4.66 (2.16)		4.73 (1.78)
- illness	5.86 (1.74)		5.17 (1.64)	5.30 (2.03)		5.09 (1.72)
- death of a close person	5.11 (1.78)		5.51 (1.52)	4.71 (1.72)		5.33 (1.45)
- break-up with friends	5.41 (1.70)		4.84 (1.94)	4.47 (1.31)		4.84 (1.73)
- giving up activities	5.10 (2.06)		5.15 (1.44)	5.07 (1.70)		4.76 (1.77)
Accepting the situation						
- relocation	3.45 (1.44)		3.22 (1.11)	3.84 (1.10)		3.59 (1.16)
- illness	4.07 (1.07)	*	3.44 (1.18)	3.89 (1.27)		3.87 (1.14)
- death of a close person	3.92 (1.27)		3.47 (1.32)	3.91 (1.27)		3.83 (1.15)
- break-up with friends	4.06 (0.93)	*	3.39 (1.08)	4.41 (1.18)	**	3.45 (1.28)
- giving up activities	4.06 (1.41)		3.58 (1.53)	4.35 (1.42)	*	3.82 (1-35)

Exp. = Event experienced by the subjects
Hyp. = Event is hypothetical, not experienced by the subjects
* = $p<0.05$ ** = $p<0.01$

On the whole, it may be concluded that whether the event was experienced by the subjects or was hypothetical did not have much effect on the choice of ways of coping. This suggests that those who had not been faced with a certain event had based their answers on experiences of other events and situations and/or on more permanent coping styles. This, in turn, does not lend support to the idea of the essential meaning of the situational factors on the choice of coping strategies (see p. 19 and p. 35).

5.6 Internal coping resources

The Sentence Completion Test was used to describe and evaluate personal internal resources of the subjects for dealing with major and minor difficult or stressful events. The content analyses of the sentences or other analyses of the single items are not presented here, but the main interest is on the sum score of the SCT which describes the amount of those personal resources. The general evaluation of these resources, based on the test as a whole, is also looked at. The general evaluation and the 20-item sum score had a correlation (Spearman) of 0.89 for the total sample (men = 0.88, women = 0.90). When two raters evaluated the answers independently for a sample of 30 subjects, the Spearman correlation between the sum score and the general evaluation was 0.90 for one rater and 0.88 for the other.

The sum score of the SCT was calculated for those who had answered at least 18 items (n=146). Missing values were replaced by the value 3. The possible range of the sum score was 20-100, ranging in the total sample from 36 to 87. The mean was 62.5 (sd = 9.0) with no difference between the men (62.7±10.0) and the women (62.3±8.5). Most of the subjects (71 %) scored 50-70, only 10 % scored less than 50, and 19 % more than 70. This corresponded to the percentage distribution of the general evaluation of the internal coping resources, which is shown in Table 21. Almost one fourth of the subjects were evaluated as having only few (if any) resources for coping with difficulties. On the other hand, over one third were evaluated as having at least quite a lot of resources. The difference between the sexes was non-significant.

The connections between the internal coping resources score and the scales of the two coping questionnaires used in the study were studied via correlations (Table 22). There was a significant relationship connecting better resources to less use of Controlling emotions among the women and to less use of Distancing among the men, even if the correlations were not high. Most of the correlations were very low, suggesting that the resources score and the strategy scales evaluate different aspects of coping behaviour, or that one should not draw an analogy between internal coping resources and the use of specific coping strategies.

TABLE 21 Percentage distributions, means and standard deviations of the general evaluation of internal coping resources among men, women and the total sample

Score	Men	Women	All
1 No resources	1.9	3.9	3.2
2 Few resources	25.9	16.7	19.9
3 Some resources	38.9	42.2	41.0
4 Quite a lot of resources	27.8	34.3	32.1
5 Plenty of resources	5.5	2.9	3.8
	100.0	100.0	100.0
(n)	(n=56)	(n=102)	(n=156)
Mean	3.09	3.16	3.14
Sd	0.92	0.88	0.89

TABLE 22 Correlations between the internal coping resources score and the scales of the WOCQ and the LECQ among men, women and the total sample

Coping scale		Men	Women	All
WOCQ:	Confrontive coping	-0.13	-0.02	-0.06
	Distancing	-0.36*	0.14	-0.05
	Self-controlling	-0.08	-0.04	-0.05
	Seeking social support	-0.11	-0.10	-0.09
	Accepting responsibility	-0.20	-0.13	-0.16
	Escape-avoidance	-0.08	-0.07	-0.07
	Planful problem solving	-0.01	0.01	0.00
	Positive reappraisal	-0.10	-0.03	-0.05
(n)		(45-46)	(82-86)	(127-132)
CLEQ:	Controlling emotions	-0.24	-0.33*	-0.30**
	Problem solving	0.11	0.07	0.10
	Accepting the situation	-0.06	0.16	0.06
(n)		(41-42)	(52-56)	(93-97)

* = $p<0.05$ ** = $p<0.01$

5.7 Connections between coping and other factors

The examination of relations between coping and other factors is mainly based on correlational analyses. The 11 coping strategy scales of the LECQ and the WOCQ and the internal coping resources score were examined in relation to variables describing the sociodemographic status, physical and mental health, and cognitive and psychosocial functioning of the subjects. These variables together with their statistical parameters are shown in Appendix 5. Regression analyses were also used to examine the most important connections.

Sociodemographic variables

Sociodemographic variables selected for the correlational analyses were years of fulltime education and personal and family net income (describing socio-economic status) and, from a more experiential point of view, self-rated economic situation. Most of the correlations between socioeconomic status and the coping scores were very low (see Table 23). In the men, all the correlations except one were non-significant, although there was a vague connection between longer education and less use of emotion-regulation and social-support strategies. In the women, better economic situation was related to less use of Controlling emotions and, to some extent, to better internal coping resources.

TABLE 23 Correlations between sociodemographic variables and coping scores among men (n=49-69) and women (n=83-97)

Coping score		Years of education	Net income	Family net income	Economic satisfaction
Controlling emotions	M	-0.20	-0.19	-0.15	0.03
	W	-0.16	-0.34***	-0.29**	-0.35***
Problem-focused behaviour	M	0.02	0.10	0.04	0.26*
	W	0.20	0.04	0.15	0.04
Accepting the situation	M	-0.14	0.03	0.02	0.02
	W	0.05	0.23*	0.14	0.01
Internal coping resources	M	-0.03	-0.04	0.14	0.20
	W	0.10	0.09	0.26*	0.21*
Confrontive coping	M	-0.10	0.07	0.02	-0.02
	W	0.01	-0.05	-0.10	-0.14
Distancing	M	0.04	0.02	0.02	0.00
	W	-0.03	0.08	0.15	0.18
Self-controlling	M	0.08	0.12	-0.07	0.16
	W	0.03	-0.00	0.10	-0.05
Seeking social support	M	-0.24	0.07	0.09	-0.05
	W	0.07	0.16	0.00	-0.24*
Accepting responsibility	M	-0.04	0.07	0.05	0.22
	W	-0.17	-0.12	-0.19	-0.11
Escape-avoidance	M	0.05	0.09	-0.02	0.00
	W	0.02	0.15	0.07	-0.08
Planful problem solving	M	0.17	0.22	0.06	0.09
	W	-0.03	-0.24*	0.13	-0.07
Positive reappraisal	M	0.10	0.12	-0.05	0.21
	W	0.07	0.02	0.02	0.03

* = p<0.05 ** = p<0.01 *** = p<0.001

Marital status was dichotomized as "not married (single, widowed, divorced) - married". 79 % of the women belonged to the not-married category, whereas 81 % of the men were married. However, this variable was related to the coping scores in the same way among both sexes. There was a tendency for married persons to score somewhat higher in all the coping variables. However, according to t-tests, most of the differences between the groups were non-significant. Among both men and women, the married persons used Planful problem solving more than the others ($p<0.05$), and the married women used Controlling emotions more than the not-married ones ($p<0.05$).

TABLE 24 Correlations between cognitive functioning scores and coping scores among men (n=52-68) and women (n=88-96)

Coping score		Memory score	Intelligence score	Memory difficulties	STM difficulties
Controlling emotions	M	-0.15	-0.20	0.10	0.16
	W	-0.18	-0.15	0.01	-0.04
Problem-focused behaviour	M	0.28*	0.29*	-0.13	-0.14
	W	0.25*	0.28**	-0.15	-0.20
Accepting the situation	M	0.06	0.06	0.07	0.07
	W	0.10	0.12	-0.13	-0.02
Internal coping resources	M	0.26	0.27*	-0.37**	-0.36**
	W	0.07	0.08	-0.20	-0.30**
Confrontive coping	M	0.02	-0.04	-0.08	-0.04
	W	-0.14	-0.17	0.10	0.07
Distancing	M	-0.04	0.12	0.16	0.20
	W	-0.09	-0.03	-0.05	-0.06
Self-controlling	M	0.17	0.11	-0.12	-0.10
	W	-0.21*	-0.01	0.04	0.05
Seeking social support	M	-0.11	-0.20	0.27*	0.30*
	W	-0.24*	-0.19	0.08	0.07
Accepting responsibility	M	0.11	0.11	-0.02	0.03
	W	-0.21*	-0.26*	0.03	-0.03
Escape-avoidance	M	-0.04	-0.09	0.10	0.16
	W	-0.13	-0.07	0.15	0.10
Planful problem solving	M	0.26	0.22	-0.26	-0.22
	W	-0.09	-0.09	-0.08	-0.07
Positive reappraisal	M	0.17	0.01	-0.11	-0.04
	W	-0.00	0.05	-0.06	-0.06

* = $p<0.05$ ** = $p<0.01$ *** = $p<0.001$

Cognitive functioning

Memory and Intelligence scores, based on psychometric tests, and the total score of self-evaluated memory difficulties (Memory difficulties score) as well as Short term memory difficulties score were selected for the correlational analyses of the relations between cognitive functioning and coping behaviour. Higher Memory and Intelligence scores correlated significantly with Problem-focused behaviour among both sexes (see Table 24). In the men, better (tested and especially self-evaluated) cognitive functioning was related to a higher internal coping resources score, and weakly also to more use of Planful problem solving and less use of Seeking social support. The correlations were lower and there were fewer significant correlations among the women. It is noteworthy that the WOCQ scales, in particular, mostly had very low correlations with the cognitive functioning variables. This was also the case with the sociodemographic variables, as seen above.

Physical and mental health

The correlations between the coping scores and variables of physical and mental health and well-being are shown in Table 25. Self-evaluation of physical functioning compared to that of peers did not correlate with the coping variables at all. Among the men there were only two significant correlations: better self-rated health was related to higher Problem-focused behaviour score and higher daily stress with lower internal coping resources. Among the women, better life satisfaction was related to better coping resources and to less use of controlling emotions as well as social support and problem solving. As among men, daily stress correlated with the coping resources score, but also with the use of a few coping strategies.

The most interesting finding was the connection between the depression scale (CES-D) and the coping variables. Those women who had higher CES-D scores (more symptoms of depression) were evaluated as having less internal coping resources, but they also used various coping strategies more than those with lower CES-D scores. However, the CES-D score did not correlate at all with the coping strategy scales among the men. Depressiveness probably had a negative influence on the sense of competence among the women, but it did not usually induce passivity in regard to the use of various ways of coping.

Social functioning

The social functioning variables used in this study had as few significant correlations with the coping scores as the sociodemographic and cognitive functioning variables, as shown above. The correlations seemed to be more or less incidental (see Table 26). Number of close friends and the frequency of meeting friends had only one or two correlations with the coping variables, and they were different in men and women. This was also the case with social interests (memberships of clubs and associations) and social flexibility (the BIC score). Feelings of loneliness were connected with a lower internal coping

resources score among both sexes, but the connections with Planful problem solving were contradictory in men and women. The most significant observation was that men's internal coping resources correlated with most of the social functioning variables, social flexibility having the highest correlation.

TABLE 25 Correlations between health and mood variables and coping scores among men (n=49-69) and women (n=87-97)

Coping score		Self-rated health	Self-rated phys. funct.	CES-D score	Daily stress	Life satisfaction
Controlling emotions	M	0.00	-0.16	0.04	0.23	0.08
	W	-0.08	-0.11	0.22*	0.30**	-0.24*
Problem-focused behaviour	M	0.28*	0.01	-0.05	0.06	0.01
	W	0.06	0.14	0.13	0.09	-0.21*
Accepting the situation	M	0.01	-0.13	-0.12	-0.22	-0.01
	W	-0.02	-0.04	0.02	-0.30**	0.00
Internal coping resources	M	0.24	0.20	-0.30*	-0.34*	0.26
	W	0.14	0.19	-0.39***	-0.30**	0.24*
Confrontive coping	M	0.04	-0.16	0.08	0.01	-0.07
	W	-0.02	-0.02	0.27**	0.07	-0.14
Distancing	M	-0.04	0.02	-0.15	0.10	-0.08
	W	0.14	0.09	0.09	-0.06	-0.14
Self-controlling	M	0.02	-0.12	0.00	0.08	-0.18
	W	-0.05	0.03	0.41***	0.01	-0.17
Seeking social support	M	-0.05	-0.01	-0.07	0.00	-0.08
	W	-0.25*	-0.11	0.34***	0.02	-0.25*
Accepting responsibility	M	0.25	0.07	-0.01	0.14	0.07
	W	-0.12	0.07	0.14	0.24*	-0.11
Escape-avoidance	M	-0.05	-0.13	-0.03	0.02	-0.12
	W	0.00	-0.09	0.31**	0.05	-0.12
Planful problem solving	M	0.03	-0.23	-0.01	0.02	-0.14
	W	0.02	-0.18	0.31**	0.11	-0.23*
Positive reappraisal	M	0.18	0.10	0.04	0.05	0.03
	W	-0.07	-0.13	0.12	0.09	-0.11

* = $p<0.05$ ** = $p<0.01$ *** = $p<0.001$

TABLE 26 Correlations between social functioning variables and coping scores among men (n=49-69) and women (n=89-97)

Coping score		Number of friends	Meeting friends	Lone-liness	Social interests	BIC score
Controlling emotions	M	-0.13	0.03	0.23	0.02	0.06
	W	0.11	0.27**	0.12	0.01	0.02
Problem-focused behaviour	M	-0.13	-0.01	0.02	0.13	-0.04
	W	0.19	0.06	-0.10	0.25*	0.02
Accepting the situation	M	0.17	0.17	-0.00	0.03	-0.06
	W	-0.03	-0.12	-0.03	-0.10	0.16
Internal coping resources	M	0.14	0.05	-0.34*	0.29*	0.37**
	W	0.17	-0.07	-0.27**	0.09	0.01
Confrontive coping	M	-0.29*	-0.13	-0.04	0.05	0.08
	W	-0.10	-0.08	0.06	-0.06	0.02
Distancing	M	0.04	0.03	-0.08	0.00	-0.04
	W	-0.03	-0.13	-0.16	0.04	0.04
Self-controlling	M	-0.11	0.07	-0.04	0.04	0.06
	W	-0.01	-0.01	0.10	0.13	0.21*
Seeking social support	M	0.12	0.32*	-0.22	0.01	-0.12
	W	0.02	0.17	0.16	0.03	0.04
Accepting responsibility	M	-0.17	0.09	-0.03	-0.07	0.10
	W	-0.05	0.03	-0.04	0.09	0.24*
Escape-avoidance	M	0.08	0.18	-0.03	-0.11	-0.08
	W	0.07	0.05	-0.03	0.13	0.16
Planful problem solving	M	-0.12	-0.10	-0.27*	-0.13	0.04
	W	-0.10	-0.12	0.21*	-0.02	0.12
Positive reappraisal	M	-0.10	0.12	0.01	-0.09	-0.05
	W	0.19	0.06	-0.10	0.18	0.01

* = p<0.05 ** = p<0.01 *** = p<0.001

Regression analyses for coping resources and strategies

Regression analyses were done to find out which ones of the sociodemographic, health and well-being as well as cognitive and social functioning variables presented above had the strongest direct connections with the coping strategies and resources. Regression analysis should include independent variables which have high correlations with the dependent variable and at the same time low correlations with each other. This demand was hard to satisfy in this study, because even the significant correlations with the dependent variables were usually quite low, and because there were rather many intercorrelations between the independent variables. This shortcoming was not avoided in most of the analysis, as shown below.

The dependent variables in the regression analyses were Controlling emotions and Problem-focused behaviour from the CLEQ, Seeking social support and Planful problem solving, the WOCQ coping strategies most used in this study, and the internal coping resources score. The last-mentioned variable was the only one which could be examined, at least satisfactorily, by the regression analysis. The regression models for both sexes are shown in Tables 27 and 28.

The model for the men had quite good explanatory value (R^2=0.41). According to the model, good internal coping resources are related to high social flexibility, good self-evaluated memory, participating in interests demanding psychosocial resources, and nondepressive mood. The explanatory power of the regression model for the women was much lower (R^2=0.23). According to it, women's good coping resources are most strongly related to nondepressive mood, higher income and good self-evaluated memory.

TABLE 27 Stepwise regression analysis model for the internal coping resources score among men (n=51)

Variable	B	SE B	β	t-value	R	R^2
BIC score	0.23	0.10	0.27	2.39*	0.37	0.14
Memory difficulties score	-1.51	0.42	-0.41	-3.95***	0.50	0.25
Social interests	3.97	1.62	0.29	2.45*	0.59	0.35
CES-D score	-0.39	0.18	-0.25	-2.18*	0.64	0.41
Constant	58.73	7.37		7.97***		

* = p<0.05 *** = p<0.001

TABLE 28 Stepwise regression analysis model for the internal coping resources score among women (n=85)

Variable	B	SE B	β	t-value	R	R^2
CES-D score	-0.307	0.103	-0.293	-2.99**	0.34	0.12
Family net income	0.001	0.0004	0.235	2.38*	0.43	0.18
STM difficulties score	-1.067	0.498	-0.210	-2.14*	0.48	0.23
Constant	65.690	3.016		21.78***		

* = p<0.05 ** = p<0.01 *** = p<0.001

The regression equation for the coping strategy scales often included only one variable which correlated with the dependent variable after the effects of the other independent variables were partialed out, and these one- or two-variable models did not have much explanatory power. The variables which had independent connections with the scales were as follows:

	Men	Women
Controlling emotions	Personal net income	Personal net income Frequency of meeting friends
Problem-focused behaviour	Intelligence score	Intelligence score
Seeking social support	Frequency of meeting friends STM memory difficulties score	CES-D score
Planful problem solving	Loneliness Memory score	CES-D score

On the basis of the correlations and the regression analyses it can be concluded that there were few direct and significant connections between the coping behaviour of the subjects and their sociodemographic status, physical and mental health and well-being, cognitive functioning and social resources. This finding suggests, supposing that coping behaviour is evaluated in a reliable and valid way, that the choice of coping strategies in particular is quite independent from the above-mentioned variables. The interpersonal differences in coping behaviour are not described well through the external and internal factors which were included in this study.

5.8 Types of coping behaviour

The theme interviews were used to describe the process of handling life changes and other stressful or problematic events. In the interviews there was discussion about the different phases in the coping process (anticipation, first reactions, ways of coping, etc.), how well the subjects were adjusted to their life changes and how satisfied they were with their coping, and also about what kinds of effects the life events have had on the subjects and their mental resources. It was attempted to capture these different aspects through a typology of coping behaviour.

As a group the 30 persons who participated in the interviews did not differ much from the very highly representative sample of 75-year-old persons who participated in the broader research project (see p. 39). There was no difference between the interviewed subjects and the rest of the total sample in variables such as self-evaluated health, feelings of loneliness and depressive symptoms (see Table 29). However, the interviewed subjects had better cognitive functioning than the total sample.

TABLE 29 Subjects participating in the coping interview compared to the rest of the total sample - means (standard deviations) of selected variables tested by t-test

Variable	Interviewed	Others	t-value
Length of education (yrs)	6.6 (3.0)	6.1 (3.3)	0.86
Family net income per month (FIM)	5414.- (2584.-)	4583.- (2295.-)	1.83
Self-evaluated health (1-5)	3.0 (0.4)	3.0 (0.6)	0.28
Loneliness (1-4)	1.7 (0.8)	1.5 (0.7)	1.02
CES-D score	12.9 (7.9)	13.5 (8.3)	-0.38
Memory score (raw score)	26.3 (5.3)	22.6 (6.8)	2.92**
Intelligence score (raw score)	72.7 (15.7)	64.1 (21.5)	2.12*
(n)	(n=29-30)	(n=263-315)	

* = p<0.05 ** = p<0.01

The life event that was discussed in the interview was usually either the death of a spouse or other close person (child, friend, etc.) (13 cases) or changes in the interviewee's health because of illnesses or accidents (12 cases). In the rest of the cases (5) the matters discussed concerned problems to do with close relatives, quarrels or serious disagreements and relocations. The majority of the deaths were the deaths of spouses (9/13), and these were more common among women than men. In men "illnesses" were more common than among women (see Table 30).

TABLE 30 Frequency distributions of the life events discussed in the interviews among men, women and the total sample

Event	Men	Women	All
Death of a close person	5	8	13
Illnesses, accidents	9	3	12
Other events	1	4	5
Total	15	15	30

All the interviews were read by the author at least three times. The first time a methodical check was carried out: the transcriptions were read while listening to the tapes and corrections were made when needed. Only two transcription errors were found in which the transcription changed the meaning of the answer. When the texts were read the next time (or next two times), the most important, meaningful or descriptive parts of the answers were marked. When the texts were read for the last time, the core of the answers was written down on a form designed for this purpose by the author. The form contained those of the original interview questions, or ideas behind the questions, which were answered by most of the subjects. Usually only these filled-in forms were used in evaluating the types of the coping behaviour. This method in part resembles that presented by Giorgi (1975).

Coping in only one major event was discussed with each interviewee. For this reason it was not sensible, or even possible, to try to classify persons by type. The focus here is on a typology of behaviour not persons. Three variables emerged as the most important in forming the typology: 1) the severity of the stress experienced in a certain event, 2) the number and kind of coping strategies used; whether the strategies used were passive (e.g. avoidance) or active (e.g. problem solving), and 3) whether the event caused negative or positive changes in the subject as a person or in his or her mental resources. Each of these variables was dichotomized: no or very weak stress - moderate or strong stress, few (or passive) coping strategies - many (active) strategies, negative changes - (mainly) positive changes or no change. It was possible to differentiate between six types of coping behaviour on the basis of these variables and formulations. The types were as follows:

- Submission, resignation: moderate or strong stress, few (passive) coping strategies, negative changes
- Unsuccessful coping: moderate or strong stress, many (active) coping strategies, negative changes
- Passive adaptation: moderate or strong stress, few (passive) coping strategies, positive or no changes
- Active adaptation: moderate or strong stress, many (active) coping strategies, positive or no changes
- Passive acceptance: no or weak stress, few (passive) coping strategies, (positive or) no changes
- Optimistic activity: no or weak stress, many (active) coping strategies, positive or no changes

The distributions of the typology by sex as well as in the total sample are shown in Table 31. Of those who had expressed stress, the majority in both sexes belonged to the adaptation categories. It is also noteworthy that one third of the women belonged to the two least successful groups of coping, whereas 40 % of the men belonged to those who had a more or less passive or unconcerned attitude towards their life changes.

TABLE 31 Frequency and percentage distributions of the six coping types in men, women and the total sample.

Category	Men n	Men (%)	Women n	Women (%)	All n	All (%)
Submission, resignation	2	(13)	3	(20)	5	(17)
Unsuccessful coping	0	(0)	2	(13)	2	(7)
Passive adaptation	4	(27)	3	(20)	7	(23)
Active adaptation	2	(13)	4	(27)	6	(20)
Passive acceptance	6	(40)	0	(0)	6	(20)
Optimistic activity	1	(7)	3	(20)	4	(13)
Total	15	(100)	15	(100)	30	(100)

Table 32 shows the frequencies of the types of coping behaviour in relation to the life events experienced. Low stress situations were more frequent in health problems than in deaths, whereas adaptation after stress was more frequent in cases of death. It is difficult to examine the interactions between gender, event and coping type, because of the small number of subjects and the differences in the frequency of the events experienced by men and women.

TABLE 32 Frequency and percentage distributions of the six coping types in different events

Category	Death f	(%)	Illness f	(%)	Others f	(%)
Submission, resignation	2	(15)	2	(17)	1	(20)
Unsuccessful coping	1	(8)	0	(0)	1	(20)
Passive adaptation	2	(15)	4	(33)	1	(20)
Active adaptation	5	(39)	0	(0)	1	(20)
Passive acceptance	1	(8)	4	(33)	1	(20)
Optimistic activity	2	(15)	2	(17)	0	(0)
Total	13	(100)	12	(100)	30	(100)

Two raters evaluated the types independently. The first rater, the author, had formed the typology, interviewed half of the subjects and also read the whole text material several times. The other rater had interviewed the other half of the subjects, but used only the "summaries" made by the first rater to evaluate the types. Hence this rater also had more difficulties in making decisions. It is probable that had she been able to use the whole text or tape material these difficulties would have been fewer. However, the raters agreed fully in 13 out of the 30 cases. In 15 cases there was disagreement over one of the three main variables, usually in the activeness vs. passiveness of coping which did not have any strict rating criterion. In two cases the raters disagreed in regard to two of the main variables.

It is concluded that the types of coping behaviour described here are found among elderly people when they are handling major life events. This conclusion does not, of course, exclude the possibility of finding other types of coping behaviour as well, or the possibility of formulating a totally different typology of coping from another point of view.

6 DISCUSSION

6.1 Methods

Four methods were used in the study: three questionnaires and a theme interview. Two of them, the theme interview and the sentence completion technique, have been used (or at least reported) very seldom in coping studies, and even then the descriptions of the methods have been insufficient to give a good picture of their contents and other features. It may be that sentence completion tests have never before been used to study coping among elderly people. One (Coping with Life Events Questionnaire; CLEQ) of the two ways of coping questionnaires was developed for the study, and the other one (Ways of Coping Questionnaire; WOCQ) was a method widely used previously.

The reliability of the questionnaire scales were evaluated by their internal consistency (Cronbach's alpha). The reliabilities of the three scales of the CLEQ were satisfactory (α = 0.57 - 0.76). The validity of the method is a more difficult question. The questionnaire is based on previous literature on common ways of coping and important life events among elderly people, which was regarded as ensuring adequate construct and content validities. However, the literature is mostly Anglo-American, and there may be cultural differences in coping behaviour which influence the adequacy of individual parts of the questionnaire. To lessen this influence, it was attempted to keep the Finnish target population in mind when constructing the method, and no parts of the CLEQ were taken directly from previous questionnaires.

A method such as the LECQ, which includes several coping situations, is needed to examine differences in coping ways between various events or situations. As in the case of this study, there may be the problem that many subjects have not been faced with the specified events, at least not recently. If so, it is possible that their answers tell more about their more or less stable coping styles than situation-specific coping ways, as discussed above. Another

possible problem is the length of the questionnaire. With many life events to think about, it may be too strenuous for some of the subjects. It is, presumably, possible to shorten the questionnaire by decreasing the number of the events (e.g. to three) without losing much information on the contextuality of coping.

In the Ways of Coping Questionnaire, the events or situations that the subjects reported were variable, perhaps too variable. The method was developed to study coping with daily hassles or other minor events of the fairly recent past and is not intended for use in studying permanent coping styles (Folkman & Lazarus 1988). However, in this study the events varied from major life events or continuous stressful situations to daily hassles. Furthermore, some persons stated that they had not experienced any difficult or stressful situations in the recent past, but still answered the coping way items, probably on the basis of their general and consistent coping styles. There were also those who did not answer the items at all, having not experienced difficulties lately. It is concluded that a short time span is not suitable when studying elderly people. Although the time span used here was much longer than in the original test, it was nonetheless considered to be too short. On the other hand, the questionnaire instructions need further development so that the subjects would be led to think about daily hassles, even if they are not very stressful.

Two Finnish studies regarding younger adults (Auvinen & al. 1991, Koskentola & Valavuori 1992) have used the same Finnish translation of the WOCQ as in this study, and one study (Tikkanen 1989) has used a different translation of the same version of the WOCQ. A general finding has been that the factor analyses have only partly confirmed the original eight coping-strategy scales of the questionnaire. Usually some of the items have been omitted from the solutions for low loadings on all factors, and the number of factors has been smaller than in the original studies (Folkman & Lazarus 1988). The difficulty or impossibility of confirming the original factor structure, which is a common phenomenon in other questionnaires and tests, was also found in this study. The reasons for this may be in translations, which perhaps change the meanings of the items, or in other cultural differences. People from different countries and cultures, or from different enviroments, generations, etc., even in the same cultural area, do not think, feel or act same way in the same kinds of situations.

The difficulty of forming different kinds of dimensions (strategy groups, categories) from a large number of coping ways using factor analyses has also been observed elsewhere. Thoits (1991) gives various reasons for factor analyses not always producing wider coping dimensions. Different ways or strategies of coping may be connected to each other in a very complex way (some are used after some others, some to exclude others, etc.), and then even rotational analyses do not produce clear factors. Many strategies belonging to the same theoretical category do not intercorrelate, because subjects choose perhaps only one of the strategies belonging to that category (e.g. they seek only formal or only informal social support). Finally, a certain strategy may represent many latent functions at the same time, or it may represent different functions for different persons. In her own study Thoits ended up formulating coping way categories on theoretical basis only. Here same solution was adopted, and it was decided to use the original theoretically-based eight scales of the WOCQ.

The internal consistencies of the WOCQ scales were at least satisfactory (α = 0.59 - 0.80), and they were mostly on the same level as in the original

studies (Folkman & Lazarus 1988). The WOCQ was translated into Finnish as directly as possible modified, however, to suit Finnish circumstances. It has been widely used in other countries, especially in the United States, among elderly as well as younger adults. The developers of the method have evaluated it as having good construct validity, since the results of various studies have been consistent with their theoretical predictions; the coping strategy items have face validity because they are based on people's reports on their behaviour in stressful situations (Folkman & Lazarus 1988). However, because of possible cultural differences, as discussed above, it cannot be guaranteed that the method has the same validity among elderly Finns as it has among American adults of various ages.

The sentence completion technique is an old method as such (see e.g. Rotter 1951, Rohde 1957) but quite new in studying coping. The Sentence Completion Test (SCT) used here was partly based on a previous Finnish experiment to study the sense of competence (Salminen & al. 1990). Here it was observed to be a reliable method having a high internal consistency ($\alpha = 0.82$). The results of the study show that the test score is not related to the use of certain coping strategies, supporting the preconception that coping strategies and internal coping resources are separate fields of the concept coping. Internal coping resources are supposed to be related to self-reliance, sense of competence and other personality resources. It was not possible examine these relations in this study. However, the items of the test refer to those internal resources and not, for example, to socioeconomic status or social networks, which are often examined as external coping resources.

The Sentence Completion Test is well suited to elderly people, even if some of them have difficulties filling it in by themselves. This shortcoming can be avoided in interview sessions where interviewers can write down the answers and give advice where subjects have difficulties understanding what they should do to complete the questionnaire. It is also possible to use the test without calculating a sum score, but instead giving a general evaluation based on a researcher's or field worker's interpretation of the content of unscored items.

The theme interview has not been used much in studying coping behaviour, at least among elderly people, and its detailed content and use has been reported even less in international publications. Perhaps one short interview is too little. Describing one's own coping and adaptation is quite difficult for most people, because, in addition to other factors, these are partly unconscious processes. However, the theme interview used in the study gave much information on coping and adaptation, and on difficulties and individual features in them, which was not revealed by the questionnaires. In this thesis the theme interview was utilized only partly, concentrating on the formulation of a typology of coping behaviour. One important factor in the interview data which was not received from the questionnaires and which is included in the types of coping was the effectiveness or successfulness of coping (changes in a person's mental resources).

The reliability and validity of methods are important aspects also in qualitative research, even if they often are more difficult to assess (see e.g. Kirk & Miller 1986, Ruth 1991). The reliability of the coping typology was tested by the amount of agreement between two raters (interrater reliability). Full

agreement was not a rule, possibly due to differences in experience of this kind of method between the raters, and also because one of the raters only used summaries of the interview transcriptions. The disagreements about classification were mainly based on evaluations of one quite relative factor, activeness vs. passiveness of coping.

The validity of a method is closely related to cultural as well as generational differences: differences in the use of language and in the meanings of words and phrases. For example, whether the interviewee understands the concept of coping (handling of stressful events) and the ways of coping in the same way as the interviewer (or the test composer). In this study the interviewers evaluated the interviewees as understanding the questions quite well, and they did not themselves have difficulties understanding the responses. Probably the "worlds of experiences" of the interviewees and interviewers were not too different (cf. Ruth 1991).

It is concluded that the methods used in this study have adequate construct and content validities. It was not possible to assess the concurrent, criterion-oriented validity of the methods. It will be possible to evaluate their predictive validity later by looking at the results of the five-year follow-up study in which the same subjects participated.

There were some differences in the pictures of coping given by the different methods. On the basis of the way of coping questionnaires the subjects used a greater number of as well as more specific and more active (problem oriented) ways of coping than revealed by the theme interviews. There may be various reasons for these differences. Questionnaires may be regarded as easier methods in the sense that they do not demand so much active memorising and recall as interviews; it is only necessary to recognise the ways of coping a person uses or has used. The theme interview puts more emphasis on the ability to describe things and situations freely, perhaps without helpful clues. A person may be less able to express verbally (tell aloud) his or her experiences and behaviour. On the other hand, it may be easier to give a biased picture of oneself in questionnaires by choosing socially desirable alternatives than in face to face interview sessions.

When coping methods are evaluated more generally, it may be concluded that during the 1980s some advances in the development of methods took place (new instruments or new versions of previous instruments were formulated). However, there still remains a need for further development, especially from the gerontological point of view (cf. Kahana & al. 1982, Holstein 1986, Rohde & al. 1990). Today, there remain many unresolved problems or poorly examined questions in studying coping, the most significant of which may be changes and variations in coping with time. It is difficult to get good answers to this problem using questionnaires, and interview methods have not much clarified this question either.

There are difficult problems connected with many factors in studying stress and coping (Rohde & al. 1990, Costa & McCrae 1993). Errors in recalling events, difficulties or unwillingness to describe correctly (put experiences into words) and honestly one's own behaviour may distort the descriptions of stress, coping and the process of adaptation. On the other hand, questionnaires and other methods may help people to become aware of their own behaviour. One serious problem is that there is no generally approved taxonomy of ways of

coping that methods should assess. It seems to be very difficult to include in methods questions concerning age-specific stress and coping (Costa & McCrae 1993). The major limitations of questionnaires such as the WOCQ (developed initially to study coping among middle-aged persons) concern the scoring of their items; there is no generally accepted system for this purpose.

The response rates of the study indicate that coping questionnaires are too difficult for some elderly people to understand. There are other reasons at least as important for not answering the questionnaires, such as poor health or impaired physical (including visual) functioning and lack of motivation. It is obvious that for studying elderly people questionnaires need further development. On the basis of the author's experience many of those who regard questionnaires as difficult, or are afraid of them for other reasons, need only a little encouragement to be able to respond properly. It would be better to use questionnaires in interview situations than to mail them to subjects to fill in by themselves.

The most often used questionnaires cannot give much information about the entire process of coping with major life events and other stressful situations, especially if they are only used once. They do not reveal the many kinds of interactions between various ways of coping, and so far little emphasis has been put on the emotional aspects of coping in questionnaires. When subjects are forced to choose from the included items, more rare, personal strategies (or processes) are probably not reported at all. Interviews and other semi-structured methods might be more suitable for these purposes. The theme interview, or the qualitative research interview, is open and flexible to many kinds of responses and behaviours on the part of the interviewee. It has the potential to operate well in studying complicated, individual processes of coping (cf. Thomae 1987). Both interviews and questionnaires can include clues to help subjects become aware of some less conscious aspects of their coping behaviour. However, it is to be presumed that semi-projective methods such as sentence completion tests are more suitable when attempts are made to study the unconscious aspects of coping.

6.2 Results

Major life events have generally been the main starting point when studying the coping behavior of elderly people, and this was also the case in this study. However, during the last few years greater emphasis has been put on coping with daily hassles and other minor events. In the present study, this matter was also touched upon.

Examining the number of life events or other stressful situations experienced by elderly people was not one of the objectives of this study, but information on the frequency of some events was obtained. The most common major events were death of a spouse or some other close person, especially among women, and illnesses. However, the results suggest that old age does not necessarily or even generally entail a number of stressful life changes

during a short period. Over half of the subjects had experienced at least one of five major life events (death of a close person, getting seriously ill, relocation, break-up with friends, giving up activities) after age 65, but only one sixth within the preceding year.

In a Danish study with somewhat older subjects (Holstein & al. 1992), the results corresponded to those of this study, even though the frequencies of certain events were somewhat higher. The results of these Nordic studies suggest that even those life events which are often connected with old age (e.g. death, illness, housing problems) are not necessarily very common among even very old people. The latest reviews on coping and life event literature have ended in similar conclusions (Costa & McCrae 1993, Ruth & Coleman 1995).

Continuous stressful situations, daily problems and other minor events were mixed up with major life events in the answers to the Ways of Coping Questionnaire. The most common stressful problems were related either to one's own illnesses and relationships with other persons or to difficulties in daily living. However, on the basis of this study it is not possible to compare the significance of major events, chronic conditions and daily hassles on the distress and mental well-being of elderly persons (cf. Chamberlain & Zika 1990, Landreville & Vezina 1992).

The main problems addressed by this study concerned the ways and strategies of coping used by elderly people. In the first stage of the study, using the Coping with Life Events Questionnaire, it was found out that "maintaining a positive attitude", "explaining the situation to oneself" and "making plans and acting on them" were the most often used specific ways of coping. "Using drugs" and "being angry and accusing others" were the least used ways. Problem-focused behaviour (problem solving) was the most, Accepting the situation the next and Controlling emotions the least used broader coping strategy category. Planful problem solving together with Seeking social support were the most important coping strategies of the WOCQ used in the second stage of the study. Confrontive coping and Accepting responsibility were the least often recognized strategies. The significance of social support was also revealed by the Sentence Completion Test and later by the theme interview with a smaller sample of the subjects. Other important strategies expressed in at least one of the last mentioned methods were reliance on one's own abilities to solve a problem, accepting the situation, avoiding thinking about it and seeking help from religion.

There are very few studies with which one could compare the results of this study. There are only two Finnish studies where coping with life events and other difficulties among people 75 years or older have been touched upon (Achté & al. 1986, Salminen & al. 1990). Even in these studies coping has not been one of the main research problems, and the methods have differed from those used in this study. However, also in these two studies seeking social support was one of the most important coping strategies, as was accepting the situation and (in the study of Salminen et al.) reliance on one's own abilities and resources, religion and positive thinking. Of the more passive ways of coping, avoidance and submission had importance too.

In order to compare studies while avoiding the effects of cultural differences means finding studies from as similar a cultural environment as possible. This means that the results of this study could be best compared with

other studies from the Nordic countries. But it is hard to find any Nordic coping studies focusing on elderly people. That of Holstein et al. (1992) is an exception, bearing much similarity to this study in regard to methods and point of view on coping. It was also discovered in Holstein's study that the elderly subjects generally used many kinds of strategies (social support, problem-focused and avoidance strategies) when coping with major life events.

Making comparisons on a more general level, and forgetting possible cultural, theoretical and methodological differences, this study had many similarities with the results of studies done elsewhere, specially in the United States (see reviews, e.g. Costa & McCrae 1993, Ruth & Coleman 1995). For example, it is a quite common finding that active seeking of social support as well as cognitive and behavioural problem-oriented coping strategies are preferred by a majority of elderly people facing stressful episodes in life. At the same time, accepting the situation and avoidance may be important strategies, especially if the situation has been appraised as unchangeable. It may be concluded that the use of active or "positive" coping strategies (e.g. problem solving and seeking help) is more typical of elderly people than the use of passive or "negative" strategies (e.g. escape-avoidance or denial). It is also quite typical that elderly people use many different ways of coping, even if the variety of different ways decreases with advancing age.

In this study, a sentence completion test was used to evaluate the subjects' internal coping resources. There was no objective criterion with which to compare the scores of the test, but it is possible to conclude that a majority had satisfactory or even good resources. Almost one fourth of the subjects were evaluated as having so few resources that they probably had difficulties in coping succesfully with stressful events. The coping resources score did not correlate much with the coping strategy scores, suggesting that the scores refer to different aspects of coping. It is not possible to predict the internal coping resources of persons on the basis of their use of various coping strategies, or vice versa. The internal coping resources score tells about the reliance the subjects have on their strengths and abilities to handle negative life events and other stressful situations, and it tells about their sense of competence in general.

Gender differences in coping have not been reported much in gerontological studies. Either they have not been found or they have not been studied thoroughly. Many studies have even comprised either only elderly men or women as subjects. However, a common conception is that women use social support more than men in all age groups (e.g. Maugham & Champion 1990), and this has probably been regarded as the most significant gender difference in coping, even if it has not always been found (e.g. Holstein & al. 1992). Also in this study women used social support, especially emotional support, more than men. There were differences between women and men in their use of certain other ways of coping as well. Women used controlling emotions, religious ways of coping and accepting the situation more than men, and on the whole they used different kinds of strategies somewhat more than men. Some gender differences were also found in the relationship of coping to certain other factors (see below). Such differences may stem from real gender differences, such as in sociability and religiosity, but may also relate to differences in the life events and other stressful situations experienced by men and women, respectively. This idea was supported by the first coping questionnaire of the study.

Connections between coping and factors other than gender have been studied very seldom. Examined in this study were connections between coping and some sociodemographic variables, cognitive functioning, health and mood, as well as social functioning. These factors showed few correlations, especially with the WOCQ scales. The sociodemographic variables showed only a few significant correlations with the coping scores; the most distinct connection was between higher socioeconomic status and less use of Controlling emotions among the women. Better cognitive functioning was related to the use of problem-oriented strategies and better internal coping resources. In this respect, there were higher correlations among the men than the women.

Among the women, in particular, better mental well-being (higher life satisfaction, lower daily stress) was related to better internal coping resources and to the use of some coping strategies. Interestingly, the more depressive women used various strategies more but had lower internal coping resources than the less depressive women. As also observed elsewhere (Coleman 1990), depressiveness does not decrease the number of different strategies. It is quite reasonable that more depressive persons use strategies such as controlling emotions and seeking social support more than usual, at least if the depression is not severe.

In the above-mentioned Danish study (Holstein & al. 1992) the choice of strategies was related to health status, social contacts and self esteem. Subjects with many of these resources used more active coping strategies, and they also relied on their own abilities to overcome difficulties. In this study health and contacts did not have much effect on coping. Loneliness was related to lower coping resources, and among the men social interests and social flexibility (the BIC score) were also related to better internal resources.

Regression analyses did not help much to find significant direct connections between coping and the above-mentioned factors. On the whole, mood, cognitive functioning and socioeconomic status seemed to have the most significant connections with coping. However, it must be concluded that the coping strategies of elderly persons are quite independent of the internal and external factors examined here. On the other hand, there are many interpersonal differences in coping behaviour and in the factors influencing it.

In previous studies least reported data concerned the stability vs. contextual variability of coping strategies, connections between the ways of coping and appraisal of the situation, and also comparisons between coping in actually experienced events and in hypothetical events. The differences between the sexes in all these matters were non-significant. The stability of coping was examined by comparing the use of various ways and strategies of coping in five different situations. It was seen that Controlling emotions was most important in death events, Problem-focused behaviour in illnesses and Accepting the situation in giving up activities. These findings suggest that the nature of an event has an influence on the choice between various coping strategies.

The correlational analyses showed that some strategies were more closely related to the event than some others. Religious ways of coping were often used, and using drugs to obtain relief was usually not used regardless of the event. Concentrating on more pleasant things, being angry and accusing others and wishful thinking depended most on the content of the event. Of the wider categories, Controlling emotions was the least and Accepting the situation

the most dependent on the event. On the group level these findings mean that elderly people implement some strategies easily (some very seldom) regardless of the problem, but that some other strategies are frequently used only in certain situations. On the individual level the results suggest that people usually have both quite permanent coping styles and situation-specific coping ways. The findings of Holstein et al. (1992) in their Danish study were similar.

More reliable data on the long-term stability of or changes in coping strategies and styles as well as in resources may emerge at a later date, when the results of the five-year follow-up study in which the subjects participated have been analysed. The study included two of the four methods on coping evaluated above.

When using the WOCQ it was possible to look at the connections between the secondary appraisal of a situation and the choice of coping strategies. A large amount of missing data in some important variables was a problem in these analyses, but some connections were observed. For example, a person's appraisal of being prevented from doing what he/she wanted led to more use of Distancing and Self-controlling. If the situation was evaluated as changeable, problem-solving strategies were more probably used. The findings refer to the role of contextual factors in the selection of appropriate coping strategies. They emphasize the subjective experience of an event more than its objective content.

Some information was received about coping in hypothetical compared to actually experienced events. There were few differences between those who had experienced a certain event and those who had to imagine what strategies they would use in that event. Those experiencing the event used Controlling emotions and Accepting the situation somewhat more than the others. It is possible that the elderly subjects were well able to imagine, on the basis of their previous experiences, how they would behave in new situations. At the same time, it can be concluded that at least some of the coping strategies tend to be used regardless of the event, which makes it easier for the subjects to state what strategies they would use in a hypothetical situation.

One more rarity in this study was the formulation of a typology regarding the process of coping and adaptation. Based on the theme interviews with 30 subjects it was possible to differentiate between six types of coping behaviour from submission and unsuccessful coping to passive and active adaptation, to passive acceptance and to optimistic activity. Most of the cases belonged to the adaptation categories, but one third of the coping behaviour among the women was classified as belonging to the least successful types of coping. The majority of the men were included under relatively passive types of coping. Passive adaptation and passive acceptance (including low stress) were common in cases of severe illness, whereas active adaptation was the main type in deaths of close persons. The types of coping found in the study are not thought to be individually stable qualities, but they are presented to describe the variety of coping behaviour among elderly people. It is presumed that other types of coping exist, and that different kinds of typologies of coping behaviour can be formulated.

When the results of the different methods used in the study are combined, some general conclusions can be drawn. Most independently living elderly persons rely on their own abilities to handle major life events and minor

stressful situations, and they rely on their possibilities to get help from other persons when needed. The majority of elderly people also use many kinds of cognitive, behavioural and emotional ways or strategies of coping from very active to more passive. The content and the subjective experience of events influence choice of coping strategies. At the same time there are individual preferences, based probably on previous experiences and personality features, in choosing or trying certain ways of coping instead of or before some others. There is also a minority of independently living elderly persons who have difficulty in coping succesfully with stressful events. They are not able to choose adaptive ways of coping in different situations or they do not regard themselves as competent to manage stressful events.

There are some differences in coping behaviour between women and men, and internal coping resources as well as the use of some coping strategies are to some extent related to other factors such as mood, cognitive functioning and socioeconomic status. However, there are so many interindividual differences that it is hard to predict the coping behaviour of elderly persons on the basis of these internal and external factors.

When considering the external validity, or generalizability, of the results, some problems have to be discussed. The original sample of the first stage of the study represented well the independently living 75-year-old population of Jyväskylä. Thereafter, drop-outs, very incomplete answers and other missing data decreased the representativeness of the questionnaire data. The group was selected, especially in favour of those elderly persons having a higher level of cognitive functioning. In other respects the bias was probably smaller. The representativeness of the sample was most reduced in the analyses comparing the results of the two stages, because in some cases different persons had completed the three questionnaires. The information received from the theme interviews was not even thought to be quite generalizable, because of the selection of the interviewees on the basis of a rough estimation of their cognitive functioning. However, in other aspects they did not differ significantly from the original sample. It is concluded that most of the findings of this study can be applied to the majority of the original population. This majority has to some extent better socioeconomic status and functional abilities, especially cognitive functioning, than the original population as a whole.

6.3 Implications for theory and research

Much recent research and other literature both on coping with life events in general and especially among elderly persons have been published since the start of this study. Also stressors other than major life events, particularly daily hassles and other minor events, and coping with them have recently been emphasized more and more. It can be predicted that their significance in coping research will grow even more.

Traditionally the study of life events has focused on the life of a single individual. Recently, attempts have also been made to understand the effect of

a certain life event on many lives. The concept "life event webs" is introduced to describe, often from a life span perspective, the linkage between many persons' lives, and to understand the potential that a life event may have to change many lives (Pruchno & al. 1989). People are seen as partners whose lives are in many ways interwoven. The effect which an event has depends not only on the characteristics of the event but also on the characteristics of the individuals. This orientation is both theoretically and methodologically in its infancy and has not been used in gerontological research. As the results of this study as well as those of many previous studies indicate, life events do have influence on many lives. This is seen, for example, in the significance of social support both as a coping resource and as a coping strategy. The inclusion of life event webs might bring new conceptions to bear on studies of life events, their meaning and handling, both among elderly and younger people.

In the latest literature as well as in earlier work, the focus has often been on only one of the different aspects of coping. However, coping or coping behaviour is a broad concept which includes many aspects such as coping resources, coping strategies and coping processes. Perspectives or models on coping which include its different aspects more profoundly have recently been presented by Barrett and Campos (1991), Moos and Schaefer (1993) and Wong (1993).

There has been, and still is, much disagreement on the scope of the coping concept: Are defences part of coping behaviour or not? Does coping include emotional states or expressions of emotions? Is coping fully conscious or partly unconscious? Where or when does coping begin and end in the process of adaptation? These and other questions remain unresolved. A broad use of the concept has sometimes been regarded (e.g. Krohne 1986) as a sign of a lack of or weaknesses in theoretical consideration in stress and coping research. Emotional reactions, for example, do not fit in with cognitive-behavioural theories on coping, such as that of Lazarus (e.g. Lazarus & Folkman 1984). However, it may be asked, whether emotions can be totally distinguished from thoughts and acts, cognitions and behaviour, when stressful situations are being handled. Many researchers, including the author of this thesis, think that this differentiation is not possible and include emotional reactions and states in coping strategies and resources.

It should be possible to distinguish between emotional reactions during the process of coping and the outcome emotions, if one is to avoid the pitfall of confusing the symptoms of stress with the ways of coping. For example, getting depressed may be a stress reaction or a symptom of stress, but it may also be a way of coping in the sense that it can give a person time to gather the resources to cope with a stressful situation later by means of more problem-focused strategies. Also defences such as repression and denial may have such functions. These matters have not receaved much attention in the coping literature.

On the one hand coping means problem solving, on the other it means managing disturbing feelings and emotions which originate in environments and various situations but which are also connected to the features of personality (Costa & McCrae 1993). In other words, even if it were agreed that the choice between different ways of coping depends on the context, events and situations that are coped with, it would not mean that this choice is not at all

related to the personality of a person. Personality traits have influence on the spectrum of the potential ways of coping and also on the conscious and unconscious processes of choice between these ways (see e.g. Costa & al. 1991). In particular, the personality trait neuroticism has been observed to effect perception of stress, coping behaviour and adaptational outcomes such as a sense of well-being and somatic complaints (Costa & McCrae 1993). This is why it would be important and useful to include personality tests in coping studies.

To summarize, there are styles of coping, tendencies towards using certain coping strategies, which are related to personality but perhaps also, for example, to the cognitive functioning and mental well-being of an individual. However, as Felton & Revenson (1987) have concluded, some coping strategies may be more responsive to contextual influences than some other strategies. Besides, some strategies may become quite consistent already at an early stage of adult development, while some others are more responsive to possible age differences in coping. Felton and Revenson urged a theory which would specify these differences between the various ways of coping, but so far such a theory has not been published.

There are problems connected with the classification of coping strategies as active or passive (positive or negative, mature or immature). For example, accepting the situation has often been regarded as a passive way of coping, but Thomae (1992a) has argued against this conception. Accepting the situation requires mental activity, and it is usually a consequence of efforts to make an unfavourable situation, which is not controllable, internally acceptable. This refers also to the observation that the more or less relative activity vs. passivity (positiveness vs. negativeness, etc.) of a coping strategy is not straightforwardly related to the efficiency or usefulness of that strategy.

The efficiency or successfulness of coping, or contentment with it, has not been much studied. It is difficult to form conclusions regarding the effectiveness of different ways of coping in various situations. However, presumably more active (mostly problem-focused) ways are the most adequate in situations which can be changed, whereas more passive (emotion-focused) ways are the most adequate in situations which can not be changed or controlled. The problem lies in which phase of the process of adaptation the outcomes are evaluated, because this may have a crucial influence on results and conceptions regarding the efficiency of coping and the degree of adaptation. The evaluation may be premature, and there may also be short-term and long-term outcomes differing from each other. Other problems connected with evaluations are, for example, uncertainty concerning the ways of evaluating coping efficiency and the lack of criteria for doing this (see e.g. Krohne 1986, Folkman 1991). In future studies and theoretical speculations these problems should be examined more closely.

Coping with a life event is often a long-term process which includes many phases and changes in coping strategies, for example from repression in the beginning, when the event is still too distressing to be handled, to, finally active problem solving. The course of changes in coping strategies may also be reversed, if strategies thought to be effective have not resulted in adaptation. The entire process of coping has usually not been followed for long enough or profoundly enough. Intensive follow-up studies are urgently needed to answer these problems.

Another problem, connected also with the above-mentioned problem of changes in coping behaviour, concerns the number of different kinds of coping strategies or dimensions that should and could be studied simultaneously (Stone & al. 1988, Folkman 1991). Two broad dimensions (e.g. emotion- and problem-focused coping) do not give enough information on the repertoire of potential strategies; if too many strategies or dimensions are examined in a single study their interrelations may become too complicated to describe. Not only the number but also the nature or content of the strategies to be studied is important. Same strategies, with varying names, have been studied without perhaps thinking of the possibility of finding new strategies. Examples of new or less studied coping strategies and resources found in the recent literature are reminiscence (Achté & al. 1986, Rybarczyk & Auerbach 1990) and creativity (Smith & Van der Meer 1990). Hopefully these and some other new aspects will be included in future coping studies among elderly and younger people.

When studying coping the focus has usually been on a certain event in the life of an individual. The individual may, however, at the same time have other events or sources of stress to cope with. Coping with these other sources of stress may have significant effects on coping with and adaptation to the event examined in the study. It would be useful for the researcher to be aware of these different sources of stress when analysing coping behaviour on the individual level. On the group level, it is very difficult (or even impossible) to take into account the multiple sources of stress among the sample studied.

Coping behaviour is quite complex, and includes many aspects (person, situation, stress, appraisal, etc.) which have their own influences on it (see e.g. Wong 1993). In particular, the subjective meanings of experiences and appraisals of situations, as well as individual differences in becoming distressed, having need to manage a situation and in easiness vs. difficulty in adapting to it, have been studied too little (cf. Coleman 1990). The individuality and variety found in coping behaviour is a challenge for the coping research and makes generalizations regarding age and other groups of people difficult.

Conceptions concerning coping strategies and resources of elderly people have become more positive during the past ten to fifteen years. This change is closely related to changes in views on the functional abilities, especially cognitive functioning, of elderly people. Influential in this respect have been the findings concerning preservation of cognitive and other mental plasticities with age (e.g. Schaie & Willis 1986, Baltes & Baltes 1990, Willis & Schaie 1994). These plasticities can also be seen in the coping behaviour of aged people (Kruse 1990). Even if age does not have much effect on coping strategies and resources, it is important to study coping and stress among elderly people (e.g. Costa and McCrae 1993). The better the sources and consequences of stress and efficient ways of coping are known, the easier will it be to help elderly people in times of need. Among those who most need help are probably persons whose cognitive functioning has deteriorated or who suffer from depression or other mood problems. The former may have lost some of their coping strategies, and the latter may no longer feel able to rely on their coping resources.

YHTEENVETO: ELÄMÄN MUUTOS- JA ONGELMA-TILANTEIDEN KÄSITTELY IÄKKÄILLÄ IHMISILLÄ

Tutkimuksen tavoitteena oli tutkia iäkkäiden ihmisten coping-käyttäytymistä eli elämäntilanteiden käsittelyn keinoja, voimavaroja ja prosesseja. Erityisesti tarkastelun kohteena olivat strategiat, suhtautumis- ja toimintatavat, joita iäkkäät ihmiset käyttävät elämänsä muutos- ja ongelmatilanteita sekä niiden aiheuttamaa stressiä käsitellessään. Lisäksi tavoitteena oli tarkastella tähän käsittelyyn läheisesti yhteydessä olevia psyykkisiä voimavaroja sekä tilanteiden ja stressin käsittelyn yhteyttä elämänhistoriallisiin tekijöihin ja toimintakykyyn. Metodisena tavoitteena oli kehitellä ja kokeilla uudenlaisia menetelmiä coping-käyttäytymisen tutkimiseen. Tutkimus liittyy monitieteiseen Ikivihreät-projektiin, joka tähtää sekä monipuolisen tiedon kokoamiseen ikääntyvistä ihmisistä että heille suunnattujen palvelujen kehittämiseen.

Coping-käsitteellä ei ole yleisesti hyväksyttyä määritelmää tai tarkoin rajattua sisältöä. Yleensä sillä kuitenkin viitataan asioihin, joita ihmiset tekevät vähentääkseen stressitilanteiden kielteisiä vaikutuksia. Coping on läheisesti yhteydessä laajempaan sopeutumisen käsitteeseen. Se on käyttäytymistä, jonka tarkoitus tai tehtävä on säilyttää sopeutumiskyky stressiä aiheuttavissa tapahtumissa ja tilanteissa. Tässä tutkimuksessa coping-strategioilla tarkoitettiin kognitiivisia, toiminnallisia ja emotionaalisia tapoja käsitellä stressiä ja/tai sitä aiheuttavia elämäntapahtumia ja muita vaikeita tilanteita. Elämäntapahtumina tarkasteltiin merkittäviä muutos- tai ongelmatilanteita, joissa yksilössä itsessään tai hänen fyysisessä tai sosiaalisessa ympäristössään tapahtuu pitkäaikaisia tai pysyviä muutoksia. Tutkimuksessa sivuttiin myös päivittäiseen elämään liittyviä stressiä aiheuttavia tilanteita ja asioita.

Aikaisemman kirjallisuuden perusteella iäkkäiden ihmisten elämäntapahtumien ja stressin käsittelystä ei voitu tehdä selviä ennakko-oletuksia tai asettaa tutkimusta ohjaavia hypoteeseja. Käsitykset asiasta olivat ristiriitaisia. Yleisimmän käsityksen mukaan iäkkäät ihmiset käsittelevät elämäntapahtumia ja stressiä hyvin paljon samalla tavalla kuin nuoremmatkin

aikuiset. Ikää merkittävämpiä asioita käsittelyn keinojen ja tehokkuuden kannalta ovat muutokset ja yksilöiden väliset erot erilaisissa voimavaroissa kuten sosioekonominen asema, terveys ja sosiaalinen tukiverkko.

Tutkittavat olivat iäkkäitä, vuonna 1914 syntyneitä jyväskyläläisiä, jotka osallistuivat vuoden 1989 lopussa Ikivihreät-projektin terveys- ja toimintakykytutkimukseen. 301 henkilöä (79 % perusjoukosta) palautti heille täytettäväksi jätetyn kyselylomakkeen. Tutkimuksen toisessa vaiheessa puolitoista vuotta myöhemmin lähetettiin uusi kyselylomake ensimmäiseen kyselyyn vastanneille henkilöille. Tavoitettujen määrä oli 274, ja lomakkeen palautti 226 henkilöä (83 %). Kyselyvaiheiden tutkittavista 2/3 oli naisia ja 1/3 miehiä. Kolmannessa vaiheessa haastateltiin 30 kyselylomakkeisiin vastanneista henkilöistä. Haastateltaviksi valittiin henkilöitä, joille oli tapahtunut jokin merkittävä muutos elämässä viimeksi kuluneiden vuosien aikana. Haastateltavista puolet oli miehiä ja puolet naisia.

Tutkimusmenetelminä käytettiin kahta kyselylomaketta elämäntilanteiden ja stressin käsittelytavoista, lauseentäydennystestiä käsittelyn koetuista voimavaroista sekä teemahaastattelua vaikean elämäntapahtuman käsittelyn ja siihen sopeutumisen prosessista. Ensimmäinen käsittelytapakysely sekä lauseentäydennystestin ja teemahaastattelun sisällöt oli kehitetty tässä tutkimuksessa.

Tutkimuksen perusteella coping-kyselyt ovat liian vaikeita tai työläitä osalle iäkkäistä ihmisistä. Niitä tulee kehittää edelleen ja pyrkiä käyttämään haastattelutilanteissa, joissa voi tarvittaessa auttaa lomakkeisiin vastaamisessa. Elämäntapahtuman käsittelyn prosessiin liittyy monia vaikuttavia tekijöitä kuten tilanne, stressi ja tilanteen arviointi sekä erityisesti niiden subjektiivinen kokeminen ja merkityksenanto. Näiden kompleksisten suhteiden tutkimiseen soveltunee kyselylomakkeita paremmin avoin ja joustava teemahaastattelu. Coping-käyttäytymistä ei ole kuitenkaan totuttu pohtimaan ja kuvailemaan, minkä takia haastattelumetodeillakin on rajoituksensa. Puoliprojektiivisilla menetelmillä kuten lauseentäydennys on tässä oma merkityksensä.

Tutkimuksessa tarkastelluista elämäntapahtumista yleisimpiä olivat läheisten ihmisten kuolemat ja omat sairaudet. Yli puolet tutkituista oli kokenut ainakin yhden vaikean elämänmuutoksen 65 ikävuoden jälkeen, mutta vain pieni osa viimeisimmän vuoden aikana. Korkea ikä ei yleensä merkinnyt monien vaikeiden muutosten kasaantumista pienelle ajanjaksolle. Muista stressiä aiheuttavista tilanteista merkittävimpiä olivat ongelmat ihmissuhteissa sekä vaikeudet päivittäisessä elämässä. Tutkimuksessa ei ollut mahdollista vertailla suurten elämänmuutosten, kroonisten tilanteiden ja arkipäivän ongelmien suhteellista merkitystä iäkkäiden ihmisten psyykkiselle hyvinvoinnille.

Eri menetelmin saatujen tulosten perusteella useimmat tutkituista iäkkäistä ihmisistä luottivat kykyihinsä käsitellä sekä stressaavia elämäntapahtumia että pienempiä ongelmatilanteita, ja he myös luottivat mahdollisuuksiinsa saada tarvittaessa apua muilta ihmisiltä. Enemmistö tutkituista käytti tilanteiden ja stressin käsittelyssä monenlaisia kognitiivisia, toiminnallisia ja emotionaalisia tapoja, ongelman ratkaisuun suuntautuneista tilannetta vältteleviin. Käsittelytapojen kategorioista merkittävimpiä olivat sosiaalisen tuen hakeminen, ongelmanratkaisu, tunteiden kontrollointi ja tilanteen hyväksyminen. Tilanteen sisältö sekä subjektiivinen kokemus sen merkityksestä ja hallittavuudesta vaikuttivat käsittelytapojen valintaan. Toisaalta

tutkittavilla oli myös yksilöllisiä taipumuksia valita joitain tiettyjä käsittelytapoja erilaisissa tilanteissa. Vähemmistöllä tutkituista oli ilmeisiä vaikeuksia käsitellä tehokkaasti tai onnistuneesti stressiä aiheuttavia tilanteita. He eivät joko osanneet valita sopeutumista edistäviä keinoja eri tilanteissa tai heiltä puuttui luottamus omiin kykyihin ja voimavaroihin.

Sukupuolten välillä oli joitain eroja coping-käyttäytymisessä, merkittävimpinä naisten miehiä yleisempi emotionaalisen sosiaalisen tuen hakeminen ja turvautuminen uskontoon. Tilanteiden käsittelyn keinot ja koetut voimavarat olivat jossain määrin yhteydessä muihin tekijöihin, lähinnä mielialaan, kognitiiviseen toimintakykyyn ja sosiaalistaloudelliseen asemaan. Tutkittavien käsittelykeinot ja -prosessit olivat kuitenkin siinä määrin yksilöllisiä, että niitä oli vaikea selittää tai ennustaa muiden, yksilön sisäisten tai ulkoisten tekijöiden avulla.

Kato ja puutteelliset vastaukset heikensivät jossain määrin kyselylomakkein koottujen tietojen edustavuutta. Menetelmiin täydellisesti vastanneiden joukko valikoitui erityisesti hyvän kognitiivisen kyvykkyyden omaavien suuntaan. Muiden tekijöiden suhteen valikoituminen oli vähäisempää. Pienessä haastatteluaineistossa hyvään edustavuuteen ei edes pyritty, mutta sekään ei useimpien tekijöiden suhteen poikennut merkitsevästi alkuperäisestä otoksesta. Keskeiset tulokset voidaan yleistää koskemaan kohdeväestön (75-vuotiaat, itsenäisesti asuvat jyväskyläläiset) enemmistöä.

Käsitykset iäkkäiden ihmisten coping-keinoista ja -resursseista, kuten yleensäkin heidän psyykkisestä toimintakyvystään, ovat viime vuosina muuttuneet aiempaa myönteisemmiksi. Tämä on yhteydessä havaintoihin henkisen joustavuuden säilymisestä iän myötä. Iäkkäiden ihmisten coping-käyttäytymisen tutkiminen on kuitenkin edelleen tärkeää. Mitä paremmin tunnetaan heidän kokemansa stressin aiheuttajia ja seurauksia sekä tehokkaita keinoja käsitellä stressiä ja sitä aiheuttavia tilanteita, sitä paremmin heitä voidaan tarvittaessa auttaa.

REFERENCES

Achté, K., Malassu, P.-L. & Saarenheimo, M. 1986. Old age and stress. In K. Achté & A. Pakaslahti (Eds.) Stress and psychosomatics. Psychiatria Fennica Supplementum, 87-90.

Achté, K. & Pakaslahti, A. (Eds.) 1986. Stress and psychosomatics. Proceedings of the Symposium Sponsored by the Signe and Ane Gyllenberg Foundation, September 19-20, 1985, Hanasaari, Espoo, Finland. Psychiatria Fennica Supplementum.

Amirkhan, J. H. 1990. A factor analytically derived measure of coping: The Coping Strategy Indicator. Journal of Personality and Social Psychology 59, 1066-1074.

Antonovsky, A. 1979. Health, stress, and coping. San Francisco: Jossey-Bass.

Antonovsky, A. 1987. Unraveling the mystery of health. How people manage stress and stay well. San Francisco: Jossey-Bass.

Antonucci, T. 1991. Attachment, social support, and coping with negative life events in mature adulthood. In E. M. Cummings, A. L. Greene & K.H. Karraker (Eds.) Life-span developmental psychology: Perspectives on stress and coping. Hillsdale, NJ: Erlbaum, 261-276.

Aro, S. 1981. Stress, morbidity, and health-related behaviour. A five-year follow-up study among metal industry employees. Scandinavian Journal of Social Medicine, Supplement 25.

Auvinen, E. L., Hakkarainen, S. & Hiekkala, L. 1991. Henkirikollisten vankeudessa kokemat ongelmat, ongelmatilanteiden käsittely ja tuen tarve. Jyväskylän yliopisto. Psykologian pro gradu -työ.

Baltes, P. B. & Baltes, M. M. (Eds.) 1990. Successful aging. Perspectives from the behavioral sciences. Cambridge: Cambridge University Press.

Baltes, P. B. & Willis, S. L. 1979. Life-span developmental psychology, cognitive functioning and social policy. In M. W. Riley (Ed.) Aging from birth to death. Interdisciplinary perspectives. Boulder: Westview Press, 15-46.

Bandura, A. 1977. Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review 84, 191-215.

Bandura, A. 1982. Self-efficacy mechanism in human agency. American Psychologist 37, 122-147.

Barrett, K. C. & Campos, J. J. 1991. A diacritical function approach to emotions and coping. In E. M. Cummings, A. L. Greene & K.H. Karraker (Eds.) Life-span developmental psychology: Perspectives on stress and coping. Hillsdale, NJ: Erlbaum, 21-41.

Becker, P. 1985. Bewaltigungsverhalten und seelische Gesundheit. Zeitschrift für Klinische Psychologie: Forschung und Praxis 14, 169-184.

Billings, A. G. & Moos, R. H. 1982. Psychosocial theory and research on depression. An integrative framework and review. Clinical Psychology Review 2, 213-237.

Blanchard-Fields, F. & Irion, J. C. 1988. The relation between locus of control and coping in two contexts: Age as a moderator variable. Psychology and Aging 3, 197-203.

Borden, W. 1991. Stress, coping, and adaptation in spouses of older adults with chronic dementia. Social Work Research and Abstracts 27, 14-21.

Brandtstädter, J. & Renner, G. 1990. Tenacious goal pursuit and flexible goal adjustment: Explication and age-related analysis of assimilative and accommodative strategies of coping. Psychology and Aging 5, 58-67.

Breakwell, G. M. 1986. Coping with threatened identities. London: Methuen.

Brim, O. G. & Ryff, C. D. 1980. On the properties of life events. In P. B. Baltes & O. G. Brim (Eds.) Life-span development and behavior, Vol. 3. New York: Academic Press, 367-388.

Burchfield, S. R. (Ed.) 1985. Stress: Psychological and physiological interactions. Washington: Hemisphere.

Cain, B. S. 1988. Divorce among elderly women: A growing social phenomenon. Social Casework 69, 563-568.

Carlsson, M., Berg, S. & Wenestam, C.-G. 1991a. The oldest old: Patterns of adjustment and dependence. Scandinavian Journal of Caring Sciences 5, 93-100.

Carlsson, M., Berg, S. & Wenestam, C.-G. 1991b. The oldest old: Patterns of adjustment and life experiences. Scandinavian Journal of Caring Sciences 5, 203-210.

Carstensen, L. L. 1991. Selectivity theory: Social activity in life-span context. In K. W. Schaie & M. P. Lawton (Eds.) Annual Review of Gerontology and Geriatrics, Volume 11. New York: Springer, 195-217.

Chamberlain, K. & Zika, S. 1990. The minor events approach to stress: Support for the use of daily hassles. British Journal of Psychology 81, 469-481.

Chipperfield, J. G. 1993. Perceived barriers in coping with health problems: A twelve-year longitudinal study of survival among elderly individuals. Journal of Aging and Health 5, 123-139.

Chiriboga, D. A. 1980. Stress and coping: Introduction. In L. W. Poon (Ed.) Aging in the 1980s. Psychological issues. Washington, DC: American Psychological Association, 343-345.

Chiriboga, D. A. & Cutler, L. 1980. Stress and adaptation: Life span perspectives. In L. W. Poon (Ed.) Aging in the 1980s. Psychological issues. Washington, DC: American Psychological Association, 347-362.

Coelho, G. V., Hamburg, D. A. & Adams, J. E. (Eds.) 1974. Coping and adaptation. New York: Basic Books.

Cohen, F. 1979. Personality, stress, and the development of physical illness. In G. C. Stone, F. Cohen & N. E. Adler (Eds.) Health psychology - A handbook. San Francisco: Jossey-Bass, 77-111.

Cohen, F. 1980. Coping with surgery: Information, psychological preparation, and recovery. In L. W. Poon (Ed.) Aging in the 1980s. Psychological issues. Washington, DC: American Psychological Association, 375-382.

Cohen, F. & Lazarus, R. S. 1979. Coping with the stresses of illness. In G. C. Stone, F. Cohen & N. E. Adler (Eds.) Health psychology - A handbook. San Francisco: Jossey-Bass, 217-254.

Cohen, S. 1991. Social supports and physical health: Symptoms, health behaviors, and infectious disease. In In E. M. Cummings, A. L. Greene & K. H. Karraker (Eds.) Life-span developmental psychology: Perspectives on stress and coping. Hillsdale, NJ: Erlbaum, 213-234.

Cohler, B. J. 1991. Life-course perspectives on the study of adversity, stress, and coping: Discussions of papers from the West Virginia conference. In E. M. Cummings, A. L. Greene & K. H. Karraker (Eds.) Life-span developmental psychology: Perspectives on stress and coping. Hillsdale, NJ: Erlbaum, 297-326.

Coleman, P. 1990. Adjustment in later life. In J. Bond & P. Coleman (Eds.) Ageing in society. An introduction to social gerontology. London: Sage, 89-122.

Costa, P. T. Jr. & McCrae, R. R. 1993. Psychological stress and coping in old age. In L. Goldberger & S. Breznitz (Eds.) Handbook of stress. Theoretical and clinical aspects. Second edition. New York: Free Press, 403-412.

Costa, P.T., Zonderman, A.B. & McCrae, R. R. 1991. Personality, defense, coping, and adaptation in older adulthood. In E. M. Cummings, A. L. Greene & K. H. Karraker (Eds.) Life-span developmental psychology: Perspectives on stress and coping. Hillsdale, NJ: Erlbaum, 277-293.

Cox, T. 1987. Stress, coping and problem solving. Work and Stress 1, 5-14.

Cummings, E. M., Greene, A. L. & Karraker, K. H. (Eds.) 1991. Life-span developmental psychology: Perspectives on stress and coping. Hillsdale, NJ: Erlbaum.

Cutrona, C., Russell, D. & Rose, J. 1986. Social support and adaptation to stress by the elderly. Journal of Psychology and Aging 1, 47-54.

Danish, S. J, Galambos, N. L. & Laquatra, I. 1983. Life development intervention: Skill training for personal competence. In R. D. Felner, L. A. Jason, J. N. Moritsugu & S. S. Farber (Eds.) Preventive psychology. Theory, research and practice. New York: Pergamon Press, 49-61.

Danish, S. J., Smyer, M. A. & Nowak, C. A. 1980. Developmental intervention: Enhancing life-event processes. In P. B. Baltes & O. G. Brim (Eds.) Life-span development and behavior, Vol. 3. New York: Academic Press, 339-366.

Davies, A. D., Saunders, C. & Newton, T. J. 1987. Age differences in the rating of life-stress events: Does contextual detail make a difference? British Journal of Clinical Psychology 26, 299-303.

Dimond, M., Lund, D. A. & Caserta, M. S. 1987. The role of social support in the first two years of bereavement in an elderly sample. Gerontologist 27, 599-604.

Dohrenwend, B. S. & Dohrenwend, B. P. 1974. Stressful life events. Their nature and effects. New York: Wiley.

Edwards, J. R. & Cooper, C. L. 1988. Research in stress, coping, and health: Theoretical and methodological issues (Editorial). Psychological Medicine 18, 15-20.

Estlander, A.-M. 1991. Assessment and treatment of chronic low back pain patients. Helsinki: Rehabilitation Foundation, Research Reports 25.

Feezel, J. D. & Shepherd, P. E. 1987. Cross-generational coping with interpersonal relationship loss. Western Journal of Speech Communication 51, 317-327.

Feifel, H. & Strack, S. 1989. Coping with conflict situations: Middle-aged and elderly men. Psychology and Aging 4, 26-33.

Felton, B. J. & Revenson, T. A. 1987. Age differences in coping with chronic illness. Psychology and Aging 2, 164-170.

Field, T. M., McCabe, P. M. & Schneiderman N. (Eds.) 1988. Stress and coping across development. Hillsdale, NJ: Erlbaum.

Fleming, R., Baum, A., Gisriel, M. M. & Gatchel, R. J. 1985. Mediating influences of social support on stress at Three Mile Island. In A. Monat & R. S. Lazarus (Eds.) Stress and coping. An anthology. Second edition. New York: Columbia University Press, 95-106.

Folkman, S. 1991. Coping accross the life span: Theoretical issues. In E. M. Cummings, A. L. Greene & K.H. Karraker (Eds.) Life-span developmental psychology: Perspectives on stress and coping. Hillsdale, NJ: Erlbaum, 3-19.

Folkman, S. & Lazarus, R. S. 1980. An analysis of coping in a middle-aged community sample. Journal of Health and Social Behavior 21, 219-239.

Folkman, S. & Lazarus, R. S. 1988. Manual for the Ways of Coping Questionnaire. Research edition. Palo Alto, CA: Consulting Psychologists Press.

Folkman, S., Lazarus, R. S., Pimley, S. & Novacek, J. 1987. Age differences in stress and coping processes. Psychology and Aging 2, 171-184.

Fondacaro, M. R. & Moos, R. H. 1987. Social support and coping: A longitudinal analysis. American Journal of Community Psychology 15, 653-673.

Fondacaro, M. R. & Moos, R. H. 1989. Life stressors and coping: A longitudinal analysis among depressed and nondepressed adults. Journal of Community Psychology 17, 330-340.

Foster, J. M. & Gallagher, D. 1986. An exploratory study comparing depressed and nondepressed elders' coping strategies. Journal of Gerontology 41, 91-93.

Freeman, A. 1988. Stress and coping: The idea of treshold. Educational and Child Psychology 5, 37-40.

Fromholt, P., Pedersen, M., Lauridsen, I. & Larsen, S. F. 1990. Kognitiv kapacitet hos ældre. En psykologisk undersøgelse af 400 75-årige danskere. Århus: Psykologisk Institut, Aarhus Universitet.

Fry, P. S. 1989. Mediators of stress in older adults: Conceptual and integrative frameworks. Canadian Psychology 30, 636-649.

Gatz, M., Bengtson, V. L. & Blum, M. J. 1990. Caregiving families. In J. E. Birren & K. W. Schaie (Eds.) Handbook of the psychology of aging. Third edition. San Diego, CA: Academic Press, 404-426.

George, L. K. & Siegler, I. C. 1982. Stress and coping in later life. Educational Horizons 60, 147-154.

Giorgi, A. 1975. An application of phenomenological method in psychology. In A. Giorgi, C. Fisher & E. Murray (Eds.) Duquesne studies in phenomenological psychology, II. Pittsburgh: Duquesne University, 82-103.

Gutmann, D. 1977. The cross-cultural perspectives: Notes toward a comparative psychology of aging. In J. E. Birren & K. W. Schaie (Eds.) Handbook of the psychology of aging. New York: Van Nostrand Reinhold, 302-326.

Haan, N. 1977. Coping and defending. Processes of self-environment organization. New York: Academic Press.

Haan, N. 1993. The assessment of coping, defense, and stress. In L. Goldberger & S. Breznitz (Eds.) Handbook of stress. Theoretical and clinical aspects. Second edition. New York: Free Press, 258-273.

Hagberg, B. 1990. Coping i åldersdomen - en begreppsmodell. Gerontologia 4, 121-130.

Haug, M. R., Breslau, N. & Folmar, S. J. 1989. Coping resources and selective survival in mental health of the elderly. Research on Aging 11, 468-491.

Headey, B. W. & Wearing, A. J. 1990. Subjective well-being and coping with adversity. Social Indicators Research 22, 327-349.

Heikkinen, C. A. 1986. Toward a more personalized psychology of stress. Counseling Psychologist 14, 557-561.

Heikkinen, E., Heikkinen, R.-L., Kauppinen, M., Kallinen, M., Laukkanen, P., Pykälä, P., Ruoppila, I., Ruuskanen, J. & Suutama, T. 1991. Vanhainkodeissa asuvien jyväskyläläisten terveys, toimintakyky, sosiaalinen yhteisyys ja liikuntakäyttäytyminen. Ikivihreät-projekti. Jyväskylän kaupunki. Sosiaalikeskuksen julkaisusarja 2/1991.

Heikkinen, E., Heikkinen, R.-L., Kauppinen, M., Laukkanen, P., Ruoppila, I. & Suutama, T. 1990. Iäkkäiden henkilöiden toimintakyky. Ikivihreät-projekti, Osa I. Helsinki: Sosiaali- ja terveysministeriö, Suunnittelu-osaston julkaisuja 1990:1.

Heikkinen, R.-L. 1991. Psyykkissosiaalisen hyvinvoinnin sekä sosiaalisen yhteisyyden ja suoriutumisen arviointi. Teoksessa R.-L. Heikkinen & T. Suutama (toim.) Iäkkäiden henkilöiden toimintakyvyn ja terveyden arviointi. Ikivihreät-projekti, Osa II. Helsinki: Sosiaali- ja terveys-ministeriö, Kehittämisosaston julkaisuja 1991:10, 111-131.

Heikkinen, R.-L. & Suutama, T. (toim.) 1991. Iäkkäiden henkilöiden toimintakyvyn ja terveyden arviointi. Ikivihreät-projekti, Osa II. Helsinki: Sosiaali- ja terveysministeriö, Kehittämisosaston julkaisuja 1991:10.

Heinälä, K. 1989. Insinöörien ja teknisten toimihenkilöiden kuormittuneisuus ja stressinkäsittelykeinot. Jyväskylän yliopisto. Psykologian lisensiaattityö.

Heinälä, K. & Ruoppila, I. 1988. Insinöörien ja teknisten toimihenkilöiden työolot, kuormittuneisuus ja voimavarat. Jyväskylän yliopisto. Psykologian laitoksen julkaisuja 303.

Herth, K. 1990. Relationship of hope, coping style, concurrent losses, and setting to grief resolution in the elderly widow(er). Research in Nursing and Health 13, 109-117.

Hinrichsen, G. A. 1991. Adjustment of caregivers to depressed older adults. Psychology and Aging 6, 631-639.

Holahan, C. J. & Moos, R. H. 1987. Personal and contextual determinants of coping strategies. Journal of Personality and Social Psychology 52, 946-955.

Holmes, T. H. & Rahe, R. H. 1967. The Social Readjustment Rating Scale. Journal of Psychosomatic Research 11, 213-218.

Holstein, B. E. 1986. Coping with illness in old age. The 8th Scandinavian Congress of Gerontology, Tampere Finland, May 25th-28th 1986. Congress-proceedings, 29-34.

Holstein, B. E., Due, P., Holst, E. & Almind, G. 1992. Elderly people's coping with strainful events. Paper presented at the 11th Scandinavian Congress of Gerontology, Odense Denmark, June 28 - July 1, 1992.

Holt, M. K. & Dellmann, J. M. 1992. Research and implications for practice: Religion, well-being/morale, and coping behavior in later life. Journal of Applied Gerontology 11, 101-110.

Horowitz, M. J. & Wilner, N. 1980. Life events, stress, and coping. In L. W. Poon (Ed.) Aging in the 1980s. Psychological issues. Washington: American Psychological Association, 363-374.

Hurme, H. 1981. Life events during childhood. Jyväskylä Studies in Education, Psychology and Social Research 41.

Husaini, B. A. & von Frankl, A. 1985. Life events, coping resources, and depression: A longitudinal study of direct, buffering, and reciprocal effects. Research in Community and Mental Health 5, 111-136.

Härkäpää, K. 1992. Kognitiiviset hallintakäsitykset, selkävaivan kulku ja hoitovaikutukset. Helsinki: Kuntoutussäätiön tutkimuksia 36.

Johanson, A., Gustafson, L., Smith, G. J. W., Risberg, J., Hagberg, B. & Nilsson, B. 1990. Adaptation in different types of dementia and in normal elderly subjects. Dementia 1, 95-101.

Johnson, D. S. 1989. Coping strategy use and adaptability in older adults. Paper presented at the 14th International Congress of Gerontology, Acapulco Mexico, June 18-23, 1989.

Johnson, R. J., Lund, D. A. & Dimond, M. F. 1986. Stress, self-esteem and coping during bereavement among the elderly. Social Psychology Quarterly 49, 273-279.

Järvikoski, A. 1994. Vajaakuntoisuudesta elämänhallintaan? Kuntoutuksen viitekehysten ja toimintamallien tarkastelu. Helsinki: Kuntoutussäätiön tutkimuksia 46.

Kahana, E., Fairchild, T. & Kahana, B. 1982. Adaptation. In D. J. Mangen & W. A. Peterson (Eds.) Research instruments in social gerontology, Vol. 1. Clinical and social psychology. Minneapolis: University of Minnesota Press, 145-193.

Kahana, E., Kahana, B. & Young, R. 1987. Strategies of coping and post-institutional outcomes. Research on Aging 9, 182-199.

Kalimo, R. 1980. Stress in work. Conceptual analysis and study on prison personnel. Scandinavian Journal of Work, Environment & Health 6, Supplement 3.

Kaszniak, A. W. 1990. Psychological assessment of the aging individual. In J. E. Birren & K. W. Schaie (Eds.) Handbook of the psychology of aging. Third edition. San Diego, CA: Academic Press, 427-445.

Keyes, K., Bisno, B., Richardson, J. & Marston, A. 1987. Age differences in coping, behavioral dysfunction and depression following colostomy surgery. Gerontologist 27, 182-184.

Kinnunen, U. 1986. Stressi ja sairaus. Stressin sairautta välittävät mekanismit. Jyväskylän yliopisto. Psykologian laitoksen julkaisuja 279.

Kinnunen, U. 1989. Teacher stress over a school year. Jyväskylä Studies in Education, Psychology and Social Research 70.

Kirk, J. & Miller, M. L. 1986. Reliability and validity in qualitative research. Beverly Hills: Sage.

Kobasa, S. 1979. Stressful life events, personality and health: An inquiry into hardiness. Journal of Personality and Social Psychology 37, 1-11.

Koenig, H. G. 1990. Research on religion and mental health in later life: A review and commentary. Journal of Geriatric Psychiatry 23, 23-53.
Koenig, H. G. 1991. Religion and prevention of illness in later life. Prevention in Human Services 10, 69-89.
Koenig, H. G., Cohen, H. J., Blazer, D. G., Pieper, C., Meador, K. G., Shelp, F., Goli, V. & DiPasquale, B. 1992. Religious coping and depression among elderly, hospitalized medically ill men. American Journal of Psychiatry 149, 1693-1700.
Koenig, H. G., George, L. K. & Siegler, I. C. 1988. The use of religion and other emotion-regulating coping strategies among older adults. Gerontologist 28, 303-310.
Koskentola, T., Valavuori, S. 1992. Terveyskeskuspsykologien psyykkinen hyvinvointi työssä: työn kokeminen ja ongelmatilanteiden käsittely. Jyväskylän yliopisto. Psykologian pro gradu -työ.
Krause, N. 1986. Stress and coping: Reconceptualizing the role of locus of control beliefs. Journal of Gerontology 41, 617-622.
Krause, N. 1987a. Chronic financial strain, social support, and depressive symptoms among older adults. Psychology and Aging 2, 185-192.
Krause, N. 1987b. Chronic strain, locus of control, and distress in older adults. Psychology and Aging 2, 375-382.
Krause, N. 1988. Stressful life events and physician utilization. Journals of Gerontology 43, S53-S61.
Krohne, H. W. 1986. Coping with stress: Dispositions, strategies, and the problem of measurement. In M. H. Appley & R. Trumbull (Eds.) Dynamics of stress. Physiological, psychological, and social perspectives. New York: Plenum, 207-232.
Kruse, A. 1987. Kompetenz bei chronischer Krankheit im Alter. Zeitschrift für Gerontologie 20, 355-366.
Kruse, A. 1990. Potentiale im Alter. Zeitschrift für Gerontologie 23, 235-245.
Kruse, A. & Lehr, U. 1989. Longitudinal analysis of the developmental process in chronologically ill and healthy persons: Empirical findings from the Bonn Longitudinal Study of Aging (BOLSA). International Psychogeriatrics 1, 73-85.
Labouvie-Vief, G., Hakim-Larson, J. & Hobart, C. J. 1987. Age, ego level, and the life-span development of coping and defence processes. Psychology and Aging 2, 286-293.
Landreville, P. & Vezina, J. 1992. A comparison between daily hassles and major life events as correlates of well-being in older adults. Canadian Journal on Aging 11, 137-149.
Lazarus, R. S. & DeLongis, A. 1983. Psychological stress and coping in aging. American Psychologists 38, 245-254.
Lazarus, R. S. & Folkman, S. 1984. Stress, appraisal, and coping. New York: Springer.
Lazarus, R. S. & Launier, R. 1978. Stress-related transactions between person and environment. In L. A. Pervin & M. Lewis (Eds.) Perspectives in interactional psychology. New York: Plenum, 287-327.
Lieberman, M. A. & Peskin, H. 1992. Adult life crises. In J. E. Birren, R. B. Sloane & G.D. Cohen (Eds.) Handbook of mental health and aging. Second edition. San Diego, CA: Academic Press, 119-143.

Lindfors, O., Achté, K., Vauhkonen, M.-L., Salokari, M., Lehvonen, R. & Holsti L. R. 1986. The effects of coping strategies in early phases of breast cancer to future adaptation. In K. Achté & A. Pakaslahti (Eds.) Stress and psychosomatics. Psychiatria Fennica Supplementum, 179-185.

Lindholm, S. & Tulla, T. 1982. Psyykkisestä toimintakykyisyydestä ja siihen yhteydessä olevista tekijöistä 31-35-, 51-55- ja 71-75-vuotiailla jyväskyläläisillä miehillä. Jyväskylän yliopisto. Psykologian pro gradu -työ.

Linville, P. E. & Clark, L. F. 1989. Can production systems cope with coping? Social Cognition 7, 195-236.

Loevinger, J. & Wessler, R. 1970. Measuring ego development. Volume one: Construction and use of a sentence completion test. San Francisco: Jossey-Bass.

Lohr, M. J., Essex, M. J. & Klein, M. H. 1988. The relationships of coping responses to physical health status and life satisfaction among older women. Journals of Gerontology 43, P54-P60.

Lund, D. A., Caserta, M. S. & Dimond, M. F. 1986. Gender differences through two years of bereavement among the elderly. Gerontologist 26, 314-320.

Martin, P., Lee, H. S., Poon, L. W., Fulks, J. S., Clayton, G. M. & Johnson, M. A. 1992. Personality, life events and coping in the oldest-old. International Journal of Aging and Human Development 34, 19-30.

Maugham, B. & Champion, L. 1990. Risk and protective factors in the transition to young adulthood. In P. B. Baltes & M. M. Baltes (Eds.) Successful aging. Perspectives from the behavioral sciences. Cambridge: Cambridge University Press, 296-331.

McCrae, R. R. 1982. Age differences in the use of coping mechanisms. Journal of Gerontology 37, 454-460.

McCrae, R. R. 1984. Situational determinants of coping responses: Loss, threat, and challenge. Journal of Personality and Social Psychology 46, 919-928.

McCrae, R. R. 1989. Age differences and changes in the use of coping mechanisms. Journal of Gerontology: Psychological Sciences 44, P161-169.

McNaughton, M. E., Smith, L. W., Patterson, T. L. & Grant, I. 1990. Stress, social support, coping resources, and immune status in elderly women. Journal of Nervous and Mental Disease 178, 460-461.

Meeks, S., Carstensen, L. L., Tamsky, B.-F., Wright, T. L. & Pellegrini, D. 1989. Age differences in coping: Does less mean worse? International Journal of Aging and Human Development 28, 127-140.

Miller, S. M. & Birnbaum, A. 1988. Putting the life back into 'life events': Toward a cognitive social learning analysis of the coping process. In S. Fisher & J. Reason (Eds.) Handbook of life stress, cognition and health. Chichester: Wiley, 497-509.

Monat, A. & Lazarus, R. S. (Eds.) 1985. Stress and coping. An anthology. Second edition. New York: Columbia University Press.

Moos, R. H. (Ed.) 1986. Coping with life crises. An integrated approach. New York: Plenum Press.

Moos, R. H. & Schaefer, J. A. 1986. Life transitions and crises: A conceptual overview. In R. H. Moos (Ed.) Coping with life crises. An integrated approach. New York: Plenum Press, 3-28.

Moos, R. H. & Schaefer, J. A. 1993. Coping resources and processes: Current concepts and measures. In L. Goldberger & S. Breznitz (Eds.) Handbook of stress. Theoretical and clinical aspects. Second edition. New York: Free Press, 234-257.

Murrell, S. A., Norris, F. H. & Grote, C. 1988. Life events in older adults. In L. H. Cohen (Ed.) Life events and psychological functioning. Theoretical and methodological issues. Newbury Park, CA: Sage, 96-122.

Myyrä, J. & Niemelä, P. 1984. Coping strategy assessment. University of Turku. Psychological Research Reports 59.

Ostell, A. 1991. Coping, problem solving and stress: A framework for intervention strategies. British Journal of Medical Psychology 64, 11-24.

Ouellette, S. C. 1993. Inquiries into hardiness. In L. Goldberger & S. Breznitz (Eds.) Handbook of stress. Theoretical and clinical aspects. Second edition. New York: Free Press, 77-100.

Palmore, E., Busse, E. W., Maddox, G. L., Nowlin, J. P. & Siegler, I. C. (Eds.) 1985. Normal aging III. Reports from the Duke Longitudinal Studies 1975-1984. Durham, NC: Duke University Press.

Palmore, E. B., Cleveland, W. P., Nowlin, J. P., Ramm, D. & Siegler, I. C. 1979. Stress and adaptation in later life. Journal of Gerontology 34, 841-851.

Parekh, H., Manz, R. & Schepank, H. 1988. Life-events, coping, social support: Versuch einer Integration aus psychoanalytischer Sicht. Zeitschrift für Psychosomatische Medizin und Psychoanalyse 34, 226-246.

Pargament, K. I., Ensing, D. S., Falgout, K., Olsen, H., Reilly, B., Van Haitsma, K. & Warren, R. 1990. God help me: I. Religious coping efforts as predictors of the outcomes to significant negative life events. American Journal of Community Psychology 18, 793-824.

Patterson, T. L., Smith, L. W., Grant, I., Clopton, P., Josepho, S. & Yager, J. 1990. Internal vs. external determinants of coping responses to stressful life-events in the elderly. British Journal of Medical Psychology 63, 149-160.

Paulhus, D. L. & Martin, C. L. 1987. The structure of personality capabilities. Journal of Personality and Social Psychology 52, 354-365.

Pearlin, L. I. & Schooler, C. 1978. The structure of coping. Journal of Health and Social Behavior 19, 2-21.

Pfeiffer, E. 1977. Psychopathology and social pathology. In J. E. Birren & K. W. Schaie (Eds.) Handbook of the psychology of aging. New York: Van Nostrand Reinhold, 650-671.

Poon, L. W., Messner, S., Martin, P., Noble, C. A., Clayton, G. M. & Johnson, M. A. 1992. The influences of cognitive resources on adaptation and old age. International Journal of Aging and Human Development 34, 31-46.

Poon, L. W., Sweaney, A. L., Clayton, G. M., Merriam, S. B., Martin, P., Pless, B. S., Johnson, M. A., Thelman, S. B. & Courtenay, B. C. 1992. The Georgia Centenarian Study. International Journal of Aging and Human Development 34, 1-17.

Pruchno, R. A., Blow, F. C. & Smyer, M. A. 1989. Life events and interdependent lives: Implications for research and intervention. In T. W. Miller (Ed.) Stressful life events. Madison: International Universities Press, 13-29.

Pöyhönen, T. 1987. Työ, toiminta stressitilanteissa ja mielenterveys - tutkimus psykiatrisen sairaalan henkilökunnasta. Työ ja ihminen, Työympäristötutkimuksen aikakauskirja, lisänumero 2.

Quayhagen, M. P. & Quayhagen, M. 1982. Coping with conflict. Measurement of age-related patterns. Research on Aging 4, 364-377.

Raven, J. C. 1958. Standard Progressive Matrices. Sets A, B, C, D and E. Cambridge: University Printing House.

Raven, J. C., Court, J. H. & Raven, J. 1977. Manual for Raven's Progressive Matrices and Vocabulary Scales. Section 3: Standard Progressive Matrices. London: H. K. Lewis.

Rabkin, J. G. & Klein, D. F. 1987. The clinical measurement of depressive disorders. In A. J. Marsella, R. M. A. Hirschfeld & M. M. Katz (Eds.) The measurement of depression. Chichester: Wiley, 31-83.

Reich, J. W. & Zautra, A. J. 1991. Experimental and measurement approaches to internal control in at-risk older adults. Journal of Social Issues 47, 143-158.

Rofe, Y., Lewin, I. & Hoffman, M. 1987. Affiliation patterns among cancer patients. Psychological Medicine 17, 419-424.

Rohde, A. R. 1957. The sentence completion method. Its diagnostic and clinical application to mental disorders. New York: Ronald Press.

Rohde, P., Lewinsohn, P. M., Tilson, M. & Seeley, J. R. 1990. Dimensionality of coping and its relation to depression. Journal of Personality and Social Psychology 58, 499-511.

Rosenbaum, M. (Ed.) 1990. Learned resourcefulness. On coping skills, self-control, and adaptive behavior. New York: Springer.

Roth, S. & Cohen, L. 1986. Approach, avoidance, and coping with stress. American Psychologist 41, 813-819.

Rotter, J. B. 1951. Word association and sentence completion methods. In H. H. Anderson & G. L. Anderson (Eds.) An introduction to projective techniques. Englewood Cliffs, NJ: Prentice-Hall, 279-311.

Rotter, J. B. 1966. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs 80, 1-28.

Rudinger, G. & Thomae, H. 1990. The Bonn Longitudinal Study of Aging: Coping, life adjustment, and life satisfaction. In P. B. Baltes & M. M. Baltes (Eds.) Successful aging. Perspectives from the behavioral sciences. Cambridge: Cambridge University Press, 265-295.

Russell, D. W. & Cutrona, C. E. 1991. Social support, stress, and depressive symptoms among the elderly: Test of a process model. Psychology and Aging 6, 190-201.

Ruth, J.-E. 1991. Reliabilitets- och validitetsfrågan i kvantitativ respektive kvalitativ forkningstradition. Gerontologia 5, 277-290.

Ruth, J.-E. & Coleman, P. 1995. Personality and aging: Coping and management of the self in later life. In J. E. Birren & K. W. Schaie (Eds.) Handbook of the psychology of aging. Fourth edition. New York: Van Nostrand Reinhold. In press.

Rybarczyk, B. D. & Auerbach, S. M. 1990. Reminiscence interviews as stress management interventions for older patients undergoing surgery. Gerontologist 30, 522-528.

Rybash, J. M., Hoyer, W. J. & Roodin P. A. 1986. Adult cognition and aging. Developmental changes in processing, knowing and thinking. New York: Pergamon Press.

Saari, S. 1981. Mielenterveyden muutoksen ennustaminen ja selittäminen kolmen ensimmäisen opiskeluvuoden aikana. Helsinki: Ylioppilaiden terveydenhoitosäätiön tutkimuksia ja selvityksiä 10.

Saarinen, T. 1992. Sepelvaltimopotilaiden sairauteen sopeutuminen ja työhönpaluu. Helsinki: Kuntoutussäätiön tutkimuksia 35.

Salminen, K. 1987. 75-84-vuotiaiden minäkäsitys. Jyväskylän yliopisto. Psykologian lisensiaattityö.

Salminen, K. & Suutama, T. 1985. Iäkkäiden elinolosuhteet sekä psyykkinen ja sosiaalinen toimintakykyisyys, Osa 1. Vanhusten kognitiivisten toimintojen ja persoonallisuuden tutkimusmenetelmät - Kirjallisuuskatsaus. Helsinki: Kansaneläkelaitoksen julkaisuja M:55.

Salminen, K., Suutama, T. & Ruoppila, I. 1990. Iäkkäiden elinolosuhteet sekä psyykkinen ja sosiaalinen toimintakykyisyys, Osa 3. Psyykkinen toimintakyky. Helsinki: Kansaneläkelaitoksen julkaisuja M:69.

Salo, K. & Kinnunen, U. 1993. Opettajien työstressi: Työn, stressin ja terveyden seurantatutkimus 1983-1991. Jyväskylän yliopisto. Työelämän tutkimusyksikön julkaisuja 7.

Sarason, I. G., Sarason, B. R. & Johnson, J. H. 1985. Stressful life events: Measurement, moderators, and adaptation. In S. R. Burchfield (Ed.) Stress: Psychological and physiological interactions. Washington: Hemisphere, 241-261.

Schaie, K. W. 1977. Quasi-experimental research designs in the psychology of aging. In J. E. Birren & K. W. Schaie (Eds.) Handbook of the psychology of aging. New York: Van Nostrand Reinhold, 39-58.

Schaie, K. W. 1985. Schaie-Thurstone Adult Mental Abilities Test. Manual. Palo Alto: Consulting Psychologists Press.

Schaie, K. W. & Willis, S. L. 1986. Can intellectual decline in the elderly be reversed? Developmental Psychology 22, 223-232.

Schwarzer, C. 1992. Bereavement, received social support, and anxiety in the elderly: A longitudinal analysis. Anxiety Research 4, 287-298.

Sek, H. 1991. Life stress in various domains and perceived effectiveness of social support. Polish Psychological Bulletin 22, 151-161.

Shanan, J. 1993. Die Jerusalemer Längsschnittuntersuchungen der mittleren Lebensjahre und des Alterns - JEMA. Zeitschrift für Gerontologie 26, 151-155.

Shanan, J. & Jacobowitz, J. 1982. Personality and aging. In C. Eisdorfer (Ed.) Annual Review of Gerontology and Geriatrics, Volume 3. New York: Springer, 148-178.

Siegler, I. C. & Gatz, M. 1985. Age patterns in locus of control. In E. Palmore, E. W. Busse, G. L. Maddox, J. B. Nowlin & I. C. Siegler (Eds.) Normal Aging III. Reports from the Duke Longitudinal Studies 1975-1984. Durham, NC: Duke University Press, 259-267.

Siegler, I. C. & George, L. K. 1983. Sex differences in coping and perceptions of life events. Journal of Geriatric Psychiatry 16, 197-209.

Silver, R. L. & Wortman, C. B. 1980. Coping with undesirable life events. In J. Garber & M. E. P. Seligman (Eds.) Human helplessness. Theory and applications. New York: Academic Press, 279-375.

Sistler, A. 1989. Adaptive coping of older caregiving spouses. Social Work 34, 415-420.

Smith, L. W., Patterson, T. L. & Grant, I. 1990. Avoidant coping predicts psychological disturbance in the elderly. Journal of Nervous and Mental Disease 178, 525-530.

Smith, G. J. & Van der Meer, G. 1990. Creativity in old age. Creativity Research Journal 3, 249-264.

SPSSx User's Guide. 3rd edition. 1988. Chicago.

Stone, A. A., Helder, L. & Schneider, M. S. 1988. Coping with stressful events: Coping dimensions and issues. In L. H. Cohen (Ed.) Life events and psychological functioning. Theoretical and methodological issues. Newbury Park, CA: Sage, 182-210.

Stone, A. A. & Neale, J. M. 1984. New measure of daily coping: Development and preliminary results. Journal of Personality and Social Psychology 46, 892-906.

Suutama, T., Ruoppila, I. & Kuikka, P. 1991. Kognitiivisten toimintojen arviointi. Teoksessa R.-L. Heikkinen & T. Suutama (toim.) Iäkkäiden henkilöiden toimintakyvyn ja terveyden arviointi. Ikivihreät-projekti, Osa II. Helsinki: Sosiaali- ja terveysministeriö, Kehittämisosaston julkaisuja 1991:10, 83-110.

Suutama, T., Salminen, K. & Ruoppila, I. 1988. Iäkkäiden elinolosuhteet sekä psyykkinen ja sosiaalinen toimintakykyisyys, Osa 2. Fyysinen ja sosiaalinen toimintakyky. Helsinki: Kansaneläkelaitoksen julkaisuja M:63.

Taylor, S. E. & Schneider, S. K. 1989. Coping and the simulation of events. Social Cognition 7, 174-194.

Thoits, P. A. 1991. Patterns in coping with controllable and uncontrollable events. In E. M. Cummings, A. L. Greene & K. H. Karraker (Eds.) Life-span developmental psychology: Perspectives on stress and coping. Hillsdale, NJ: Erlbaum, 235-258.

Thomae, H. 1983. Alternsstile und Altersschicksale. Ein Beitrag zur Differentiellen Gerontologie. Bern: Hans Huber.

Thomae, H. 1987. Conceptualizations of responses to stress. European Journal of Personality 1, 171-192.

Thomae, H. 1988. Das Individuum und seine Welt. Eine Persönlichkeitstheorie. 2., völlig neu bearbeitete Auflage. Göttingen: Verlag für Psychologie.

Thomae, H. 1992a. Emotion and personality. In J. E. Birren, R. B. Sloane & G.D. Cohen (Eds.) Handbook of mental health and aging. Second edition. San Diego, CA: Academic Press, 355-375.

Thomae, H. 1992b. Contributions of longitudinal research to a cognitive theory of adjustment to aging. European Journal of Personality 6, 157-175.

Tikkanen, T. 1989. Eläkkeelle siirtyminen ja eläkkeelle valmennus. Eläkkeelle-valmennuskursseille osallistuminen ja osallistumattomuus. Jyväskylän yliopisto. Kasvatustieteen pro gradu -työ.

Tobin, D. L., Holroyd, K. A., Reynolds, R. V. & Wigal, J. K. 1989. The hierarchical factor structure of the Coping Strategies Inventory. Cognitive Therapy and Research 13, 343-361.

Tuominen, E. 1994. Elämänmuutos ja muutoksen hallinta. Tutkimus leskeksi jäämisen taloudellisista, terveydellisistä ja sosiaalisista vaikutuksista sekä leskeyteen sopeutumisesta. Helsinki: Eläketurvakeskuksen tutkimuksia 1994:1.

Vaillant, G. E. 1977. Adaptation to life. Boston: Little, Brown and Company.

Wechsler, D. 1945. A standardized memory scale for clinical use. Journal of Psychology 19, 87-95.

Wechsler, D. 1955. Manual for the Wechsler Adult Intelligence Scale (WAIS). New York: Psychological Corporation.

Wechsler, D. 1958. The measurement and appraisal of adult intelligence. Baltimore: Williams & Wilkins.

Whitbourne, S. K. 1985. The psychological construction of the life span. In J. E. Birren & K. W. Schaie (Eds.) Handbook of the psychology of aging. Second edition. New York: Van Nostrand Reinhold, 594-618.

Wilken, B., Kemmler, L., Schmitt-Stögbauer, A., Everwien, S., Vogt, A. & Schämann, B. 1993. Kritische Lebensereignisse und deren Bewältigung in einer Gruppe älterer lediger Frauen. Zeitschrift für Gerontologie 26, 50-56.

Willis, S. L. & Schaie K. W. 1994. Cognitive training in the normal elderly. In F. Forette, Y. Christen & F. Boller (Eds.) Plasticité cérébrale et stimulation cognitive. Paris: Fondation Nationale de Gérontologie, 91-113.

Winocur, G., Moscovitch, M. & Freedman, J. 1987. An investigation of cognitive function in relation to psychosocial variables in institutionalized old people. Canadian Journal of Psychology 41, 257-269.

Wong, P. T. P. 1993. Effective management of life stress: The resource-congruence model. Stress Medicine 9, 51-60.

Worcester, M. I. 1990. Family coping: Caring for the elderly in home care. Home Health Care Services Quarterly 11, 121-185.

World Health Statistics Annual 1991. Geneva: World Health Organization.

Wortman, C. B. & Silver, R. C. 1990. Successful mastery of bereavement and widowhood: A life-course perspective. In P. B. Baltes & M. M. Baltes (Eds.) Successful aging. Perspectives from the behavioral sciences. Cambridge: Cambridge University Press. 225-264.

APPENDIX 1

Timo Suutama: The Coping with Life Events Questionnaire

Instructions. Events or situations, which anyone may be faced with, are presented in this questionnaire. You are kindly requested to evaluate what do you think and do and how do you feel in these situations. If you have been faced with the situation in question, please state what you thought of it or how you acted. If you are not familiar with the situation, try to imagine how you probably would act and answer accordingly.

Different ways of reacting to the situations or of handling them are stated on the questionnaire. You should indicate on the form, how much you would use or have used these ways in each of the situations. Ring the alternative 0, if the way in question does not fit in at all with your ways of handling the situation. Ring alternative 1, if it fits to some extent, and alternative 2, if it fits well. Each time keep in mind the particular situation in question.

After the evaluation of each situation please indicate whether you have personal experience of it or not. If you have, please write down how long ago you were faced with the situation.

Situations:

A. You have to move to new accommodation which suits you worse than the place you had previously, or to an old people's home.

B. You fall seriously ill or get injured or your physical condition worsens for some other reason.

C. Your spouse or one of your close relatives or friends dies.

D. You break up with a person who is important and close to you because of a serious disagreement between you and her/him.

E. You have to give up an activity or interest which is important to you because your health is impaired or for some other reason.

A, B, C, D, E. What do you think, feel, do?

	Not at all (never)	To some extent (sometimes)	A great deal (often)
1. I try to concentrate on more pleasant things.	0	1	2
2. I pray or otherwise seek help from religion.	0	1	2
3. I am angry or bitter and accuse others for what has happened.	0	1	2
4. I try to explain to myself what the situation means concerning my life as a whole.	0	1	2
5. I seek support and consolation from persons who are close to me.	0	1	2
6. I take drugs to make me feel better.	0	1	2
7. I think that I cannot do anything and that I have to accept the situation as such.	0	1	2
8. I try to get as much information as possible concerning the situation.	0	1	2
9. I want to solve the problem by myself.	0	1	2
10. I get depressed and feel powerless.	0	1	2
11. I refuse to believe what has happened, or I wish that I could change the situation back to how it was.	0	1	2
12. I ask for advice from persons who have experienced the same kind of situation.	0	1	2
13. I think about different ways of managing the new situation and act on them.	0	1	2
14. I try to maintain my positive attitude.	0	1	2

Have you personally lived through this kind of situation? (Ring the right alternative.)

0 No

1 Yes; how long ago?______________________

APPENDIX 2

Timo Suutama and Isto Ruoppila: The Sentence Completion Test

Instructions. Below are the beginnings of a few sentences. You should complete the sentences with the thoughts that come to your mind. There are no right or wrong answers, just complete the sentences with the first thought that comes to your mind. For example, if the sentence begins "I am glad...", you should complete it to express your personal feelings, such as "I am glad when I have visitors." Please try to find a continuation to all of the following beginnings.

When I meet difficult problems ______________________________

I find it easiest to get over ______________________________

Getting depressed is ______________________________

My mental resources ______________________________

Adaptation to changes ______________________________

It is difficult for me ______________________________

My setbacks ______________________________

Help from others ______________________________

For an elderly person, changes in life ______________________________

Knowledge helps ______________________________

It is easy for me ______________________________

I find it hardest to get over ______________________________

The most difficult matters I ______________________________

Overcoming difficulties ______________________________

In everyday problems ______________________________

When cares weigh me down ______________________________

Trying hard ______________________________

Getting old feels ______________________________

Solving problems ______________________________

I get over my difficulties ______________________________

God helps ______________________________

APPENDIX 3

The outline of the theme interview

The subject was asked to talk about the most important changes and other events in his/her life during the preceding few years (after retirement). He/she was asked to assess which one of the stressful or difficult events had been the most significant as regards his/her life as a whole. First the subject was asked to speak freely about the event and everything that was connected with it. The questions asked by the interviewer, if necessary, concerned the following topics:

- the timing of the event

- the unexpectedness of the event; possibilities of anticipating or preparing to the event; the difficulty of the event in relation to possible previous expectations, imaginings

- first reactions: thoughts, feelings, actions

- self-evaluations regarding ability of adapting to the event

- the amount of stress, anxiety or other kind of mental strain caused by the event

- ways of reducing stress/mental strain, in coping with the event; possible changes in ways of coping over time

- the state of the coping process; the phase of adaptation

- contentment with one's own coping behaviour and adaptation

- possible self-perceived changes by the subject as a person and in his/her mental resources caused by the event and coping with the event

- ways of coping that the subject had possibly observed to be effective in many kinds of difficult events and situations; general ways of reacting and acting in stressful situations

APPENDIX 4

The factors of the Coping with Life Events Questionnaire

Factor 1 (Controlling emotions)

Eigenvalue 2.66, variance explained 19 %

	loading	communality
I get depressed and feel powerless	.80	.64
I seek support and consolation from persons who are close to me	.72	.57
I refuse to believe what has happened, or I wish that I could change the situation back to how it was.	.58	.39
I pray or otherwise seek help from religion	.40	.20
I take drugs to make me feel better	.31	.10 *
I am angry or bitter and accuse others for what has happened	.30	.11 *

Factor 2 (Problem-focused behaviour)

Eigenvalue 1.82, variance explained 13 %

	loading	communality
I try to get as much information as possible concerning the situation	.76	.63
I think about different ways of managing the new situation and act on them	.74	.71
I try to explain to myself what the situation means concerning my life as a whole	.72	.54
I ask for advice from persons who have experienced the same kind of situation	.45	.45

Factor 3 (Accepting the situation)

Eigenvalue 1.32, variance explained 9 %

	loading	communality
I try to maintain my positive attitude	.71	.62
I think that I cannot do anything and that I have to accept the situation as such	.61	.49
I try to concentrate on more pleasant things	.39	.19
I want to solve the problem by myself	.37	.16 *

* Excluded from the final scale.

APPENDIX 5

Statistical parameters of variables of sociodemographic background and functional abilities

Variable (Scale)	Mean	Std Dev	Minimum	Maximum	N
Years of fulltime education	6.10	3.32	0	19	343
Personal net income per month (FIM)	3445.40	1559.01	1000	14000	324
Family net income per month (FIM)	4661.23	2332.00	1500	16400	308
Self-evaluated economic situation (1 = poor...3 = good)	2.14	0.55	1	3	345
Marital status (1 = not married, 2 = married)	1.41	0.49	1	2	355
Memory score (raw score: 0-52)	22.96	6.76	0	39	299
Intelligence score (raw score: 0 →)	65.00	21.08	1	130	293
Memory difficulties score (0-18)	6.62	3.08	0	18	299
Short-term memory difficulties score (0-10)	3.22	1.81	0	10	299
Self-rated health status (1 = very poor...5 = very good)	3.03	0.58	1	5	318
Self-rated physical functioning comparing self to others (1 = worse...3 = better)	2.21	0.69	1	3	325
CES-D score/depressiveness (0-60)	13.48	8.25	0	57	337
Feelings of stress in daily life (1 = no, hardly ever...3 = often)	1.63	0.54	1	3	318
Satisfaction with everyday life (1 = no, hardly ever...4 = yes, nearly always)	3.32	0.70	1	4	345
Number of close friends	2.75	3.09	0	20	334
Frequency of meeting close friends (1 = never, no close friends...7 = every day)	4.60	2.07	1	7	344
Feelings of loneliness (1 = never, very seldom...4 = nearly always)	1.53	0.74	1	4	344
Social interests/memberships (0 = no, 1 = club or association, 2 = both)	0.83	0.81	0	2	345
BIC score/social flexibility (16-112)	63.16	11.07	30	107	335