

DISSERTATIONS IN  
**EDUCATION,  
HUMANITIES,  
AND THEOLOGY**

**KATI AHO-MUSTONEN**

*Group psychoeducation  
for forensic long-term  
patients with schizophrenia*

PUBLICATIONS OF THE UNIVERSITY OF EASTERN FINLAND

*Dissertations in Education, Humanities, and Theology No 10*



UNIVERSITY OF  
EASTERN FINLAND

KATI AHO-MUSTONEN

*Group psychoeducation for  
forensic long-term patients  
with schizophrenia*

Publications of the University of Eastern Finland  
Dissertations in Education, Humanities, and Theology

10

University of Eastern Finland  
Joensuu  
2011

Kopijyvä  
Joensuu, 2011  
Sarjan vastaava toimittaja: Jopi Nyman

ISSN 1798-5625  
ISBN 978-952-61-0302-0  
ISSNL 1798-5625

Aho-Mustonen, Kati

Group psychoeducation for forensic long-term patients with schizophrenia

Joensuu, University of Eastern Finland, 2011.

Publications of the University of Eastern Finland. Dissertations in Education, Humanities, and Theology; 10

ISSN 1798-5625 (print)

ISSN 1798-5633 (pdf)

ISBN 978-952-61-0302-0 (print)

ISBN 978-952-61-0303-7 (pdf)

ISSNL 1798-5625

## **ABSTRACT: GROUP PSYCHOEDUCATION FOR FORENSIC LONG-TERM PATIENTS WITH SCHIZOPHRENIA**

The main objectives of the present study were to investigate the feasibility, effects, and patient experiences of group psychoeducation for forensic long-term patients with schizophrenia in a high-security forensic context. The starting point of the research was to develop and modify a suitable psychoeducational program for these often severely ill patients and study its effects both by experimental research design and from the patient's perspective. By focusing on patient perspective and patient feedback it was hoped to get more in-depth information to better understand the process and factors contributing to the outcomes of psychoeducation among these patients. Finally, based on the obtained empirical as well as earlier findings on patient psychoeducation for schizophrenia, a tentative model of the effective factors is presented, defined as information, sharing and support, and participation. The importance of trust and hope in the process of psychoeducation, especially when offered to forensic patients, is highlighted.

The data were collected in three phases during the period 2001-2006 at Niuvanniemi Hospital, Finland. First, a small-scale pilot study was conducted. Treatment outcomes were compared between the intervention group (n=7) and a matched treatment as usual control group (n=8). Four years later the experiences of the participants of the pilot group were collected through interviews (n=6). An exploratory RCT design was then conducted to investigate the efficacy of this group psychoeducation program among forensic patients with schizophrenia (n=39), and at the same time their motives, initial expectations and satisfaction with the intervention were examined.

The results suggested that even severely ill patients were able to improve their knowledge of their illness, their self-esteem increased, and psychoeducation also had a positive impact on their awareness of the illness. The results are considered promising, as the patients referred to research had characteristics that ordinarily might have excluded them both from participating in psychosocial group interventions and clinical research. Their opinions of the intervention were for the most part rather positive, which is encouraging because patients had been committed to hospital care against their own will, and consequently their motivation to undergo treatment was often lower than usual.

The present set of studies provides information about the feasibility and effects of a group psychoeducation program as a basic component of the comprehensive treatment of

challenging forensic patients with schizophrenia. Group psychoeducation could be seen as a low threshold psychosocial intervention, since even severely ill and symptomatic patients were able to join the group. Even when a patient's psychiatric condition does not allow them to participate in more intensive psychosocial rehabilitation efforts or interventions at some point in time, joining group psychoeducation may still be possible, and provide a base for further rehabilitation and recovery. Despite the multiple psychiatric problems among the sample, the psychoeducation group was also found to be feasible among patients with cognitive deficits, and they were able to derive benefits from the group. Future research should focus on the long-term effects of the intervention, and research and development into psychoeducational interventions for these patients should in particular aim at fostering hope, normalizing mental illness, and correcting stigmatizing misconceptions.

Aho-Mustonen, Kati

Ryhmäpsykoedukaatio skitsofreniaa sairastavien oikeuspsykiatristen  
pitkäaikaispotilaiden hoidossa

Joensuu, Itä-Suomen yliopisto, 2011.

Publications of the University of Eastern Finland. Dissertations in Education, Humanities,  
and Theology; 10

ISSN 1798-5625 (print)

ISSN 1798-5633 (pdf)

ISBN 978-952-61-0302-0 (print)

ISBN 978-952-61-0303-7 (pdf)

ISSNL 1798-5625

## **ABSTRAKTI : RYHMÄPSYKOEDUKAATIO SKITSOFRENIAA SAIRASTAVIEN OIKEUSPSYKIATRISTEN PITKÄAIKAISPOTILAIEN HOIDOSSA**

Tutkimuksen tarkoituksena oli selvittää ryhmäpsykoedukaation soveltuvuutta, vaikuttavuutta ja skitsofreniaa sairastavien pitkäaikaispotilaiden kokemuksia interventiosta oikeuspsykiatrisessa kontekstissa. Tutkimuksen lähtökohtana oli kehittää ja muokata psykoedukaatio-ohjelma näiden usein vaikeasti sairaiden potilaiden hoitoon soveltuvaksi ja tutkia kehitetyn ohjelman vaikutuksia kokeellisen tutkimusasetelman avulla sekä potilasnäkökulmaa hyödyntäen. Potilasnäkökulman ja osallistujapalautteen avulla pyrittiin saamaan myös kokonaisvaltaisempaa ymmärrystä psykoedukaation prosessista ja niistä tekijöistä, jotka vaikuttavat psykoedukaation tuloksellisuuteen. Perustuen tässä tutkimuksessa saatuihin empiirisiin tuloksiin ja aikaisempaan tutkimuskirjallisuuteen esitetään myös alustava malli oikeuspsykiatristen potilaiden ryhmäpsykoedukaatiossa vaikuttavista tekijöistä. Ne ovat tässä tutkimuksessa määritelty informaatioksi, jakamisen ja tuen kokemukseksi, sekä osallistumisen mahdollisuudeksi. Korostetaan myös luottamuksen ja toiveikkuuden säilyttämisen tärkeyttä näiden potilaiden psykoedukaatiossa.

Tutkimusaineisto koottiin kolmessa eri vaiheessa vuosien 2001-2006 aikana Niuvanniemen sairaalassa. Tutkimuksen alkuvaiheessa toteutettiin intervention pilotointivaihe jolloin ryhmän vaikutuksia tutkittiin pienellä aineistolla. Neljä vuotta tämän jälkeen ryhmään osallistuneiden potilaiden kokemuksia tutkittiin haastattelemalla. Lopuksi toteutettiin eksploratiivinen kokeellinen tutkimusasetelma (n=39), jonka avulla tutkittiin ryhmän vaikutuksia oikeuspsykiatristen skitsofreniapotilaiden hoidon osana ja koottiin tutkimusaineisto potilaiden motiiveista osallistua ryhmään sekä heidän odotuksistaan ja tyytyväisyydestään ryhmää kohtaan.

Saatujen tulosten perusteella myös vakavasti sairaat oikeuspsykiatriset potilaat voivat hyötyä ryhmäpsykoedukaatiosta. Vaikka toteutettu kokeellinen asetelma oli luonteeltaan eksploratiivinen, tulokset osoittivat, että osallistujien tieto sairaudestaan lisääntyi, itsetunto koheni, ja psykoedukaatiolla oli myös myönteistä vaikutusta potilaiden sairautentuntoon. Tuloksia voidaan pitää lupaavina, koska potilaat olivat sairaudenkuvansa vuoksi sellaisia, jotka eivät välttämättä saa mahdollisuutta osallistua

psykologisiin ryhmähoitoihin ja jäävät usein myös kliinisen interventiotutkimuksen ulkopuolelle. Potilaiden kokemukset ryhmästä olivat lisäksi pääosin positiivisia. Tämä on rohkaisevaa, ovathan kyseessä tahdonvastaisessa psykiatrisessa hoidossa olevat potilaat, joiden motivaatio osallistua hoitoonsa on usein tavanomaista vähäisempi.

Tutkimuksen eri osat tuottivat tietoa ryhmäpsykoedukaation soveltuvuudesta osana haastavien oikeuspsykiatristen skitsofreniapotilaiden hoitoa. Koska ryhmään osallistuminen oli mahdollista myös vakavammin sairaille ja enemmän oireileville potilaille, tutkimuksessa esitetty ryhmäpsykoedukaatiointerventio voidaan nähdä matalan kynnyksen psykososiaalisena hoitomuotona oikeuspsykiatristen skitsofreniapotilaiden hoidossa. Tutkimus osoittaa, että myös kognitiivisista ongelmista ja puutteista kärsivät potilaat voivat hyötyä ryhmästä. Vaikka potilaan psyykinen vointi ei tietyssä tilanteessa mahdollistaisikaan intensiivisempien psykososiaalisten hoitomuotojen soveltamista kokonaisuutena, saattaa psykoedukaatioryhmään osallistuminen silti olla mahdollista ja luoda pohjaa kuntoutumiselle ja toipumiselle myöhemmin. Jatkossa tutkimusta tulisi tehdä intervention pitkäaikaisista vaikutuksista, ja lisäksi niin tutkimuksessa kuin ryhmien kehittämistyössäkin tulisi kiinnittää huomiota etenkin toivon säilyttämiseen, psyykkisen sairauden normalisointiin sekä vakaviin psyykkisiin sairauksiin liitettävien stigmatisoivien käsitysten korjaamiseen liittyviin kysymyksiin.

# *Acknowledgements*

The work introduced in this thesis started in 2001 when I was doing my psychology training in Niuvanniemi Hospital and psychoeducation had just been introduced first time as an evidence-based psychosocial treatment for schizophrenia in Finnish Schizophrenia Practice Guideline. That time I was very pleased to meet psychologist Raili Miettinen, who gave me the original idea to study psychoeducation among forensic patients with schizophrenia in my master's thesis. Raili, without you this study would not have been even started nor would it have been completed. During past years you have helped me conducting the study, you have co-authored in the original articles, and you have given me concrete shelter as I slept on your couch several times while I was collecting data in Kuopio. Above all, you have given me emotional shelter and supported me during these years. Your wisdom and friendship have been of great importance to me and of which I am truly grateful. My deepest gratitude and warmest thanks goes also to my main supervisor Professor Hannu Rätty. Your excellent guidance through my PhD studies and the research process, and your encouragement and support have helped me enormously. During difficult times your support has given me strength to continue even when I have almost lost hope and I have been willing to give up. I would also thank my second supervisor Docent Tero Timonen who introduced me the field of forensic psychiatry, and for contributing in the early phase of the study project.

I owe my respectful gratitude to the official reviewers of my dissertation, Professor Raimo Lappalainen, and Docent Kirsi Honkalampi, for their great effort and encouraging comments. I would also like to thank the co-authors of the original publication III included in this thesis, Professor Jari Tiihonen, Medical Director of Niuvanniemi Hospital Eila Tiihonen, and Professor Olli-Pekka Ryynänen.

This study was financially supported by the Department of Psychology of the University of Joensuu, the Faculty of Social Sciences of the University of Joensuu, the Centre for the Social-Cultural Studies in Education of the University of Joensuu, The Finnish Psychological Society for Anna S. Elonen Scholarship, The Finnish Cultural Foundation Central Fund, the Finnish Cultural Foundation North Karelia Regional Fund, and the National Doctoral Programme of Psychology (former Graduate School of Psychology) funded by the Ministry of Education, to all of whom I am gratefully appreciative.

I want to express my sincere gratitude to Roy Goldblatt for revising the language of the original articles and the summary, except these acknowledgements. Thanks to you and your kindness the unexpected deadlines that emerged from time to time did not make the project (or me) to collapse. I would also like to thank John Stotesbury for helping me in language revision in the early phase of this study. I want to thank PhD Arja Holopainen for your comments and help with qualitative analyses related to original article II, and Hanna Koivisto for your help during the pilot phase of my study. All my supervisors and colleagues in Life and Counselling in Context seminars, and in the

Graduate School of Psychology, I thank you for the discussions and for your valuable comments during these years.

I would also like to warmly thank all my colleagues, personnel, and administrative staff at the University of Joensuu and at the University of Eastern Finland for your encouragement, help, support and the chance to reflect my thoughts with you during these years. My colleagues, friends and co-workers who have been part of our "Communication laboratory" at the Department of Psychology along these years, I thank you all for your friendship. My fellow doctoral students and friends Riitta, Maija, Kirsi and Riina, in joy and sorrow these have been memorable years. You are important to me. Special thanks to Maija for helping me to clarify my thoughts and final conclusions of my thesis with your wise questions last summer when I was totally exhausted. I would also like to express my thanks to my students for your enthusiasm, questions, and ideas you have given me during these years.

I am very grateful and wish to thank the patients and staff members in Niuvanniemi Hospital who participated in and contributed to this study. I want to express my special thanks to the psychologists of Niuvanniemi Hospital for your kindness and help during these years. In addition to the almost ten year cooperation with Niuvanniemi Hospital, I have worked in cooperation with the psychiatric clinic of The Joint Municipal Authority for Medical and Social Services in North Karelia, Paihola Hospital, and got important and valuable feedback both from the staff and the patients. During the past years I have also lectured to psychotherapy students, and also trained nursing staff in different psychiatric facilities, especially in the Hospital District of Helsinki and Uusimaa. Discussions with the staff, who have utilized the psychoeducation material and given me feedback, have been very valuable. All the advice and experiences how the program and its components have worked have been helpful to sum up my findings and conclusions of this study. I would like to express my warmest thanks to all of you.

Finally, I would like to thank from the bottom of my heart my loved ones. I thank my parents and my brother for being there for me. Mikko, you have always supported me and believed in me, and time after time also soothed me in my statistical misery and with my frustration with computer-based office applications. I will be forever grateful to you. And my dear friends, in moments of success you have been happy for me, and in moments of anguish you have supported me and kept me going. Thank you so much. You know, The Road I Must Travel.

Joensuu, January 2011

Kati Aho-Mustonen

# *Original articles*

This thesis is based on the following original studies, referred to in the text by the Roman numerals I-IV:

I Aho-Mustonen, K., Miettinen, R., Koivisto, H., Timonen, T., & Rätty, H. (2008). Group psychoeducation for forensic and dangerous non-forensic long-term patients with schizophrenia. A pilot study. *The European Journal of Psychiatry*, 22(2), 84-92.

II Aho-Mustonen, K., Miettinen, R., Rätty, H., & Timonen, T. (2009). Experienced long-term benefits of group psychoeducation among forensic and challenging non-forensic patients with schizophrenia. *International Journal of Psychosocial Rehabilitation*, 14(1), 51-63.

III Aho-Mustonen, K., Tiihonen, J., Repo-Tiihonen, E., Ryyänen, O.-P., Miettinen, R., & Rätty, H. (2010). Group psychoeducation for long-term offender patients with schizophrenia: An exploratory randomized, controlled trial. *Criminal Behaviour and Mental Health*. Published online in Wiley Online Library. DOI:0.1002/cbm.788

IV Aho-Mustonen, K., Miettinen, R., & Rätty, H. (2010). Motives for participation, initial expectations, and satisfaction with group psychoeducation among forensic patients with schizophrenia. *International Journal of Forensic Mental Health*, 9, 226-236.

The publications are reprinted with the kind permission of the copyright holders.



# Contents

<b>ACKNOWLEDGEMENTS</b> .....	VII
<b>ORIGINAL ARTICLES</b> .....	IX
<b>1 INTRODUCTION</b> .....	1
<b>2 PURPOSE OF THE STUDY AND RESEARCH QUESTIONS</b> .....	5
<b>3 REVIEW OF LITERATURE</b> .....	7
3.1 FORENSIC PATIENTS WITH SCHIZOPHRENIA .....	7
3.1.1 Comorbidity .....	9
3.1.2 Cognitive deficits .....	11
3.1.3 Insight .....	12
3.1.4 Adherence .....	14
3.1.5 Quality of life .....	16
3.1.6 Stigma and self-esteem .....	17
3.2 PSYCHOSOCIAL TREATMENT OF SCHIZOPHRENIA .....	19
3.2.1 Evidence-based psychosocial treatments for schizophrenia .....	20
3.2.2 Psychosocial treatment of forensic patients with schizophrenia .....	22
3.3 PSYCHOEDUCATION FOR SCHIZOPHRENIA .....	24
3.4 OVERVIEW OF RESEARCH ON PATIENT PSYCHOEDUCATION FOR SCHIZOPHRENIA .....	31
<b>4 THEORETICAL APPROACHES</b> .....	39
4.1 COGNITIVE THEORY AND STRESS-VULNERABILITY MODEL OF SCHIZOPHRENIA .....	39
4.2 PSYCHIATRIC REHABILITATION AND RECOVERY ORIENTATION .....	40
4.3 ANTONOVSKY'S SENCE OF COHERENCE THEORY (SOC) .....	43
4.4 PATIENT PERSPECTIVE AND SELF-DETERMINATION .....	45

<b>5 METHOD</b> .....	49
5.1 SERVICE SETTING .....	49
5.2 PARTICIPANTS.....	49
5.2.1 Studies I & II .....	49
5.2.2 Studies III & IV .....	50
5.3 GROUP PSYCHOEDUCATION INTERVENTION AND PROCEDURE .....	53
5.4 STUDY DESIGN .....	54
5.4.1 Mixed-methods design.....	57
5.4.2 Exploratory randomized controlled trial design .....	58
5.4.3 Quantitative outcome measures and data analyses .....	60
5.4.3.1 Outcome measures.....	60
5.4.3.2 Statistical analyses.....	63
5.4.3.3 Interviews and qualitative analyses .....	64
 <b>6 OVERVIEW OF THE ORIGINAL STUDIES</b> .....	 69
6.1 STUDY I .....	69
6.2 STUDY II.....	70
6.3 STUDY III.....	71
6.4 STUDY IV .....	72
 <b>7 DISCUSSION</b> .....	 75
7.1 MAIN FINDINGS.....	75
7.1.1 Efficacy of psychoeducation among forensic patients with schizophrenia.....	76
7.1.2 Combining the findings: Effective factors in forensic patient psychoeducation	80
7.1.2.1 Information .....	81
7.1.2.2 Sharing and support .....	84
7.1.2.3 Participation.....	85
7.1.2.4 Influence of trust and hope.....	86
7.1.2.5 Consequences of trust and hope in outcomes of psychoeducation among forensic patients .....	88
7.2 METHODOLOGICAL EVALUATION.....	92
7.2.1 Exploratory randomized controlled trial .....	93
7.2.2 Self-report instruments.....	94
7.2.3 Methodological evaluation of studies II & IV .....	96
7.3 ETHICAL CONSIDERATIONS .....	97
7.4 CLINICAL IMPLICATIONS .....	99
7.5 IMPLICATIONS FOR FUTURE RESEARCH .....	99
 <b>REFERENCES</b> .....	 101

## **TABLES**

Table 1. Previous research on patient psychoeducation for schizophrenia.....	31
Table 2. Topics, contents and aims of each session in the psychoeducation intervention.	53
Table 3. Phases of the study .....	67
Table 4. Consequences of trust and hope in outcomes of psychoeducation among forensic patients.....	89

## **FIGURES**

Figure 1. Patient flow diagram (study III).....	52
Figure 2. Tentative model of effective factors and the influence of trust and hope in group psychoeducation for forensic patients with schizophrenia .....	81



# *1 Introduction*

Psychoeducation is nowadays seen as a basic component of the comprehensive treatment of schizophrenia and should be offered to all patients (Bäumli, Froböse, Kraemer, Rentrop & Pitschel-Walz, 2006; Lehman et al., 2004) as well as forensic patients (Cross & Kirby, 2001; Müller-Isberner & Hodgins, 2000). In Finland the right of patients to be informed about their health and treatment is defined by law, the Act on the Status and Rights of Patients (785/1992). The main principle of psychoeducation is that everyone has the right to receive information about the illness and treatment in order to take a more active role in relation to them instead of being a passive care recipient (Cross & Kirby, 2001; Deegan, 1996; McGorry & Edwards, 1997; Mueser et al., 2002). It has been also postulated that a comprehensive psychoeducational program can work as coping resource and can help participants build on their existing strengths and encourage a sense of hope for recovering a new sense of self (Landsverk & Kane, 1998; Menzies, 2000).

Family psychoeducation for schizophrenia originated as early as the late 1970s (McFarlane, Dixon, Lukens & Lucksted, 2003) and has since been used successfully; the psychoeducational needs of the patients themselves have also been receiving increased attention. Meta-analytical reviews concerning earlier studies of psychoeducation support its efficacy for schizophrenia in cases with family involvement (Pekkala & Merinder, 2002) but suggest only limited evidence of its efficacy for patients only (Lincoln, Wilhelm & Nestoriuc, 2007a). Yet several studies of patient psychoeducation have indicated that the knowledge and understanding of patients, and sometimes compliance as well, can be improved through educational interventions (Merinder, 2000, for review). It has been also postulated that the need for psychoeducation for schizophrenia patients remains important, yet more research about its effectiveness is needed. My thesis seeks to add to this knowledge, since in the case of forensic patients with schizophrenia, i.e. mentally disordered offender patients, there are often situations when family involvement in the treatment is not possible.

Treatment of forensic patients, the majority of whom suffer from schizophrenia, has been defined as particularly expensive and demanding (Snellman & Pekurinen, 2005; Reports of the Ministry of Social Affairs and Health). It has been recommended that structured psychosocial group interventions be integrated into the treatment of these forensic patients, too (Duncan, Nicol, Ager & Dalgleish, 2006). Patients with schizophrenia in forensic psychiatry are often hospitalized for many years and the treatment poses many challenges. Mentally disordered offenders are often severely ill, often suffer from persistent psychotic symptomatology, have a high risk of reoffending, and may have many related problems, such as aggressive behaviour, comorbid problems, nonadherence to antipsychotic medication, and problems involving insight into the illness. Many patients also suffer from neurocognitive deficits related to their illness. Patients may also have low self-esteem, suffer from double stigmatization, and have a low quality of life.

Although patients with schizophrenia are nowadays commonly informed about their illness and treatment, those suffering from schizophrenia sometimes know very little about their diagnosis despite their long-term illness (Hornung, Kieserg, Feldmann and Buchkremer, 1996). Patients with schizophrenia need and want this information in order to take a more active role in their treatment, and find the information helpful in their situation (Chien, Kam & Lee, 2001; Hotti, 2004; McCabe & Priebe, 2004; Walker, 2006). Psychoeducation also constitutes a foundation for more comprehensive and individualized treatment forms in the rehabilitation process of schizophrenia sufferers (Bäuml et al., 2006; Mueser et al., 2002). Interventions based on principles involving unconditional support and zero exclusion can also provide hope to chronic patients with severe mental illness and support those individuals' recoveries (Bäuml et al., 2006; Mueser et al., 2002).

The complexity of the treatment of forensic patients is not only related to the clinical and psychopathological demands of the patient, but also to the balance between the patient's needs and society's need for safety (Traverso, Ciappi & Ferracuti, 2000). Thus, interventions must always aim at both treating or managing the mental disorder and preventing offenses and violence (Hodgins, 2002). According to McInery and Minne (2004), the first principle in treating mentally disordered offenders is the establishment of safety, the second that the specific treatment is appropriate to the diagnosed disorder, and the third that the complexity and possibility of long-term need are taken into account. The authors postulate that as secure hospitals and units are not prisons, treatment should therefore always provide an appropriate element of security as well as being therapeutic (McInery & Minne, 2004). Despite the complexity of these patients' problems and the challenges posed by the context, forensic patients have the right to the most effective treatments for their mental disorder, and the most effective rehabilitation programs to prevent recidivism (Hodgins, 2002).

Although important focus in the rehabilitation of mentally ill offenders is prevention of further crime (Duncan et al., 2006), also greater patient understanding of their mental illness, the importance of their medication and more positive attitudes towards treatment are important in the rehabilitation of forensic patients and can also affect positively health outcomes. Psychoeducation is nowadays commonly provided within forensic settings as well, but its efficacy among forensic patients with schizophrenia has not been studied in randomized trials (see Duncan et al., 2006, for review). Forensic patient cannot be discharged from the hospital before the patient has sufficient insight into his or her illness, has a developed compliance with medication, and is also able and motivated to maintain long-term use of community psychiatric services (Tiihonen, 2007). Therefore it has been postulated that in the treatment of forensic patients with schizophrenia, adherence-focused psychoeducation is needed (Repo-Tiihonen, Vuorio, Koivisto, Paavola & Hakola, 2004). On the other hand, Cross and Kirby (2001) have suggested that many patients in forensic settings feel quite hopeless about the prospect of change; the main purpose of psychoeducation is therefore to combat stigma, and help forensic patients take added responsibility for their own care and thus live more meaningful lives.

The present study is located in the field of forensic clinical psychology and has been conducted in high-security forensic psychiatric context. The basic orientation of the study

is humanistic and pragmatic in nature, including many positive psychological aspects that have been increasingly integrated into the modern paradigm of psychoeducational programs supporting the healthy parts of patients and emphasizing issues related to quality of life. This approach also connects the present study to fields of health and positive psychology. The theoretical approaches adopted in it, on the other hand, connect it to the fields of cognitive and personality psychology, and methodologically the study is related to the field of experimental psychology. The work introduced in this thesis started in 2001 when I was doing my psychology training in Niuvanniemi Hospital and psychoeducation had just been introduced for the first time as an evidence-based psychosocial treatment for schizophrenia in the Finnish Schizophrenia Practice Guideline (edited by Salokangas, 2001, 2008). As these patients are often severely ill, an important question was whether systematic psychoeducation in a group format could be implemented successfully with severely ill patients having a need for special treatment. If this were the case, then what would the efficacy of the intervention be as a component of treatment and rehabilitation, and how would the patients themselves experience it. Finding the answers to these questions could then aid in further work to increase the suitability and effectiveness of these interventions for these patients and learn whether there are patients who would not benefit from such interventions, or whether some patients even deteriorate by joining them due to the worsening of their psychiatric state, or some other adverse effects; for example, problems at the ward level are considered important issues in the forensic context (see Hodgins, 1998).

The main aims of the present study were to investigate the feasibility, effectiveness and patient experiences of group psychoeducation for forensic long-term patients with schizophrenia in a high-security context. The starting point of the research was the idea to develop and modify a suitable psychoeducational program for these often severely ill patients and study its effects both by experimental research design and from the patients' perspective by using mixed methods design. This study fills the gap in earlier research since the results of the efficacy of group psychoeducation among these patients have not previously been studied or at least reported using randomized controlled study designs. Patient needs, experiences, and satisfaction with group psychoeducation among forensic patients with schizophrenia have not been investigated earlier. I hope that my thesis can aid staff in psychiatric facilities to develop and implement psychoeducational programs for patients with more severe illness and conditions considered to be chronic as well. I also hope that the experiences of patients will aid the development of future interventions to allow patients to better respond to their needs; thus psychoeducational group interventions for forensic patients in the future could offer them interventions that would better serve their needs, give them hope and help them in their recoveries.



## *2 Purpose of the study and research questions*

Given that there is still little evidence to demonstrate the efficacy of group psychoeducation among forensic populations (see Duncan et al., 2006, for review), the main aims of my thesis were to 1) investigate the feasibility and outcomes of an eight-time group psychoeducation program specially tailored to severely ill long-term patients with schizophrenia in a high-security forensic context, and 2) to scrutinize the psychoeducation program from the patient perspective, focusing on their motives, expectations, experiences, and satisfaction with the group program. Thirdly, I wanted to synthesize my main results with findings reported in previous scientific literature in order to outline a tentative model of the factors that appear to be important when planning, conducting, and evaluating psychoeducational programs for forensic patients with schizophrenia.

The specific research questions in my thesis were the following:

- 1) Is an eight-time group psychoeducation program specially tailored to severely ill long-term patients feasible in high-security forensic context? (study I)
- 2) Is it possible to improve the participants' knowledge of schizophrenia, awareness of mental disorder, and attitudes toward psychiatric treatment and medication without negative impacts on the participants' subjective quality of life and depressive symptoms? (study I)

The aim of the pilot study (study I) was to develop a short psychoeducational program and then analyze the feasibility and outcomes of this intervention with long-term forensic and difficult-to-treat and/or dangerous non-forensic schizophrenia patients. The aim was to assess and compare treatment outcomes between the psychoeducation group and the matched control group in relation to their knowledge of schizophrenia. Changes in the awareness of mental disorder and attitudes toward psychiatric treatment and medication were also measured. The effects of the intervention on the participants' subjective quality of life, psychiatric symptoms, including depressive symptoms, were analyzed as well. It was expected that improvements in these aspects would be possible without negative impact on the participants' subjective quality of life and depressive symptoms.

- 3) What is the efficacy of the brief group psychoeducation program among forensic long-term patients with schizophrenia? (study III)

As the results of the pilot study were considered to reasonably justify further study on the effects of the psychoeducation intervention, an exploratory randomized controlled study of its efficacy was conducted in 2006 with a more sophisticated research design (study III). The effects were investigated in terms of knowledge, insight, compliance, attitudes toward medication, psychiatric symptoms and ward behavior, self-esteem, sense of coherence, health-related quality of life, and perceived stigma. Due to the severity of the illness in the present sample it was expected that possible improvements and changes resulting from such a short psychoeducation program would likely remain relatively small. It was also assumed that the heterogeneity of the sample would make it difficult to detect small treatment effects with significance tests.

4) What recollections do the participants have concerning the pilot psychoeducation group they had attended four years earlier? (study II)

5) What are the experienced long-term benefits of the group psychoeducation program that participants express and attach to their group experience? (study II)

Based on an examination of the patient perspective and feedback I also sought in-depth information to better understand the process and factors contributing to the outcomes of patient group psychoeducation among the patients. Coffey (2006) has pointed out that we still know little of the experiences of people who use forensic mental health services. Landsverk and Kane (1998) have demonstrated the Sense of Coherence (SOC) Theory developed by Antonovsky (1979, 1987) as a useful and promising framework for conceptualizing the effectiveness of comprehensive psychoeducational programs. Using the SOC theory as a theoretical framework I examined the benefits experienced in the pilot group psychoeducation program four years after the intervention to attain a better understanding of the process and outcomes of group psychoeducation.

6) What are the motives, initial expectations and satisfaction with group psychoeducation among forensic patients with schizophrenia? (study IV)

Studies examining the motives of mentally ill offenders to participate in, or their satisfaction with, specific psychosocial treatment forms are clearly lacking; thus satisfaction with psychoeducation for such patients with schizophrenia has not been previously reported. The aim of the fourth study was to gather both quantitative and qualitative data to examine the motives for participating in, initial expectations, and patient satisfaction with group psychoeducation. On the basis of previous studies it was expected that forensic patients would also appreciate information about their illness. It was assumed, however, that satisfaction with the intervention could vary as a result of the challenges arising from the patients' severe illness and other related problems, for example, lack of insight.

# *3 Review of literature*

## **3.1 FORENSIC PATIENTS WITH SCHIZOPHRENIA**

Forensic patients are psychiatric patients who have committed criminal offences, but who have had their sentences waived. Thus, after a mental examination they were absolved of criminal responsibility for the offense they were charged with due to mental illness, and committed to involuntary psychiatric treatment. Criminal responsibility is founded on the concept of free will: whether human beings can rationally choose between right and wrong. In cases when a mentally ill person has been found to lack criminal responsibility at the time of the offense, then he or she should be offered care rather than punishment (Dressing, Salize & Gordon, 2007). Forensic patients with schizophrenia often need long-term hospitalization, as psychiatric illness combined with a high risk of recidivism can lead to extended, and in some cases lifelong, periods of inpatient treatment often involving longer periods of confinement in high-security hospitals than had the offender been convicted and sentenced to prison (Müller-Isberner & Hodgins, 2000). Many patients are not released from the hospital because they lack insight into their illness and its relationship to their crime (Garrett, 2005). Before discharge from the hospital is possible, clinical forensic psychiatry needs to ascertain that the patient has sufficient insight into his or her illness, has a developed compliance with medication, and can and is motivated to maintain long-term use of community psychiatric services (Tiihonen, 2007). Because of the legal restrictions placed on mentally disordered offenders, patients in forensic settings often have only little involvement in their own care and many patients feel a hopelessness about the prospect of change (Cross & Kirby, 2001).

There are many challenges in treating mentally ill offenders and conducting group interventions and research among these patients in high-security settings. Some of these challenges are patient-related and a result of the severity of the patients' illness, often a long history of difficulties relating both to their mental illness and antisocial behavior. Many patients have a history of substance abuse, often rather severe affective and cognitive deficits, poor life skills and social skills, may have a high risk of reoffending, often lack an interest in treatment and noncompliance, and in general their mental health problems and antisocial behavior tend to be chronic. (e.g. Müller-Isberner, 1999; Müller-Isberner & Hodgins, 2000.) Miller, Johnstone, Lang and Thomson (2000) conducted a study to examine the differences between inpatients and outpatients with schizophrenia at a high-security psychiatric hospital in UK and found that compared to community patients with schizophrenia, in high-security treatment patients more often had a history of drug abuse, antisocial behavior, more contact with police, and tended to be more prone to self-harm. The family background of these patients was often deprived, with alcohol and/or drug abusing relatives or no close relatives at all. The authors concluded that it is not the difficult schizophrenic process, but rather the deprived background and

the lack of social support coupled with the psychiatric illness that leads to high-security hospital treatment.

Bellack, Mueser, Gingerich and Agresta (2004), who have developed social skills training programs for patients with schizophrenia, have identified some common problems related to highly symptomatic patients in therapeutic groups. These problems include poor attendance due to psychiatric symptoms, the possibility of overstimulation and reluctance to attend groups because of past negative experiences. Social withdrawal or lack of engagement due to these symptoms is also common, as well as difficulties in comprehension and distractibility due to cognitive impairments. Problems in attention and concentration are also common. Disruptive behavior and symptom-related outbursts during group sessions can occur. (Bellack et al., 2004.) Negative symptoms, which refer to the weakening or lack of normal thoughts, emotions or behavior, are also very common in patients with schizophrenia, including forensic patients. The prevalence of negative symptoms in first-episode psychosis varies from 50-90%, and about 20-40% of these patients have persistent symptoms, weakening the patients' ability to cope with everyday activities, affecting their quality of life, and their ability to manage without significant outside help. (Mäkinen, Miettunen, Isohanni & Koponen, 2008.)

Some of the challenges in treating mentally ill offenders and conducting group interventions and research, on the other hand, are presented by the institutional setting. Lindqvist and Skipworth (2000) have summarized the problems of conducting research in forensic settings as follows: "Any research aimed at analysing the effects of forensic psychiatric rehabilitation will be hampered by the complexity of forensic treatment systems, the problems constructing randomized controlled study designs in respect of patients and treatment systems, the difficulties in defining and operationalizing concepts important in the process of recovery" (p. 320). Treatment of patients in forensic, coercive contexts differs also from general psychiatric care, as professionals do not function solely as agents of the patients aiming at the patients' well-being, such as other parties, i.e. the mental health and the criminal justice systems, and interests concerning public safety are also involved (Müller-Isberner & Hodgins, 2000). As this environment must provide both maximum security and therapeutic treatment, achieving the proper balance between the needs of the patients and security needs may present a challenge (Renvick, Black, Ramm & Novaco, 1997). In secure environments, common stressors to mental health that can affect the patients negatively include overcrowding in the ward, deteriorating living conditions, lack of privacy, protective custody, segregation, grief, isolation, loneliness, and double stigmatization (Peternelj-Taylor & Hufft, 2010). In treatment and rehabilitation of forensic patients cure can also be an unrealistic goal for many patients, as the majority suffer from chronic disorders; thus the goals of treatment in secure settings focus more on symptom reduction, stabilization, the development of life and social skills, and skills to better cope with stress, aiming to enable these patients to move from secure hospitals to less restrictive environments (Müller-Isberner & Hodgins, 2000). As forensic patients often have a severe illness but the heterogeneity among them is recognized, it has been postulated that due to their diverse needs, service planning will need to focus on individualized treatment packages based on individual assessments of need, targeted to different individual problems of the patients, include multiple

components, and must be planned and organized in a long-time perspective (Müller-Isberner, 1999; Müller-Isberner & Hodgins, 2000; Thomas et al., 2004).

Several studies have investigated the connection between schizophrenia and violence. Factors associated with aggressive, violent or criminal behavior among mentally ill persons can be divided into criminogenic factors that mentally ill patients share with the general population, and factors associated with mental illness (Yates, Kunz, Khan, Volavka & Rabinowitz, 2010). Mullen (1986), on the other hand, divides the vulnerabilities that may predispose individuals to violence in schizophrenia to those that pre-date the onset of active symptoms (e.g. developmental difficulties, dissocial traits, educational failure, early-onset substance misuse), those that are acquired as a result of active illness (e.g. psychotic symptoms, personality deterioration, substance misuse), and the vulnerabilities imposed by the results of current treatment and management (e.g. drug side-effects, isolation, erosion of social skills).

### **3.1.1 Comorbidity**

Psychiatric comorbidities are very common among patients with schizophrenia (Buckley, Miller, Lehrer & Castle, 2009). Comorbid problems are also very common among forensic patients with schizophrenia, complicating treatment in many ways. Psychosocial interventions need, for example, to anticipate issues related to adherence to treatment aimed at increasing participation, as individuals with dual diagnoses are sometimes very difficult to engage in treatment (McHugo, Drake, Brunette, Xie, Essock & Green, 2006). In the present study the samples consisted of patients with multiple problems and comorbid diagnoses. Since they are considered to affect the outcomes and effectiveness and, for example, motivation to participate in psychosocial treatment efforts, they were considered possible limitations to the effectiveness of the intervention.

**Substance abuse** comorbidity is the most common comorbid state, and nearly half of the people suffering from schizophrenia also present with a lifetime history of comorbid substance use disorders (Buckley et al., 2009; Volkow, 2009). Comorbid substance abuse is also a major complicating factor and a powerful predictor of relapse in schizophrenia (Swofford, Kasckow, Scheller-Gilkey & Inderbitzin, 1996). Comorbid substance abuse disorders are also markedly overrepresented in criminal justice systems, and it has been recently suggested that implementation of therapeutic interventions for both disorders should be implemented to the treatment, because a lack of adequate treatment of one of the disorders interferes with recovery (Volkow, 2009). Earlier studies have shown that schizophrenia increases the risk of committing homicide compared to general population (Eronen, Tiihonen & Hakola, 1996). According to Putkonen, Kotilainen, Joyal and Tiihonen (2004) there are three different diagnostic groups among offenders with psychosis, who have a higher risk of attempting to kill someone or homicide. According to authors the largest of these groups are persons with a triple diagnosis of major mental disorder, antisocial personality disorder, and substance abuse disorder; the second group consist of the mentally ill homicide offenders with a "pure dual diagnosis" of major mental disorder and substance abuse; and the third group has only diagnosis of major mental disorder (25% of the nationally representative sample) (Putkonen et al., 2004). The

greatest risk for violent behavior in mentally ill patients, especially persons with alcohol-induced psychoses and with schizophrenia, is for the ones with coexisting substances abuse (Eronen et al., 1996; Tiihonen, Isohanni, Räsänen, Koironen & Moring, 1997), and compared to general population, especially patients with schizophrenia and comorbid alcohol abuse have much greater risk committing a homicide compared to general population (Räsänen et al., 1998). Taylor, Leese, Williams, Butwell, Daly and Larkin (1998) have studied violence among high-security hospital patients in the UK and found that the majority of patients with psychosis and personal violence had been considered to have been driven to commit the offense by their delusions. Among forensic patients the risk for recidivism and homicidal behavior appears to be highest during the first year after discharge from hospital (Tiihonen, Hakola, Eronen, Vartiainen & Rynnänen, 1996). Fazel, Gulati, Linsell, Geddes and Grann (2009), on the other hand, concluded in their recent meta-analysis concerning the association between schizophrenia and violence, that there is evidence that schizophrenia and other psychoses are associated with violence and violent offending, particularly homicide, but most of the excess risk appears to be mediated by substance abuse comorbidity. The authors conclude that the risk of violence among patients with comorbidity is similar to that of substance abuse without psychosis, and schizophrenia and other psychoses do not appear to cause any additional risk to that caused by the substance abuse alone; this suggests the mediating effect of substance abuse (Fazel et al., 2009).

It has been widely recognized that there is a need for services, specific interventions, and research that focuses on the special treatment challenges in patients with comorbid schizophrenia and substance abuse disorders (Fazel et al., 2009; Tyrer & Simmonds, 2003; Volkow, 2009). In clinical efficacy trials, however, patients with comorbid substance abuse or a history of non-adherence have often failed the narrow inclusion criteria and have, in consequence, often been excluded from clinical efficacy trials (Naber & Vita, 2004). Due to the complexity of comorbid conditions, studies concerning the efficacy of psychosocial treatment of these patients have also not yet been very promising. A review of Cleary, Hunt, Matheson, Siegfried and Walter (2008) concerning psychosocial interventions for people with both severe mental illness and substance misuse found no previous trials that could indicate any definitive differences between the psychosocial intervention and the usual treatment, but emphasized the importance of further research to find effective interventions to combat this major problem.

Common comorbidities related to schizophrenia include also depressive symptoms and anxiety disorders, which can occur throughout the course of illness. It is estimated that **comorbid depression** occurs in 50% of patients (Buckley et al., 2009). Recent findings have in fact suggested, that the genetic vulnerability in schizophrenia is partly shared with bipolar disorder suggesting common underlying aetiology (see van Os & Kapur, 2009). In the present study evaluation of the possible depressive symptoms of patients was also important due to previous findings that improvement of insight, which was one main target of the psychoeducational intervention studied in my thesis, can possibly lead to negative outcomes such as deterioration of mood.

According to previous studies, comorbid depression in schizophrenia is generally associated with overall poor outcome and therefore requires specific attention to the

treatment strategies (Sands & Harrow, 1999). Comorbid depression is also strongly associated to overall subjective quality of life (Buckley et al., 2009; Conley, Ascher-Svanum, Zhu, Faries & Kinon, 2007; Reine, Lancon, Di Tucci, Sapin & Auquier, 2003), poorer functional outcome, lower medication adherence, greater use of mental health services, and a higher risk of involvement with law enforcement (Conley et al., 2007). Although depression can be a feature of acute psychosis and the result of a psychotic episode, some schizophrenia patients are prone to depression even years after the acute psychosis, and depressive syndromes among patients with schizophrenia can be found years after the immediate postacute phase (Menzies, 2000; Sands & Harrow, 1999). Experience of psychological deficits related to the mental illness is associated with vulnerability to depression in patients with chronic schizophrenia (Liddle, Barnes, Carson & Patel, 1993). Psychological aspects related to depression in schizophrenia include also patients' perceptions of controllability of their illness and absorption of cultural stereotypes of mental illness, greater insight into their illness, appraised greater loss, humiliation, shame, self-blame, and entrapment arising from their psychosis (Birchwood, Iqbal & Uptegrove, 2005; Birchwood, Mason, MacMillan & Healy, 1993).

**Comorbid personality disorders** are common among forensic patients with schizophrenia. For example, antisocial personality disorder has been associated with greater psychiatric impairment, an earlier onset of alcohol abuse, more severe symptoms of alcohol abuse, stronger family history of substance abuse and psychiatric hospitalization, and a higher risk for aggression and legal problems among persons with schizophrenia (Mueser et al., 1997). Hornsveld and Nijman (2005) conducted a study of cognitive-behavioral program for chronically psychotic inpatients in forensic setting, and found no significant improvements in the study group after the intervention, emphasizing the difficulties and limitations of treating chronically psychotic offenders, especially those with comorbid cluster B personality disorders. Previous research has shown that patients with comorbid problems in general are more difficult to engage in treatment as well as resistant to treatment, and show less improvement in symptoms, are subject to a more chronic course and a poorer prognosis and outcome than that of single diagnoses of their illness, have poorer quality of life and greater dissatisfaction with treatment; motivational problems with psychosocial treatment efforts are also common. (Bellack et al., 1997; McHugo et al., 2006; Müller-Isberner & Hodgins, 2000; Newman, Moffit, Caspi & Silva, 1998; Tyrer & Simmonds, 2003.)

### **3.1.2 Cognitive deficits**

A majority of patients with schizophrenia have cognitive deficits and associated dysfunction in the neural systems that support cognitive processes causing varying degrees of cognitive impairment and deficits, presented particularly in the areas of attention and concentration, psychomotor speed, learning and memory and executive functions and skills. In the present study most of the patients suffered from considerable cognitive problems and this was considered a possible obstacle to their benefiting from the educational group, since it is based on learning; moreover, these problems in general may limit the benefits that accrue through psychological interventions and rehabilitation efforts. (Barch, 2005; Green, 1998; Medalia & Lim, 2004; Mueser & McGurk, 2004;

Reichenberg & Harvey, 2007.) In earlier studies cognitive deficits and neurocognitive impairment have indicated a considerable degree of individual variability and substantial heterogeneity but a remarkable within-patient stability of cognitive function over the long-term course of schizophrenia (Palmer, Dawess & Heaton, 2009). Meta-analyses have suggested that working memory impairment is a core neuropsychological dysfunction underlying the multiple neuropsychological deficits in schizophrenia (Aleman, Hijman, de Haan & Kahn, 1999; Forbes, Carrick, McIntosh & Lawrie, 2008; Silver, Feldman, Bilker & Gur, 2003). This working memory impairment seems to be quite stable, and not substantially affected by potential moderating factors such as severity of psychopathology and duration of illness (Aleman et al., 1999). In regard to learning and forgetting in schizophrenia, patients with the illness have demonstrated marked impairment in initial and delayed recall and retention, although a primary deficit seems to appear in the initial acquisition of information rather than an accelerated rate of forgetting (Gold et al., 2000). Premorbid intellectual deficits in schizophrenia in the area of performance intelligence have also been found in earlier studies (Amminger et al., 2000).

In earlier studies of psychosocial rehabilitation higher neurocognition and social cognition have predicted higher rates of functional change suggesting better functional outcomes (Brekke, Hoe, Long & Green, 2007). Targeted treatments for the cognitive deficits of this disorder are increasingly developed as it has been recognized that cognitive deficits can be determinants of functional disability (Palmer et al., 2009). Due to cognitive deficits the possibilities to involve patients with deficits in general psychoeducational programs has also arisen (Pitschel-Walz et al., 2009). It has been though recommended that also patients whose illness affects their cognitive functioning should be offered an opportunity to participate in psychosocial interventions (Bengtsson-Tops & Hansson, 2001; Välimäki, Leino-Kilpi & Helenius, 1996). Due to the cognitive problems the contents and style of the intervention must still be designed carefully to specifically take the cognitive deficits into account. Interventions must consider environmental adaptations and the use of educational techniques to maintain patients' attention and enhance learning (see Ascher-Svanum & Krause, 1991; Revheim & Marcopulos, 2006).

### **3.1.3 Insight**

A systematic review of Lincoln, Lüllman and Rief (2007b) has concluded that between 50 and 80% of patients diagnosed with schizophrenia have been shown to be partially or totally lacking insight into the presence of their psychiatric illness. Problems in this insight are also common among forensic patients with schizophrenia, although adequate insight into their situation is a prerequisite for their discharge from hospital. Lack of insight is considered a dynamic risk factor for violence among schizophrenia patients, which in the case of forensic patients increases the risk of recidivism. For these reasons assessment of insight has been included in forensic psychiatric violence risk assessment (see for example HCR-20; Webster, Douglas, Eaves & Hart, 1997). Risk factors for later offenses can be categorized according to the patient's potential responsiveness to treatment interventions: static risk factors are unlikely to change, but dynamic factors,

such as lack of insight, are theoretically prone to change, either spontaneously or through interventions. It is, however, worth noting that some clinical risk factors, such as insight and negative attitudes, can take a long time to change, if change is possible at all. (Belfrage & Douglas, 2002.) As it is essential in the treatment of forensic patients to achieve a better understanding of the individual's situation, and insight can perhaps be improved by psychoeducation, it was chosen as one outcome measure for assessing the effects of the intervention.

Acceptance of the illness and its severity by mentally ill people is often a long process, and initial denial is common (Amador et al., 1994; Larsen & Gerlach, 1996). In fact, previous studies of the awareness of illness in schizophrenia have indicated that poor insight and self-awareness deficits may be a prevalent feature of the condition. Insight into the illness is, however, a complex phenomenon since it can be partial and may not be related to the severity of the symptomatology (Amador et al., 1993).

Insight can be operationally defined according to five dimensions, which include the patient's awareness of mental disorder, of the social consequences of disorder, of the need for treatment, of the symptoms, and the attribution of the symptoms to the disorder (Mintz, Dobson & Romney, 2003). Insight as a cognitive strategy has been defined as possibly be a result of misassumptions and stigmatization regarding the mental disorder, where patients are aware of their illness in some sense but are motivated to deceive themselves to preserve their self-esteem or maintain a positive outlook (Mintz et al., 2003). Cooke, Peters, Kuipers and Kumari (2005) have reviewed the aetiological models that dominate the literature on poor insight and listed them as follows: clinical models, where lack of insight is seen, for example, as a primary symptom of psychosis, and insight arising directly from the illness process of psychosis; the neuropsychological model, where lack of insight result from general cognitive impairment, or more specifically, problems in executive function, memory, and anosognosia; and the psychological denial model, where lack of insight occurs because of the defensive coping strategies of the person. Authors conclude on the basis of their review that insight is unlikely to have a single reason, and suggest of integrating different aetiological models seems necessary for a fuller understanding of insight in psychosis, and see the integration of the neuropsychological and psychological denial models as the most promising avenue.

Insight into an illness is an important field of research and evaluation with schizophrenia patients because it may affect the patient's adherence and compliance with medication; further, insight may play an important role in the treatment, relapse prevention, and outcomes of schizophrenia. A substantial amount of research on insight has been conducted and reported in the scientific literature. Earlier studies have found, for example, that patients with schizophrenia and lower insight often suffer from impairments in cognitive functioning and neuropsychological dysfunction. Gaining insight, on the other hand, has been associated with better long-term functioning, and an appropriate insight into the illness seems essential due to its relationship with outcome and functioning; recent studies, however, have indicated, that improved insight may also have negative effects. Studies have proposed that gaining insight is associated, for example, with increased distress, reduced self-esteem and quality of life, hopelessness,

depression, and possibly a higher risk of suicide. Recent studies have suggested that the stigma probably moderates the associations of insight with a depressed mood, the low self-esteem and quality of life of patients with schizophrenia, as well as those between insight, social functioning, and hope among people with schizophrenic spectrum disorders. (Aleman, Agrawal, Morgan & David, 2006; Amador et al., 1993; Birchwood, Spencer & McGovern, 2000; Buckley, Wirshing, Bhushan, Pierre, Resnick, & Wirshing, 2007; Carroll, Pantelis & Harvey, 2004; Carroll et al., 1999; Cooke et al., 2007; Cunningham Owens et al., 2001; Emsley, Schiliza & Schoeman, 2008; Hasson-Ohayon, Kravetz, Meir & Rozenzwaig, 2009; Kim, Jayathilake & Meltzer, 2003; Kingdon & Turkington, 1994; Lincoln et al., 2007b; Lysaker, Roe & Yanos, 2007; Mysore et al., 2007; Schennach-Wolff et al., 2009a; Staring, Van der Gaag, Van den Berge, Duivenvoorden & Mulder, 2009.)

In the light of recent findings it has been emphasized that improving insight among schizophrenia patients is important, and both pharmacologic and psychotherapeutic interventions have been developed to enhance illness insight and treatment adherence (Buckley, Wirshing, Bhushan, Pierre, Resnick & Wirshing, 2007). Among the psychological interventions that have been suggested to deal with problems in insight are promotion of more active coping, such as discussing mental health problems with others (Cooke et al., 2007); psychoeducational programs which focus on aspects of stigma and illness-normalization (see Staring et al., 2009); and treatments where the focus is on overcoming negative beliefs and finding newer and more adaptive ways for patients to think about themselves and their futures (Lysaker et al., 2007). It is considered possible to improve insight without risking an increase in depressive symptoms, decreasing self-esteem, and reducing subjective quality of life (see Karow et al., 2008; Staring et al., 2009), albeit depressive and anxiety symptoms should still be carefully monitored (Hansson, 2006). Psychoeducational programs should still take into account the possible deteriorating effects of improved insight on mood, hope, self-esteem and subjective quality of life.

### **3.1.4 Adherence**

Nonadherence to antipsychotic medication increases the risk of recidivism among forensic patients with schizophrenia constituting a serious problem and challenge to treatment (Lamberti, 2007). As nonadherence is considered as important barrier to the effective treatment of schizophrenia, several interventions to improve adherence have been developed and studied (see Dolder, Lacro, Leckband & Jeste, 2003; Zygmunt, Olfson, Boyer & Mechanic, 2002). Although in offender rehabilitation the primary focus is to prevent future crime (Duncan et al., 2006), greater patient understanding of their mental illness and psychosis, understanding the importance of medication and more positive attitudes toward medication and treatment may improve outcomes; in addition, adherence-focused psychoeducation in the context of safe therapeutic relationship is also needed to improve adherence and consequently the long-term outcome of schizophrenia (Repo-Tiihonen et al., 2004). For these reasons both patients' attitudes toward antipsychotic drug treatment and staff-observed compliance with treatment were chosen as outcome measures in the present study.

Previous studies have indicated that factors and variables related to nonadherence to medication include poor insight, negative attitude or subjective response to medication, previous nonadherence, substance abuse, shorter illness duration, inadequate discharge planning or aftercare environment, and poorer therapeutic alliance. Other factors associated with nonadherence in previous studies have considered neurocognitive impairment, severity of psychotic symptoms, severity of medication side-effects, higher antipsychotic dose, presence of mood symptoms, lack of social support, low social functioning, unemployment, and the route of medication administration. Variables previously related to whether a patient comply with his/her medication have also included age, gender, ethnicity, marital status, educational level, living environment and patients' health beliefs. (see, for example, Ascher-Svanum, Faries, Zhu, Ernst, Swartz & Swanson, 2006; Day et al., 2005; Fenton, Blyler & Heinssen, 199; Lacro, Dunn, Dolder, Leckband & Jeste, 2002; Leucht & Heres, 2006; Llorca, 2008; Nose, Barbui, Gary & Tansella, 2003; Schennach-Wolff et al., 2009b.)

Attitudes toward treatment and medication have been demonstrated as an important way to affect adherence to treatment (see for example Day et al., 2005; Rettenbacher et al., 2004; Schennach-Wolff et al., 2009b). Day et al. (2005) emphasize the need to enhance the therapeutic relationships between professionals and patients to yield clinical benefits, as patients views of helping alliance and attitudes toward drugs seem to predict a compliance with medication (Holzinger, Loffler, Muller, Priebe & Angermeyer, 2002). This is an area, in which psychoeducational techniques and imparting adequate information could achieve benefits, by always taking the concerns of patients in respect to their illness and medication seriously. Kikkert et al. (2006) have identified five clinically relevant themes that can affect adherence as a medication efficacy: external factors (such as patient support and therapeutic alliance), insight, side effects, and attitudes toward medication and conclude that adherence may well be positively affected by informing the patients of the positive aspects of medication, enhanced insight, and by fostering a positive therapeutic relationship.

It is thought that adherence can possibly be improved by cognitive-behavioral therapies and other psychosocial interventions (Perkins, 2002). Some of the main reasons for nonadherence have been the refusal to accept the necessity of pharmacological treatment and the lack of insight into the disease; psychoeducation as a form of enhancing patient compliance has therefore considered to be important (Loffler, Killian, Toumi & Angermeyer, 2003; Rummel-Kluge, Schuster, Peters & Kissling, 2008). Dolder et al. (2003) conclude on the basis of their review that the greatest improvements can be seen in interventions combining educational, behavioral, and affective strategies; these interventions have also produced other secondary gains such as knowledge gain, improved insight into the need for treatment, reduced relapse rates, decreased rehospitalization rates and psychopathological symptoms, and improved social functioning. In a review concerning interventions to improve medication adherence in schizophrenia it was concluded that psychoeducational interventions without accompanying behavioral components and supportive services are not likely to be effective in improving medication adherence in schizophrenia (Zygmunt et al., 2002). Puschner et al. (2005) also conducted a review of meta-analyses published since 1990

dealing with interventions seeking to improve adherence to antipsychotic medication among patients with schizophrenia, and found only limited evidence of the efficacy of psycheducational and moderate efficacy concerning cognitive behavioral and combined interventions. The targets of the cognitive therapeutic approach to problems involving compliance to medication may include themes of personal weakness, fear of the effects of medication, problems in the interpersonal relationship with the treating person and common misunderstandings about the illness (Perris & Skagerlind, 1994). A good relationship between physician and patient is considered important, and sufficient information about the effects and possible adverse effects of the drugs should be given to the patient to help correct mistakes in his/her health belief system, which often does not include a realistic concept of the illness and the need for pharmacological treatment (Fleischhacker, Meise, Günther & Kurs, 1994).

### **3.1.5 Quality of life**

Quality of life has been used increasingly as an important treatment goal and outcome measure in patient care and clinical studies as well as the basis for many health economic evaluations. It has been postulated that quality of life is the ideal sought by modern medicine from the psychosocial perspective, and is particularly important to researchers aiming at developing treatments for people with schizophrenia which allow them to live more fulfilling and satisfying lives. (see Awad & Voruganti, 2000; Eack & Newhill, 2007; Narvaez, Twamley, McKibbin, Heaton & Patterson, 2008.) Megens and van Meijel (2006) made a study of the literature concerning long-term psychiatric patients and concluded that little is known about the quality of life among these patients, although good therapeutic relationships and care providers appear to have a direct impact on their quality of life.

A criticism of forensic psychiatry has been that the focus of treatment has mainly been on protecting society and, consequently, developing risk assessment and management methods; it has lagged behind in respect to the quality of life concept. In forensic psychiatry quality of life, if nowadays also considered an important outcome and goal of treatment, can be a rather controversial issue, and the operationalization of the concept poses some challenges. Forensic patients constitute a vulnerable group and may suffer in several ways due to effects of their disorder and medication, stigmatization, and restriction of their freedom; they are subject to many controlling strategies, and may be detained in a forensic psychiatric hospital for a considerable portion of their adult lives. Still, society in general may be unconcerned with the quality of life of people regarded as too dangerous to remain at large in the community, and therefore these patients may be subject to the negative and punitive attitudes of society and have limited rights and freedom. (van Nieuwenhuizen, Schene & Koeter, 2002; Walker & Gudjonsson, 2000.) Forensic patients detained for very long periods are, however, entitled to decent living conditions; this may not be the case if they have been detained for involuntary treatment (Coid, 1993). Consequently, in the present study it was hoped that the quality of life of these patients could be improved by psychoeducational intervention, and quality of life was chosen as one of the outcome measures.

The concept of quality of life has been defined in a variety of ways. According to Eack and Newhill's meta-analysis (2007), quality of life can be defined as a multidimensional set of components consisting of a person's satisfaction with his/her life as a whole (general well-being); observable social and material well-being (objective QOL); satisfaction with his/her social and material well-being (subjective QOL); and health and functional status (health-related QOL). Sintonen (2001) has stated the health-related quality of life (HRQOL) concept as follows: "It has now been broadly accepted that HRQOL is a multidimensional concept that encompasses the physical, emotional and social components associated with illness or treatment. It is also increasingly recognized that HRQoL is a subjective matter and therefore the individuals themselves should assess how these components are affected by illness and treatment" (p. 328). In the present study quality of life was assessed in terms of possible changes in the patients' health-related quality of life.

In previous studies the poorer quality of life of patients with schizophrenia has been seen as related to general psychopathology and positive symptoms, negative symptom severity and extrapyramidal symptoms, younger age, illness duration and longer length of previous hospitalizations, negative attitudes toward antipsychotic medication and parkinsonism, and tardive dyskinesia. Lower quality of life has also been associated with depressive symptoms, anxiety, unmet patient needs, negative coping and lower self-efficacy, stigma, lower perceived social support and to a lesser extent global functioning and social integration. Higher quality of life among patients with schizophrenia, on the other hand, has been associated with the ability cope with symptoms and associated stress, employment and cognitive symptoms, self-esteem, hope, subjective health, and in long-term therapeutic relationships. Temperament factors have also been related to differences in health-related quality of life in patients with schizophrenia. (see Bechdolf et al., 2003; Browne et al., 1996; Eack & Newhill, 2007; Eack, Newhill, Anderson & Rotondi, 2007; Hansson, 2006; Hofer et al., 2001; Hofer et al., 2004; Katsching, 2000; Kurs, Farkas & Ritsner, 2005; McCabe, Röder-Wanner, Hoffmann & Priebe, 1999; Meijer, Koeter, Sprangers & Schene, 2008; Reine et al., 2003; Ritsner et al., 2003.)

It has been noted that the quality of life-concept in forensic psychiatry should encompass domains which are especially important in the life of detained patients (e.g. autonomy due to being controlled, sense of purpose, self-worth) and those domains that are not appropriate for this population should be removed from assessments. For example, major issues related to quality of life, such as autonomy, freedom and sense of control, are not easy to measure in this population because they are actually removed from the individual's life, and adaptations are necessary in existing instruments to account for the specific nature of secure care. (van Nieuwenhuizen et al., 2002; Swinton, Oliver & Carlisle, 1999.)

### **3.1.6 Stigma and self-esteem**

According to Dinos, Stevens, Serfaty, Weich and King (2004), stigma seems to be a pervasive concern for almost all patients with schizophrenia, and thus causes significant distress although for some patients' diagnoses can be helpful and non-stigmatizing. Stigma may affect how a psychiatric diagnosis is accepted, whether treatment will be

adhered to, how people with mental illness function in the world, and may reduce opportunities for recovery (Dinos et al., 2004). Hayward and Bright (1997) concluded a review of stigma and mental illness and postulated that many findings support the view that a label of psychiatric illness is stigmatizing, but in practice the effects of stigma seem to be complex. Stigmatization of forensic patients can also be considered as a double stigma; offenders are considered both “mad” due to their psychiatric illness, and “bad” because the crime(s) they have committed (see for example Peternelj-Taylor & Hufft, 2010). As stigma has many consequences in the lives and treatment of schizophrenia patients, one of the aims of the intervention was to provide hopeful information, realistic hope and support to reduce the possible stigma they face.

Stigma can affect people through mechanisms of direct discrimination or social psychological processes that involve the stigmatized persons’ perceptions (Link & Phelan, 2001). People develop conceptions that mentally ill patients are devalued and discriminated against long before they become patients themselves, and when these beliefs come personally applicable, it leads to self-devaluation and/or the fear of rejection by others. Consequently, a person’s beliefs about the devaluation and discrimination of mental patients transform into an expectation of rejection, and such reactions may have negative effects on both psychological and social functioning. Social psychological mechanisms that work in these cases are that, initially, individuals who become mental patients may devalue themselves because they then belong to a category that they believe most people view negatively. Second, patients may be concerned about how others will respond to them and therefore engage in defenses leading to stress, strained interaction, isolation, and a sense of shame. Public stigma consists of stereotypes, prejudice, and discrimination in the context of power differences, and leads to a reaction by the general public towards the stigmatized group. Self-stigma, on the other hand, refers to the reactions of individuals who belong to a stigmatized group and turn the stigmatizing attitudes against themselves. Like public stigma, self-stigma is comprised of stereotyping, prejudice, and discrimination. (Link, 1987; Link, Struening, Neese-Todd, Asmussen & Phelan, 2001.)

In earlier studies of schizophrenia stigma has been related to several different factors. Self-stigma and self-esteem have, for example, been revealed as strongest contributors to psychosocial treatment adherence (Fung, Tsang & Corrigan, 2008). Rosenberg, Schooler, Schoenbach and Rosenberg (1995) define self-esteem as an attitude which can be divided into two different types: global self-esteem, which is heavily affective in nature (the individual’s positive or negative attitude toward the self as a totality) and is of greater relevance to psychological well-being, and specific (academic) self-esteem, which has a more cognitive component and tends to be more strongly associated with behavior or behavioral outcomes. The authors conclude that the central feature of a person’s global self-esteem appears to be self-acceptance or self-respect, as all humans desire to protect and enhance their feelings of self-worth. (Rosenberg, 1965; Rosenberg et al., 1995.)

Results from several studies confirm that stigma is linked negatively to self-esteem (Hayward & Bright, 1997; Link et al., 2001; Sibitz, Unger, Woppmann, Zidek & Amering, 2009; Verhaege, Bracke & Bruynooghe, 2008). It has also been related, for example, to hopelessness (Link, 1987) and negatively to peer support (Verhaege et al., 2008). A

number of factors, including age, sex and experience of psychiatric patients, seem to affect the levels of stigma, and self-stigmatization seems to be variable in its effects as well (Hayward & Bright, 1997). Self-esteem, on the other hand, has been found to predict life satisfaction and is associated with positive outcomes among schizophrenia patients (Bradshaw & Brekke, 1999). In previous studies an inverse association between self-esteem and depression has been also observed (Borras et al., 2009; Rosenberg et. al, 1995).

By reducing stigma, self-esteem could be effected (Hayward & Bright, 1997; Link et al., 2001). To do so, Hayward and Bright (1997) have, for example, recommended holistically based cognitive-behavioral approaches incorporating both the psychosocial and biological models of illness, and aim at combatting stigma. Recently reported interventions that have been developed to empower persons with schizophrenia and/or enhance their self-esteem have shown promising results in the treatment of the illness (Lecomte et al., 1999; Borras et al., 2009). Sibitz, Unger, Woppmann, Zidek and Amering (2009), on the other hand, have studied interventions aimed at improving patients' capacity to counteract the stigma of mental illness, i.e. stigma resistance (SR), which is considered to play a crucial role in fighting it. According to the authors, the development of stigma-resisting beliefs may help individuals to find a fulfilling life and aid their recovery from mental illness.

### **3.2 PSYCHOSOCIAL TREATMENT OF SCHIZOPHRENIA**

Schizophrenia is still one of the most mysterious and costliest mental disorders in terms of human suffering and societal expenses (van Os & Kapur, 2009), and is among the world's top ten causes of long-term disability (Mueser & McGurk, 2004). About 1% of the population is affected by schizophrenia, with similar rates across different countries, cultural groups, and sexes. The cause of schizophrenia is unknown, but evidence suggests that genetic factors, early environmental influences and social factors contribute. (Mueser & McGurk, 2004.) The most recent research on the origins of schizophrenia suggest that genetic vulnerability is shared in part with bipolar disorder, suggesting a common underlying aetiology, and recent findings indicate an overlap with developmental disorders such as autism. It is nowadays a widely accepted view that clear genetic susceptibility in schizophrenia exists, not in terms of illness, but in altered brain development and vulnerability to the illness. The latest research divides its symptoms into the positive psychotic symptom dimension, negative symptom dimension, cognitive symptom dimension, and affective deregulation, which gives rise to depressive and manic symptoms. (van Os & Kapur, 2009.) Earlier, the symptoms of schizophrenia were generally clustered to include three symptom dimensions: psychosis, apathy/withdrawal (negative symptoms), and cognitive impairment, which in particular may lead to problems in social and occupational functioning and self-care (Mueser & McGurk, 2004).

Traditionally schizophrenia has been seen as a deteriorating disorder with a poor outcome (van Os & Kapur, 2009). A significant relation between functional remission and symptomatic resolution has been noted in earlier studies, and the need for psychosocial and vocational rehabilitation for schizophrenic patients has been

increasingly emphasized (see Schennach-Wolff et al., 2009a). Psychotic relapse still remains an important predictor of subsequent relapse and treatment costs for persons with schizophrenia (Ascher-Svanum et al., 2010). The long-term course and outcome of schizophrenia are, however, not determined by the process of the disorder itself, but by the interaction between the person's feelings, cognitions, actions and the disorder (Hoffman, Kupper & Kuntz, 2000). Although schizophrenia is usually a life-long disorder, great advances have been made in its treatment and many patients can now live rewarding and meaningful lives in the community (Mueser & McGurk, 2004). Although some support is often needed, today the perspective in the treatment of schizophrenia is one of recovery, where patients take an active role in the development of a new meaning and purpose in their lives (van Os & Kapur, 2009).

### **3.2.1 Evidence-based psychosocial treatments for schizophrenia**

Antipsychotic drugs have become the cornerstone in the standard treatment of schizophrenia because they effectively control acute psychotic symptoms (Lieberman et al., 2005; Lindenmayer, 2000). Although pharmacotherapy improves some symptoms, residual symptoms are common, as 10-60% of patients with schizophrenia experience psychotic symptoms resistant to medication (Lindenmayer, 2000). Pharmacological treatments, which block the dopamine system, are effective for delusions and hallucinations but less so for disabling cognitive and motivational impairments (van Os & Kapur, 2009). Poor response to pharmacotherapy can be related to an intolerance of medication, poor compliance or inappropriate dosing, as well as the actual resistance of the illness to antipsychotic drug therapy; treatment-resistant patients are also often highly symptomatic and may require extensive periods of hospital care (Conley & Buchanan, 1997; Turkington, Dudley, Warman & Beck, 2006). Pharmacotherapy also tends to produce only limited improvement in social functioning and quality of life. Furthermore, medication adherence to antipsychotics is relatively poor. (Lieberman et al., 2005.) Lieberman et al. (2005) emphasize that pharmacotherapy for schizophrenia must be tailored individually; their study of the effectiveness of antipsychotic drugs in patients with chronic schizophrenia demonstrated that 74% of patients discontinued their medication before 18 months, due to the inefficacy, intolerable side-effects or some other reasons. Psychosocial therapy and interventions in comprehensive treatment of schizophrenia have proven effective adjuncts to pharmacotherapy, clearly enhancing treatment outcomes across a broad range of domains in comparison to usual or standard care (Patterson & Leeuwenkamp, 2008; Turkington, Dudley, Warman & Beck, 2006).

In the Finnish Schizophrenia Practice Guideline (2001, 2008) antipsychotic medication is recommended as a key form in the treatment of schizophrenia. In addition, several evidence-based psychosocial treatments are recommended, including specific forms of individual psychosocial treatments (e.g. cognitive-behavioral therapy), family psychoeducation, and various types of psychosocial rehabilitation to improve the functioning and quality of life of the patient (e.g. social skills training). For patients with medication-resistant schizophrenia or an illness with persistent symptoms, cognitive-behavioral psychotherapy is recommended.

Over the past years, evidence of the efficacy of psychological therapies in schizophrenia has been summarized in a series of meta-analyses. Internationally, the results of different meta-analyses and reviews concerning evidence-based treatments have varied to some extent, resulting in different treatment recommendations, but efficacy has been most consistently observed for cognitive-behavioral therapy, family intervention therapy, social skills therapy, cognitive remediation therapy, and in adjunct therapies in schizophrenia (see Patterson & Leeuwenkamp, 2008, for review). In addition, psychosocial treatments either already recommended or considered as an emerging area of interest include assertive community treatment, supported employment, token economy, treatments focused on medication adherence, psychosocial interventions for alcohol and substance use disorders, interventions for weight management, psychosocial treatments for recent onset schizophrenia, peer support and peer-delivered services (see for example Dixon et al., 2010; Patterson & Leeuwenkamp, 2008; Pfammatter, Junghan & Brenner, 2006).

**Cognitive-behavioral therapy (CBT)** for psychosis and schizophrenia has produced very promising results and its effects have been reported in many areas. Meta-analyses (for example Turkington, et al., 2006; Wykes, Steel, Everitt & Tarrrier, 2008; Zimmermann, Favrod, Trieu & Pomini, 2005) reviewing the efficacy of individual CBT in psychosis schizophrenia have proven that CBT has significant effects for positive symptoms, negative symptoms, functioning, mood, and social anxiety. The positive effects are also lasting, at least in the short-term. CBT may also have an effect on other outcomes, even if they are not the specific targets of the therapy. Positive findings of efficacy of CBT in treatment of psychoses have also been found, for example, in medication-resistant residual symptoms of chronic schizophrenia (Pilling et al., 2002; Sensky et al., 2000; Tarrrier et al., 1998), in integrating clozapine with CBT plus social skills training for clients with treatment-refractory schizophrenia (Pinto, La Pia, Mennella, Giorgio & DeSimone, 1999), and improvements in negative beliefs about psychosis and increased self-esteem (Gumley et al., 2006; Hall & Tarrrier, 2003). Haddock et al. (2009), on the other hand, have concluded that CBT targeted at psychosis and anger may effectively reduce violent episodes. Yates, Kunz, Khan, Volavka and Rabinowitz (2010), who studied a CBT program aimed at decreasing recidivism among psychiatric patients with histories of aggression and crime, noted that after five years CBT appeared to reduce the recycling of patients between community, hospital and jail. The research data do not yet support the implementation of CBT for prodromal symptoms, first episode schizophrenia, acute relapse, those with comorbid conditions such as substance abuse, personality disorder, or learning disabilities, or for psychotic symptoms in adolescents and elderly patients. Previous studies have also found either no effect on hopelessness, or negative effects, suggesting that current CBT approaches are not beneficial for this particular outcome, and may even be detrimental. (Turkington et al., 2006.)

In **family intervention therapy** or family-based services (including psychoeducation), in the literature the domains that have most consistently been improved are adherence, relapse rate and need for rehospitalization, and decreased disease burden. Domains that have less consistently been reported to improve have been residual symptoms and social function. **Social skills therapy**, where the focus is on improving skills needed for

everyday living, addresses social functioning and quality of life. Domains that most consistently have improved by means of social skills therapy or training are social functioning, activities of daily life and employment. Domains less consistently improved have been adherence and residual symptoms. In **cognitive remediation therapy** the main aim is to restore cognitive function and to employ strategies aimed at compensating for cognitive impairment. The domain most consistently improved by cognitive remediation has been short-term cognitive functioning. Domains that have less consistently been improved are residual symptoms and social functioning. (Patterson & Leeuwenkamp, 2008; Pfammatter et al., 2006; Pilling et al., 2002.)

Support is very important in the treatment of schizophrenia, but the effects of **supportive psychotherapy** have usually not been studied as a main treatment but as an comparator, so sufficient evidence of its efficacy is not yet available (Buckley, Petit & Adams, 2007). There have, however, been trials which have given very promising results of the efficacy of supportive therapy, and supportive therapy has been suggested as an important but undervalued aspect of psychosocial interventions for schizophrenia. The apparent benefits of supportive therapy may derive from its provision of the needed social support, and informal, nonconfrontational, and time-limited social interactions. (Penn et al., 2004.) There are also cases when a person's illness is so severe that more intensive therapeutic approaches are not feasible; support then becomes more than an adjunct to the treatment, becoming the main strategy of psychosocial treatment (McGlashan, 1994).

### **3.2.2 Psychosocial treatment of forensic patients with schizophrenia**

It has been proven that forensic schizophrenia patients can also develop skills and roles when provided with meaningful rehabilitation (Schindler, 2005). Duncan et al. (2006) presented the first systematic review of the effectiveness of structured group interventions with mentally disordered offenders and concluded that the calculated treatment effects generate optimism for the efficacy of structured group interventions for offender patients. Four main themes in those interventions reviewed were identified: problem-solving, anger/aggression management, self-harm, and other interventions. Müller-Isberner and Hodgins (2000) suggest that the empirical foundation for the effective treatment for mentally ill offenders should be developed by importing components of treatment that have been shown to be effective with other types of patients, and to modify them for use with a particular group of mentally disordered offenders.

Niuvanniemi hospital also has its own Schizophrenia Practice Guideline (edited by Vuorio et al., 2005), where the antipsychotic medication is considered the most important treatment form in schizophrenia. The guideline also reports that although psychosocial treatments have produced good results in treating schizophrenia (cognitive behavioral therapy, psychoeducation, social skills training, family interventions), the use of these methods have not been very common in daily clinical practice, in part due to the lack of specially trained staff.

To be effective, interventions and treatments in forensic psychiatry must always take into account the individual differences in risk, need, and responsivity (Müller-Isberner,

1999; Müller-Isberner & Hodgins, 2000). **The risk principle** refers to the dual obligation of forensic psychiatry to both the treatment of a person with mental illness as well as to preventing future recidivism. Therefore, individual treatment needs result from both the specific deficits associated with the mental disorder and the needs that have been identified as criminogenic (factors which promote or are associated with criminal behavior). **The need principle** refers to heterogeneity between offenders with mental disorders, who present multiple difficulties, and consequently, require different types of services and specialized treatment programs. Hodgins has postulated that in theory this means that each component of treatment or service targets a specific need, a specific problem, presented by the individual offender. **The response principle** refers to the fact that there are some features that make responsiveness to treatment difficult. These factors can be related to illness, compliance or, for example, substance use. Antisocial behavior characteristically limits compliance with any form of treatment and interventions designed to end substance abuse since it limits the effects of all other treatments and significantly increases the risk of criminal offense and aggressive behavior. An intervention cannot be effective if patients do not comply. According to Hodgins, statistical analyses need to be conducted to identify the type of patient who benefits, does not and that who gets worse, as clinicians often fail to consider the possibility that an intervention can have negative effects on some patients. Thus, patient needs, abilities and deficits should be matched to the requirements of interventions. (Hodgins, 1998, 2000, 2002; Müller-Isberner & Hodgins, 2000.)

Hodgins (1998, 2000, 2002) also postulates that research in special hospitals is badly needed to both improve the efficacy of treatment and to contribute to increasing knowledge about mentally disordered offenders. Author suggests that future research should be designed to contribute to improving the efficacy of models of service organization, improving the efficacy of treatment, management and rehabilitation programs, and improving the efficacy of the multiple components included in those programs. Hodgins emphasizes that clinical evaluations must measure the effects, consider any untoward effects of the intervention and be easy to use, and the development of interventions designed to end substance abuse in mentally disordered offenders is also important.

### 3.3 PSYCHOEDUCATION FOR SCHIZOPHRENIA

The history of psychoeducation for schizophrenia is often described as a history of family interventions. In the case of patient psychoeducation, the philosophy, principles and aims are strongly derived from patient education in the medical field. Patient education has a long tradition in medicine, but the need and rights of patients to information related to their illness and treatment also became a recognized necessity in psychiatric patient care in the late 1970s. Previously, patients with mental illnesses had often been seen as unable to understand the teaching and take responsibility for their actions, but now the right of the patient to know about his or her illness has been recognized ( Bisbee, 1979.) From the outset, the literature on psychiatric patient education (psychoeducation, consumer education), has expanded significantly, due in part to the rise of consumer advocacy (Bisbee, 2000).

Family psychoeducation also originated in the late 1970s from several sources (McFarlane et al., 2003). In this history the leading influence was the establishment of family factors as a key variable in recovery from mental disorders, where the relapse of patients was associated with the expressed emotion (EE) of the key relative (see Vaughn & Leff, 1976). There was also a growing realization that conventional family therapy targeted at family dysfunctions seeking to alleviate symptoms had proven ineffective or even damaging to the families, and a more collaborative approach aimed at engaging families in treatment by sharing illness information and teaching coping strategies that reduce the families' sense of burden, was adopted (McFarlane et al., 2003). Nowadays, the term family psychoeducation is internationally acknowledged, and often combines the imparting of information with therapeutic elements; family interventions are thus comprehensible programs including many cognitive, behavioral and supportive therapeutic elements, often utilizing a consultative framework, and sharing key characteristics with other types of family interventions (McFarlane et al., 2003; Merinder, 2000).

Meeting the needs of family members improves family well-being and, consequently, patient outcomes (McFarlane et al., 2003). Psychoeducational family interventions have shown that they may reduce the relapse and rehospitalization rates of schizophrenia patients and there is sufficient scientific evidence that family strategies have a clinically significant impact on the course of major mental disorders (Falloon, 2003; McFarlane et al., 2003; Pitschel-Walz, Leucht, Bäuml, Kissling & Engel, 2001). In Finland, for example, Berg and Johansson (2003) have contributed to the field of family psychoeducation. Psychoeducation is nowadays provided in several different forms: family psychoeducation in single-family or multifamily settings, behavioral family management, psychoeducational relatives groups, educational lectures to relatives or professionally-led models, short-term family education (therapeutic education), family consultation, counseling groups and group therapy for relatives (Pitschel-Walz et al., 2001). Psychoeducation can also be delivered bifocally when patients' groups run parallel to relatives groups, combined psychoeducational family therapy and patients' groups, or as in the present study, psychoeducation for patients only (Hornung et al., 1996).

The philosophy underlying psychoeducation programs with families is that when family members are taught specific skills and given knowledge about their family member's illness, it results in a cognitive mastery about mental illness that enables families to tolerate the psychopathology of their ill member, and help them manage the patient at home with greater comfort (Hayes & Gantt, 1992). A typical goal in working with families is the achievement of the best possible outcome for the individual with mental illness through treatment and management that involves collaboration between professionals, families and patients (McFarlane et al., 2003). Two major strategies of family interventions have been developed in which the first is the attempt to reduce the impact of environmental stress on the biologically vulnerable individual while promoting social functioning, and the second is to educate caregivers in stress reduction strategies and increase acceptance of behavior associated with both positive and negative symptoms (Falloon, 2003). The best results of family interventions have been associated with comprehensive methods that integrate carers into the therapeutic team through education and training in stress management strategies, with continued professional support and supervision (Falloon, 2003). Pitschel-Walz et al. (2006) have found that even a relatively brief intervention of eight psychoeducational sessions with systematic family involvement in simultaneous groups can considerably improve the treatment of schizophrenia. The benefits of this intervention have also been studied seven years after the intervention, and since significant effects on the long-term course of the illness can be found, the researchers suggest that the integration of psychoeducation into standard therapy for schizophrenia should become obligatory (Bäumli, Pitschel-Walz, Volz, Engel & Kissling, 2007).

In the case of patient psychoeducation, for example, Hamann, Pitschel-Walz and Kissling (2004) have emphasized that according to a generally recognized definition psychoeducation is not solely information about medication that doctors impart to their patients, but it also involves working with the concept of illness, discussions, and empowering the patients to make informed decisions about their treatment by themselves (see also Goldman, 1988). The importance of distinguishing programs which aim to simply present information about the illness (for example the study of Cunningham Owens et al., 2001) from those interventions which take psychoeducational approach to skill deficits has also been stressed (Atkinson, Coia, Gilmour & Harper, 1996). Klinitz (2006) has pointed out that if psychoeducation is seen only within a deficit model of illness and regarded as merely compliance training, people may only learn to accept the illness, and from the viewpoint of recovery psychoeducation cannot then be regarded as psychotherapy. Also McGorry (1995) has emphasized that psychoeducation should be considered more than a tool for compliance enhancement because such a narrow objective squanders the opportunity for a flexible, person-centered approach where the desire is to empower person through the information.

Bäumli et al., (2006), on the other hand, consider that psychoeducation can be regarded as a specific form of psychotherapy, where psychotherapeutic techniques include elements from both supportive and cognitive-behavioral therapy (see also Bäumli & Pitschel-Walz, 2008). According to their definition, "Within the framework of psychotherapy, psychoeducation represents that part of the treatment which is

dominated by active provision of information, the exchange of information between the patients and relatives, and the discussion of general aspects of the illness" (p. 1) (Definition of psychoeducational interventions by the working group "Psychoeducational Interventions in Schizophrenic Diseases"; Wiedemann et al., 2003).

The main principle of psychoeducation is that everyone has the right to receive information about the illness and treatment in order to take more active role in relation to it rather than being just a passive recipient of care (Cross & Kirby, 2001; Deegan, 1996; McGorry & Edwards, 1997; Mueser et al., 2002). Previous research indicates that patients with schizophrenia need and want information about their illness in order to play a more active role in their treatment and find this information helpful in their situation (Chien et al., 2001; Hottel, 2004; Kelly & Scott, 1990; Sibitz, Amering, Gössler, Unger & Katsching, 2007a; Smith & Birchwood, 1992; Walker, 2006). Psychoeducation is also generally well accepted by patients with schizophrenia (Harmon & Tratnack, 1992; Hayes & Gantt, 1992; Hornung et al., 1996; Reicchart et al., 2010). Hayes and Gantt (1992) have defined the rationale in their psychoeducation program on the hypothesis that shifting the patients' experiences of their situation and illness from a subjective to an objective frame of reference facilitates their achieving cognitive mastery that can reduce the stress and anxiety related to the illness. The authors conclude that psychoeducation is empowering, can provide the patients with a sense of dignity, and can also be destigmatizing as it demystifies the illness; sharing in the group can also reduce the feeling of isolation and enhance belonging and coping with the illness.

Having information about the illness gives the patient the opportunity to take an active role in relation to the disease and its treatment (McGlashan, 1994; McGorry & Edwards, 1997). Patients suffering from schizophrenia sometimes know very little about their diagnosis despite long-term illness (Hornung et al., 1996). Information should also be provided to those patients who have long suffered from schizophrenia, even decades (Chien et al., 2001; Wiersma, Nienhuis, Gie & Slooff, 1998). Teaching a patient about his/her illness can also increase the patient's coping skills, understanding the early signs of psychosis and the stressful elements anticipated in and related to psychotic episodes. It has been previously recognized that even though behavioral changes may not be attained, at least with the more didactic formats of psychoeducation, psychoeducation can still enhance the participants' quality of life by offering information and a chance of sharing experiences, and creates a useful foundation in treating schizophrenia; furthermore, more comprehensive long-term treatment efforts and methods need to be applied in addition to brief psychoeducational groups, especially in the treatment of chronic patients (see for example Bäuml et al., 2006; Kilian, Lindenbach & Angermeyer, 2001; Mueser et al., 2002). It has been postulated that a comprehensive psychoeducational program can also function as a coping resource and help participants build on their existing strengths and encourage a sense of hope for recovering a new sense of self (Landsverk & Kane, 1998; Menzies, 2000).

It has been stated that the benefits of psychoeducation seem largely be due to nonspecific treatment, i.e. factors that are present across therapies (for example, social support and facilitation and promotion of shared fate and hope) than to specific active therapeutic ingredients (Ascher-Svanum & Whitesel, 1999; Bäuml et al., 2006; Sibitz,

Amering, Gössler, Unger & Katsching, 2007b). Bäuml and his colleagues (2006) have declared that the “specific effective factors of psychoeducation” seem to be illness-related key information and emotional topics, but there appear nevertheless to be many nonspecific treatment effects or common therapeutic factors that influence the process of psychoeducation and produce in its benefits (see also Ascher-Svanum & Whitesel, 1999). The nonspecific effective factors in psychoeducational groups, according to Bäuml et al. (2006), include the development of a good therapeutic relationship, appreciation of the patient, emphatic response to participants, respect of subjectively deviant opinions, stimulation of hope, encouragement of the personal exchange of experiences, and facilitation of “shared fate” among participants. There can, however, also be instances when patients are so severely impaired that they may require separate individual sessions since the group may overstimulate and disorganize them (Greenberg et al., 1988). In the case of an intervention being too unstructured, an exacerbation of symptoms is possible (Kopelowicz & Liberman, 2003).

The optimal timing of psychoeducational interventions has been discussed and studied. The general view is that psychoeducation can be used as an interventional method in all the phases of schizophrenia, but the form of the intervention must be chosen to suit the situation of the patient (Bisbee, 2000) and the timing can vary considerably from patient to patient (McGorry, 1995). Tarrier and Barrowclough (1986) have emphasized the early timing of providing information and psychoeducation, as they believe that the longer duration of the illness increases the possibility of people establishing their own personal lay models of illness that, once established, are not readily changeable. Consequently, they suggest that if the information is given as soon as possible once the illness begins, there are many more chances to affect those individualized illness models. Smith and Birchwood (1992) also concluded in their study that it is possible that the long-term experiences of illness may strengthen patients' delusions and therefore psychoeducation may be more beneficial for individuals with a shorter duration or a less severe illness. Also McGorry (1995) states that the individual lay models of illness become more stabilized the longer the duration of the illness, which should have implications on the early start of education, but has, however, emphasized that shortly after acute psychosis initial denial arising from a healthy resistance to the psychological threat of self-stigmatization is possible; in the short-term defensive coping strategies should also be considered normal and protective, and care should be shown in challenging them. In accord with this are the findings of Feldmann, Hornung, Prein, Buchkremer and Arolt (2002) who studied the optimal timing of psychoeducation for schizophrenia patients and found that psychoeducation showed a preventive effect regarding rehospitalization in patients who had already accepted the illness but did not yet have their own, often fatalistic, explanations concerning their illness.

There are also some common suggestions about the way and how intensively psychoeducation should be conducted to be effective among patients with schizophrenia, who often have limitations on their learning capacity due to cognitive problems. Chaplin and Timehin (2002) have emphasized the need to update the information given in terms of the latest research. In patient education the given information should also be realistic and hopeful but over-optimism and promises which cannot be delivered should be

avoided (Tattersall, 1995). It has been shown that even quite brief interventions can lead to functional improvements in patients with chronic psychiatric disorders (e.g. Goldman & Quinn, 1988). It appears that shorter (less than ten sessions) group psychoeducation interventions for schizophrenia patients do not seem to have a differential effect on improving knowledge of schizophrenia compared to longer interventions, so it may be possible that only a certain amount of information can be successfully given to patients (Lawrie, 2001). Chaplin and Timelin (2002), who in their four-year follow-up of a trial of patient education concerning tardive dyskinesia, concluded that patients can retain a small but significant amount of information several years after the intervention.

Sibitz et al. (2007a) describe the historical change in psychoeducational interventions. Previously, interventions often focused solely on adherence, but nowadays positive psychological aspects are increasingly integrated into psychoeducational programs to support the healthy parts of patients and emphasize quality of life related issues as a paradigm shift in psychoeducational programs. Modern psychoeducational programs and psychological interventions have either been recommended or already developed to also focus providing information on quality of life related aspects, depressive symptoms, self-esteem, stigma and illness-normalization, good therapeutic relationships, active coping strategies such as discussing a mental health problem with others, and social support (see Borrás et al., 2009; Cooke et al., 2007; Hall & Tarrier, 2003; Hansson, 2006; Karow & Pajonk, 2006; Knight, Wykes & Hayward, 2006; Lysaker et al., 2007; Sibitz et al., 2007a; Staring et al., 2009). Modern and pragmatic psychoeducational approaches for schizophrenia also include interventions delivered on a peer-to-peer basis (Rummel, Hansen, Helbig, Pitschel-Walz & Kissling, 2005), and psychoeducational programs for patients at risk of schizophrenia (Hauser et al., 2009). Culturally sensitive topics, the patients' perspective, and gender aspects have also recently been integrated into psychoeducation (Rummel-Kluge & Kissling, 2008, for review). A recent study by Reichhart et al. (2010) on gender differences in patient outcomes and caregiver psychoeducation stressed gender sensitivity in detecting gender-sensitive opportunities to enhance psychoeducation; the results of their study indicated no significant gender differences in terms of knowledge gain, but in terms of drug attitude females seemed to benefit also significantly more from psychoeducation than males. Psychoeducation group programs are developed and increasingly used treating patients with dual diagnoses of mental illness and substance abuse disorders (see Anderson et al., 2001; Ryglewicz, 1991). Pitschel-Walz, Bäuml, Froböse, Gsottschneider and Jahn (2009), on the other hand, studied individuals with schizophrenia and comorbid borderline intellectual disabilities and, as patients were successfully integrated into psychoeducation groups, concluded that even borderline intellectual disability should not be an exclusion criterion for participation in psychoeducation groups.

Psychoeducation is often considered to be an integral part of cognitive behavioral therapy, and other more comprehensive or complex psychosocial interventions may include psychoeducation as one component of the intervention. Anders, Pfammatter, Fries and Brenner (2003) presented coping-oriented group therapy, which consists of four stages: psychoeducation, analysis of a stressful situation in group, coping behavior training using problem-solving approach, and psychoeducational sessions with family

members. Atkinson et al. (1996) have studied the impact of education groups for patients with schizophrenia on social functioning and quality of life; the 20-session intervention combined psychoeducation with a problem-solving approach but without specific skills training. Herz et al. (2000) have developed a comprehensive relapse prevention program for schizophrenia consisting of a combination of psychoeducation, active monitoring of prodromal symptoms with clinical intervention when symptoms occur, and weekly group therapy for patients and multifamily groups. The illness management and recovery program of Mueser et al. (2006), on the other hand, combines psychoeducation, cognitive-behavioral approaches to medication adherence, a relapse prevention plan, social skills training, and coping skills training to improve the management of persistent symptoms. Symptom and illness self-management training programs including education for patients and their relatives, skills modules (Eckman et al., 1992; Liberman, 1989), and community re-entry programs that combine psychoeducation with Liberman's (1994) living skills training modules have also been developed and studied (Kopelowicz, Wallace & Zarate, 1998). Also combinations of the psychoeducational model and supportive psychotherapy have also been used (Nightingale & McQueeney, 1996).

Psychoeducational interventions are often offered on a one-to-one basis. Kelly and Scott (1990) studied the impact of health education aimed at improving medication compliance; there the interventions were conducted by home or clinic visits. Kemp, Kirov, Everitt, Hayward and David (1998) studied compliance therapy, a brief and pragmatic intervention targeting treatment adherence based on motivational interviewing and recent cognitive approaches to psychoses, and concluded that combining cognitive psychoeducational approaches with adequate pharmacotherapy and appropriate psychosocial rehabilitation is the best way to improve social functioning and quality of life in people with severe mental disorders. Gray (2000) studied the patient education given on a one-to-one basis to patients with schizophrenia undergoing clozapine treatment but found no evidence that brief patient education would be superior to standard care in enhancing the patients' attitudes towards treatment or insight after the intervention. More modern approaches have also utilized new technology in psychoeducation and, for example, personalized computer-based information for schizophrenia patients has been tested; it has shown promising results (see Jones et al., 2001).

As psychoeducation is nowadays seen as a basic component of the comprehensive treatment of schizophrenia, it should also be offered to forensic schizophrenia patients (Cross & Kirby, 2001; Müller-Isberner & Hodgins, 2000). Psychoeducation is now commonly provided within forensic settings as well, but its efficacy among forensic schizophrenia patients has not been studied in randomized trials. Patients in forensic psychiatry are often hospitalized for many years. Cross and Kirby (2001) postulate that the main purpose of psychoeducation in forensic settings is to combat shame, guilt and stigma, in order to improve the quality of life of these patients, and to help them to take more responsibility for their own care and live more meaningful lives; they have declared that successful psychoeducation in forensic settings may result in new patient attitudes like willingness to collaborate in care with carers and practitioners, better adherence to prescriptions, and a commitment to risk assessment and management. Although the

strongest evidence of the efficacy of psychoeducation has been shown in formats where families are included in the interventions, the inclusion of families in high security settings may not always be possible or feasible, and in these cases the support needed in dealing with new the information may be provided by interpersonal working relationships with staff in the hospital (Vallentine, Tapp, Dudley, Wilson, & Moore, 2010). In clinical practice the use of patient psychoeducation is more easily implemented in the standard treatment of patients than family interventions. The need to deliver psychoeducation in forensic settings on a one-to-one basis has also been identified, since some patients may unable to attend to groups if they feel too paranoid or too anxious (Walker, 2004). In forensic psychiatry psychoeducation using computer-based interventions has also shown promising results (Walker, 2006).

Psychoeducation is considered to be an evidence-based psychosocial treatment for schizophrenia in the Finnish Schizophrenia Practice Guideline (2001, 2008). In the present study psychoeducation is considered as neither pure compliance training nor psychotherapy, but a possible basic component in the complex long-term treatment of forensic patients with schizophrenia. The definition of psychoeducation used in the present study is largely adopted from Goldman (1988) and McGorry (1995). According to Goldman (1988), psychoeducation is the “education or training of a person with a psychiatric disorder in subject areas that serve the goals of treatment and rehabilitation, for example, enhancing the person’s acceptance of his illness, promoting active cooperation with treatment and rehabilitation, and strengthening the coping skills that compensate for deficiencies caused by the disorder” (p. 667). Goldman defines psychoeducation as an integral part of psychotherapy, but more limited, because it emphasizes cognitive mastery rather than affective experiencing. According to McGorry’s (1995) definition of psychoeducation “psychoeducation, by addressing the key issues of meaning, mastery, and self-esteem, provides a strategic tool for promoting recovery in a psychological sense, or strengthening coping responses, and for helping the recovering person find a way to accept other key elements of treatment such as prophylactic medication” (p. 326). Patient education is also a central concept in nursing and nursing research, usually covering the whole process of different activities seeking to improve the patients’ health by improving the knowledge, skills and adaptation to the illness of the patients (see Piredda, 2004). The goals of patient education described by Piredda (2004) are very similar to those that were adopted in the present study: to empower the patient, increase patient cooperation and the satisfaction of patients and professionals with the care, improve health outcomes and decrease costs to the healthcare system, and decrease the length of hospitalization and ensure the safe discharge of patients. Patient education differs from patient teaching as it is a process aiming at behavioral change, although the content of the actual teaching is also very important in patient education and, obviously, must be accurate; the total process of patient education is much more important than the teaching itself (Rankin & Stallings, 1990). Also according to Bisbee’s (2000) definition of patient education, the goal is to impart knowledge and, sometimes, to teach skills; although some interventions may resemble or utilize psychotherapeutic techniques in the course of education, the process is educational rather than psychotherapeutic.

### 3.4 OVERVIEW OF RESEARCH ON PATIENT PSYCHOEDUCATION FOR SCHIZOPHRENIA

A substantial number of previous studies concerning group patient psychoeducation for patients with schizophrenia are presented in Table 1. Studied interventions have varied greatly in their emphasis on various components: structure, duration, and intensity of the intervention, as well as the methodological quality of the studies. Due to the multitude of published studies concerning patient psychoeducation for schizophrenia, the table only contains studies concerning information giving to patients with schizophrenia and patient psychoeducation interventions, in a group format, and for patients with a primary diagnosis of schizophrenia or schizoaffective disorder. The following types of studies have been excluded:

- 1) Interventions including family members or relatives (family psychoeducation)
- 2) More comprehensive or complex interventions, where psychoeducation has been only one component of the treatment (e.g. cognitive-behavioral therapy, social skills training, problem-solving interventions, comprehensive illness management programs)
- 3) Studies including mixed samples (affective disorders, personality disorders)
- 4) Interventions delivered on a one-to-one or peer-to-peer basis.

*Table 1. Previous research on patient psychoeducation for schizophrenia*

Study	Purpose(s)	Data and method	Main results
Pilsecker, 1981	To investigate the views of hospitalized patients with schizophrenia who had attended an educational class (two sessions) to learn about their illness and diagnosis.	A naturalistic study. A total of 116 patients who attended the class were interviewed about their experiences and opinions of the class.	Many participants appreciated the class while others (45%), did not attend the second session, and raised questions about its appropriateness for them.
Melville & Brown, 1987	To evaluate the impact of a multimedia workshop about schizophrenia and treatment among prison inmates with schizophrenia.	A naturalistic study where 31 inmates attended a 4-hour educational multimedia workshop on schizophrenia. Assessments took place at the pre- and post-test stages.	The results suggested a highly significant increase in knowledge about the symptoms, causes and treatment of schizophrenia after the intervention.
Goldman & Quinn, 1988	To determine the effects of a three-week educational intervention for patients with schizophrenia on knowledge of illness and positive and negative symptoms of schizophrenia.	93 inpatients with schizophrenia were randomly assigned to either the intervention or control group until both groups consisted of 30 patients. The program lasted 3 weeks, 2-5 hours a day, with six 30-minute psychoeducational classes per day. Patients were assessed at the pre- and post-test stages.	The results suggested that psychoeducation can be a valuable component of comprehensive treatment of schizophrenia. Severely ill patients were able to learn and retain information about their illness and treatment and there was a significant decrease in negative symptoms in the intervention group. Results also suggested that the process of patient education has the potential to increase the functioning of chronically ill patients.
Harmon & Tratnack, 1992	To evaluate the impact of an 8-day patient education program including three 30-minute daily lectures for hospitalized inpatients with serious, persistent mental illness.	A naturalistic study where 135 patients were referred to the nurse-directed educational program. 76 patients attended all lectures. Patients were assessed at the pre- and post-test stages.	No significant improvements in the perception of mental illness or need for treatment were found after the intervention, but 80% of the patients who completed the evaluations indicated they would recommend the psychoeducational program to others.

Smith & Birchwood, 1992	To examine the impact of an educational intervention for schizophrenia patients on information assimilation, insight, medication compliance and level of residual positive symptoms of schizophrenia.	28 individuals with schizophrenia were divided into two different groups based on the level of symptomatology. Then the residual symptom group (n=18) and the group with no residual symptoms (n=10) were randomly assigned to 5 different groups for the purpose of delivering the educational intervention, which was divided into 4 sessions.	Both groups improved significantly in knowledge about schizophrenia although the residual symptom group, which had consistently lower pre- and post scores, also retained less information about symptoms than did the group without persistent symptoms. No significant changes in insight or medication compliance were found.
Hornung et al., 1996	To evaluate the effects of a 10-time psychoeducational training program for patients with chronic schizophrenia on medication, compliance, subjective ratings of information and qualification concerning medication self-management, psychopathological symptoms and social functioning.	The efficacy of the psychoeducational training was investigated within the framework of a controlled prospective study comparing 74 patients who had regularly attended the intervention sessions to the control group, consisting of 57 patients. Assessments took place before psychoeducational training, after training and at a 1-year follow-up.	The results suggested that at the end of the program patients who had regularly attended showed significantly better medication compliance and were more reserved with respect to their medication self-management. Booster sessions were recommended, as the positive effects had diminished after one year.
Macpherson, Jerrom & Hughes, 1996	To investigate the effects of drug education intervention for patients with schizophrenia	A randomized, controlled study (n=64) where the sample was randomized to either a control group or one session or three sessions of drug education and assessed before and after intervention.	Drug education intervention led to increased knowledge about schizophrenia after one education session and three sessions led to a significantly greater knowledge gain than one session.
Buchkremer et al., 1997	To examine the general and differential efficacy of various different therapeutic interventions including psychoeducational medication management training on outpatients with schizophrenia two years after completion of the interventions.	A randomized controlled intervention study where 132 outpatients with schizophrenia underwent a 2-year follow-up examination after completion of psychoeducational medication management training (PMT), cognitive psychotherapy (CP), key-person counseling (KC) or some combinations of the three.	All treatment groups had lower but not significantly different relapse rates compared to the control group, and the most intensive treatment combination (PMT+CP+KC) also produced a clinically relevant reduction in rehospitalization rates. Treatments were not analyzed individually but the efficacy of PMT in medication management was confirmed by the results that significant differences in favor of treatment groups were found in confidence in medication and the therapist, which are vital components of PMT.
Hornung et al., 1998	To investigate at a 1-year follow-up the relation between drug treatment among patients with schizophrenia with and without psychoeducational training	A controlled prospective intervention study of outpatients with schizophrenia (n=84)	Results suggested that the psychoeducational training led to an optimization of participants' attitudes toward treatment, but no change in medication management.
Hofer et al., 1998, 2001	To investigate whether a psychoeducational intervention influenced schizophrenia patients' concept of their illness.	A qualitative study where 27 schizophrenia patients were assessed at baseline and 10 weeks after psychoeducational treatment about their concept of illness using semistructured interviews with open-ended questions.	Most of the patients stated psychosocial factors as the origin of their illness before and also after psychoeducational treatment. A more biological concept of illness was mostly rejected by the patients and concepts offered by professionals were adopted in a very limited way suggesting highly individualized ways of coping with the diagnosis and illness.
Ascher-Svanum & Whitesel, 1999	To investigate the therapeutic specificity of patient education for schizophrenia patients.	A randomized controlled study comparing the effects of two different interventions was conducted with 39 adult inpatients: an experimental patient education group with a didactic format (n=16) was compared with a control group (n=17) where subjective experiences of schizophrenia and treatment were discussed.	Groups did not differ significantly after interventions, so it was concluded that the benefits of patient education may be due to nonspecific treatment effects instead of specific active educational ingredients.
Hornung et al., 1999a	To examine the long-term effects of psychoeducationally and cognitive-behaviorally oriented interventions for outpatients with schizophrenia and their key relatives on rehospitalization rates.	Five years after the original intervention study (n=191) including psychoeducational medication management training (PMT), cognitive psychotherapy (CP), key-person counseling (KC) or some combinations of them a total of 126 patients were re-examined and the rate of patients experiencing psychiatric rehospitalization during the follow-up was assessed in each treatment group.	No differences in rehospitalization rates between controls (n=35) and patients of the different treatment groups (n=91) were found, although there were fewer rehospitalizations in the group with the most intensive treatment combination (PMT+CP+KC) compared to the control group.

Hornung et al., 1999b	To investigate how well patients who had participated in psychoeducational medication management training manage their medication compared to the control group. The study sought to determine the attitudes patients have towards both medication and illness, and also patients' opinions and medication management one year after completing psychoeducational training.	A randomized controlled study within a controlled prospective study (n=191) where 84 regular attendants of a psychoeducational medication management program and 46 control patients who were reported to have persuaded their psychiatrists to modify their medication were assessed at baseline, post-treatment and at a 1-year follow-up.	Psychoeducational training led to an optimization of patients' attitudes toward treatment as at the follow-up stage regular attendants showed a reduced fear of side-effects, stable confidence in their physician, and increased confidence in their medication. No changes in medication management were found.
Feldmann et al., 2000	To examine and select adequate cognitive characteristics of schizophrenia patients as predictors of efficacy of a psychoeducational psychotherapeutic intervention.	A prospective, randomized trial where basic cognitive deficits and metacognitive constructs of 106 schizophrenia patients were chosen as possible predictors of the course of the illness. Logistic regression models were established, modification of cognitive skills was taken into account, and relevant factors of the course of illness representing the therapeutic effect of the intervention were studied within a 5-year follow-up.	Thought disorder and idiosyncratic and fatalistic assumptions were obtained as cognitive predictors of the long-term course of illness. Thought disorders and attentional deficits could not be improved significantly by psychoeducational psychotherapeutic intervention. A correlation between the therapeutic improvement of idiosyncratic and fatalistic assumptions and the rehospitalization rate within the follow-up was found.
Merinder, 2000	To identify and analyze the methodology and results of studies concerning patient education in schizophrenia	Systematic literature search (19 studies). Review article.	Most consistent finding in different studies demonstrated improvement in knowledge and sometimes compliance after patient education interventions.
Ascher-Svanum et al., 2001	To assess the expectations of and satisfaction with group psychoeducation among schizophrenia patients.	123 adult inpatients with schizophrenic disorders responded anonymously to expectation and post-intervention evaluation measures.	Schizophrenia patients had high expectations of the psychoeducation program and a high level of satisfaction with the self-fulfilling prophecy effect toward the psychoeducation program. Differential levels of helpfulness concerning the program's content areas were found.
Cunningham Owens et al., 2001	To evaluate the impact of a brief educational intervention in schizophrenia patients at risk of relapse, psychopathology, depression, insight and treatment attitudes.	114 schizophrenia patients were randomly assigned to either the intervention (n=61) or control (n=53) group at discharge from hospital. The intervention was comprised of a 15-minute educational video and three booklets where the content of the video was available.	The intervention failed to improve outcome on relapse rates. Insight and treatment attitudes improved in the intervention group, but also suicidal ideation increased.
Chien et al., 2001	To identify the specific educational needs of patients with schizophrenia in China.	A cross-sectional survey study using the Chinese version of the Educational Needs Questionnaire with 192 schizophrenia outpatients in Hong Kong.	Results emphasized the great importance of gaining information where the most important perceived educational needs included gaining information about mental illness, strategies for improving social relationships and problem-solving strategies concerning daily problems. Duration of illness was found to negatively correlate with perceived need importance.
Kilian et al., 2001	To analyze the patients' evaluations of a psychoeducational group program among outpatients with schizophrenia.	A qualitative study of 30 randomly selected participants. Problem-focused interviews were carried out and interviews were analyzed by means of qualitative content analysis.	Participants emphasized the increase of illness-related knowledge and the opportunity to exchange illness experiences, which had helped them to better cope with the illness. Thus, the group contributed to the improvement of their quality of life even when the intervention did not have any measurable impact on illness behavior or compliance, and should therefore be implemented in outpatient's services even when there is no evidence of a direct impact on relapse rate.
Jennings et al., 2002	To examine the effects of a 10-time mental health education group for forensic schizophrenia patients in a high security setting on knowledge, insight, attitudes toward medication and compliance, and self esteem.	A naturalistic study where 7 male patients from Ashworth hospital participated in the educational intervention and were assessed at baseline, post-treatment stage and at a 6-month follow-up.	Patients gained improved knowledge about their illness and treatment, attitudes toward medication and insight after the educational intervention.
Zygmunt et al., 2002	To examine the efficacy of psychosocial interventions aimed at improving adherence in schizophrenia.	Systematic literature search (39 studies). Review article.	Psychoeducational interventions without additional behavioral components and supportive services are usually not effective in improving medication adherence in schizophrenia.

Mueser et al., 2002	To examine the research in psychosocial illness management interventions with a recovery orientation.	Literature search, inspection of previous reviews, and identification of studies presented at conferences. 40 randomized controlled studies of broad-based psychoeducation programs, medication-focused psychoeducation, relapse prevention, coping skills training and comprehensive programs and cognitive behavioral treatment of psychotic symptoms were included.	Results indicated that psychoeducation can improve the knowledge of mental illness but does not affect the other outcomes studied.
Feldmann et al., 2002	To examine the influence of pre-therapy duration of illness on the effects of a psychoeducational training among schizophrenia patients.	Within a prospective controlled study 191 schizophrenia patients were assigned in a balanced randomization to one of the four treatment conditions, one being solely psychoeducational training (n=32). Duration of illness was divided into groups of short, medium and long duration. A logistic regression was performed to assess duration of illness as a predictor of long-term illness and patients were examined for rehospitalization at a five-year interval.	Only patients with medium duration of illness (5 to 7 years) showed a reduced rehospitalization rate after psychoeducational intervention, as these patients already accepted the illness but were not yet adhering to fatalistic assumptions to explain the illness. Psychoeducation is generally recommended in cases of early psychosis, but the findings suggested that some patients with a short duration of illness may still deny their illness.
Rogers et al., 2003	To study the meaning and processes behind outcome measures of an intervention trial designed to improve the management of anti-psychotic medication by illuminating patients' understanding of the nature, purpose and outcomes of the intervention.	A qualitative study of 43 in-depth interviews using a purposive sample of patients participating in a trial comparing psychoeducational and therapeutic alliance interventions in managing medication was conducted during the trial period.	Participants particularly emphasized the opportunity for communication and contact with the researchers and the self-efficacy of the patients increased, although they did not readily identify the content and concepts of each treatment condition. Participants' accounts of the process and outcomes of intervention trials seem important in illuminating and adding to the quantitative outcomes of the trials.
Dolder et al., 2003	To review the recent literature reporting outcomes of interventions designed to improve medication adherence in patients with schizophrenia.	Systematic literature search (21 studies including 23 interventions). Review article.	Interventions combining educational, behavioral and affective strategies showed the greatest improvement in adherence, with additional secondary gains such as reduced relapse, decreased hospitalization and psychopathology, improved social function, gains in medication knowledge, and improved insight. Longer interventions and therapeutic alliance were important for successful outcomes. Purely educational interventions were the least successful in improving adherence.
Hotti, 2004	To study the informational needs, knowledge of schizophrenia and treatment of patients with schizophrenia in Finland.	100 patients with schizophrenia (30 patients with depression as a comparison group) were interviewed and 96 physicians were sent letters to determine experiences and opinions about gaining and giving information about the illness and treatment. Opinions of patients and physicians were also compared.	Results indicated that patients need and want information about the illness in all its phases. The physicians' opinions differed significantly as they thought the patients should not be told as much about the illness as the patients wanted to hear. Both patients and physicians felt that information about the illness and treatment was useful for the patient.
Bechdolf et al., 2004	To assess the differential efficacy of group CBT in comparison with group psychoeducation for schizophrenia patients in terms of psychopathology, compliance, relapse and rehospitalization rates.	A randomized controlled study where 88 inpatients with schizophrenia were randomized to either 16 sessions of group CBT (n=40) or 8 sessions of group psychoeducation (n=48) and assessed at baseline, post-treatment and a 6-month follow-up.	The group CBT intervention showed some superiority to the psychoeducation program in terms of less rehospitalization, lower relapse rates and higher compliance, but both forms of therapy led to significant improvement in psychopathological symptoms at the post-treatment and follow-up assessment stages.
Bechdolf et al., 2005	To assess the differential efficacy of group CBT in comparison with group psychoeducation in acute schizophrenia patients in terms of rehospitalization, schizophrenia symptoms, compliance with medication and medication dosages 2 years after treatment.	From the initial sample of 88 schizophrenia patients 43 patients were assessed at a 24-month follow-up: 16 sessions of group CBT (n=16) or 8 sessions of group psychoeducation (n=27).	Both interventions also led to relevant clinical improvement at the 24-month follow-up. No significant group differences on re-admission, symptoms or compliance were found. However, some advantages of CBT on the descriptive level remained after 24 months.
Abbadi, 2005	To examine the effectiveness of psychoeducation among schizophrenia patients.	A naturalistic study to assess subjective attitudes and responses of 17 schizophrenia patients toward psychoeducation.	Results suggested that psychoeducation is ineffective and harmful as it compromises therapeutic alliance and increases patients' isolation through enhancement of mistrust, suspicion, pretending and false self.

Sibitz et al., 2006	To evaluate the first results of a psychoeducational program emphasizing quality of life-related topics for schizophrenia patients.	A naturalistic study where 98 outpatients with schizophrenia participated in 9 sessions of group psychoeducation. Different objective and subjective outcomes were assessed at the beginning and at the end of the psychoeducation program.	Participants improved significantly on knowledge about the illness, quality of life, and more competence and control after the intervention. There were also changes in illness concept as the participants' prejudices about medication decreased and confidence in medication and beliefs about susceptibility to illness and relapse increased.
Degmecic et al., 2007	To examine the impact of a psychoeducational group intervention with 4 sessions among schizophrenia inpatients on psychopathological symptoms, compliance and attitudes toward treatment, knowledge about illness and global and social functioning.	30 patients with schizophrenia who attended the psychoeducational group were compared to the control group (n=30). Assessments took place at admission to the hospital, release from the hospital and at a 3-month follow-up.	Results suggest that increased knowledge about the illness, medication, possible outcomes and treatment after the intervention provide better drug-compliance among the participants. At the 3-month-follow-up the intervention group also had significantly less clinical symptoms, and significantly better global functioning than the control group.
Lincoln et al., 2007a	To evaluate the effectiveness of psychoeducation with and without inclusion of families for relapse, symptoms, knowledge, adherence and functioning in psychotic disorders.	Meta-analysis of randomized controlled trials (18 studies).	No significant effects of psychoeducation alone for patients were found and there was a need for further research in order to prove effectiveness. Results suggested that integrating relatives into treatment is worthwhile and should be encouraged.
Sibitz et al., 2007a	To evaluate the long-term effects of a community-based psychoeducational intervention with a quality of life orientation for schizophrenia patients with and without booster sessions.	103 outpatients with a main diagnosis of schizophrenia or schizoaffective disorder who had undergone a 9-week psychoeducation program were block-randomized to either booster (n=48) or non-booster (n=55) conditions. Assessments took place at baseline and at 6 and 12 months.	Positive effects with regard to symptoms, knowledge about illness, illness concepts, control convictions and quality of life were found in both groups immediately after the 9-week psychoeducational intervention and the results were retained over the 12-month period in both groups independent of booster or non-booster conditions.
Sibitz et al., 2007b	To investigate patients' views about the desired and undesired effects of group psychoeducation for schizophrenia.	A qualitative study using content analysis was conducted for 103 participants who had attended a psychoeducational intervention for schizophrenia.	Participants gave mostly positive feedback about the intervention and specifically emphasized the importance of the information received and the opportunity to discuss and share thoughts with other people with the same disorder. Quality of life topics were appreciated, whereas perceived overemphasis on illness-related information and the feeling that too much information was given in too short a time, provoked negative feedback.
Rummel-Kluge & Kissling, 2008	To summarize recent literature and new developments in the field of psychoeducation in schizophrenia.	Review article of recently published literature (September 2006-September 2007). Family interventions were included.	Pragmatic approaches and new adaptations (peer-to-peer interventions, combined diagnostic groups, culturally sensitive topics, sex-specific aspects, patients' perspective issues related to quality of life) were developed. Psychoeducation for schizophrenia conducted in real-life settings may have long-term effects on relapse and rehospitalization rates.
Pitschel-Walz et al., 2009	To examine whether a borderline intellectual disability limits the benefits of group psychoeducation among schizophrenia patients.	A total of 116 inpatients with schizophrenia participated in a manual interactive psychoeducation program consisting of 8 sessions. The short-term outcome of 22 patients with a comorbid borderline intellectual disability (IQ 70-85) was compared with participants with no intellectual disabilities (n=75).	Individuals with schizophrenia and comorbid borderline intellectual disabilities were successfully integrated into psychoeducation groups. Thus, borderline intellectual disability should not be an exclusion criterion for participation in psychoeducation groups.
Reichhart et al., 2010	To investigate the gender-related differences in patients and relatives with schizophrenia as predictors of the benefit gained from the psychoeducation	Previous data from two large psychoeducational intervention trials were analyzed: the sample consisted of 1002 patients with schizophrenia and 176 caregivers.	No differences between genders in terms of knowledge gain were found in either group. Females, however, seemed to better benefit from psychoeducation in terms of improvement of drug attitude and it was suggested that psychoeducational programs might be better adapted to males in order to improve their drug attitude.

This overview of studies shows that in the 1980s only a few studies focusing on patient psychoeducation for schizophrenia were published, but the magnitude of the studies has since increased, and in recent years, especially in Germany, substantial research in this

field has been done. Some of the published studies have concentrated solely on the improvement of medication adherence, but interest in more comprehensive approaches aimed at the recoveries of patients with schizophrenia has also increased. Interventions have become more interactive in the course of time, but still involve lecturing and teaching, which may pose a problem for patients suffering from poor concentration and memory (Lincoln et al., 2007a). The perspective of patients themselves has in recent years also been increasingly adopted in studying the effects and processes of interventions.

Several studies of patient psychoeducation for schizophrenia have indicated that patient psychoeducation is effective in increasing patients' knowledge about their illness (Degmecic, Pozgain & Filakovic, 2007; Goldman & Quinn, 1988; Macpherson et al., 1996; Melville & Brown, 1987; Sibitz et al., 2007a; Smith & Birchwood, 1992). Meta-analytical reviews have supported the efficacy of psychoeducation for schizophrenia with family involvement (Pekkala & Merinder, 2002), but suggested that evidence of the effectiveness of psychoeducation for patients alone is still limited, and the effects on outcomes other than knowledge have not yet been proven (Lincoln et al., 2007; Merinder, 2000; Mueser et al., 2002; Zygumt et al., 2002). Lincoln et al. (2007a) conclude in their meta-analysis of the effectiveness of psychoeducation that patients-only focused interventions need to be further improved and require more research. Psychoeducation for patients is, however, considered important since it is the foundation for their competence to make informed decisions about their own treatment, and psychoeducation also constitutes a foundation for more comprehensive and individualized treatment forms for schizophrenia patients (Bäumli et al., 2006; Mueser et al., 2002). Bäumli et al. (2006) have also concluded that further examination of the effects of psychoeducation should attempt to establish which patients adequately profit from psychoeducation and which require more intensive and longer-term psychosocial interventions. For instance, in the treatment of bipolar disorder strong evidence concerning the efficacy of psychoeducation as an adjunct treatment to pharmacotherapy has already been presented; thus psychoeducation in individual or group settings has become the first-line psychological intervention in the treatment of bipolar disorder (Rouget & Aubry, 2007).

In addition to knowledge, some studies of patient psychoeducation for schizophrenia have shown positive effects, for example, on attitudes toward medication and/or treatment (Cunningham Owens et al., 2001; Hornung et al., 1999b), and medication adherence and management (Buchkremer et al., 1997; Degmecic et al., 2007; Hornung et al., 1996). It has been noted in reviews of previous studies concerning adherence-focused psychoeducation that with people suffering from chronic schizophrenia a purely didactic approach that does not target behavioral change is inefficient and unlikely to be effective, for example, in improving medication compliance in schizophrenia (Albers, 1998; Dolder et al., 2003; Herbert, 1996; Zygumt et al., 2002). It has also been observed that training in medication skills, rather than simply in an understanding of medication alone, would be required to alter compliance (MacPherson et al., 1996). Some patient psychoeducation studies have also noted the positive effects of interventions on insight (Cunningham Owens et al., 2001), reduction of negative symptoms (Goldman & Quinn, 1988) functioning (Degmecic et al., 2007; Goldman & Quinn, 1988), reduction of psychiatric symptoms (Bechdolf et al., 2004; Bechdolf, Köhn, Knost, Pukrop & Klosterkötter, 2005;

Degmecic et al., 2007), quality of life (Kilian et al., 2001; Sibitz et al., 2006), and enduring positive changes in illness concept, competence and control (Sibitz et al., 2006, 2007a).

Findings have suggested that patients with schizophrenia can learn and retain information, but a series of patient education sessions is needed to consolidate learning (Macpherson et al., 1996). Without booster sessions to reinforce and consolidate gains, long-term effects are unlikely to be sustainable (Zygmunt et al., 2002). On the other hand, the more recent study of Sibitz et al. (2007a) indicated that positive outcomes of their 9-week psychoeducational program for schizophrenia were maintained over 12 months with or without booster sessions. Authors, however, emphasize that especially in the case of patients with psychotic disorders who have difficulty in retaining information continuing psychoeducation seems to be essential.

Previous research has indicated that factors related to higher performance in knowledge tests and educability are age, medication and level of symptoms, especially to a lower level of positive symptoms (Goldmann & Quinn, 1988; Merinder, 2000). The more positive benefits of patient psychoeducation have previously been related to a shorter or a medium duration of illness (Smith & Birchwood, 1992; Feldmann et al., 2002). Ascher-Svanum and Whitesel (1999) investigated the therapeutic specificity of patient education and found that improvement in knowledge scores correlated positively with both education level and gain in insight into illness. Decrease in negative cognitions about medication, on the other hand, was associated with a positive gain in insight.

Previous studies have shown that it is often the case that at least some of the hypothesized outcomes have not been achieved successfully, but negative outcomes of patient psychoeducation for schizophrenia are rare. The only truly negative outcomes reported in the literature are the study by Abbadi (2005), who concluded from a very small-scale naturalistic study of the effectiveness of psychoeducation among schizophrenia patients that psychoeducation is ineffective and harmful to therapeutic alliance and increases patients' isolation. Another study, by Cunningham Owens et al. (2001), evaluated the impact of a brief educational intervention for schizophrenia patients and found that the intervention improved insight and treatment attitudes in the intervention group, but suicidal ideation also increased and the intervention failed to improve the outcome on relapse rates. It should be noted, however, that the intervention studied was comprised of only a 15-minute educational video and three booklets at the time of discharge. As Rankin & Stallings (1990) have emphasized, patient education is not accomplished simply by imparting information or giving a booklet to the patient, but is a process which always includes some kind of therapeutic relationship. Parker et al. (1984), who also studied the impact of an arthritis educational intervention, found in their study that the provision of information without any guidance had a negative effect and made the study subjects feel worse because they had become more aware of their condition.

In recent years the study of patients' own experiences concerning participation in group psychoeducation has increased. Patients usually express the need for information about their illness (Chien et al., 2001), appreciate their participation and information gained in psychoeducation (Harmon & Tratnack, 1992; Sibitz et al., 2007b), and have expressed positive experiences of the interventions (Kilian et al., 2001; Rogers et al., 2003; Sibitz et al., 2007b). Ascher-Svanum, Rochford, Cisco and Claveaux (2001) have studied

patient expectations and satisfaction with group psychoeducation among schizophrenia patients and found high initial expectations and high levels of satisfaction. In general, patient satisfaction with specific psychosocial therapeutic interventions has seldom been studied among patients with psychotic disorders. This is, however, probably a growing area of research; for example, Miles, Peters and Kuipers (2007), for example, studied satisfaction with CBT for psychosis and found that the majority of service-users were satisfied with the therapy they received. Sibitz et al. (2007b), on the other hand, studied non-forensic schizophrenia patients' perspectives on what works in psychoeducational groups. They postulate that participants particularly emphasize the information received, exchanging information with other patients, and learning that they are not alone in their situation as positive experiences in group psychoeducation. Patients' experience of benefiting from psychoeducation by reflecting the new information about illness and life was also found. Illness management programs adopting a recovery orientation have shown promising results among schizophrenia patients as empowering the participants and helping them to take control over their illness and achieving personally important goals (Mueser et al., 2006). Kilkku et al. (2003), for example, found in studying the meaning of information-giving to patients with first-episode psychosis that sharing one's difficult experiences can reduce the feeling of isolation and enhance the sense of belonging, but can also be emotionally difficult for the patients.

The effectiveness of group psychoeducational interventions for forensic schizophrenia patients has been reported by Jennings, Harris, Gregoire, Merrin, Peyton and Bray (2002), who observed a positive impact in brief patient group psychoeducation for these patients on knowledge, attitudes toward medication, and insight. A more recent study using statistical tests by Vallentine et al. (2010) examining the effects of group psychoeducation among forensic patients with psychotic disorders found no significant changes in clinical outcomes and self-esteem. On the other hand, the results still indicated that psychoeducational group work for offender patients with psychiatric disorders helped patients to engage in further psychological work considering their situation.

# *4 Theoretical approaches*

## **4.1 COGNITIVE THEORY AND STRESS-VULNERABILITY MODEL OF SCHIZOPHRENIA**

Schizophrenic disorders are nowadays usually understood from the perspective of the stress-vulnerability model of mental disorders, and consequently in the treatment of schizophrenia a fundamental aim is to reduce vulnerability to life stress and chronic symptom recurrence (see Nuechterlein & Dawson, 1984). Psychoeducational programs, also in the present study, use the stress-vulnerability model as the basis for information-giving.

The course of schizophrenic disorders is likely to be a product of a number of different influences that can be broadly separated into vulnerability, stressor, and protective factors. Schizophrenia is seen to involve a psychobiological vulnerability (dopaminergic dysfunctions, reduced available processing resources, autonomic hyperactivity, schizotypal personality traits), and stressors (for example, life events, social environmental stress) which are seen as factors that interact with pre-existing vulnerability characteristics and produce psychotic episodes. Personal protective factors, on the other hand, include coping and self-efficacy, antipsychotic medication, environmental protectors, effective family problem-solving and supportive psychosocial interventions. In this model of schizophrenic relapse and illness course, increases in either vulnerability factors or environmental stressors or decreases in protective factors are viewed as possible sources of movement from remitted to prodromal states of psychosis. (Nuechterlein & Dawson, 1984; Nuechterlein et al., 1994.)

Zubin and Spring (1977) have emphasized the episodic nature of schizophrenic disorders and the fact that the primary persistent characteristic of the person with schizophrenia is his/her vulnerability, not the disorder. According to Zubin (1980), as long as the stress seen to cause the psychotic episodes in vulnerable persons is below the threshold of vulnerability, the individual responds to the stressor with a minor crisis and remains well within the limits of normality, his/her coping ability remains intact. When the stress exceeds the threshold, the coping style collapses and he/she is likely to develop a major crisis, followed by a time-limited psychopathological psychotic episode. Some people are highly vulnerable and have repeated psychotic episodes, while others are relatively invulnerable and have but one brief episode or none at all. Psychological interventions are seen as beneficial, as they might be applied to restore coping ability or reduce the threatening nature of life events and decrease stress that produced the breakdown. (Zubin, 1980.)

Cognitive-behavioral therapy for psychosis draws on the cognitive models and cognitive therapy approach of Beck, Rush, Shaw and Emery (1979) and a number of different theoretical models and hypotheses have provided the theoretical basis for CBT for psychosis. In general, psychoses are viewed as heterogeneous and multifactorial and

best understood within a biopsychosocial framework and the stress-vulnerability models of psychosis, where it is assumed that there are different degrees to which biological vulnerability, psychological processes, and the social environment contribute in the individual case to the expression of psychosis (Garety, Fowler & Kuipers, 2000). Important treatments include medication to reduce biological vulnerability, minimization of substance misuse and environmental stress, enhancement of patients' coping skills and social support (Mueser & McGurk, 2004). According to Beck and Rector (2000), the theoretical analysis of schizophrenia is based on cognitive theory, and the model integrates the complex interaction of predisposing neurobiological, environmental, cognitive, and behavioral factors with the diverse symptomatology. Authors postulate that schizophrenia may be viewed as an outcome of the cycling interaction of neurocognitive deficits, stressful environmental events, and resultant dysfunctional beliefs and interpretations. Cognitive-behavioral therapy attempts to achieve a reduction of symptoms, reduction of relapse, and enhanced functional capacity by providing rational perspectives on the patient's experience of disease symptoms and responses to them, can improve coping and reduce distress and negative effects associated with psychotic symptoms among patients with schizophrenia (van Os & Kapur, 2009). The conceptualization creates a context for targeted psychological treatments, since although cognitive behavioral therapy may not affect basic neurocognitive problems, it can modify the dysfunctional beliefs that can contribute to the physiological stress and exacerbations of neurocognitive deficits (Beck & Rector, 2000). The vulnerability-stress approach can also be used to ameliorate hopelessness and helplessness by challenging distortions about psychosis, and challenging the catastrophic view of psychosis and the sense of unpredictability, i.e. the notion that psychosis can recur at any time without warning (Henry, 2004).

#### **4.2 PSYCHIATRIC REHABILITATION AND RECOVERY ORIENTATION**

The purpose of the brief group intervention developed and examined in my thesis was to provide a feasible, effective component into the treatment of forensic patients with schizophrenia. Because the severity of the illness, the patients' full recovery or cure from illness may not be a realistic goal, and the treatment and rehabilitation of these patients is a long process requiring comprehensive treatment in many areas of functioning. Hospital commitments are also usually several years long, which emphasize the rehabilitative nature of the treatment. Therefore the paradigms of psychiatric rehabilitation and recovery were adopted in the theoretical, philosophical and practical bases of my thesis. These two orientations share similarities in underlying philosophy of care, sharing also many overlapping central concepts, goal and aims. Both rehabilitation and recovery can be defined as hopeful processes where people with mental illnesses are able to achieve their life goals despite the presence of continuing challenges brought about by mental illness. Several aims and strategies of these models are essential and thus adopted as the basis of the present study and intervention.

Recovery orientation to psychiatric illnesses has only rarely been adopted as an orientation or approach to research and care in forensic psychiatry (see for example

Barsky & West, 2007). It has been though emphasized, that forensic services must also understand and incorporate recovery as a philosophy of care in forensic contexts (Skipworth & Humberstone, 2002). Skipworth and Humberstone (2002) have emphasized that adopting a philosophy of prevention of violence as its guiding mandate is not necessary, as a service that makes the individual's recovery a priority can address risk management and criminogenic needs in a comprehensive manner, in order to deliver care based on individual risk management and rehabilitation plans. Most forensic patients themselves view their involuntary treatment as a punishment, and a major task for forensic treatment will be to attack the idea of penance through serving time (Lindqvist & Skipworth, 2000). Lindqvist and Skipworth (2000) emphasize that since the purpose of hospitalization is secondary prevention, to treat the psychiatric illness and control it to prevent rehospitalizations, within this perspective forensic psychiatric rehabilitation should have the ultimate goal of forming a realistic, productive and hopeful future for these patients.

Corrigan (2003) has presented a structural model of psychiatric rehabilitation and defined it as a multi-faceted and complex enterprise for people challenged by psychiatric disabilities and related problems aiming at recoveries by these patients. One of the primary goals of psychiatric rehabilitation is to help patients recover, overcome deficits and control symptoms, help people to achieve their personal goals by teaching interpersonal and coping skills, and to learn to accept the boundaries of illness despite boundaries to living meaningful lives. The goals that comprise psychiatric rehabilitation can be defined as inclusion, opportunity, independence, empowerment, recovery, and quality of life (Corrigan, 2003).

Corrigan (2003) also emphasizes that goals of rehabilitation are important even in fairly restrictive environments like psychiatric hospitals, where several rehabilitative interventions, for example, promotion of social support that helps patients challenge the sense of shame they might be feeling from being hospitalized, can serve the goals of rehabilitation. According to Bachrach (1992), the central goal of psychosocial rehabilitation is to enable an individual suffering from long-term mental illness to develop to the fullest extent of his or her capacities, and where one prime objective is to promote hope in individuals who have suffered major setbacks in functional capacity and self-esteem.

The recovery model of schizophrenia, on the other hand, has increasingly become a focus in mainstream psychiatry and the model is influencing service development around the world. It is also a widely discussed concept in the field of research, treatment, and public policy regarding schizophrenia, although the scientific basis of the concept is still lacking (Silverstein & Bellack, 2008). In this model, the entire concept of recovery is quite diffuse and does not only relate to symptom remission, which has often been a criterion for recovery. The roots of the model are in both the user/consumer movement and professional rehabilitation initiatives (Warner, 2009). Jacobson and Greenley (2001) emphasize the importance of remembering that recovery is not synonymous with cure and its endpoint, which is not necessarily a return to "normal" health and functioning. The authors define recovery as a process of healing with two main components: defining self apart from illness, which is related to the sense of self-esteem and self-respect, and

control, finding ways to relieve the symptoms of the illness or reduce the social and psychological effects of stress. According to Warner (2009) the conceptual recovery model of mental illness refers to subjective experiences of optimism, empowerment and interpersonal support, where the focus is on collaborative treatment approaches, finding productive roles for users, emphasizing, for example, peer support and fighting the stigma of mental illness as attempts to reduce the internalized stigma of mental illness should enhance the recovery process and educate users about illness management. In regard to group psychoeducation, the components that recovery-oriented programs and interventions for mental illness may include are, for example, a climate of hope, participation, self-determination/choice, empowerment, recovery as an expectation, and provision of ongoing psychiatric care, respect interventions in different stages of illness, and ongoing education and support (see Spaniol, 2008). According to Gibson (1991), empowerment can be defined as a social process of recognizing, promoting and enhancing people's abilities to meet their own needs, solving their own problems and mobilizing the necessary resources in order to feel in control of their own lives, including the concepts as self-determination, self-efficacy, sense of control, motivation, self-development, learning, growth, sense of mastery, sense of connectedness, improved quality of life, better health, and a sense of social justice.

One of the main principles of the recovery paradigm is that people with serious mental illnesses are best served by being educated about the nature of mental illness and the treatment interventions available to them so that they can make more fully informed choices (Davidson, 2010). Access to appropriate mental health services, including education, will provide consumers with knowledge, skills and strategies that can help them relieve symptoms and control the effects of stress (Jacobson & Greenley, 2001). As recovery is considered to be contingent on the stabilization of the symptoms of schizophrenia and the acquisition of skills needed to function in society, psychosocial interventions can thus be effective in helping to prevent symptom relapse and promote functional recovery for patients with schizophrenia (Schooler, 2006).

Interventions in psychiatric settings can serve as goals aiming at persons with psychiatric illness to recover, for example, by providing social and instrumental support, learning and practicing coping strategies to manage one's illness and achieving individual goals, and supporting the self-efficacy and self-esteem of the patients (Corrigan, 2003; Mueser et al., 2002; Mueser et al., 2006). Recovery can also be conceptualized as an attitude or life orientation (Resnick, Fontana, Lehman & Rosenheck, 2005). Although mentally disordered offenders are often treated differently than other patients and may have limited recovery opportunities (see Porporino & Motiuk, 1995), illness management programs in non-forensic contexts that have adopted a recovery orientation have shown promising results among schizophrenia patients as empowering the participants and helping them to take control of their illness, and achieve personally important goals (Mueser et al., 2006). For example, the Anderson et al. (2001) brief psychoeducational group therapy program for dually diagnosed patients in inpatient and residential settings adopted a recovery oriented approach to the illness. Snyder et al. (2000), on the other hand, have studied the role of hope in CBT and have suggested that the process of catalyzing and maintaining hope appears to play a role in successful CBT

interventions, and conclude that hope theory can offer a valuable framework for understanding common factors in behavior therapies.

The present study thus adopted the view that rehabilitation and recovery from psychiatric illness are processes of regaining control and living satisfying lives despite the illness, where wellness can be experienced in spite of symptoms, and at any point in the process of recovery (Anthony, 1993; Deegan, 1996; Hutchinson et al., 2006; Kelly & Gamble, 2005; Mullen, 1986; Spaniol et al., 2002). The main benefits of this model in respect to the present study are in its positive attitude toward treatment and its aim of empowering patients to take care of themselves. Several concepts of the model; hope, self-care, education, and the emphasis on self-esteem, inclusion, social support, participation, and recovery, can be considered as the main concepts in patient psychoeducation for schizophrenia (see Spaniol, 2008).

The feeling of having no control over one's illness can cause hopelessness and eventually lead the individual to abandon responsibility and active coping strategies; this has a significant role in the efficacy of treatment and rehabilitation, and the long-term course and outcome of schizophrenia (Birchwood et al., 1993; Deegan, 1996; Hoffmann et al., 2000). Hopelessness has been identified as a predictor of suicidality in patients with schizophrenia (Kim et al., 2003). It is important to validate patients' coping strategies, experience, and help people with problem-solving, illness management and self-management (Kirkpatrick et al., 1995; Snyder et al., 2000). Maintaining and instilling hope is an essential feature in the recovery process of people with severe psychiatric disorders (Byrne et al., 1994; Clayton & Tse, 2003; Coleman, 1999; Czuchta & Johnson, 1998; Kelly & Gamble, 2005; Kirkpatrick et al. 1995; Kylmä, Juvakka, Nikkonen, Korhonen & Isohanni, 2006; McCann, 2002). Hope, positive expectations and optimism are seen as important adjuncts to evidence-based practices (Spaniol, 2008). Carroll et al. (2004), for example, studied the relationship between insight and hopelessness among forensic patients with schizophrenia and found that awareness of illness, but not compliance, correlated positively with the level of hopelessness, as a higher level of awareness of having a mental illness was related to feeling more hopeless about the future. Authors concluded that among forensic patients this connection may be more marked due to the burden of guilt about offending and an awareness of possibly prolonged institutional detention. They therefore suggest careful, measured approaches when conducting psychoeducational interventions for long-stay offender patients.

#### **4.3 ANTONOVSKY'S SENCE OF COHERENCE THEORY (SOC)**

Landsverk and Kane (1998) have pointed out that the processes resulting in an effective outcome in psychoeducation still remain unknown and therefore have demonstrated the Sense of Coherence Theory developed by Antonovsky (1979, 1987) as a useful and promising framework for conceptualizing the effectiveness of comprehensive psychoeducational programs. Authors also recommend that psychoeducation programs should be aimed to chronically ill schizophrenia patients in institutional settings, since in this context intentionally modified changes in SOC may be possible. Authors propose that an effective psychoeducational model encompass all three components contributing

to SOC, and this way psychoeducation works is in maintaining and enhancing the individual's sense of coherence.

According to Antonovsky (1987), during their lives individuals move back and forth on a health-disease continuum, calling this orientation the salutogenic model of health; of major importance in determining one's relative position on this continuum is the individual's Sense of Coherence (SOC). The sense of coherence construct relates to how individuals assess and cope with stressful situations; the good management of stressors, explained by Antonovsky, is salutogenesis. The three elements of the SOC are: (1) comprehensibility – which refers to the cognitive controllability of one's environment, that the world is interpreted as rational understandable, structured, ordered, consistent and predictable, and (2) manageability - the extent to which one perceives that one has personal access to adequate resources for coping with challenges, demands or problems in the environment and (3) meaningfulness - the subjective feeling that life makes sense and that at least some parts of our life are worthy of commitment and engagement. Meaningfulness can also be considered as an emotional component of the SOC. (Antonovsky, 1987.)

The compatibility of the SOC theory with psychoeducation and the treatment of schizophrenia concerns the relationships between stress, health and coping and, on the other hand, schizophrenic disorders are nowadays usually understood on the basis of the vulnerability/stress model of mental disorders. Bergstein, Weizman and Solomon (2008) have recently studied the sense of coherence among delusional patients, and concluded that particularly in the treatment of delusional patients it is necessary to adopt an integrative biopsychosocial treatment approach including interventions aimed at enhancing elements of the patients' sense of coherence during periods of remission.

Bengtsson-Tops and Hansson (2001) have previously studied sense of coherence among outpatients with schizophrenia and found that the construct is positively related to mastery, self-esteem and social support but negatively associated with psychopathology. The authors suggest that as changes in the SOC of patients in their study were positively correlated to changes in overall subjective quality of life, general health, global wellbeing, and global psychosocial functioning, the focus in treatment interventions should be towards the patients' cognitive disabilities aimed at the patients' better comprehension of their environment as predictable, structured and consistent. Targeting treatment at the individual's mastery, self-esteem, and social support could increase manageability for the patient, and activities which have a sufficient level of challenge could enhance meaningfulness. It has also been postulated that a comprehensive psychoeducational program could work as coping resource and help the participants to build on their existing strengths and encourage a sense of hope for recovering a new sense of self (Landsverk & Kane, 1998; Menzies, 2000).

SOC theory is used in my thesis as a theoretical tool in the analysis of study II, and comprehensibility, manageability and meaningfulness proved to be useful concepts for understanding the experienced benefits of the patients; it was also chosen as an outcome for the experimental trial, but the questionnaire appeared to be too difficult for some patients with cognitive problems. Still, the idea of salutogenesis is also highly relevant in this context, and the goals of the intervention are not to find a cure for the illness, but to

improve the patients' situation and move closer towards a positive end of the health-disease continuum. This idea is also comparable to the view that rehabilitation and recovery from psychiatric illness are processes regaining control and living satisfying lives despite the illness, where wellness can be experienced in spite of symptoms, moving toward recovery, and at any point of the recovery process (Anthony, 1993; Deegan, 1996; Hutchinson et al., 2006; Kelly & Gamble, 2005; Mullen, 1986; Spaniol et al., 2002).

#### **4.4 PATIENT PERSPECTIVE AND SELF-DETERMINATION**

User involvement and participation in decision-making have increasingly been accepted as an indicator of good practice in mental health care. The growth of consumerism and the self-help movement has alerted people to take responsibility for their own health, and customer satisfaction surveys to assess the views of service-users have increasingly been conducted to evaluate the quality of care (Hickey & Kipping, 1998; Rankin & Stallings, 1990). Listening to and assessing consumers' experiences is also an important step in evaluating current interventions, refining them and making them more responsive, and developing new ones (Hickey & Kipping, 1998; Silverstein & Bellack, 2008).

In forensic settings patient satisfaction has only been studied since the 1990s and it has been acknowledged that we know very little about patients' experiences or satisfaction with the services (see Coffey, 2006, for review). Carlin, Gudjonsson and Yates (2005) have studied user satisfaction with services in forensic psychiatry and reported high overall satisfaction among forensic patients. Studies examining the motives of mentally ill offenders to participate in or their satisfaction with specific psychosocial treatment forms is clearly lacking, and thus patient satisfaction with psychoeducation for such patients with schizophrenia has not previously been reported.

In the present study, the patient perspective was adopted not just solely because the aim of the study was also to investigate the effective factors that produce results in group, but because the psychoeducational approach shares many principles that are essential to patients for self-determination. All individuals have an innate need for self-determination, and irrespective of the nature or severity of the illness, all people are entitled to it since it is an important aspect of their quality of life (McCann & Clark, 2004). Johansson and Lundman (2002) have emphasized that patients who are involuntary committed to psychiatric treatment are extremely vulnerable due to their control by others, and the personal limitations caused by a psychiatric illness that can influence the control of their own lives, but this is seldom considered in regard to their experiences of being cared for. Välimäki (1998) emphasizes that it is perfectly legitimate to refer to self-determination even in the case of dependent and incompetent psychiatric patients, even though this is a very vulnerable sort of self-determination that can be easily restricted. McCann and Clark (2004) have postulated that also patients with schizophrenia need to understand what is happening to them; they want a diagnosis, and patients must be educated about how to deal with the illness-related issues that confront them to be better equipped to take control of their lives; otherwise these issues will control their lives, if education is to be consistent with the psychological need for competence. Clafferty, McCabe and Brown (2000, 2001) have emphasized that professionals need greater

openness about the diagnosis of schizophrenia, as it may be an essential first step in reducing the stigma of the illness. If the patient is not informed about their diagnosis and treatment, above all it reverts to a time of medical paternalism, and may also alarm patients, since avoiding discussion of the diagnosis may only heighten patient's anxieties; in many cases they can have an idea of what the symptoms indicate. The authors also conclude that not telling patients about their diagnosed schizophrenia forces them to discover what their situation alone and can sometimes lead to inappropriate ways of seeking more information.

To strengthen the self-determination of mental patients within the health care system, the usually neglected voices of patients themselves, who generally have little opportunity to achieve control and make choices over their personal life, have to be heard (Välimäki, 1998). Kuosmanen (2009) recently studied personal liberty in psychiatric care from a service-user involvement perspective and found that although patients were quite satisfied, they reported dissatisfaction in restrictions, compulsory care and information dissemination, and therefore concluded that one area where service-user involvement in psychiatric care could be improved is focusing on patients' access to information with tailored and innovative education methods. Author recommends, for example, the usage of information technology applications in delivering patient education in inpatient psychiatric care, and to offer structured patient education, especially for male patients.

Satisfaction with received services is seen to be strongly related to the effectiveness and outcome of care and patients' willingness to be and remain engaged in their treatment (Avis, Bond & Arthur, 1995; Björkman & Hansson, 2001; Chue, 2006; Lambert & Naber, 2004; Priebe & Bröker, 1999; Wykes & Carroll, 1993), and therefore to symptomatic and functional outcomes (Lambert & Naber, 2004). Previous findings indicate that in mental healthcare good patient-clinician communication is related to better treatment satisfaction (McCabe & Priebe, 2004; Priebe et al., 2007). A high level of patient satisfaction is reported across many studies in the field of medical and psychiatric care, but criticism of the methodology of these studies, particularly the use of quantitative methods, has appeared. It has been suggested that this high level of satisfaction may be largely due to the effect of social desirability, patient expectations, the effect of the passive patient role, patients' confidence in the ability of health professionals, patients' possible reluctance or fears of expressing criticism, and issues related to the fact that when respondents feel that effort has been expended on their behalf, they do not want to express dissatisfaction or feel they have a duty to give positive feedback (see for example Avis et al., 1995; Baker, 2003; Barker, Shergill, Higginson & Orrell, 1996; Greenwood, Key, Burns, Bristow & Sedgwick, 1999; Linder-Pelz, 1982; Williams & Wilkinson, 1995; Williams, Coyle & Healy, 1998; Wykes & Carroll, 1993). Psychoeducation and obtaining new information has also been associated with patient satisfaction in general (Barak et al., 2001; Bikker & Thompson, 2006). Dissatisfaction with in-patient psychiatric services in the past chiefly been associated with involuntary treatment (Greenwood et al., 1999), a diagnosis of schizophrenia or other psychotic disorder (Perreault, Rogers, Leichner & Sabourin, 1996), longer duration of hospitalization (Priebe & Bröker, 1999), and feelings of isolation and failure to be treated as individuals (MacDonald, Sibbald & Hoare, 1988). Schizophrenia patients in forensic psychiatry are also often hospitalized for many years

and, as Morrison and Burnard (1996) have argued, one significant reason for forensic patients' dissatisfaction with care can be pure boredom.

Qualitative approaches are therefore recommended in evaluating patient satisfaction, since these qualitative methods can add to the quantitative outcomes, and quantitative methods may underestimate the dissatisfaction of many patients (Avis, Bond & Arthur, 1997; Crawford & Kessel, 1999; Greenwood et al. 1999; Mason, Tovey & Long, 2002; Rogers et al., 2003; Sibitz et al., 2007b; Svensson & Hansson, 2006; Williams et al., 1998). A common finding in previous satisfaction studies has also been the fact that the use of qualitative approaches is a better way of understanding the experiences of patients and enriches the analysis of satisfaction research among psychiatric patients more than quantitative methods do (Greenwood et al. 1999; Svensson & Hansson, 2006).



# 5 Method

## 5.1 SERVICE SETTING

Niuvanniemi Hospital in Kuopio is a state mental hospital offering treatment to both forensic patients and difficult-to-treat and/or dangerous patients with mental disorders. Forensic patients are patients who have committed a criminal offence, but their sentences have been waived. Thus, after mental examination these persons have found to lack criminal responsibility during the offence they were charged with due to their mental illness and thus committed to involuntary psychiatric treatment (Mental Health Act, Section 8, 1990). Difficult to-treat and/or dangerous patients are patients who have at the request of hospital districts been admitted to the hospital because their treatment is particularly dangerous or difficult (Mental Health Act, Section 6, 1990). At the end of 2006 there were 282 adult patients at the hospital, 163 of whom were long-term forensic patients (58%). 113 (40%) were difficult-to-treat and/or dangerous patients. Six patients (2%) were in the hospital for mental examinations. Patients at Niuvanniemi Hospital have usually undergone several previous hospitalizations: for forensic patients an average of nine treatments, dangerous and difficult-to-treat patients on average 10. At the end of December 2006, the average duration of treatment given to forensic patients still hospitalized at Niuvanniemi was 10 years 1 month (at the end of December 2001, the average duration of treatment undergone by the forensic patients was 7 years 10 months, by non-forensic patients 4 years 2 months). During this decade the actual average treatment time in state mental hospitals in Finland have varied between 4 and 8 years (Eronen, Repo, Tiihonen & Vartiainen, 2000). The Finnish law requires the reevaluation of the need for involuntary treatment at six-month interval, but it does not put any limit on the duration of the treatment (see Eronen et al., 2000).

## 5.2 PARTICIPANTS

### 5.2.1 Studies I & II

The pilot study group in 2001 (study 1) consisted of male mentally ill offenders and difficult-to-treat and/or dangerous patients with schizophrenia at Niuvanniemi Hospital. The intervention was conducted in an intervention versus control group setting. All patients were committed to involuntary treatment by the National Authority of Medicolegal Affairs, and detained under the Mental Health Act (1990). At the beginning of selection of the intervention group staff at the ward evaluated the patients who met the *DSM-IV* criteria (American Psychiatric Association, 1994) for a primary diagnosis of schizophrenia or schizoaffective disorder. Patients with organic brain syndrome were excluded from the study. All of the patients were currently taking antipsychotic medication, mostly clozapine. Patients whose psychiatric condition was sufficiently stable were then recommended for a psychological interview, where information about

the study group was given to each patient. Eight of the 11 patients that were interviewed signed written contracts of informed consent indicating their willingness to participate. One participant had to leave the group in the early phase of the intervention owing to a move to another ward, and was eventually excluded from the study. Thus, the final sample in the intervention group consisted of seven patients, of whom four were forensic patients and the remaining three were difficult-to-treat and/or dangerous patients. The mean age in the intervention group was 40.4 years (SD 6.2). At the time of pilot intervention they had been continuously hospitalized at Niuvanniemi Hospital on an average of over seven years. Five patients in the intervention group had a comorbid diagnosis of substance abuse (alcohol or psychoactive drugs), and three participants had a comorbid personality disorder. The control group, consisting of eight male patients from another ward, was matched with the intervention group in terms of age, main and secondary diagnoses, current score on the Global Assessment of Functioning (GAF) Scale (mean GAF in the intervention group 36.1, SD 7.9, mean in the control group 39.4, SD 5.8), and patient statuses. Half of the group, four patients, were forensic patients, and four were difficult-to-treat and/or dangerous patients. Six patients in the control group had a comorbid substance abuse disorder, and three patients were diagnosed as suffering from a comorbid personality disorder.

Participants in the long-term follow-up interviews conducted in 2005 (study II) included four male forensic patients and two difficult-to-treat and/or dangerous non-forensic long-term patients, who had attended the psychoeducation pilot group four years earlier. Five of the seven patients who initially participated in the pilot intervention were still hospitalized at Niuvanniemi Hospital, and two were treated in psychiatric rehabilitation homes. One participant who was no longer hospitalized at Niuvanniemi Hospital was not allowed to be interviewed due to his psychiatric state at that time. The mean age of the group that was interviewed was now 39.2 years (SD 5.8 years). Three patients had a primary diagnosis of undifferentiated schizophrenia, one patient for other schizophrenia, and two patients hebephrenic schizophrenia. For three forensic patients the main category of offence was attempted homicide and for one aggravated robbery. Two persons were aggressive and violent difficult-to-treat patients. All patients had some comorbid diagnoses in addition to their primary diagnosis of schizophrenia. One patient in the sample did not have any substance abuse disorder but had a comorbid personality disorder. Two patients were dependent on multiple drugs but had no personality disorder. Three remaining patients had an alcohol dependence and also some personality disorder as comorbid diagnoses.

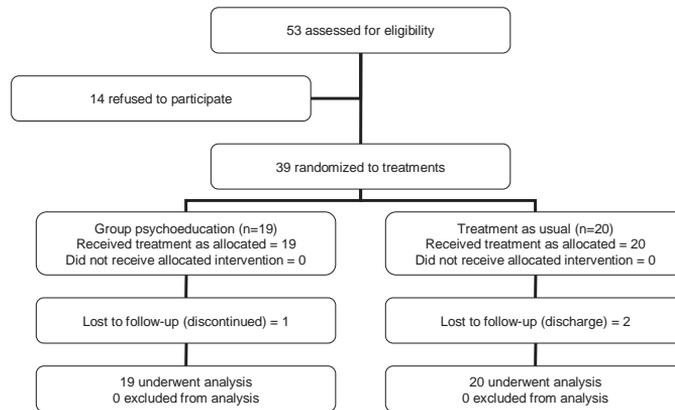
### **5.2.2 Studies III & IV**

All forensic patients from the Niuvanniemi Hospital with a primary diagnosis of schizophrenia, who had not previously attended psychoeducational groups, were candidates for inclusion in the exploratory RCT study (study III) and related study concerning participants' motives, initial expectations, and satisfaction with the intervention (study IV). Recruitment was organized by an experienced clinical psychologist at the beginning of 2006. Selection criteria for the study were as follows: 1) *DSM-IV* criteria for a primary diagnosis of schizophrenia or schizoaffective disorder

(American Psychiatric Association, 1994), and 2) forensic patient status. Exclusion criteria were: 1) evidence of organic brain syndrome, 2) primary diagnosis of delusional disorder, and 3) earlier participation in a psychoeducational group. Because many of the potential patients were excluded from the study due to prior participation in psychoeducation groups, all possible remaining patients, also highly symptomatic (mean GAF in the whole sample was 28.8, SD 4.8), were considered for inclusion.

The flow of participants through each stage of the study is presented in the Figure 1. Initially, a total of 53 patients were interviewed and asked to participate in the groups; they came from the most secure units of the hospital as well. Fourteen patients (26.4%) refused to take part. Most participants had a primary diagnosis of schizophrenia, one a schizoaffective disorder. The most common primary diagnosis in the sample was paranoid schizophrenia (51%) or undifferentiated schizophrenia (33%). All patients were committed to involuntary treatment by the National Authority of Medicolegal Affairs, and detained under the Mental Health Act (1990). Participants were on average 40 years old (mean age 39.6 years, SD 11.4, range 21-70 years) and most had a long history of illness, an average of 15 years (mean duration of illness 15.0 years, SD 8.9, range 1-34 years). The mean age at the onset of the illness was 23.6 years (SD 7.2 years, range 14-49 years). The mean education in years in the sample was 9.4 years (SD 3.2 years, range 0-15.0 years). Only 5.1% percent of the sample had no previous hospitalizations before the current admission; on average the total mean duration of previous hospitalizations in the sample was 1.8 years (SD 2.1 years, range 0-8.6 years). The mean duration of the current admission in the whole sample was also long, almost seven years (mean 6.8 years, SD 6.2, range 0.3-21.4 years). The main offences were homicide (44%) or attempted homicide (18%); other offences were aggravated assault (13%), willful damage (13%), robbery (8%), arson (2%), and theft (2%). The participants were mainly male, only four were female. In the last ten years the average number of female patients at Niuvanniemi Hospital varied been 10-11%, so the sample can be considered as representative of the population of the site. Over half of the sample, 53.8%, had some substance abuse disorder as a comorbid diagnosis. 28.2% of the sample had some personality disorder diagnosis as a comorbid condition. Cognitive problems and deficits were also common; according to mental examination reports only 11 patients were reported to lack any significant cognitive problems at the time of their examination. Of the remaining 28 patients 12 patients were reported as having a mild intellectual disability, and four others were said to have suffered from significant cognitive decline from their premorbid intellectual functioning. One participant had learning disabilities, and the remaining 11 had some significant schizophrenia-related problems in cognition (memory, attention, executive functioning). Five of the patients in the sample required some form of seclusion at ward level due to their symptomatology. At baseline, the intervention and the TAU groups were not statistically different on any of these variables, although the number of patients with comorbid substance abuse disorder was somewhat higher in the control group ( $p = 0.06$ ).

Figure 1. Patient flow diagram (study III)



## 5.3 GROUP PSYCHOEDUCATION INTERVENTION AND PROCEDURE

Table 2. Topics, contents and aims of each session in the psychoeducation intervention

	Contents of the group session	Main aims of the session
1. Orientation.	Introduction of group, members and group leaders. Description of group style, purpose and goals. Solicitation of patients' questions, asking of patients' expectations of the group. Specification of group ground rules. Pregooup assessment.	Introduction of group experience Grouping Improvement of motivation
2. What is schizophrenia? Symptoms of schizophrenia.	Information about what schizophrenia is and is not. Decryption of main symptoms of schizophrenia.	Provision of information and answering of questions Destigmatization, normalization Hope promotion
3. Diagnosis. Epidemiology of schizophrenia. Course of illness.	Information about diagnosis and epidemiology of schizophrenia. Description of possible alternatives in the course of the illness.	Provision of information and answering of questions Destigmatization, normalization Hope promotion
4. Causes and outcome of schizophrenia. Recurrent symptoms.	Information about different theories concerning the causes and outcomes of schizophrenia. Explanation of recurrent symptoms and how people can manage them better.	Provision of information and answering of questions Destigmatization, normalization Hope promotion Teaching how to cope with recurrent symptoms of schizophrenia
5. Stress-vulnerability model, influence of stress. Warning signs of relapse. Alcohol and street drugs.	Careful explanation of the stress-vulnerability model and influence of stress in schizophrenia. Information about the warning signs of relapse. Information about alcohol and street drugs as stressors.	Provision of information and answering of questions Destigmatization, normalization Hope promotion Teaching the stress-vulnerability model of illness and ways of detecting one's own early warning signs. Teaching how to act when warning signs emerge. Facilitation of participants' own activity in their treatment.
6. Antipsychotic medication, effects and side-effects.	Information about antipsychotic medication, effects and side-effects. "Cost-benefit" –analysis of taking medication.	Provision of information and answering of questions Destigmatization, normalization Hope promotion Orientating to the "cost-benefit" –analysis of taking medication.
7. Psychosocial treatment of schizophrenia. Legal issues.	Information about different psychosocial treatment alternatives in schizophrenia. Information about legal issues (Mental Health Act, involuntary treatment etc.).	Provision of information and answering of questions Destigmatization, normalization Hope promotion Facilitating recovery orientation
8. Summary.	Summary of the main contents of the group and group experience. Stories about persons who have recovered or have been able to live satisfying lives despite the illness.	Summarizing the main contents of the group. Destigmatization, normalization Hope promotion Facilitating recovery orientation Orientation to the future.

The group psychoeducation program studied is a modification of Ascher-Svanum and Krause's (1991) *"Psychoeducational Groups for Patients with Schizophrenia"*, based on the stress-vulnerability model of schizophrenia. I translated the work into Finnish and made the modifications to the program in 2001 as a part of my master's thesis. The modifications included placing special emphasis on topics essential in the treatment of forensic patients (e.g. alcohol and drug abuse) and updating the information about schizophrenia. The didactic information follows the Finnish Schizophrenia Practice Guideline (2001, 2008). Educational material from Wienberg, Schünemann-Wurmthaler and Siburn's (2003) psychoeducational program *"Schizophrenia zum Thema machen – Psychoedulative Gruppenarbeit mit schizophoren und schizoaffektiv erkrankten Menschen/PEGASUS"*, was also utilized. The information was developed for delivery in a nonthreatening, nonconfrontational way (Harmon & Tratnack, 1992).

In addition to providing didactic information, the intervention contains cognitive-behavioral elements and participants are, for example, assigned homework between group sessions. A normalizing rationale for explaining symptom emergence in schizophrenia is used and symptoms of mental disorders are explained as existing on continua with normality (Bentall, 2003; Kingdon & Turkington, 1994; Turkington & Kingdon, 1996). The patients' possible cognitive deficits are taken into account, and each session includes educational techniques designed to maintain their attention and enhance learning. Because psychoeducation is aimed also at contributing to patients' self-esteem and hope (Goldman & Quinn, 1988), hope promoting strategies are emphasized (Turner & Stokes, 2006), and sharing one's thoughts and group discussion in every session are encouraged. Group rules (confidentiality and the promise to refrain from relating what other participants have shared outside the group, the opportunity to just listen without attending the discussion, mutual respect and regular attendance) are created to support the structure of the group and help in building an atmosphere of confidence and sharing for the participants. A good therapeutic alliance is emphasized, as it is often an essential factor in psychoeducational groups for patients with intellectual disabilities (see Pitschel-Walz et al., 2009). The aim is also to empower participants with information (McGorry, 1995); therefore medical analogies are used to explain and attempt to normalize mental illness, and according to the recovery orientation it should be noted that the illness is treatable, as, for example, McCann and Clark (2004) have recommended. Topics covered, contents, and aims of each session are presented in Table 2.

## **5.4 STUDY DESIGN**

The pilot intervention in 2001 was conducted by means of an intervention versus matched pairs control group quasi-experimental design. In the pilot study the intervention group participated in an eight-session once-weekly intervention. The group sessions were conducted by myself with an experienced clinical psychologist utilizing the leader manual. Evaluations for the whole sample were administered by an independent expert psychologist before the intervention group attended the first session and after the

last group session. The control group received the usual treatment provided in forensic psychiatry.

Years after the pilot intervention, in 2005, it was decided that more evidence of the effects of the group psychoeducation program was needed. Experiences of the intervention had been collected during the years at Niuvanniemi Hospital, as the staff had used the written material used in groups in therapeutic relationships, and more groups had been conducted after the pilot intervention. To gather the experiences of the patients that had attended the pilot intervention, all those patients who were accessible were interviewed; there were no refusals. Most of the patients were still hospitalized at Niuvanniemi. It was furthered decided that a randomized, controlled trial would be conducted in 2006 due to the positive indications of the pilot study; a justification for the study can also be found in the patient interviews. Patients' experiences and feedback was then taken into account while planning the experimental study design and training of the staff, who had volunteered to act as group leaders in the study.

In 2006 the effects of the intervention were then investigated with an exploratory RCT. Participants who met the criteria and consented to participate were randomized to receive either group psychoeducation or treatment as usual (TAU). At baseline, a total of 39 patients were randomized to either intervention or control group: 19 in the group psychoeducation experimental group and 20 in the control group. The randomization procedure was carried out independently from the trial using blocked randomization, stratifying the groups by sex, GAF score, and by four patients evaluated by the staff as extremely challenging (considerable problems with cognitive functioning, or psychiatric symptomatology requiring some form of seclusion in the ward), as stratification ensures treatment balance between these prognostic factors (see Beller, Gebski & Keech, 2002). All patients were interviewed and assessed at baseline, post-treatment and a three-month follow-up stage. Randomization was performed immediately after the baseline assessments. All patients were assessed at the post-treatment stage. Prior to follow-up assessment a total of three patients dropped out: One patient from the experimental group due to a refusal to join the follow-up assessment, and two patients from the control group because of discharge from Niuvanniemi and transfer to community hospitals. All 39 patients who met the criteria for minimum treatment exposure were included in the intent-to-treat analyses carrying forward the last observation for any patient who did not complete the whole study.

Prior to the intervention patients were carefully informed about the aims, contents and style of the group and the research procedures; the final decision to take part in the intervention was given to the patients themselves. They were told that refusing to participate would have no effect on their care and confidentiality was guaranteed. All patients were also told that they were free to withdraw at any time and that would have no bearing on their treatment either. Signed, written informed consent was obtained from all participants (Act on Status and Rights of Patients, 1992). Careful explanation of research and intervention were emphasized as patients with schizophrenia may sometimes have difficulties in sufficiently understanding research consent disclosures.

The group involved eight sessions conducted once weekly. A total of ten groups were conducted with three to eight patients per group. The group size varied greatly due to

practical as well as security-related reasons (patients who were secluded could not leave the ward, and as there were only a few patients from each of the 13 wards, the groups in the most secure wards remained small in size). Sessions were 45-60 minutes long and conducted by two group leaders who worked at Niuvanniemi Hospital (nurses, psychologists, social workers, occupational therapists). Prior to the intervention the group leaders underwent a two-day training period on how to guide psychoeducational groups and utilize the leader manual. Issues related to therapist skills, group dynamics, possible problems encountered with highly symptomatic group participants, and feedback from patients who had attended the group were addressed in the training in addition to how to utilize the manual. Group leaders were also told that they could contact me at any time if there were any problems concerning the groups emerging at any point. Group development when dealing with highly symptomatic patients can differ in several respects from groups composed of better functioning individuals, since the therapist or group leader retains a more central role over the life of the group, affect tolerance is more limited, and some less planned and often minimally addressed terminations can occur (Stone, 1996). It has also been emphasized that although the intervention is manual based, the mastery of specific procedures outlined in the manual, therapists still need to have good nonspecific therapy skills, and treatment effects vary according to the therapist's competence (Chambless & Ollendick, 2001). Treatment fidelity was checked by collecting written reports and questionnaire data from the group leaders concerning educational, skills-related, interactive methods and the contents of each intervention session were verified to guarantee that the sessions were faithful to the treatment intervention. These procedures were aimed at minimizing the differences among the groups. The group leaders not only played an active role in providing information but also in facilitating group discussion in order to encourage the patients to articulate their own opinions and experiences (see Hayes & Gantt, 1992). The attendance rate in the groups was very high: even though there were also patients from the most secure wards of the hospital, most (31/39) attended every session. Five patients attended seven of the eight sessions, and two patients had an attendance rate of 50%. One patient was so severely ill and symptomatic that he had to be secluded most of the time and thus could not attend very often. On the other hand, he did not want to drop out of the study and the written material was delivered to him after the sessions he had missed. In RCT designs patients frequently do not receive the randomly allocated treatment, or receive a variable amount of treatment. In the present study all the patients who were randomized to the intervention group participated in it, which can be considered a good result in this sample (see Dunn, 2005).

Treatment methods at Niuvanniemi include pharmacological treatment, personal treatment relationship with a nurse, occupational and functional therapy, community treatment at the ward, and nowadays different psychosocial interventions in varying degrees; for example, group psychoeducation, social skills learning, and problem-solving interventions. The control group received the usual treatment provided in forensic psychiatry, i.e. psychopharmacological treatment, psychosocial rehabilitation efforts, and usual ward activities. All patients in the control group were told that they would receive the group psychoeducation intervention at the end of the follow-up assessment period.

The control group did not attend these specific psychosocial interventions during the study period.

#### **5.4.1 Mixed-methods design**

The decision to choose a mixed-method design in the present study was made in the beginning of the study. In recent years mental health services research projects in general have been increasingly aimed at combining quantitative and qualitative components (Robins et al., 2008). Due to the challenging nature and characteristics of the patients it was expected, for example, that the sample would probably be quite heterogeneous and there might also be a substantial proportion of drop-outs from the experimental designs. Kroll and Morris (2009) have identified this as a common problem with traditional RCTs in rehabilitation research. Also because of predicted difficulties in conducting statistical analyses of the sample characteristics and size, the use of qualitative methods was considered important. As the aims of the present study were also to study both the effects and mechanisms and processes which constitute the outcomes of the group psychoeducation intervention among forensic patients, a mixed-methods design and the use of triangulation methods were considered an appropriate choice. The major strengths of triangulation in clinical research are that triangulation allows the development and validation of different instruments and methods (confirmation) and can provide more in-depth understanding of the domain (completeness) (Begley, 1996). Rose, Thornicroft and Slade (2006) have also emphasized the need to adapt a new multiple perspectives paradigm in mental health to better consider the experiences and perspectives on evidence from all stakeholders: users, carers and professionals. Kroll and Morris (2009) describe the theoretical and practical strengths of mixed-methods designs in terms of greater stakeholder involvement, enhanced context sensitivity leading to potential ecological and external validity research, and enhanced exploratory-confirmatory linkages or road-mapping from modeling through confirmatory trial research. Authors emphasize the positive aspects of mixed-method designs that combine exploratory and confirmatory research components since the use of such a design can produce insights into mechanisms that may be responsible for differences in outcomes between groups, and these designs also allow researchers to examine critical influential factors and variables before studying the effectiveness of the interventions. Understanding participants' experiences has been noted as a valuable addition in many research processes, and can generate formative contextual data for intervention purposes, to help define the mechanisms of action of an intervention, and can also contribute to the validation and interpretation of quantitative findings (Robins et al., 2008).

Active service-user participation increases the relevance of findings for their lives and challenges researchers to create a study environment that maximizes inclusion through the use of flexible and alternative formats (Kroll & Morris, 2009). Robins et al. (2008) conclude that mixed-methods research is timely and informative but emphasize the need for understanding and appreciating the underlying epistemological differences between the methods to make the maximum contribution to improve the treatment of psychiatric disorders. Mixed-method research may also help in understanding failed and successful

treatments and the acceptability of interventions, and may help explain unintended or serendipitous treatment effects (Kroll & Morris, 2009).

Also the question “What did you find helpful?” has recently been raised increasingly in schizophrenia research (Budd & Hughes, 1997; Sibitz et al., 2007b). This research method is congruent with the demands of the user movement and consumerism, where participant’ experiences of treatment are valued, and according to Paley and Shapiro (2002) this research methodology can be scientifically very informative in relation to process-outcome relationships and treatment mechanisms to uncover the specific therapeutic impacts of interventions. Qualitative methods and analyses of participants’ views are suggested for to enable researchers to investigate possible mechanisms, the process, and to better understand their active ingredients and components, which leads to the effects of the interventions (Mason, Tovey & Long, 2002; Sibitz et al., 2007b). Using a qualitative framework in studies of patients’ satisfaction with care also enables researchers to give voice to the diversity of patients’ experiences (Avis et al., 1997). The reason why a solely qualitative paradigm was not adopted in the present study was the fact that evidence-based treatments are respected in forensic contexts. It was also expected that there might be problems with data in the interviews, as due to their symptomatology patients may not easily be interviewed.

#### **5.4.2 Exploratory randomized controlled trial design**

Randomized, controlled trials (RCTs) are often considered as the gold standard for identifying empirically supported treatments in psychotherapy research, although also serious criticism against them have been leveled (Blatt & Zuroff, 2005). Donenberg, Lyons and Howard (1999) describe the traditional controlled, experimental research (e.g., traditional clinical trials) as “designed to test the therapeutic efficacy of a structured intervention conducted in a controlled setting by trained therapists treating a homogeneous group of selectively recruited participants who meet criteria for a single disorder on which the intervention is specifically focused” (p. 1137). In randomized controlled trials efficacy is to be demonstrated in a way that the effects could not be a result of chance or confounding variables such as passage of time, different type of patients, or the effects of psychological assessment (Chambless & Hollon, 1998). The main implications of experimental control are usually its focus on a single question, reliably performed treatments among therapists, which means structured interventions employing careful monitoring of the integrity of treatment and homogenous samples in a variety of potential causal mechanisms (Donenberg et al., 1999). These randomized controlled trials have high internal validity, but have been criticized for low external and ecological validity, as the research conditions usually are very different in real-world settings. The primary goal of RCTs is to minimize bias in the estimate of treatment effect, for example, by randomized group assignment and estimating by statistical power analyses the sufficient sample size needed to provide adequate statistical power to detect a clinically meaningful intervention effect (Leon, 2008). Randomization aims at eliminating the possible systematic difference or bias between groups that are caused by factors other than the intervention (Beller, et al., 2002).

Although a very small pilot study had been conducted in the beginning of the study, the main aim of the exploratory randomized study was to add an investigation of different possible effects of group psychoeducation for patients with schizophrenia, with as large a sample as possible at Niuvanniemi Hospital. In this context it aimed at providing a possible justification for future studies and identifying relevant outcome variables to be tested in further clinical trials. It was decided to use wide-range assessments and multiple outcomes, which makes the design an exploratory RCT. The small sample size was acknowledged, but as all possible patients were included, it was determined that the sample size was adequate for an exploratory trial. When studying efficacy with RCTs the study must show that intervention works in ideally selected subjects in ideal conditions, while in order to show effectiveness, the intervention must work and be clinically meaningful in typical subjects in a real-world context (Kraemer, 2000). Kraemer suggests a more flexible structure in psychiatric research so the designs would deal with representative clinical samples in ordinary clinical settings, that outcomes could be evaluated with clinically meaningful measures, and that studies would also evaluate the possible risks and costs to patients. To achieve these goals author postulates that both confirmatory and exploratory research are needed and proposes that well-done exploratory studies should be valued more in the scientific context than they are at the moment, at least as a basis for adequate confirmatory studies. McHugo et al. (2006) have also emphasized that in order to improve the ecological validity of clinical studies the challenge is to conduct studies that can mimic the clinical reality of engagement, treatment, and rehabilitation. It has been postulated that clinical trials investigators can actually benefit from the findings of broad-based assessments in identifying important outcome variables to be tested in narrowly focused clinical trials, and that in the future, the most informative studies will be those with designs that combine the strengths of both methodologies (Donenberg et al., 1999). Chambless and Hollon (1998), on the other hand, have pointed out that there is nothing inherent in the logic of RCTs stating that the samples studied cannot be clinical samples, with which it is extremely challenging to work, and that ideal research designs maximize both internal and external validity, thus making informative designs those studies in which efficacy and effectiveness features converge.

Due to the small number of eligible patients who could be included in the present exploratory trial study, it was decided that the design would be an intervention versus control group where the control group would receive their usual treatment, e.g. pharmacotherapy, and ward activities. It would have been possible to compare the results of the psychoeducation group with those of some other active group receiving treatment as usual to perhaps better detect the specific active ingredients that possibly produce the change in psychoeducation group and better evaluate the impact of non-specific or common treatment factors (e.g. receiving attention, expectations, warmth, social support, instillation of hope, attention from therapist and therapeutic alliance etc.) are present in most psychosocial treatments. The measurement of these factors is considered to be important when defining empirically supported therapies and treatments (Chambless & Hollon, 1998; Olatunji & Lohr, 2004; TARRIER & Wykes, 2004). For example, in case of psychosocial treatments for anger investigations have shown that

factors contributing the positive changes in interventions are in large part nonspecific (Olatunji & Lohr, 2004). Due to the small sample size this was not possible. Research designs where the efficacy of the intervention is compared to standard treatment (TAU) are, however, suggested as an appropriate control condition in exploratory RCTs (see Schwartz, Chesney, Irvine & Keefe, 1997; Wong, 2004). TAU has though been criticized as a control in psychotherapy research since participation in interventions usually involves nonspecific factors e.g. commitment, enthusiasm and social support, and comparing active treatments has been proposed, but, on the other hand, findings from comparative treatment trials have usually failed to find any significant differences among active treatments (Blatt & Zuroff, 2005; Paley & Shapiro, 2002). To resolve this equivalent outcomes paradox in schizophrenia research there is a need to improve the methodology of studies. Paley and Shapiro (2002), for example, emphasize the need to use process-outcome measures in schizophrenia research. As in the present study it was sought to understand what constitutes the effects of group psychoeducation and the possible processes through which the effects are achieved, mixed-methods design and method triangulation were used. TAU also poses another problem as standard care will develop over time, medications improve, and therefore TAU represents a moveable baseline as there is progress in treatment methods in the course of time (TARRIER & Wykes, 2004). In reporting the findings of the study presented in original article III, the CONSORT statement (Consolidated Standards of Reporting Trials) was utilized to improve the reporting of the results so that the conduct would be better understood and facilitate the readers' assessment of the validity of findings (Moher et al., 2001).

Conducting a RCT design in high-security hospital posed several challenges, but although challenging, for example, Hodgins (1998) has postulated that research in special hospitals is sorely needed to improve the efficacy of treatment among forensic patients. The research population was partly from the most secure wards from the hospital, and once every possible patient was included in the sample, entailing highly symptomatic patients, too, it was challenging to carry through the experimental design. Given that we are dealing with a brief psychosocial intervention for very challenging patients, large effects were not actually expected and it was not assumed that the intervention could radically improve the situation of these patients. Yet it was hoped that by using both quantitative and qualitative methods at least some of the anticipated barriers, both patient-related and barriers arising from the special institutional setting, could be overcome. The strength of this study is, at least to my knowledge, that this was the first randomized controlled trial of patient psychoeducation for forensic patients with schizophrenia reported in scientific literature. Using an exploratory design, the conclusions that can be made from the results must still be made cautiously.

### **5.4.3 Quantitative outcome measures and data analyses**

#### **5.4.3.1 Outcome measures**

More detailed information on the various outcome measures used in the present study is provided in the original studies; thus only a short summary of the quantitative outcome measures is given here. In the pilot phase two different types of outcome measures were

used: an observer-rated semistructured psychiatric interview (BPRS), and self-report measures to assess the outcomes of the pilot intervention. Despite concerns about the validity of self-report methodologies among patients with schizophrenia and forensic patients (see Atkinson et al., 1996), patient-reported outcomes are widely used in mental health research concerning patients with schizophrenia to assess treatment benefits for patients, for example, on treatment satisfaction, therapeutic relationship, symptoms, insight, attitude towards medication, clinical communication, empowerment, self-esteem, sense of coherence and recovery (McCabe, Saidi & Priebe, 2007). Tarrier and Wykes (2004) have postulated that if an excessive number of assessments are used, this might jeopardize the results if the assessment is too burdensome for the patients, if it can potentially lead to high rates of attrition and lost data. As possible problems with the assessment of outcomes with these patients could be anticipated, and could be resolved by developing as simple an ad hoc measure as possible, it would cover the areas to be evaluated, be easily administered, and be possible for the patients to understand while not being too exhausting. A 25-item self-report questionnaire about awareness of illness, attitudes toward psychiatric treatment and medication, and subjective quality of life was therefore developed. The questionnaire involved important topics in forensic psychiatry related to the patients' subjective evaluations of their attitudes toward treatment and medication, and the understanding of their illness. Patients' awareness of illness was assessed by means of items including statements such as "I have symptoms of psychiatric illness". Attitudes to medication were assessed with items such as "I have benefited from the medication prescribed to me", and attitudes toward psychiatric treatment with items such as "I usually agree with the nursing staff over the issues connected with my treatment". The questionnaire was developed to be as simple as possible to answer due to the cognitive problems of the participants, thus enabling them to understand the instructions and answer the questionnaire independently. Patients rated the items on a three-point Likert scale. Using the three-point Likert scale is questionable, but the underlying idea of the instrument was to use as simple a scale as possible with the population in the study, to make it easy for them to complete; the majority had some cognitive problem since a simplification of measures had already been utilized in a previously reported studies where the sample consisted of severely ill schizophrenia patients (see for example Ratzlaff, McDiarmid, Mart & Rapp, 2006). Cronbach's Alpha, which indicates the degree to which the various items are positively correlated to estimate the consistency across items in the questionnaire, was calculated for the questionnaire as it is the most frequently used estimate of the reliability of the scale, i.e. internal consistency, in clinical studies (see Bech et al., 1993). Although the questionnaire was piloted with a small sample and the internal consistency of the scale was evaluated, it was decided that in the main phase (study III) this questionnaire would be excluded as the psychometric properties of the scale had not been appropriately investigated. It has been postulated that using unpublished scales in randomized controlled trials presents a major source of bias in schizophrenia trials, since unpublished scales are more likely to show greater effect for treatment (Marshall et al., 2000).

In the third phase of the study (studies III & IV) the study objective was to evaluate the efficacy of a brief group psychoeducation program among forensic schizophrenia

patients, and assessment instruments were chosen according to the literature on assessing the efficacy of patient psychoeducation for non-forensic patients (see e.g. Merinder, 2000). Earlier schizophrenia research has strongly emphasized the amelioration of symptoms as a primary outcome, but it has been noted that a more holistic approach to encompass different outcomes and patients' progress from illness to better functioning is clearly necessary to allow treatment strategies to be clinically effective and not just efficacious (Naber & Vita, 2004). I also wanted to consider the possibility of negative consequences of the intervention (e.g. the possible deteriorating effects of improved insight) while choosing the outcome measures. As the study was explorative, it was thought that clinical trials investigators could benefit from the findings of broad-based assessments to identify important outcome variables; these variables could be tested in the future with more narrowly focused clinical trials using specific hypotheses. Since they are the objective of exploratory research, specified hypotheses were not formulated and no single clinically relevant outcome was defined as the primary efficacy measure. This would have been important in the confirmatory RCT protocol. Only the internal consistency scores for all the assessments were calculated, the full psychometric properties of these measures in this patient group in Finland have not yet been fully explored.

The effects of the intervention were examined in terms of knowledge about schizophrenia (The Knowledge About Schizophrenia Questionnaire KASQ; Ascher-Svanum & Krause, 1991), insight (Scale to assess Unawareness of Mental Disorder SUMD; Amador et al., 1994), compliance (Compliance Rating Scale CRS; Kemp & David, 1996) and attitudes toward medication (Drug Attitude Inventory DAI-10; Hogan, Awad & Eastwood, 1983). The symptoms of psychiatric disorder (Brief Psychiatric Rating Scale BPRS; Overall & Gorham, 1962), ward behavior (Nurse's Observation Scale for Inpatient Evaluation NOSIE-30; Honigfeld, Roderic & Klett, 1966), depression (Beck Depression Inventory II; Beck, Steer & Brown, 1996; Psykologien Kustannus, 2005) and self-esteem (The Rosenberg Self-Esteem Scale RSE; Rosenberg, 1965) were also assessed. As Antonovsky's Sense of Coherence theory was one of the theoretical bases in the study, the Antonovsky Sense of Coherence scale –abbreviated version (SOC-13; Antonovsky, 1987) was used to assess coherence among patients during the study. Patients' quality of life was measured with Sintonen's (2001) 15D instrument, a 15-dimensional, standardized, self-administered measure designed to assess health-related quality of life. At the post-treatment and follow-up stages patients were also asked to evaluate their current general health compared to previous assessment stages. Perceived stigma was assessed with Perceived Stigma Questionnaire (PSQ; Link et al., 1989). BPRS and SUMD were administered as part of semistructured interviews in each assessment stage. After the assessments patients were asked to fill in the self-report instruments. NOSIE-30 and CRS assessments were conducted in the patients' wards by the nursing staff at different assessment stages. In the case of occasional missing ratings in self-report questionnaire data, a simple mean imputation was used, i.e. the missing rating was replaced by the mean score of the sample (see Curran, Molenberghs, Fayers, & Machin, 1998).

Although most of the chosen self-report instruments have previously been used in schizophrenia research, some problems emerged. It was anticipated that Antonovsky's Sense of Coherence scale –abbreviated version (SOC-13) might present problems to

patients with cognitive problems as the sentences in the scale were very long; it was assumed that helping patients could overcome this problem. Still, even though some patients were assisted with the scale, they had considerable problems with it and the questionnaire had to be dropped due to low reliability. Some patients also had difficulties in concentrating on filling in all the questionnaires and had to be encouraged to be able to do so.

Evaluations for the whole sample were administered by myself as an independent assessor, before the intervention group attended the first session, after the last group session, and after the three-month follow-up period. Patients were specifically asked not to tell in the interviews anything about their group allocation during the post-treatment and follow-up assessments, but two patients in both groups did. As a check on blindness I tried to guess the treatment allocation after the follow-up assessment. Analysis of these guesses found that the difference between the groups in correct or incorrect guesses was not statistically significant. Blindness of assessments is considered important in RCTs, but in psychological interventions it is very difficult to make totally blind assessments of the treatment condition (Bechdolf et al., 2004; Falloon, 2003).

The quantitative data in study IV was gathered using Ascher-Svanum and Krause's (1991) "Patient expectations of group experience" and "Patient evaluation of the group experience" questionnaires. In the beginning of the study I translated the questionnaires into Finnish. Participants responded anonymously to the questionnaire distributed by the group leaders in the beginning of the first group session. After attending the eight-session group all the participants were asked to evaluate their experience, again anonymously.

#### **5.4.3.2 Statistical analyses**

Both in the pilot phase (study I) and the randomized controlled trial (study III) the problems with sample size were identified and significant heterogeneity (age, psychiatric condition, length of the illness and length of current admission, and comorbid disorders) among the patients was anticipated: the latter would increase error variance and thus threaten the internal validity of the findings, making it more difficult to detect small treatment effects with significance tests and lead to limited statistical power (Donenberg et al., 1999). In study III all possible patients were included, and it was determined that the sample size was adequate for an exploratory trial.

In the pilot study (study I) the statistical analyses were carried out using non-parametric tests because of the small sample sizes. Differences in the baseline scores of the assessments between the groups, and those in the mean change of scores across time between groups were analyzed by means of the Mann-Whitney U test. The Mann-Whitney U analyses were also conducted across the demographic variables in the intervention and control groups. The changes over time within the groups were analyzed using the Wilcoxon signed rank-test. Cronbach's Alpha was calculated to developed ad hoc measure.

In study III a comparison of the baseline characteristics of the sample were made using the chi square or Fisher's Z-tests for categorical variables, and the Student's t-test or Mann-Whitney U test for quantitative variables. Associations between demographic and

clinical variables with different outcome measures at baseline in the whole sample and the treatment effects in the psychoeducation group were analyzed by using Pearson's correlation coefficient. When assumptions of normality were not acceptable and as these variables included several ties, rank orders were first calculated for these variables and then correlational analyses using Pearson's correlation were conducted. The t-test for independent samples was used in comparing the mean change scores to detect differences between the groups. Due to the severity of the illness in the present sample it was expected that possible improvements and changes resulting from such a short psychoeducation program are likely to remain relative small. It was also assumed that the heterogeneity of the sample would make it difficult to detect small treatment effects with significance tests. T-tests for independent sample means of change scores are one possible solution for analyses between group contrasts when patient composition in the sample is heterogeneous (Stratford & Riddle, 2005). Student's t-tests were used to assess the equivalence of the two groups at the baseline and then the difference in the mean change scores between the groups at different assessment stages, when assumptions of normality and homogeneity of variances existed. In other cases the Mann-Whitney U test was used. Two-sided significance tests were used throughout, where the statistical significance level was set at  $p < 0.05$ . Recognizing that a lack of statistical difference may be due to inadequate sample size, controlled effect sizes (Cohen's  $d$ ) were computed by dividing the mean change scores in both groups by the pooled standard deviation of the groups at different assessment stages (Cohen, 1988).

A numerical loss in the follow-up in randomized controlled trials can lead to bias (Dumville, Torgerson & Hewitt, 2006). It is recommended that in analyzing data all randomized patients should be included in the analyses according to their initial treatment assessment (Curran et al. 1998). As the sample in the present study was already small, removing the three drop-outs from the analyses would have reduced the power of analyses even more. Therefore all statistical analyses were conducted on an intention-to-treat basis, carrying forward the last observation for any patient who did not complete the whole study.

In study IV the statistical analyses and results reported were mainly descriptive due to the anonymous nature of the answers. The repeated measures ANOVA was used to test the difference in the mean expectation and satisfaction rating scores in the entire sample. The analysis was descriptive and the answers were also analyzed by frequency and percentage.

#### **5.4.3.3 Interviews and qualitative analyses**

By means of additional interviews it was sought to gain in-depth knowledge and better understanding of the patients' experience of the intervention, and it was hoped that in addition to a deeper picture of patient motives, expectations and satisfaction, a better understanding of the process and outcomes of this procedure among this patient population could also be achieved. Semistructured interviews were utilized and qualitative content analysis was chosen as the method of analyzing the data in studies II and IV. The main aim in content analysis is to build a model to describe the phenomenon

in a conceptual form, and the analysis can be both deductive and inductive in nature (Elo & Kyngäs, 2008).

In study II the follow-up data was obtained by semistructured individual thematic interviews containing questions about the participants' recollections and experiences of the intervention group four years earlier. The participants were first asked to describe in their own words what they could recall from the group. Then complementary thematic interviews were conducted, where more specific questions about their experiences and memories of the group were asked. I conducted the interviews during the summer of 2005 and the interviews were 45-90 minutes long. All but one was audiotaped. Because one participant refused permission to audiotape the interview, his interview was conducted by making extensive notes. Deductive content analysis was used where the structure of the analysis was operationalized on the basis of previous knowledge (Elo & Kyngäs, 2008); in this case using Antonovsky's Sense of Coherence Theory. As the SOC theory has been proposed for use in studying the process of psychoeducation (Landsverk & Kane, 1998), deductive content analysis was considered appropriate way to test how the categories of SOC could explain the benefits that patients had experienced in the intervention. The interviews were first transcribed verbatim. The three major categories were then derived from Antonovsky's Sense of Coherence Theory. The interviews were read and reread and the expressed benefits were extracted from the text and classified under the three main components of SOC. The categories captured the experiences of the participants very well, as they could be seen to represent a wide range of possible aspects of the intervention (cognitive, behavioral, emotional). Although in previous research comprehensibility has sometimes been seen as a cognitive, manageability as a behavioral, and meaningfulness as a spiritual and emotional component of SOC (see, e.g., Rabin, Matalon, Maoz & Shiber, 2005), some overlap between categories emerged. For example, "gaining information" could be categorized as an experienced benefit in terms of both comprehensibility (more understanding about the illness) or manageability (information as a resource to cope better). Obtaining information or understanding was categorized under comprehensibility but if the answer referred more to new skills and behavioral aspects, for example, "learning to search for new information" it was categorized under manageability.

In study IV it was hoped that additional interviews would help to understand the motives for participating in the psychoeducation groups and give a deeper understanding of participants' experiences in considering the group. I conducted the interviews in 2006 as an independent researcher. Because problems with audiotaping the interviews emerged in second phase of the study, all participant evaluations of the group experience were recorded through extensive notes during the interviews. During the interviews the participants were first asked to describe in their own words their motives for participating in the groups and then to describe their experiences. The open-ended questions from the evaluation questionnaire were also employed during the interviews (the best and worst things in the group experience, ideas of how to improve the group). Inductive content analysis was utilized and the concepts were derived from the data. The answers from expectation and satisfaction questionnaires and interviews were combined and coded to cluster thematic aspects in each case and across cases. The transcripts were

then reread to confirm and refute evidence for each theme. The themes were then analyzed and sorted with regard to their content, and categories were created when they clearly emerged. Problems concerning the analysis of data were related to some vague, mainly psychotic answers, which were not possible to categorize under any theme or category. Citations from the interviews were used to increase the trustworthiness of the findings in both studies since the use of a co-reader was not permissible as the patients were promised that no one other than me would have access to the original interview data. (see Coffey, 2006; Elo & Kyngäs, 2008; Graneheim & Lundman, 2004.)

Table 3. Phases of the study

Study phases	Phase 1 Pilot study	Phase 2 Long-term follow-up of the pilot intervention	Phase 3 An exploratory RCT design and the study of patient motives, expectations and satisfaction with the program	
Year	2001	2005	2006	
Aims	To investigate the feasibility and effects of the pilot group psychoeducation intervention	To investigate the experienced long-term benefits of the pilot intervention from patient perspective	To study the effects of the intervention with an exploratory RCT design	To investigate the motives, initial expectations and satisfaction with the intervention from the patient perspective
Data collection	Assessments with different outcome measures before and after the intervention	Semistructured thematic interviews	Assessments with different outcome measures at baseline, post-treatment and a 3-month follow up	Semistructured interviews, self-report questionnaires
Participants	Forensic and challenging non-forensic patients with schizophrenia; n=15	Forensic and challenging non-forensic patients with schizophrenia; n=6	Forensic patients with schizophrenia; n=39	Forensic patients with schizophrenia; n=39
Study design	Quasi-experimental research design where the intervention group (n=7) was matched with a treatment as usual control group (n=8)	Qualitative interviews with patients who had attended the intervention group four years earlier	An exploratory RCT design to study the efficacy of the intervention	Qualitative interviews after the intervention and collection of self-report questionnaire data (n=34) before and after intervention
Outcome measures	-knowledge of schizophrenia -psychiatric symptoms -awareness of mental disorder -attitudes toward psychiatric treatment -attitudes toward medication -subjective quality of life -depressive symptoms	Experienced benefits of the intervention: -comprehensibility -manageability -meaningfulness	-knowledge of schizophrenia -insight -compliance -attitudes toward medication -psychiatric symptoms -ward behavior -self-esteem -health-related quality of life -perceived stigma -sense of coherence	Motives for participating Initial expectations Satisfaction with the intervention
Analysis	Statistical analyses: - Mann-Whitney U test - Wilcoxon signed rank-test	Deductive content analysis	Statistical analyses: - Fisher's Z-test - Student's t-tests - Mann-Whitney U test - Cohen's d - Pearson's correlation coefficient	Inductive content analysis Statistical analyses: - Repeated measures ANOVA
Reporting	Study I	Study II	Study III	Study IV



# *6 Overview of the original studies*

## **6.1 STUDY I**

**Aho-Mustonen, K., Miettinen, R., Koivisto, H., Timonen, T., & Rätty, H. (2008). Group psychoeducation for forensic and dangerous non-forensic long-term patients with schizophrenia. A pilot study. *The European Journal of Psychiatry*, 22(2), 84-92.**

The first study examined the feasibility and outcomes of an eight-time psychoeducational group for forensic or dangerous non-forensic long-term patients with schizophrenia at Niuvanniemi Hospital, Finland. The specific research questions were: 1) Is an eight-time group psychoeducation program specially tailored to severely ill long-term patients feasible in a high-security forensic context? 2) Is it possible to improve the participants' knowledge of schizophrenia, awareness of mental disorder, and attitudes toward psychiatric treatment and medication without negative impacts on their subjective quality of life and depressive symptoms? The psychoeducational group provided information about schizophrenia and its treatment and cognitive-behavioral elements were used to enhance the patients' learning and coping. Treatment outcomes were compared between the intervention group (n=7) and a matched treatment as usual control group (n=8). The results were obtained from knowledge of schizophrenia, awareness of mental disorder, attitudes toward psychiatric treatment and medication, and depression. Assessments were made at baseline and after the intervention. Despite the fact that the patients in the sample had undergone several earlier hospitalizations and suffered a long period of illness, they displayed a clear need for information about their illness and treatment, and their baseline understanding of their illness was low. The acceptance of the group was high and the overall the results of the pilot study gave preliminary support to the feasibility of this psychoeducational group intervention among these severely ill long-term patients who often also have comorbid problems which can negatively affect treatment outcomes. The study group's knowledge of schizophrenia increased significantly during the intervention. A certain level of knowledge gain was possible even among the most severely ill patients suffering from cognitive deficits and disturbances, although increase in knowledge scores was lowest among those patients with the most severe psychotic symptomatology. A statistically significant increase in awareness of illness was also found in the intervention group. Gaining information about the illness and increased awareness of it did not affect negatively on the participants' mood; contrastingly, after the intervention the intervention group showed some statistically insignificant positive change, as their depressive thoughts diminished. The patients' attitudes toward their medication were

relatively positive in both groups at baseline, and after intervention there was a trend toward improved attitudes toward medication in the intervention group although this result still remained statistically insignificant. No significant changes in any measures were found in the control group. Despite the promising positive results, it was concluded that further research with larger samples is needed to discover the efficacy of patient education as a component of the comprehensive treatment of forensic patients with schizophrenia.

## **6.2 STUDY II**

**Aho-Mustonen, K., Miettinen, R., Rätty, H., & Timonen, T. (2009). Experienced long-term benefits of Group psychoeducation among forensic and challenging non-forensic patients with schizophrenia. *International Journal of Psychosocial Rehabilitation*, 14(1), 51-63.**

The second study examined the experienced long-term benefits of the pilot group psychoeducation program from the patient perspective (n=6). The questions the study asked were: 1) what recollections do the participants have concerning the psychoeducation group they had attended four years earlier? and 2) what are the long-term benefits of the group psychoeducation program that the participants remember and attach to their group experience? Data was obtained through semistructured thematic interviews with six long-term schizophrenia patients who had attended the eight-time pilot psychoeducation group four years earlier. Antonovsky's Sense of Coherence Theory was used as a theoretical framework and deductive content analysis was employed to analyze the data. The benefits of group psychoeducation for each patient were assessed using Antonovsky's SOC theory's three main components as prime categories: "Comprehensibility" refers to cognitive aspects of experienced benefits, and includes themes such as gaining new information about schizophrenia and its treatment and restructuring one's experiences as experienced benefits of the group. "Manageability" includes themes involving different resources and skills gained and experienced as helpful in the group, and the emphasis is on behavioral aspects considered to be beneficial. Gaining new skills concerning coping with stress, managing with persistent symptoms, monitoring of early warning signs, seeking help and information, and peer support as a resource are contained in this category. "Meaningfulness" includes motivational and emotional aspects and themes, for example, answers involving hope, identification with appropriate role models, sharing, empowerment, reasonably challenging activities and optimism. The results indicated that the benefits gained from the group came mainly in terms of new information (comprehensibility), although participants emphasized that they had forgotten a lot about the group during the four intervening years. The group seemed to work as a new, confidential forum where it became possible for the participants to obtain new information about the illness, ask questions, and receive answers. Patients also emphasized that this new information appeared to be reliable. It was hoped that the information offered would give the patients

a chance to reinterpret and reorganize their experiences, and the findings suggested that participants had been able to reflect on new information in their personal situations and structure their experiences. Contrary to what was expected, since one of the main aims of the intervention was to provide the participants with new strategies for coping with their illness and ways of handling stress better (manageability), this aim was not sufficiently fulfilled. Positive experiences related to meaningfulness were expressed, for example, as gaining relieving and normalizing information about the universality of schizophrenia. Also the experiences of others were considered to be a relief, and some patients also found new hope in the notion that they are not alone in their situation. Group rules were created especially to help in building an atmosphere of confidence and sharing for the participants, and also to support the structure of the group. Results suggested that an atmosphere of mutual understanding and confidentiality can sometimes be of great importance in permitting forensic patients to even dare to share difficult feelings and experiences in this context; sharing their experiences can be empowering and foster hope, but, on the other hand, sharing can also be emotionally difficult for patients.

### **6.3 STUDY III**

**Aho-Mustonen, K., Tiihonen, J., Repo-Tiihonen, E., Rynänen O.-P., Miettinen, R., & Rätty, H. (2010). Group psychoeducation for long-term offender patients with schizophrenia: An exploratory randomized, controlled trial. *Criminal Behaviour and Mental Health*. Published online in Wiley Online Library. DOI:0.1002/cbm.788**

The third study further explored the feasibility and efficacy of the group psychoeducation intervention among long-term forensic patients with schizophrenia. An exploratory RCT design was conducted to investigate the efficacy of a brief group psychoeducation program among forensic patients with schizophrenia (n=39). Patients were randomized to either group psychoeducation or a treatment as usual control group. Outcome measures, made at baseline, immediately post-treatment, and three months later, included knowledge, insight, compliance, attitudes toward medication, psychiatric symptoms and ward behavior, self-esteem, health-related quality of life, and perceived stigma. Due to the severity of the illness in the sample, it was expected that possible improvements and changes resulting from such a short psychoeducation program were likely to remain relatively small. It was also assumed that the heterogeneity of the sample would make it difficult to detect small treatment effects with significance tests. At the three-month follow-up assessment the intervention showed some moderate positive treatment effects compared to the control group. A larger mean change at the post-treatment stage in knowledge of schizophrenia in the intervention group was observed, and at the follow-up the difference between groups then proved to be statistically significant. Self-esteem in the intervention group increased significantly from the baseline to post-treatment compared to that of the control group, but the statistical significance of this change decreased to a trend after the three-month follow-up period. Still, a positive treatment effect for the group intervention in self-esteem from the baseline to the three-

month follow-up stage was found. Comparisons between the mean change scores among the groups in insight at the three-month follow-up stage indicated only a minor positive treatment effect for group psychoeducation in terms of improving the understanding of the consequences of the illness, but a more positive effect in terms of improving the awareness of the illness, understanding the need for medication, and in the total insight score. No positive impact of group psychoeducation on other measures was observed. At the post-treatment and three-month follow-up stages only the control group showed a clinically significant improvement (Sintonen, 1994) in their health-related quality of life, but there was no change in the intervention group, and this resulted in a moderately negative treatment effect for the intervention group. Perceived stigma decreased during the intervention phase in both groups, but much more in the control group, which appeared in the negative treatment effect for group psychoeducation. The ward behavior scores at baseline or after the intervention between the groups remained statistically insignificant, except for the subscale "irritability", where there was a statistically significant change towards increased irritability in the intervention group from the baseline to the follow-up assessment. Despite the finding regarding this increased irritability, no negative staff feedback or complaints about problems in management related to intervention were reported in the wards. The study suggested that group psychoeducation could be seen as a low-threshold psychosocial intervention in forensic contexts, once even the most severely ill patients were able to join, but further examination of the relative impact of the group is still required.

## **6.4 STUDY IV**

**Aho-Mustonen, K., Miettinen, R., & Rätty, H. (2010). Motives for participation, initial expectations, and satisfaction with group psychoeducation among forensic patients with schizophrenia. *International Journal of Forensic Mental Health*, 9, 226-236.**

The aim of the study was to examine the motives, initial expectations and satisfaction with group psychoeducation among forensic patients with schizophrenia who participated in the RCT experimental research. Two complementary methods were applied: a total of 39 patients were interviewed and anonymous questionnaire data (n=34) was collected. The quantitative data was gathered using Ascher-Svanum and Krause's (1991) "Patient expectations of group experience" and "Patient evaluation of the group experience" questionnaires. Participants responded anonymously to the questionnaire distributed by the group leaders in the first group session. After attending the eight-session group all the participants were asked to evaluate their experience, again anonymously. The bulk of the qualitative data was gathered from interviews. Inductive content analysis was used to analyze the results of the study. The two most common motives were the need for information about their illness (23.5%) and the need for new coping strategies and a desire for rehabilitation (17.5%). Some patients wanted to attend the group because it was academic research and wanted to contribute to improving treatment (15.5%). Other accounts were related to motives involving a pure interest in

participating in the group (15.5%), the need for change in daily routines (10%), and interest in group treatment in general (8%). Only a few accounts referred to external reasons (6%). Expectations concerning the psychoeducation group were high. Only a few participants had low expectations of the group experience or were not motivated to attend. Data showed that the expectations toward the group leaders had the highest mean rating; in contrast, the expected long-term benefits of the group were significantly lower. Satisfaction with the group experience was high overall, even higher than the expectations, and satisfaction with the group leaders again had the highest mean rating. A statistically significantly lower mean rating, although quite positive, was found in regard to the helpfulness of the informational content of the group. Results of the satisfaction questionnaire indicated that no participant expressed significant dissatisfaction with any measured areas of experience. On the basis of the open-ended questions in the questionnaires and interview data, patients' responses to the very best thing in the group were grouped into six main categories. These categories were labeled 1) "general information about schizophrenia and treatment" (33%), 2) "social support and discussions with others" (25%), 3) "clarification of one's own situation" (19%), 4) "group leaders" (7%), 5) "group format" (5%), and 6) "academic research" (4%). Seven percent of the answers could not be categorized under these categories due to the vague content of the answers. Overall, the participants expressed much less dissatisfaction than satisfaction. The interview data, however, revealed some concerns and dissatisfaction which was more person-specific. Two main categories of dissatisfaction could be identified: 1) issues related to group content (31%) and 2) issues related to group format (25%). Differences in satisfaction with the group content illustrated the different informational needs of individual patients and differences in their existing knowledge base. Still, only one participant expressed purely negative feedback about the group. On the whole, however, most patients were satisfied with their group experience and expressed the desire that group psychoeducation programs also be offered to the patients in the future. Consequently, the findings gave further evidence of the feasibility of the intervention among this patient population and the results of the study offered positive indications about group psychoeducation among severely ill forensic patients with schizophrenia in terms of high acceptability and high overall positive feedback. It was considered promising that some of the severely ill patients had been able to reflect on the educational information in their personal situations in such a way that it had become the participant's personal knowledge.



# 7 Discussion

## 7.1 MAIN FINDINGS

The focus and main aims of this thesis were to investigate the feasibility and outcomes of an eight-time group psychoeducation program specially tailored to severely ill long-term schizophrenia patients in a high-security forensic context and to investigate this psychoeducation program from the patient perspective, focusing on their motives, expectations, experiences, and satisfaction with the group program. Finally, I try to synthesize the main results with findings reported in previous scientific literature in order to outline a tentative model of the factors that seem important when planning, conducting, and evaluating psychoeducational programs for forensic patients with schizophrenia. The patients referred to research and those who participated in psychoeducation groups had characteristics that ordinarily would have excluded them both from participating in psychosocial group interventions and clinical research, for example severe symptoms, comorbid states, and cognitive and social deficits. The results of the entire study suggested that even severely ill patients were able to gain improved knowledge about their illness and self-esteem, and that psychoeducation also had a positive impact on their awareness of the illness. Many participants considered the information obtained to be helpful in their situation and gave them hope, even though they had suffered from schizophrenia for several years. Participants themselves experienced benefits from psychoeducation particularly in regard to learning more about the illness and reflecting it in their own situation. Participants also appreciated the social support and the opportunity to discuss illness-related experiences together, which resulted in a sense of “shared fate” and awareness that they were not alone in their problems. The results indicated that for some participants the group acted as a forum where a new understanding of their situation was gained. The concerns and dissatisfaction were more person-specific and mainly related to the group content and format. The aim of providing new strategies for stress management and coping with their illness was not sufficiently achieved. The acceptance of the group was high, all of the participants who started the group stayed there. Patients’ opinions of the group psychoeducation were also mainly very positive, which is encouraging because patients were committed to hospital care against their own will, and consequently their motivation to undergo treatment may often be lower.

In the light of the findings of the present study, it seems that when trust and hope are present and emphasized, in the development of the program and while delivering the intervention, helping forensic patients with schizophrenia to gain information, build their self-esteem, and even in improving their insight without risking an increase, for example, in depressive symptoms, decreased self-esteem or reduced quality of life may be possible. Still, future psychoeducational interventions for forensic schizophrenia patients should focus even more on fostering hope, normalizing mental illness, and correcting

stigmatizing misconceptions in order to deal with the stigma and to improve the quality of life of these patients.

### **7.1.1 Efficacy of psychoeducation among forensic patients with schizophrenia**

The discussion of the efficacy of patient psychoeducation for forensic patients with schizophrenia is based on findings of the pilot study (study I) and the results of the exploratory randomized controlled trial (study III). The pilot study was conducted in 2001, when psychoeducation for patients with schizophrenia was recommendation for first time in the Finnish Schizophrenia Practice Guideline (2001, 2008). The results of the pilot study indicated that in comparison with the control group, the study group's knowledge of schizophrenia and awareness of their illness were observed. No impact on other outcomes was found. Contrary to expectations, subjective quality of life in the intervention group decreased compared to the control group after the intervention, although this change was not statistically significant,<sup>1</sup> and the change was considered small. The improvements in knowledge among these severely impaired patients, as well as positive change in insight, were statistically significant and considered important and encouraging, indicating a need for further examination. As the results were considered to reasonably justify further study on the effects of the psychoeducation intervention, an exploratory randomized controlled study of the efficacy of the intervention was conducted in 2006 with a more sophisticated research design. The objective of the study was to evaluate the efficacy of a brief group psychoeducation program among forensic patients with schizophrenia. The results obtained from the exploratory RCT confirmed partially the findings of the pilot study, as patients in the intervention group gained improved knowledge about schizophrenia. Previous research has indicated that higher performance in knowledge tests and in educability is related to age, medication and level of symptoms, especially to a lower level of positive symptoms (Goldmann & Quinn, 1988; Merinder, 2000). In line with these findings, in this study as well, better psychiatric condition was positively related to improvement in knowledge scores. The optimal timing of psychoeducational interventions has also raised questions and been studied. The general view is that psychoeducation can be used as an interventional method in all phases of schizophrenia, but can be more effective in earlier phases of illness. In the present study no associations with illness duration and outcomes were found. Positive treatment effects for insight into illness and self-esteem in the intervention group at the three-month follow-up were also found. In ward behavior, however, there was an increase in irritability subscale scores in the intervention group after participation in group psychoeducation. Health-related quality of life improved only in the control group, whereas no such change in the intervention group was observed. Still, most patients in the intervention group believed that their overall health had improved from the baseline to post-treatment stage.

---

<sup>1</sup> Aho, K. (2002). Psykoedukatiivinen ryhmäinterventio osana skitsofreniaa sairastavien pitkäaikaishoitilaiden hoitoa. Joensuun yliopisto, Psykologian laitos.

There are several possible explanations for the more positive changes in the intervention group in terms of knowledge gain and improved insight not emerging prior to the three-month follow-up phase. Participants, for instance, later reported that there had been so much new information in the group that they had been rereading the written material given during the group after the intervention. The delayed effect of treatment has previously been noted, for example, after interpersonal therapy, where the positive effects of learning processes outside group treatment emerged well after treatment had been completed (see Fairburn, Jones, Peveler, Hope & O'Connor, 1993). Results of the patients' feedback noting that they had had to reread the material due to its large volume is also similar to that in Jennings et al. (2002), who reported an "overload" of information in group content according to patient feedback. In the present study, rereading the written material may also have allowed the information to be better connected to participants' own situations only with the passage of time. It is also likely that participants have become more active in their own treatment and started to ask questions and even question the whole treatment in the ward more than had been the case earlier. These issues could at least partly explain the results of increased irritability and "impatience" and the reduction in compliance at the ward behavior level. This result is in line with recent findings by Vallentine et al. (2010), who examined the effects of group psychoeducation among forensic patients with psychotic disorders, and found no significant changes in clinical outcomes using statistical tests, but still concluded that the results indicated that psychoeducational group work for forensic patients helped patients to engage in further psychological work about their situation. Admittedly, part of the increase in irritability in the present study can be explained by a better realization of patients' situation as forensic long-term patients and the psychological work required to cope with that situation.

Psychiatric symptoms decreased significantly in both groups, which was unexpected. One explanation for this is the fact that the assessment of psychiatric symptoms was conducted in the interviews solely on the basis of patients' answers to questions about their symptoms, except for those symptoms which were observed during the interview. This was a result of the interviewer having to stay blind to the treatment allocation, and therefore medical records were not used as a source of assessment. For example, Garrett (2005) has stated that it is a considerable obstacle to treatment that forensic patients learn to say as little as possible about themselves, fearing that the information would be taken as an indication of mental illness, thus resulting in ongoing retention and precluding progress in treatment. It is also likely that at least some patients in the present sample have also had high expectations concerning participation in the present research project and hoped that participation would help them progress in their often very long treatment. These patients may have wanted to demonstrate improvement in the post-treatment and follow-up assessments by denying symptoms of mental illness in order to gain an earlier release from involuntary treatment. Interviews may also have been viewed as less stressing after the first interview because the situation and the interviewer had become more familiar to them and may have reduced observable symptoms of the patients. One explanation for this symptom reduction in both groups may also have been that interviews worked as therapeutic situations also for the control patients. Tattan and

Tarrier (2000) have noted similar indications in their study of patients with schizophrenia. As the control group received more attention than usual, this might well have produced an improvement in their well-being. Completely observation-based ward assessments showed no significant changes in patients' functioning, except in terms of increased irritability in the intervention group.

There was a significant positive treatment effect for insight into the illness in the intervention group, but patients' drug attitudes and compliance did not improve. As nonadherence is considered an important barrier to the effective treatment of schizophrenia, several interventions to improve adherence have been developed and studied (see Dolder et al., 2003; Zygmunt et al., 2002, for review). The results of the present study show that the desire to improve the medication attitudes of the patients was not fulfilled, although, for example, Kikkert et al. (2006) have concluded that adherence may well be positively influenced by informing the patients of the positive aspects of medication, on enhanced insight, and in fostering a positive therapeutic relationship. A recent study by Reichhart et al. (2010) on gender differences in outcomes of patient and caregiver psychoeducation for schizophrenia have indicated that females seemed to benefit significantly more from psychoeducation than males in terms of drug attitudes. In the present study, where the sample consisted mostly of male patients, it would have been interesting to examine the outcomes of the intervention between genders and, for example, whether the preferences and needs of the patients differed among males and females. Due to the small number of female patients in the study it was, however, impossible to examine the gender differences in a reliable way.

The results of the study are interesting in the sense that in addition to improving knowledge about schizophrenia in the intervention group, a positive treatment effect for group psychoeducation in their insight and self-esteem was also found, although good or enhanced insight has previously been associated with, among other things, lowered self-esteem, stigma, depressive symptoms and hopelessness, suicidal ideation and decreased quality of life. Contrastingly, the results support previous suggestions that it is possible to improve insight without risking an increase in depressive symptoms, decreasing self-esteem, and reducing the subjective quality of life (see Karow et al., 2008; Staring et al., 2009). Other recent studies seeking to empower and improve the self-esteem of patients with schizophrenia by psychosocial interventions have also produced promising results (Borras et al., 2009; Sibitz et al., 2009). Earlier studies have concluded that by reducing stigma, self-esteem could be affected (Hayward & Bright, 1997; Link et al., 2001). To accomplish this, Hayward and Bright (1997) have recommended holistically based cognitive-behavioral approaches that incorporate both psychosocial and biological models of illness to combat stigma. In the present study the self-esteem of the patients increased and the perceived stigma decreased, but only the self-esteem of the patients in the intervention group increased in a statistically significant way, indicating that further work with dealing with stigma among these patients is probably needed.

On the other hand, the results indicate that positive changes in terms of health-related quality of life and perceived stigma occurred only in the control group. There were little or no changes in terms of these measures in the intervention group. No relationship between knowledge gain and duration of illness, or self-esteem and duration of illness,

was found. At the post-treatment stage and the three-month follow-up stage the control group actually showed a clinically significant improvement (Sintonen, 1994) in their health-related quality of life. As there was no change in the intervention group, this also resulted in a moderately negative treatment effect for the intervention group. However, when the patients were asked about their overall health at the post-treatment and follow-up stages, 89% of the psychoeducation group felt that after the intervention their overall health was "somewhat better" or "much better" than at the baseline. The corresponding share of patients in the control group who felt their overall health had improved was 47%. Positive findings in the control group in terms of health-related quality of life and decreased perceived stigma can be due to the fact that they had been able to join the research project, since forensic patients with schizophrenia often value academic research and are often very motivated to participate in research as they normally have limited possibilities to engage in such participation (Hillbr, 2005; Roberts, Warner & Brody, 2000). Also getting more attention than usual and discussing their experiences in a non-judgmental atmosphere without the need for psychological work that the psychoeducation group might have induced in the intervention participants may well have worked as therapeutic effects and contributed to the positive findings in the control group.

The effects of psychoeducational interventions on the depressive symptoms of the participants have also been considered important because enhanced insight has in some earlier studies been associated with increased suicidal ideation (Cunningham Owens et al., 2001). Depression still decreased slightly in both groups, which may partly be due to the fact that group psychoeducation program was intended to include components designed to promote hope and to protect self-esteem.

At the post-treatment stage perceived stigma decreased in both groups, but much more in the control group, which appeared as a negative treatment effect for group psychoeducation. Thus, correcting stigmatizing misconceptions about schizophrenia in terms of decreased stigma were not achieved significantly with the brief intervention. One possible reason for this is the fact that forensic schizophrenia patients could be considered as doubly stigmatized (see Peternelj-Taylor & Hufft, 2010), and therefore more intensive activity working with stigma is needed among these patients. The fact that in Link's (1987) stigma-related questionnaire had to be removed from assessment instruments due to the strong negative feelings it provoked in some patients indicates that at least some patients have to deal with very difficult stigmatizing beliefs about themselves and their illness.

Prior to the intervention patients were carefully informed about the aims, contents and style of the group and the research procedures. A previous study by Noble, Douglas and Newman (2001) concluded a systematic and critical review of patients' expectation studies in psychiatric care and observed that patients who had been prepared about what to expect were found to achieve the most beneficial effects, for example, on attendance and satisfaction with the care.

Although the positive effects found in this study in terms of statistically significant findings were modest and due to the exploratory nature, only preliminary, group psychoeducation could be seen as a low-threshold psychosocial intervention, even when

the most severely ill patients were able to join the group and mainly gave positive feedback about their participation in the group. Even when a patient's psychiatric condition does not allow attending more intensive psychosocial rehabilitation efforts or interventions at some point in time, joining group psychoeducation may still be possible. More intensive long-term therapeutic efforts could then be constructed on the basis of group psychoeducation later, targeting particular problems involving compliance, stigmatization, and enhancing the quality of life of these long-term patients. Earlier at Niuvanniemi Hospital the use of these methods has not been very common in daily clinical practice due to the lack of specially trained staff, but the present study indicates that psychoeducational groups are feasible among these patients, and possible to conduct after a short two-day staff training period, as long as the staff trained as group leaders have sufficient experience in working with people with severe psychotic disorders. Consequently, group psychoeducation programs like presented in this thesis can be quite easily implemented, and are increasingly used, for the standard treatment of patients (see also Walker, 2004).

### **7.1.2 Combining the findings: Effective factors in forensic patient psychoeducation**

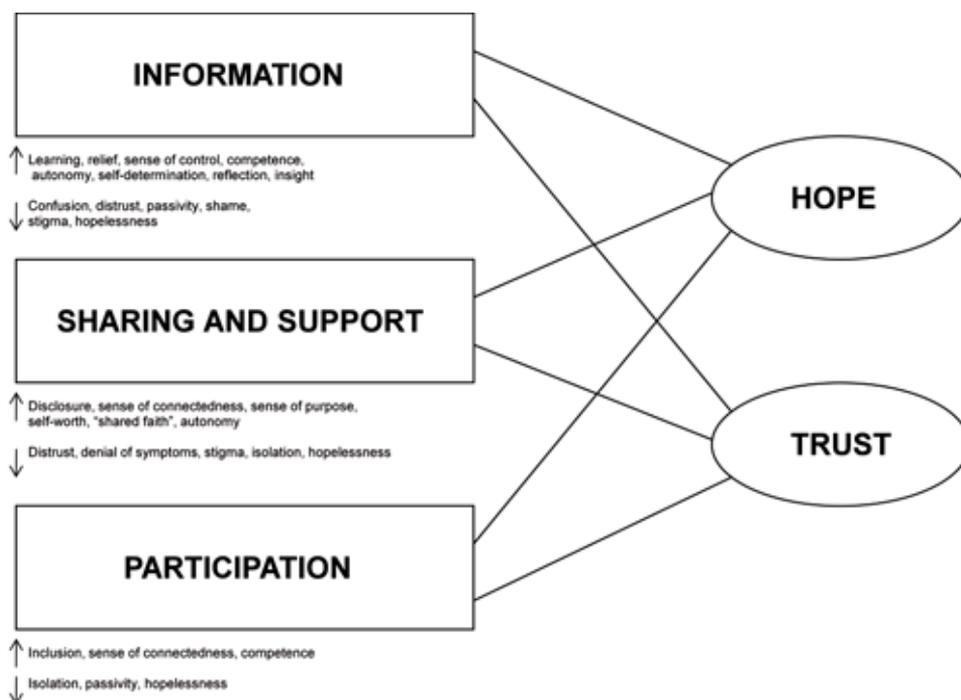
The discussion concerning possible effective factors in patient psychoeducation for forensic patients with schizophrenia is based on the other main aim of this thesis, which was to determine those factors contributing to the effects of patient psychoeducation in cases of forensic schizophrenia patients with multiple problems. The findings discussed here about the effective factors of the psychoeducation program are produced by combining the main findings based on empirical data from the entire study period, and suggest common patterns that have emerged as important factors in psychoeducation for forensic patients with schizophrenia. The results are largely based on the interview data from the four-year follow-up study of the pilot intervention (study II), and the results of the patient satisfaction study (study IV) that adopted patient perspective and discussed it in relation to the results of the experimental trials. The findings of my thesis of the usefulness of qualitative information from the patient perspective are similar as those obtained from the study of Rogers et al. (2003), who concluded that participants' accounts of the process and outcomes of intervention trials seem important in illuminating and adding to the quantitative outcomes of the intervention trials.

Three separate main factors that appear to produce the positive effects of psychoeducation for forensic patients with schizophrenia can be defined as a) information, b) sharing and support, and 3) participation. The findings are in accord with previous findings reported in scientific literature, as earlier studies of the effects of psychoeducation for non-forensic patients with schizophrenia have also indicated that psychoeducation benefits may largely be due to nonspecific treatment factors (Ascher-Svanum & Whitesel, 1999; Bäuml et al., 2006; Sibitz et al., 2007b). For example, the results of the study obtained by Bäuml et al. (2006) have indicated that the "specific effective factors of psychoeducation" seem to be the illness-related key information and emotional topics, but there, nevertheless, seems to be many nonspecific treatment effects or common

therapeutic factors that influence the process of psychoeducation and produce the benefits of psychoeducation.

The three main effective factors found in this study as well as the two essential influential forces that may be needed for patient psychoeducation for forensic patients with schizophrenia to produce positive outcomes are presented below in Figure 2, where a tentative model of effective factors and the influence of trust and hope in group psychoeducation for forensic patients is presented. Effective and influential factors are based on the empirical data obtained from the present study, but in addition to those outcomes found in the analyses in this study, the figure also presents some possible outcomes of psychoeducation noted and discussed earlier in scientific literature as possible outcomes of patient psychoeducation, depending on whether or not the two influences, hope and trust, are present in psychoeducation. In the following chapters the three effective factors and two influential factors are described.

*Figure 2. Tentative model of effective factors and the influence of trust and hope in group psychoeducation for forensic patients with schizophrenia*



### 7.1.2.1 Information

Improvement of patients' knowledge about schizophrenia is the main aim of psychoeducational interventions and usually the main outcome assessed in clinical studies concerning psychoeducation. Information also emerged in the present study as the first component that seemed to have contributed to the beneficial effects of the patients. Gaining new general information about schizophrenia was seen as significant

aspect of the group experience, and some patients also felt that they had become more active participants in their recovery. The finding is in line with previous research (see for example Eldth, Ekman & Ehnfors, 2006; Hotti, 2004; Prince, 2006; Sibitz et al., 2007b; Walker, 2006). Several patients considered the information obtained to be helpful in their situation and had given them hope, even though they had suffered from schizophrenia for several years. The need for information was evident, and the group seemed to have worked as a new, confidential forum for them, where it became possible to obtain new information about the illness, ask questions, and get them answered.

The results of the present study support the earlier findings that acceptance of the illness and its severity by mentally ill people can often be a long process and initial denial is common (Amador et al., 1994; Larsen & Gerlach, 1996), but psychoeducation groups can be beneficial in helping patients in their individual processes toward the understanding and acceptance of their illness. Psychotic illness and symptoms can often be very confusing and even frightening, and people have a need to know what is happening to them. One patient in study IV stated: *"The warning signs of psychosis and everything ... studying them. I have learned to recognize my symptoms, now understood my (previous) symptoms ... I didn't even know they were symptoms before."* Patients with schizophrenia often also believe that their condition is very rare and uncommon. A normalizing rationale for explaining the emergence of symptoms in schizophrenia was therefore used in the group. Patients reported that information about how common schizophrenia actually is had given them hope in the notion that they are not alone in their situation. It was also hoped that the information offered would give the patients a chance to reinterpret and reorganize their experiences. It was evident in the interviews in both studies II & IV that some participants were able to reflect on this new information personally and structure their experiences in such a way that the information became the participant's personal knowledge, in the same way as Kilkku et al. (2003) have found in their study. As one patient stated: *"At the time I joined the group I considered it interesting but I probably didn't understand all the issues as I do now, since time has gone by. I probably would still be denying my illness if I hadn't thought through all the issues as I now have."* Not all participants, however, felt that they had gained more understanding of their situation or illness.

Due to cognitive deficits the possibilities of involving patients with such deficits in general psychoeducational programs has also raised (Pitschel-Walz et al., 2009). It has, however, been recommended that patients whose illness affects their cognitive functioning should also be offered an opportunity to participate in psychosocial interventions (Bengtsson-Tops & Hansson, 2001; Välimäki et al., 1996). Only a minority of the patients in the study, in different phases, were reported to lack any significant cognitive problems. Cognitive problems were considered a probable influence on the outcomes of the intervention. As the cognition problems were anticipated and the psychoeducation program is based on learning, the contents and style of the intervention were carefully designed in advance to specifically take cognitive deficits into account. The intervention included environmental adaptations and educational techniques designed to maintain patients' attention and enhance learning (see Ascher-Svanum & Krause, 1991; Revheim & Marcopulos, 2006). Even though cognitive problems were

recognized in designing the program, the results of the study indicated that some patients still had problems understanding all the issues discussed in the group. A substantial challenge, for example, emerged in the sense of explaining the stress-vulnerability model of schizophrenia to patients with severe cognitive impairments. The model was made as easy as possible and repetition was used, but understanding the model completely had probably still been impossible for some patients. Despite the problems with cognition in the present sample, I concur with the conclusions of the recent study of Pitschel-Walz et al. (2009), who studied whether individuals with schizophrenia and borderline intellectual disability could be successfully integrated into general psychoeducational groups; also the present study found the psychoeducation group suitable for patients with cognitive deficits and that they were able to derive benefits from the group. The authors concluded that cognitive problems should not be an exclusion criterion for participation in such groups, but as patients with intellectual disabilities achieved lower results on knowledge scores, they also recommended additional or booster sessions for patients with intellectual disabilities to further improve illness-related knowledge and the outcome of the treatment. In study II participants also underlined the fact that they had forgotten a lot of what they had learned in the group during the four intervening years, which is consistent with some previous findings that patients can internalize information but booster sessions are probably needed to consolidate learning (Macpherson, Jerrom, & Hughes, 1996; Zygmunt et al., 2002). Sibitz et al. (2007a) have emphasized that especially in the case of patients with psychotic disorders and difficulties in retaining information, continuing psychoeducation seems to be essential.

It has been considered important in psychoeducation for schizophrenia, that the group leader is able to explain the development of schizophrenic disorders in the simplest possible terms to the patient on the basis of the vulnerability-stress model (Hornung et al., 1996). To avoid confusion, the information should also be clear, understandable and connected to the patient's experiences. Misunderstandings are possible if information is too narrow or poorly explained (Kilkku et al., 2003). In the present study one patient, for example, mentioned in the interview how he had attended a new psychoeducation group after the pilot intervention, and found that the written material gave him different facts than the ones he had received earlier. This confused him very much. In the present study during research interviews in study phase 3, two patients also actually spontaneously mentioned that they had been told on a regular basis that they "lack insight into illness", but neither of the patients had any clue what the concept meant in their cases, confusing them. In such cases it would be very important for the patient to be able to have matters clarified, as Kilkku et al. (2003) have postulated that without clarifying the given information we can make patients feel confused and worthless.

Differences in satisfaction with the group content illustrated the different informational needs of individual patients and differences in their existing knowledge base. Ascher-Svanum et al. (2001) found differential levels of experienced helpfulness concerning the content areas of the program in their study of group psychoeducation for patients with schizophrenia. The problem of patients' differential characteristics, needs,

and illness models was acknowledged, but as the aim of my thesis was to develop a basic program to suit for variety of patients, compromises had to be made. The general feeling about the group from the participant perspective was that very much information was given and some of it could only be absorbed by rereading the written material. This result is in line with the previous study of Sibitz et al. (2007b), who found that participants with schizophrenia chiefly gave positive feedback about the group psychoeducation intervention and in particular emphasized the importance of the information received and the opportunity to discuss and share ideas with other people with the same disorder. In their study quality of life topics were appreciated, whereas the perceived overemphasis on illness-related information and the feeling that too much information was given in too little time, provoked negative feedback.

### 7.1.2.2 Sharing and support

Another major factor that emerged as essential in producing benefits could be defined as “sharing and support”. One aim of the intervention was to encourage sharing in the group, and in the light of the interviews in studies II & IV, this was clearly realized. Group rules were considered important in allowing the sharing, so the rules were created to support the structure of the group and to help build an atmosphere of confidence and sharing for the participants. For example, in study II some patients were able to share very sensitive and personal difficult experiences, such as the illness. One patient shared his difficult experiences about his psychosis, alcohol abuse, and side-effects of his medication with the group, even though his medical records from that time suggested that he could not discuss his mental problems at all. The atmosphere of mutual understanding and confidentiality were probably of great importance in permitting him to even dare to share his feelings and experiences. This finding is encouraging, because as Renvick et al. (1997) have postulated, forensic patients may consider talking about emotions viewed as weakness and being unmanly, or be unwilling to disclose them, because they fear that expressing their thoughts will impact on their discharge plans. These results also confirm the findings of Nightingale and McQueeney (1996), who found that when combining psychoeducation with supportive therapy elements, psychoeducation can be expanded to emotionally loaded discussions that are generally avoided by most group treatments for schizophrenia. In the present study sharing one’s experiences can be empowering and foster hope, reduce the feeling of isolation and enhance the sense of belonging, but it can also be emotionally difficult for the patients (see Kilkku et al., 2003), and several patients reported that sharing experiences was sometimes difficult and made them feel ill at ease; on the other hand, the opportunity to share and listen to the experiences of others was viewed as interesting, and the illness-related experiences of others were considered to be a relief. One patient (study IV), for example, illustrated his experiences from the group: *“I could talk about things openly (about the illness). Normally it has been difficult for me to find any contact, to speak; it has normally been extremely difficult for me to discuss my illness.”*

Participants also continuously reported that they had experienced a sense of “shared fate” and noted that they were not alone in their problems. For example, one patient in study II said, *“We are all fellow sufferers here. All people have their own things, but we all have*

*got to the hospital ... I think what we have in common is that everyone of us walks the same road, schizophrenia is the reason why we have to stay here."* During the interviews some participants in study II also experienced benefits and perceived the group as valuable since it had given them a new sense of hope for the future. Bäuml et al. (2006) have proposed that when psychoeducation is based on group dynamics, the potential influence of solidarity and a shared fate can occur, which cannot be achieved within the framework of one-to-one contacts. In study IV the importance of social support and sharing was also evident, as the second largest category of themes that the patients experienced as most important in the group was comprised of answers relating to this sharing, social support, and discussions with others, which is also in line with previous studies (see Knight, Wykes & Hayward, 2006; Sibitz et al., 2007b). Interviews confirmed earlier findings that patients need and appreciate new information about their illness. The answers also confirmed earlier observations that sharing illness-related issues was not considered easy. In the research interviews several patients expressed difficulty in disclosing their thoughts and feelings related to the psychiatric illness and the index offence they had committed.

### **7.1.2.3 Participation**

The third component that appears to be an important effective factor related to the psychoeducation program for forensic patients with schizophrenia is the sheer opportunity to participate in a group and a research project. This component has not been reported in earlier studies investigating the effective factors of psychoeducation as a specific effective factor constituting the outcomes of psychoeducation, but considering the special characteristics of this special group and the forensic patients' deprived situation, this component may be of great importance in positively affecting their situation. Long-term psychiatric treatment limits the possibilities for meaningful activities and interactions; for Garrett and Lerman (2007) have studied the use of individual cognitive behavioral therapy for patients with psychotic illness in a forensic context and found that in systems with limited resources patients are often lonely and so hungry for individual attention that nonspecific supportive aspects of the treatment can play a large role in their outcomes. Some of the most severely ill patients in the present study emphasized that the group psychoeducation program was the first group treatment that they were able to join, and in the satisfaction data in study IV, for example, one patient emphasized how the best thing in the group experience was that he had proven to himself that he is able to participate in such a group despite his persistent symptoms. One possible reason for the unexpectedly high motivation and expectations toward the group can also be due to this fact that this sample chiefly consisted of patients who in the past rarely had the chance to participate in any psychosocial group interventions; highly symptomatic patients were also considered for inclusion in the study and some eventually came from the most secure wards of the hospital.

The importance of participation as an influential factor was seen, for example, in study II, as one patient who suffered from substantial cognitive problems and thought disorder and did not actually even recall attending the psychoeducational group. Although massive formal thought disorder has been defined as a contraindication to

psychoeducation (Bäumli et al., 2006), the aim of the present study was to also give those patients, who prior to this group very seldom had a chance to participate in any psychosocial group interventions, an opportunity to participate. Despite this, he said he wants to take part in all kinds of therapeutic activities in the ward because he wants to “rehabilitate the brain”, emphasizing that groups are in general important and meaningful to him in terms of active participation in his own treatment and help him maintain hope in his difficult situation.

Some patients also expressed the view regarding satisfaction data that research participation in the improvement of care was seen as the best thing in joining the group, and several comments in the interviews emphasizing the desire to help in the research, and patient questions during interviews about whether they had been of help, support this. The study thus supports the results of Roberts et al. (2000) and Hillbr (2005) that non-forensic and forensic patients with schizophrenia value academic research and are often very motivated to participate in it, thus helping science and making a contribution to the welfare of others. Dunn and Roberts (2005) have also postulated that patients with schizophrenia see the value of academic research and make their decisions to participate from personal and altruistic motives.

As Spaniol et al. (2002, 2008) have noted gaining control over the illness requires having effective coping skills and strategies for dealing with symptoms and stressors. Although one of the main aims of the intervention was also to provide the patients with new strategies for stress management, coping with their illness and ways of handling stress better, this aim was not sufficiently fulfilled. Although this psychoeducational program did not produce behavioral level effects in terms of improved skills, it can still be concluded that as the sample in this study consisted of patients of whom some had never earlier had an opportunity to join in any psychosocial interventions, the ability to even join and be able to function properly in social situations like the psychoeducation group, could for them be considered as skill learning on the very basic level, since they may not be able to join other interventions due to their symptoms. Even when a patient’s psychiatric condition does not allow them to participate in more intensive psychosocial rehabilitation efforts or interventions at some point in time, joining group psychoeducation may still be possible, and a starting point to provide a base for further rehabilitation and recovery in the future.

#### **7.1.2.4 Influence of trust and hope**

In addition to the three important components that are identified as effective factors in psychoeducation in this thesis, there seem to be at least two influences, *hope* and *trust*, which appear important in the process of psychoeducation and may considerably influence the effects and outcomes of psychoeducation among forensic patients with schizophrenia. Hope and trust in this case could be described as forces, attitudes, or beliefs that are either present or absent in influencing each of the three effective factors either in a positive or negative way. In order for psychoeducation to be beneficial for forensic patients, according to the present study, it seems that both forces in a positive sense are important to make the psychoeducation effective in these patients’ treatment. If not, psychoeducation may remain ineffective, or may even be harmful to the patients.

*Hope* is a central concept in the psychiatric rehabilitation paradigm and in the recovery model of schizophrenia, and the importance of maintaining and instilling hope in patients with psychiatric disabilities has been emphasized in the scientific literature. Hope has long been defined as an effective therapeutic factor in psychotherapy and, for example, the providing patients with experiences of success can heighten their hopes and enhance their sense of mastery (Frank, 1971). It has been postulated that being hopeful is an active process where hope is promoted openly, realistically, and strategically (Kirkpatrick, Landeen, Woodside & Byrne, 2001). Snyder et al. (2000) for example, studied the role of hope in cognitive-behavioral therapy and suggested that the process of catalyzing and maintaining hope appears to play a role in successful CBT interventions. Authors define hope as "principally cognitive in nature, and is explicitly linked to identification of clearly operationalized goals, the perceived capacity to generate strategies (pathways) for attaining such goals, and the requisite belief that such strategies can be pursued (agency)" (p. 759). Authors conclude that hope theory can offer a valuable framework for understanding common factors in behavior therapies.

Hope is also an essential feature in the recovery process of people with severe psychiatric disorders, as hopelessness is viewed to have a predictive value for poorer rehabilitation outcomes in schizophrenia and as contributes to factor chronicity (Hoffman et al., 2000). Due to these earlier findings and because Cross and Kirby (2001) have postulated that in forensic settings many patients may feel quite hopeless about the prospect of change in their situation, strategies to promote realistic hope was also emphasized in the present psychoeducation intervention. Earlier suggestions for psychoeducation for schizophrenia were still taken into account, since it has been emphasized that in patient education the given information should be realistic and hopeful but over-optimism and promises which cannot be delivered should be avoided (see Tattersall, 1995). In the research interviews patients expressed difficult feelings and hopelessness related to both the schizophrenia and the involuntary treatment. One patient (study IV) cited the crime he had committed and concluded: *"I have ruined other peoples' lives."* Another patient (study IV) stated: *"future seems hopeless, worthless."* Issues related to the positive impact of hope in the present study were seen in the interviews, as several patients considered the information obtained to be helpful in their situation and that, for example, information about how common schizophrenia actually is, and notion that they are not alone in their situation after discussions with others, had given them hope for the future even though they had suffered from schizophrenia for several years. As one patient mentioned in the interview in study IV: *"I got confidence ... I believe in myself more now... I am not at a dead loss."*

In the light of the findings of my thesis the second force that seems influential on outcomes of the psychoeducational program for forensic patients is *trust*. Issues of trust and distrust are perhaps even more pronounced in the treatment of forensic patients with schizophrenia in high-security settings than in general psychiatry. Suspicion is common among patients with schizophrenia due to the paranoid symptoms of the illness. In secure settings there are also issues related to involuntary treatment since an offender patient can heighten the issues of trust and distrust, and patients often also have characteristics that can highlight the problems with trust. Many of the patients in the

present study had a primary diagnosis of paranoid schizophrenia, and many patients with a main diagnosis of undifferentiated schizophrenia also had paranoid symptoms. Comorbid substance abuse was also common in the sample, as were personality disorders. Hornsveld and Nijman (2005) have emphasized the difficulties and limitations of treating chronically psychotic offenders, especially those with comorbid cluster B personality disorders. Previous research has shown that patients with comorbid problems in general are, for example, more difficult to engage in treatment as well as resistant to it, may have motivational problems with psychosocial treatment efforts, and are more dissatisfied with treatment. Garrett (2005) has noted that forensic patients learning to say as little as possible about themselves in fear that the information will be taken as indications of mental illness, which means ongoing retention and permits progress in treatment, and poses a considerable obstacle to treatment. This is also a major problem in treating patients by cognitive-behavioral or psychoeducational methods, as one of the main aims is to teach patients to recognize the warning signs of relapse and better cope with the illness. During the present study, several patients in the research interviews described how they never or at least seldom told the nursing staff, for example, if their symptoms increased. Patients had experienced the feeling that disclosure about their symptoms would lead to increased medication, seclusion, or transfer to a more restricted ward. It would be of great importance to help patients manage their symptoms better and recognize the early signs of relapse, but this is difficult when patients are unwilling to discuss their symptoms. This finding is in line with Renvick et al. (1997), who have concluded that patients may avoid discussing those things that are likely to prolong detention and wonder how the information they do reveal would impact on their discharge plans. In empirical data obtained from the present study questions of trust and distrust appeared also, for example, in the emphasis of the group rule of confidentiality among the patients. One patient (study IV) considered that the rule of confidentiality was the very best thing in the group, while another (study II) stated: *"It was quite good that you get a chance to (speak)...confidentially, you don't have to be afraid that you hear those things while walking down the corridors."*

#### **7.1.2.5 Consequences of trust and hope in outcomes of psychoeducation among forensic patients**

Finally, on the basis of the present study it is suggested that the need for trust and hope in patient psychoeducation for forensic patients with schizophrenia is probably of great importance due to the special challenges related to this group and their treatment. Table 4. seeks to summarize the conclusions of the present study in terms of why trust and hope are considered important prerequisites for a successful psychoeducation process, and the possible consequences that might ensue if the influences are either present or absent. Suggestions are based on both the empirical findings of the present study and previous findings in the scientific literature concerning psychoeducation for patients with schizophrenia.

Table 4. Consequences of trust and hope in outcomes of psychoeducation among forensic patients

	Participant perspective	Group psychoeducation
<b>INFORMATION</b>		
Trust present	Patient must be able to have at least some confidence and trust in the information provided, or the information will be insignificant, and/or cannot become the patient's own knowledge (see Kilkku et al., 2003).	Patient's competence must be trusted in order to benefit from information concerning their illness, medication, and treatment; otherwise they will probably find the information by themselves (see Clafferty, McCabe & Brown, 2000, 2001).
Trust absent	Rejection of alternative explanations, inappropriate ways of seeking further information, confusion, suspiciousness, distrust.	Medical paternalism. Patients are considered unable to understand information they are to be given or take responsibility for their actions. Patient's legal right to know about his or her illness is not recognized.
Hope present	Possibility to reflect on and reinterpret one's symptoms, sense of control. Hope for the future, destigmatization.	Normalizing information, realistic, strategic hope promotion (see Kingdon & Turkington, 1994; Kirkpatrick et al., 2001)
Hope absent	Possible risk that the individual's identity is reorganized around the devalued role of the psychotic patient, and thus the illness becomes the primary definition of the self (see Lally, 1989).	If information is not promoted in a hopeful manner, this may well prompt feelings of shame, increase the stigma of the illness, and predispose the patient to hopelessness. As the anticipated prognosis of these patients may not be very positive and the treatment is usually very long, even neutral information can be a predisposition to hopelessness.
<b>SHARING AND SUPPORT</b>		
Trust present	Enables patients to share, which can be difficult, but is often considered helpful and relieving.	When a confidential atmosphere is created for patients, it may enable them to disclose their thoughts and illness, and they may feel a new sense of connectedness. Group leaders have to provide an atmosphere where sharing can happen.
Trust absent	If patients cannot trust telling about their thoughts, there will be no sharing in the group. Benefits that could be achieved from the group in terms of sharing and support will not be gained.	If confidential atmosphere cannot be provided, there will be no discussions, and psychoeducation remains purely didactic lecturing and imparting information.
Hope present	If participants can find hope in their situations and things that are shared in a hopeful manner, they can gain a feeling of relief, support each other, and experience shared faith with other members in the group.	The group leaders have to find ways of dealing with the difficult feelings that participants may disclose in groups, and provide support and comfort.
Hope absent	If participants feel hopeless and have difficult feelings and experiences, sharing may focus solely on negative aspects and lead patients to experience hopeless and even increase the feeling of stigma related to their situation.	It is important that when patients are informed about the illness, they should not be left alone with this information as it can result in hopelessness and isolation, even suicidal ideation (see Cunningham Owens et al., 2001). The psychoeducation group must offer patients support and positive atmosphere, provide hope and encourage sharing.
<b>PARTICIPATION</b>		
Trust present	Patient takes part in the group despite possible fears or doubts related to this participation.	Patient is trusted to be capable of participating and is allowed to join the psychoeducation group.
Trust absent	Patient refuses participation due to suspicion and distrust.	Patient is not seen as competent to participate and therefore is not accepted into the psychoeducation group.
Hope present	Patient has his/her own belief and hope that participating in the group will benefit in some way (for example the patient in the present study who wanted to "rehabilitate his brain").	Though it is believed that rehabilitation of forensic patients is a long process, psychosocial rehabilitation efforts are important, can be beneficial, and all possible patients are allowed to join to group, if they wish.
Hope absent	Patient has lost hope that joining the group or treatment efforts would help in any way, and remains passive and does not join.	Patients are considered hopeless cases with no belief that psychosocial treatment efforts would help, and therefore are excluded from joining the groups as a waste of time.

It has been suggested earlier that by possessing information the patient has a chance to take an active role in relation to the disease and its treatment (McGlashan, 1994; McGorry & Edwards, 1997), and information should also be provided to those patients who have suffered from schizophrenia a long time, even for decades (Chien et al., 2001; Wiersma et

al. 1998). The findings of the present study suggest that gaining new information may lead to positive outcomes if trust and hope are present in the process, and lead to, or are helpful in achieving, learning, relief, sense of control, competence, autonomy, self-determination, reflection, and eventually enhanced insight. If trust and hope, on the other hand, are absent, giving information about schizophrenia and the often long treatment may in the case of these severely ill patients lead to increased confusion, distrust, passivity, shame, stigma, and hopelessness.

**INFORMATION.** From the perspective of the patient, s/he has to have at least some confidence and trust in the information provided, or else the information we be insignificant, and/or cannot become part of their own knowledge. If, for example the information is not sufficiently clear or not understood because of cognitive deficits, or the patient is given contradictory information, this may provoke confusion and suspicion. In other words, if the patient lacks trust, the information gained from psychoeducation may lead to confusion, passivity, and distrust. Trust in a positive sense, from the perspective of persons delivering psychoeducation requires that patients are trusted as being competent to acquire information. Historically, patients with mental illnesses were often considered incapable of understanding the information they were given or taking responsibility for their actions; it has, however, been recognized that a patient has the right to know about his or her illness. In psychoeducation groups, for example, the side effects of medication must be discussed; otherwise patients find other ways of obtaining the information they need; this leaves them open to discovering what is going on by themselves and can sometimes lead to inappropriate ways of seeking additional information (see Clafferty et al., 2000, 2001). A good relationship between physician and patient has been considered important, and sufficient information about the effects and possible adverse effects of the drugs should be given to the patient to help correct mistakes in the patient's health belief system, which often does not include a realistic concept of the illness and the need for pharmacological treatment (Fleischhacker et al., 1994). During the present study participants related that patients usually engage in large amounts of discussion about medications in wards with each other, and often the experiences that are shared can be quite negative. Also Rüsçh, Angermeyer and Corrigan (2005) have concluded that the people delivering psychoeducation should believe that the patient can be informed of his/her diagnosis without serious risks, and that knowledge alone will not necessarily lead to stigma, if the persons are aware of the stereotypes but do not agree with them. Clafferty et al. (2000, 2001) have emphasized the professionals' need for greater openness about the diagnosis of schizophrenia, as it may also be an essential first step in reducing the stigma of the illness. Frank (1971), on the other hand, has postulated that if the patient distrusts his/her therapist or carer, he/she will not accept or listen to the information that is given, and is unlikely to gain hope or experience success in treatment. When the patient is given information, on the other hand, and it is considered as reliable by the patient, this new information may become to patient's own knowledge about the illness and possibly of him/herself. In the present study some respondents actually emphasized their belief that this new information appeared to be reliable.

In regard to hope, if patients are totally without hope, they may not be able to adopt the new information in a positive way and it cannot be assumed them to be able to benefit from the information. In these cases it is the obligation of the group and group leaders to find the ways to promote the information that could provide the patients with hope and do so in a manner that fosters hope. McGorry (1995) has postulated that the stigma attached to the professional explanatory model of psychosis, combined with the person's own stereotypes of mental illness, are clearly potential threats to self-esteem. Therefore, from the perspective of the group and group leaders, since these patients often have difficult illnesses and sometimes quite poor prognoses, if the information cannot be provided in a way that fosters hope, even neutral information may lead to a lack of faith in the future and negative outcomes. Lally (1989) writes that there is a risk that the identity of the individual may be reorganized around the devalued role of the psychotic patient, and the illness becomes the primary definition of the person. Psychoeducation should therefore always convey illness-related information in a way that fosters hope and aims at reducing the stigma of the illness. To sum up, when information in psychoeducation groups is presented in an understandable way and trust and hope are present, it may lead to learning, enable reflection, a sense of control and competence, allowing the patient to be more self-determined, and help him/her in the process of gaining insight. But if information is not provided in a hopeful manner, this may well cause feelings of shame, increase the stigma of the illness and predispose the patient to hopelessness.

**SHARING AND SUPPORT.** Secondly, in the case of sharing and support, the possibility of sharing one's thoughts and giving and gaining support from others may permit revealing difficult experiences and feelings, a sense of connectedness and/or purpose, self-worth, "shared faith". If absent distrust, denial of symptoms, stigma, isolation, and increased hopelessness may arise. It has been noted earlier that support is very important in the treatment of schizophrenia, and it has also been suggested that supportive therapy may be an important but undervalued aspect of psychosocial interventions for schizophrenia (see Buckley, Petit, & Adams, 2007; Penn et al., 2004).

In respect to sharing, if patients have no trust in revealing their thoughts, there will be no sharing in the group in the first place. On the other hand, the existence of trust enables discussions, sometimes of very difficult feelings and experience, and gives them the opportunity to obtain support in the group. From the perspective of the group or group leaders the group has to provide an atmosphere where sharing can occur. For example, the group confidentiality rule seems important here. If patients do not believe that they can share their thoughts in a confidential way, there will be no discussions and the lectures providing information remain the only group content preventing them from achieving those benefits that could be acquired in terms of sharing and support. This is also the case is with hope. If participants can find hope in their situations and things that can be shared in a hopeful manner, participants can gain a feeling of relief, support each other, and experience shared faith with other members in the group. On the other hand, if patients lack hope, sharing may increase the feelings of stigma and hopelessness. The group can be a major benefit in supporting the patients to deal with the new information.

As Carroll et al. (2004) have concluded, if patients are left alone with the information provided about their illness, it can result in hopelessness and isolation. The group leaders have to find ways to deal with the difficult feelings that participants may disclose, and guide the discussions, to give support and comfort. In other words, when a hopeful atmosphere is created for patients, it may enable the disclosure of their thoughts and illness, and patients may feel a new sense of connectedness. The therapeutic relationship between the group leaders and participants can be included in this factor; although the role of the therapist in this psychoeducation program is more that of a supervisor, the amount of sharing and support that become possible in the group depends greatly on the ability of the group leader to create a safe atmosphere where sharing can occur.

***PARTICIPATION.*** Finally, there are also cases when a person's illness is so severe that more intensive therapeutic approaches are not feasible; then support becomes more than an adjunct to the treatment; it becomes the main strategy of psychosocial treatment (McGlashan, 1994). In these cases the opportunity to even participate in psychoeducation groups may provide patients the chance to participate in the process of psychoeducation, which may lead to inclusion, sense of connectedness and competence. If they, on the other hand, are not allowed to even attempt to participate, this may predispose them to passivity, isolation, and increased hopelessness about their situation and future.

As Hayes and Gantt (1992) have proposed, psychoeducation may raise patients' self-awareness, provide realistic hope about the future and build their self-esteem as they are trusted by professionals; this places the tools for caring for themselves in the participants' hands. In general, if we consider hope and trust to be important in psychoeducation for forensic patients with schizophrenia, trust and hope are required of both parties: from the patient and from the people who develop and deliver these interventions. The challenges related to past experiences of the patients and schizophrenia itself pose for this vulnerable group of patients highlights the need for psychoeducational programs and group leaders must create and utilize strategies to aid these patients in establishing the trust and hope needed for positive outcomes to be achieved.

## **7.2 METHODOLOGICAL EVALUATION**

The methodological discussion of the limitations of each study is presented in the original articles. Therefore the limitations concerning studies II and IV are described only briefly at the end of the chapter. As there was several challenges and consequent limitations in the present study and the limitations related to the experimental design and the use of self-report assessments among these patients, those issues are discussed more in detail below: First, the, methodological discussion concerning the RCT design is presented and secondly, discussion concerning the self-report instruments.

### **7.2.1 Exploratory randomized controlled trial**

Since the study was a small-scale exploratory one, several limitations also have to be taken into account. One major limitation of the present study is that the small sample. Kazdin and Bass (1989), for example, have proposed a minimum sample of 27 in each group in psychotherapy outcome studies to demonstrate relatively large differences between groups and even 70 patients in each group if the expected differences are small. Small sample size is a common problem in clinical trials and large trials are uncommon, although it has been considered and concluded that the results of smaller studies are, however, usually comparable with larger trials, although disagreement with this exists (Contopoulos-Ionniadis et al., 2005).

Secondly, the small and heterogeneous sample size prevented us from performing subgroup analyses to determine which variables, for example, patient characteristics, predicted the outcomes (see Hodgins, 1998), since subgroup analysis is only possible when the number in the subgroups is sufficiently large. Lacking subgroup analysis, research can lead to false conclusions and fail to detect, for example, if a patient gets worse because of the intervention. As Hodgins (2000, 2002) has proposed, clinical evaluations in forensic psychiatry must measure the effects and take into account of any untoward results of the intervention. Often this is solved in exploratory trials by calculating the clinical significance of the results and a reliable change to determine whether the magnitude of change for each target is statistically valid using, for example, the method developed by Jacobson and Truax (1991). Due to the heterogeneity of the present sample and consequent large variance in scores in different outcome measures, the use of the reliable change index would have required large change in scores on different outcomes for the change to have been considered reliable, which was not anticipated as a result of the brief intervention for severely ill patients. In contrast, by interviewing each patient after the intervention it was hoped that if there were some adverse effects or harmful experiences for the patients, they would have become evident during the interviews. Patients were also observed at the ward level, and the only possible adverse effect found in the experimental study, a slight increase in irritability, did not translate into patients' behavior requiring the concern of the staff. By utilizing the qualitative data it was also hoped to gain some picture of the clinical meaning of the findings of the study.

One major limitation in ward-level assessments was the fact that several patients did change their wards during the research. Thus, different people sometimes conducted the assessments of the patients' ward behavior, which may have affected the results. The ward transfers were usually from more secure to less restrictive wards, which indicate a change for the better. Changing a patient's living environment can still be a source of major stress, which can in the short term increase symptoms. Withdrawal and anxiety are not uncommon in such situations. These may well have affected the ward-level results indicating increased irritability and decreased compliance in the intervention group, although the changes were not significant nor were any complaints from wards received.

Due to the design of the present study, it also failed to test for group or therapist effects and these potentially confounding variables were not analyzed, although it is considered important for studying the efficacy of treatment (Chambless & Hollon, 1998).

Group leaders underwent a two-day training period, made written reports and evaluations concerning each session, and recorded all departures from practice in these reports. Treatment fidelity was then checked by collecting written reports and questionnaire data from the group leaders concerning educational, skills-related and interactive methods, and the contents of each intervention session were verified to guarantee that the sessions were faithful to the treatment intervention. These procedures were aimed at minimizing the differences between the groups. It has been suggested that in psychotherapy research at least such factors as therapists' non-specific interpersonal aspects (e.g. empathy), adherence to treatment procedure, and individual treatment components should be evaluated (Tarrrier & Wykes, 2004). In the present study the group format was more educational than psychotherapeutic, and the role of the therapist was more that of supervisor, but as therapeutic skills are still needed, issues related to group dynamics, possible problems encountered with highly symptomatic group participants, were addressed in the training period along with learning how to utilize the manual. Furthermore, as Macpherson et al. (1996) have concluded that the influence of different educators and educating styles is likely to be important in determining the outcomes of psychoeducation, and since this was not examined in the reported research, it can be considered a limitation to the present study.

Participants in interventions affect and impact on one another and, therefore, in addition to leader characteristics the influence of the level of group cohesion should also have been evaluated in the outcomes (Murphy & Johnson, 2006). For patients with schizophrenia group cohesion is of primary importance, as high levels of group cohesion may be instrumental in decreasing denial and feelings of isolation, assist the reintegration of identity, provide an opportunity to help others and through this increase self-esteem, support ego functioning, provide affiliation with other members in the group, and increase compliance with medication (Miller & Mason, 1998).

As an exploratory RCT design multiple outcome measures were chosen, although this is known to inflate type I error. Thus, positive findings and the difference in the observed outcome measures could have arisen by chance and should be interpreted cautiously. In the case of confirmatory RCT, all the results of multiple outcomes would have to have been adjusted by corrections of multiple testing, e.g. the Bonferroni correction, which would have reduced the statistical power; reducing the problems caused by multiplicity would have led to distorted reporting (Leon, 2008; Pocock, 1997). In confirmatory RCT designs this problem is usually resolved by simply identifying one clinically significant outcome measure as primary. Finally, as in all studies, the findings of the experimental trial may not be generalizable beyond patients who are at least sufficiently social to have given informed consent to their participation; despite the randomization, patients' readiness to change may influence the fact that they volunteered to join the psychoeducation intervention in the first place (see Quayle & Moore, 1998).

### **7.2.2 Self-report instruments**

Methodological problems and limitations in the present study that were related to the self-report assessment instruments in study phases I and III are presented together as some instruments used in both studies. Quayle and Moore (1998) have criticized the use

of self-report assessments in forensic psychiatric research and considered them a fundamental limitation since patients may be motivated to “succeed” in the group as a passport to leaving the unit; this may well affect the self-reported ratings and explain the reported change more than any other variable, including the content of the intervention. Patients are also often motivated to deny or minimize symptoms, and emphasize the use of the observer reports used in these contexts. Bech et al. (2003), on the other hand, have postulated that patients’ denial of symptoms or feeling threatened by the interview or questionnaire is often an important cause of erroneous or insufficient information. Atkinson et al. (1997), on the other hand, have criticized the use of self-report methodology and the meaningfulness of the results among chronically mentally ill populations because the results may be biased due to perceptual distortions, problems with insight, cognitive problems, delusions and response bias, among other things. In the case of the present study, both in studies I and III a considerable decrease in psychiatric symptoms from baseline to post intervention stage emerged. As the psychiatric situation of these patients is usually quite stable and does not readily change during short periods of time, and since the decrease occurred in both groups, which was not expected in the control group, it is possible that the patients wanted to deny some symptoms as well as succeed; to show improvement in order to be discharged earlier. Renvick et al. (1997) also conclude that patients may avoid discussing things that are likely to prolong detention and wonder how the information produced could impact on their discharge plans.

Several self-report instruments were still chosen to assess the outcomes of the intervention, and in addition observer and ward-rated instruments were used. Although at least most of those chosen have previously been used in schizophrenia research, too, some problems emerged. It was expected that the sense of coherence scale (SOC-13) might present problems to the patients with cognitive problems as the sentences in the scale were so long, but assumed that helping patients could overcome this problem. Still, even though some patients were assisted with the scale, they had considerable problems with it and it had to be removed due to low internal consistency. Some patients also had difficulties in concentrating to fill all the necessary questionnaires and had to be encouraged to be able to do so. Because the SOC-13 instrument had to be removed from the assessment battery, it was impossible to assess the possible changes in patients’ sense of coherence after the intervention. Although theory was chosen as one of the theoretical frameworks, the theory was later used only as a theoretical tool and philosophical orientation in the present study. The SOC theory with its three components was also able to recognize both the possible specific and non-specific effective aspects of the experienced group psychoeducation. On the other hand, the stigma scale was chosen on the basis of the items being on a general level (people with mental illness tend to...), not personal level (My mental illness...), so that patients who denied their illness or had problems accepting and dealing with it, would not become too distressed when completing the questionnaire. Still, some did get very distressed, even mad, and to avoid excluding them in the research the questionnaire had to be removed from the assessment battery.

One of the limitations of the results in study I concerns the use of a non-standardized measure for several variables. It has been suggested that the validity of many self-report

inventories cannot be proven or only partially determined, because of insufficient psychometric evaluation of the instrument utilizing inpatient psychiatric samples (O'Brien & Haynes, 1993). In the present study a 25-item self-report questionnaire about awareness of illness, attitudes toward psychiatric treatment and medication, and subjective quality of life was therefore developed. This ad hoc measure covered important topics in forensic psychiatry related to the patients' subjective evaluations of their attitudes toward treatment and medication and their understanding of their illness. Patients rated the items on a three-point Likert scale. The internal consistency of the assessment instruments calculated in studies I and III, although not the psychometric properties of these measures, in this patient group in Finland have been explored.

There are also several clinical tools and instruments to specifically evaluate outcomes and effectiveness among patients with schizophrenia (see Naber & Vita, 1998). In a later evaluation of the assessment battery it would also be appropriate to include some disease-specific instrument to measure patients' quality of life, as HRQoL instruments should be included in clinical intervention studies, but disease-specific instruments are also recommended for inclusion in the measurement of quality of life (Brommels & Sintonen, 2001). Awad, Voruganti and Heslegrave (1997) have postulated that as the concept of quality of life in schizophrenia is multidimensional, this must be reflected in its measurement; however, only those domains that are expected to change should be measured. It has, however, been emphasized that the quality of life-concept in forensic psychiatry should encompass those domains which are especially important in the life of detained patients (e.g. autonomy due to controlling, sense of purpose, self-worth) and those that are not appropriate for this population should be removed from assessments; thus adaptations are needed in instruments existing to account for the specific nature of secure care (van Nieuwenhuizen et al., 2002; Swinton et al., 1999). There are also scales especially developed for the assessment of depression in schizophrenia, and the standard depression rating scales such as BDI and BDI-II have also been criticized in regard to the measurement of depression in schizophrenia, as these instruments are not validated among this population (see Chemerinski, Bowie & Anderson, 2008). In the present study, though, the measurement of depression was also included in the BPRS scale.

### **7.2.3 Methodological evaluation of studies II & IV**

Methodological limitations in study II concerned, first, issues of transferability and credibility of the findings and, second, the use of Antvosky's Sense of Coherence theory as a theoretical tool in the analysis. Due to ethical reasons the inter-rater reliability of the analysis was not possible to assess, and it was attempted to take the issues of credibility and transferability into account by using quotations from the original interview material in the text. The sample in the study was also very small, which may reduce the transferability of the present findings to other contexts. The interview data was analyzed using Antvosky's Sense of Coherence theory as a theoretical tool in analysis. The categories captured the experiences of the participants very well, but there was an overlap between categories which was resolved by defining the categories more precisely so no expressed benefit could fit into more than one. Citations from the interviews were

again used to increase the reliability of the findings (see Coffey, 2006; Elo & Kyngäs, 2008; Graneheim & Lundman, 2004).

In study IV the methodological limitations concerned the nature of the quantitative data. First, results from the questionnaire data should be cautiously evaluated since the high level of satisfaction across the studies has been questioned in previous research. Even though preserving the anonymity of the answers was intended to decrease pressure to give socially desirable answers and offer an opportunity to express doubts and criticism towards the group, the results of the satisfaction questionnaire showed that no patient expressed significant dissatisfaction with any measured areas of the experience. When validating the expressions of dissatisfaction in the quantitative and qualitative data, it seems likely that the most dissatisfied patients may have refused to complete the questionnaire in the study. Without the interview data the results concerning dissatisfaction with the intervention would have remained hidden. Second, the anonymity of the quantitative data also prevented from making exact analyses about patient expectations or satisfaction with the intervention. It was impossible, for example, to evaluate how patient expectations were related to their actual satisfaction with the group experience or link the demographic or clinical characteristics of the respondents to their expectations or satisfaction.

### **7.3 ETHICAL CONSIDERATIONS**

Ethical approval for the research was obtained from the Research Ethics Committee of Kuopio University Hospital. In forensic psychiatry ethical issues are very important, and can be complex; thus the most common ethical problems encountered in forensic psychiatry arise from a conflict between two ethical principles: beneficence, or promotion of welfare, and respect for justice (Adshead & Sarkar, 2005). The environment must provide both maximum security and therapeutic treatment; thus, achieving the proper balance between the needs of the patients and security needs may present a challenge (Renvick et al., 1997). Treatment of patients in forensic, coercive contexts differs from general psychiatric care, as the interests of other parties, i.e. the mental health and the criminal justice systems, and interests concerning public safety are also involved, and professionals do not function solely as agents of the patients aiming at their well-being (Müller-Isberner & Hodgins, 2000). Authors emphasize that another ethical dilemma arises from the fact that in the case of mental disorder combined with a high risk of recidivism, inpatient treatment often involves longer periods of confinement in security hospitals than if the offender had been convicted and sentenced to prison, and the length of time the patient is detained, sometimes in lifelong treatment, cannot be justified on clinical grounds. It was also taken into account that the intervention could cause harm to the patients, so measures to assess possible deterioration were utilized, as well as continuing observation of the psychiatric state of the participants at the ward.

Prior to the intervention patients were carefully informed about the aims, contents and style of the group and the research procedures; the final decision to participate in the intervention was given to patients themselves. Patients were told that refusing to participate would have no effect on their care and confidentiality was guaranteed. All

patients were also told that they were free to withdraw at any time and this would have no bearing on their treatment. It was considered unethical to withhold potentially helpful treatments from patients, so patients were told that even if they were randomized to the control group in the case of experimental trial, they would get to join the group after the research. Signed, written informed consent was obtained from all participants (Act on Status and Rights of Patients, 1992). Careful explanation of research procedures and intervention were emphasized, as patients with schizophrenia may sometimes have difficulties understanding research consent disclosures adequately.

Issues of control, power, privacy, and confidentiality as well as those concerning the ability to give informed consent and the validity of consent when detained arise when conducting research with this group of patients (see Coffey, 2006). It is important to ensure that patients with psychiatric disorders are competent to make decisions by themselves and have an adequate understanding and appropriate participation in research (Stiles, Poythress, Hall, Falkenbach & Williams, 2001). Patients with more psychopathological symptoms, cognitive deficits, and a long hospitalization, may especially have problems with their ability to make adequate decisions (Brown & Adshead, 2003; Dunn, 2007; Kovnick, Appelbaum, Hoge & Leadbetter, 2003). Potentially vulnerable research participants, such as those with thought disorders, might, for example, have unreasonable hopes for the benefits they will receive from their participation (Candilis, Geppert, Fletcher, Lidz & Appelbaum, 2006). When the interviews were conducted, written informed consent was obtained from all participants for both the interview and research, as well as for information to be obtained from their treatment records. To guarantee confidentiality and anonymity, the interviews were coded and no citations that could reveal the identity of the informant were used. The names of the participants were changed. Due to the vulnerability of the group participants and the very sensitive, difficult issues discussed in the interviews, guarantees were given to the participants that no person other than the main researcher would have access to the original interviews.

## **7.4 CLINICAL IMPLICATIONS**

- 1) Group psychoeducation programs like that presented in my thesis can be quite easily implemented in the standard treatment of patients, and as many patients as possible should be given the chance to participate, since the findings of the present study indicate that it can benefit these patients. The intervention could be seen as a low threshold psychosocial intervention where participation may be possible even when a patient's psychiatric condition does not allow attending more intensive psychosocial rehabilitation efforts or interventions at some point in time.
- 2) Due to cognitive deficits the possibilities to involve patients with such problems in general psychoeducational programs has also arisen, but in the light of the findings of the present study group intervention also seems feasible among patients with cognitive deficits. Thus cognitive problems should not be an exclusion criterion for participating in such groups, although booster sessions and individually tailored one-to-one psychoeducation may be needed to achieve good results.
- 3) Due to the challenges related in the treatment this vulnerable group of patients, psychoeducational programs and group leaders should seek to create and utilize hopeful strategies. Interventions for forensic schizophrenia patients should therefore focus even more on fostering hope, normalizing mental illness, and correcting stigmatizing misconceptions in order to deal with the stigma and improve the quality of life of these patients.

## **7.5 IMPLICATIONS FOR FUTURE RESEARCH**

The results of the present study suggest a need for future research in at least the following areas:

- 1) As the experimental study presented in my thesis was exploratory, building on a pilot work, a full RCT with such patients is recommended, informed by the results obtained in the present experimental design.
- 2) Future research should focus on the long-term effects of the intervention, and which patients benefit and do not benefit from the group. In conjunction with the present study of feasibility and effects of group psychoeducation for forensic patients with schizophrenia one-year follow-up data has been gathered. This data should be analyzed and reported to determine whether the positive effects suggested by the experimental study are lasting.



# References

- Abbadi, S. (2005). Psicoeducación y esquizofrenia: fracas de una propedéutica. *Vertex*, 16, 85-88.
- Act on the Status and Rights of Patients (1992). No. 785/1992. *Ministry of Social Affairs and Health*.
- Adshead, G., & Sarkar, S.P. (2005). Justice and welfare: two ethical paradigms in forensic psychiatry. *Australian and New Zealand Journal of Psychiatry*, 39(11-12), 1011-1017.
- Aho, K. (2002). *Psykoedukatiivinen ryhmäinterventio osana skitsofreniaa sairastavien pitkäaikaisspotilaiden hoitoa*. Joensuun yliopisto, Psykologian laitos.
- Albers, M. (1998). Die Langzeitbehandlung der chronischen Schizophrenien. *Nervenarzt*, 69, 737-751.
- Aleman, A., Hijman, R., de Haan, E.H.F., & Kahn, R.S. (1999). Memory impairment in schizophrenia: a meta-analysis. *American Journal of Psychiatry*, 156(9), 1358-1366.
- Aleman, A., Agrawal, N., Morgan, K.D., & David, A.S. (2006). Insight in psychosis and neuropsychological function. *British Journal of Psychiatry*, 189, 204-212.
- Amador, X.F., Strauss, D.H., Yale, S.A., Flaum, M.M., Endicott, J., & Gorman, J.M. (1993). Assessment of insight in psychosis. *American Journal of Psychiatry* 150, 873-879.
- Amador, X.F., Flaum, M., Andreasen, N.C., Strauss, D.H., Yale, S.A., Clark, S.C., & Gorman, J.M. (1994). Awareness of illness in schizophrenia and schizoaffective and mood disorders. *Archives in General Psychiatry* 51, 826-836.
- American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders, 4th ed (DSM-IV)*. Washington, DC: American Psychiatric Association.
- Amminger, G.P., Schlögelhofer, M., Lehner, T., Looser Ott, S., Friedrich, M.H., & Aschauer, H.N. (2000). Premorbid performance IQ deficit in schizophrenia. *Acta Psychiatrica Scandinavica*, 102, 414-422.
- Anders, K., Pfammatter, M., Fries, A., & Brenner, H.D. (2003). The significance of coping as therapeutic variable for the outcome of psychological therapy in schizophrenia. *European Psychiatry*, 18, 149-154.
- Anderson, A.J. (2001). Psychoeducational group therapy for the dually diagnosed. *International Journal of Psychosocial Rehabilitation*. 5, 77-78.
- Anthony, W.A. (1993). Recovery from mental illness: The guiding vision of the mental health service system in the 1990s. *Psychosocial Rehabilitation*, 16(4), 11-23.
- Antonovsky, A. (1979). *Health, Stress and Coping*. London: Jossey-Bass Publishers.
- Antonovsky, A. (1987). *Unraveling the Mystery of Health: How People Manage Stress and Stay Well*. San Francisco: Jossey-Bass Publishers.
- Ascher-Svanum, H., & Krause, A. (1991). *Psychoeducational Groups for Patients with Schizophrenia*. Gaithersburg, MD: Aspen Publishers.
- Ascher-Svanum, H., & Whitesel, J. (1999). A randomized controlled study of two styles of group patient education about schizophrenia. *Psychiatric Services*, 50, 926-930.

- Ascher-Svanum, H., Rochford, S., Cisco, D., & Claveaux, A. (2001). Patient education about schizophrenia: initial expectations and later satisfaction. *Issues in Mental Health Nursing, 22*, 325-333.
- Ascher-Svanum, H., Faries, D.E., Zhu, B., Ernst, F.R., Swartz, M.S., & Swanson, J.W. (2006). Medication adherence and long-term functional outcomes in the treatment of schizophrenia in usual care. *Journal of Clinical Psychiatry, 67*(3), 453-460.
- Ascher-Svanum, H., Zhu, B., Faries, D.E., Salkever, D., Slade, E.P., Peng, X., & Conley, R.R. (2010). The cost of relapse and the predictors of relapse in the treatment of schizophrenia. *BMC Psychiatry, 10*(1), 2.
- Atkinson, J.M., Coia, D.A., Gilmour, W.H., & Harper, J.P. (1996). The impact of education groups for people with schizophrenia on social functioning and quality of life. *British Journal of Psychiatry, 168*, 199-204.
- Atkinson, M., Zibin, S., & Chuang, H. (1997). Characterizing quality of life among patients with chronic mental illness: A critical examination of the self-report methodology. *American Journal of Psychiatry, 154*(1), 99-105.
- Avis, M., Bond, M., & Arthur, A. (1995). Satisfying solutions? A review of some unresolved issues in the measurement of patient satisfaction. *Journal of Advanced Nursing, 22*, 316-322.
- Avis, M., Bond, M., & Arthur, A. (1997). Questioning patient satisfaction: An empirical investigation in two outpatient clinics. *Social Science & Medicine, 44*, 85-92.
- Awad, A.G., Voruganti, L.N., & Heslegrave, R.J. (1997). Measuring quality of life in patients with schizophrenia. *Pharmacoeconomics, 11*(1), 32-47.
- Awad, A.G., & Voruganti, L.N. (2000). Intervention research in psychosis: issues related to the assessment of quality of life. *Schizophrenia Bulletin, 26*(3), 557-564.
- Bachrach, L.L. (1992). Psychosocial rehabilitation and psychiatry in the care of long-term patients. *American Journal of Psychiatry, 149*(11), 1455-1463.
- Baker, E. (2003). Service user views on a low secure psychiatric ward. *Clinical Psychology, 25*, 11-13.
- Barak, Y., Szor, H., Kimhi, R., Kam, E., Mester, R., & Elizur, A. (2001). Survey of patient satisfaction in adult psychiatric outpatient clinics. *European Psychiatry, 16*, 131-133.
- Barch, D.M. (2005). The cognitive neuroscience of schizophrenia. *Annual Review in Clinical Psychology, 1*, 321-353.
- Barker, D. A., Shergill, S. S., Higginson, I., & Orrell, M. W. (1996). Patients' views towards care received from psychiatrists. *The British Journal of Psychiatry, 168*, 641-646.
- Barsky, J., & West, A.G. (2007). Secure settings and the scope for recovery: service users' perspectives on a new tier of care. *The British Journal of Forensic Practice, 9*(4), 5-11.
- Bech, P., Malt, U.F., Dencker, S.J., Ahlfors, U.G., Elgen, K., Lewander, T., Lundell, A., Simpson, G.M., & Lingjærde, O. (Eds. ). (1993). Scales for assessment of diagnosis and severity of mental disorders. *Acta Psychiatrica Scandinavica, 372*(Suppl. 87). Copenhagen: Munksgaard.
- Bechdolf, A., Klosterkötter, J., Hambrecht, M., Knost, B., Kuntermann, C., Schiller, S., & Pukrop, R. (2003). Determinants of subjective quality of life in post acute patients with schizophrenia. *European Archives of Psychiatry and Clinical Neuroscience, 253*(5), 228-235.

- Bechdolf, A., Knost, B., Kuntermann, C., Schiller, S., Klosterkötter, J., Hambrecht, M., & Pukrop, R. (2004). A randomized comparison of group cognitive-behavioural therapy and group psychoeducation in patients with schizophrenia. *Acta Psychiatrica Scandinavica*, *110*, 21-28.
- Bechdolf, A., Köhn, D., Knost, B., Pukrop, R., & Klosterkötter, J. (2005). A randomized comparison of group cognitive-behavioural therapy and group psychoeducation in acute patients with schizophrenia: outcome at 24 months. *Acta Psychiatrica Scandinavica*, *112*, 173-179.
- Beck, A.T., Rush, A.J., Shaw, B.F., & Emery, G. (1979). *Cognitive Therapy of Depression*. New York: The Guilford Press.
- Beck, A.T., Steer, R.A., & Brown, G.K. (1996). *Manual for Beck Depression Inventory II (BDI-II)*. San Antonio, TX: Psychology Corporation. *BDI-II Finnish manual* (2005). Psykologien Kustannus Oy: Helsinki.
- Beck, A.T., & Rector, N.A. (2000). Cognitive therapy of schizophrenia: a new therapy for the new millennium. *American Journal of Psychotherapy*, *54*(3), 291-300.
- Begley, C.M. (1996). Using triangulation in nursing research. *Journal of Advanced Nursing*, *24*, 122-128.
- Belfrage, H., & Douglas, K. S. (2002). Treatment effects on forensic psychiatric patients measured with the HCR-20 violence risk assessment scheme. *International Journal of Forensic Mental Health*, *1*, 25-36.
- Bellack, A. S., Mueser, K. T., Gingerich, S., & Agresta, J. (1997). *Social Skills Training for Schizophrenia*. London: The Guilford Press.
- Beller, E.M., Gebski, V., & Keech, A.C. (2002). Randomisation in clinical trials. *Medical Journal of Australia*, *177*, 565-567.
- Bengtsson-Tops, A., & Hansson, L. (2001). The validity of Antonovsky's sense of coherence measure in a sample of schizophrenic patients living in the community. *Journal of Advanced Nursing*, *33*(4), 432-438.
- Bentall, R.P. (2003). *Madness Explained: Psychosis and Human Nature*. London: Penguin Books Ltd.
- Berg, L., & Johansson, M. (2003). *Psykoedukaation työkirja. Psykkisesti sairastuneen ja hänen perheensä/ tukiryhmänsä kanssa toteutettava ohjaus*. Lievestuore: Profami oy.
- Bergstein, M., Weizman, A., & Solomon, Z. (2008). Sense of coherence among delusional patients: prediction of remission and risk of relapse. *Comprehensive Psychiatry*, *49*(3), 288-296.
- Bikker, A. P., & Thompson, A. G. H. (2006). Predicting and comparing patient satisfaction in four different modes of health care across a nation. *Social Science & Medicine*, *63*, 1671-1683.
- Birchwood, M., Mason, R., MacMillan, F., & Healy, J. (1993). Depression, demoralization and control over psychotic illness: a comparison of depressed and non-depressed patients with a chronic psychosis. *Psychological Medicine*, *23*(2), 387-395.
- Birchwood, M., Spencer, E., & McGovern, D. (2000). Schizophrenia: early warning signs. *Advances in Psychiatric Treatment*, *6*, 93-101.

- Birchwood, M., Iqbal, Z., & Upthegrove, R. (2005). Psychological pathways to depression in schizophrenia. *European Archives of Psychiatry and Clinical Neuroscience*, 255, 202-212.
- Bisbee, C.C. (1979). Patient education in psychiatric illness. *Orthomolecular Psychiatry*, 8(4), 239-247.
- Bisbee, C.C. (2000). Psychiatric patient education. *Psychiatric Times*, 17, 4.
- Björkman, T., & Hansson, L. (2001). Client satisfaction with case management: A study of 10 pilot services in Sweden. *Journal of Mental Health*, 10(2), 163-174.
- Blatt, S.J., & Zuroff, D.C. (2005). Empirical evaluation of the assumptions in identifying evidence based treatments in mental health. *Clinical Psychology Review*, 25, 459-486.
- Borras, L., Boucherie, M., Mohr, S., Lecomte, T., Perroud, N., & Huguelet, P. (2009). Increasing self-esteem: efficacy of a group intervention for individuals with severe mental disorders. *European Psychiatry*, 24, 307-316.
- Bradshaw, W., & Brekke, J.S. (1999). Subjective experiences in schizophrenia: factors influencing self-esteem, satisfaction with life, and subjective distress. *American Journal of Orthopsychiatry*, 69, 254-260.
- Brekke, J.S., Hoe, M., Long, J., & Green, M.F. (2007). How neurocognition and social cognition influence functional change during community-based psychosocial rehabilitation for individuals with schizophrenia. *Schizophrenia Bulletin*, 33, 1247-1256.
- Brommels, M., & Sintonen, H. (2001). Be generic and specific: quality of life measurement in clinical studies. *Annals of Medicine*, 33, 319-322.
- Brown, C., & Adshear, G. (2003). Research ethics committees and research in forensic psychiatry. In G. Adshear & C. Brown (Eds.), *Ethical Issues in Forensic Mental Health* (pp. 107-118). London: Jessica Kingsley Publishers.
- Browne, S., Roe, M., Lane, A., Gervin, M., Morris, M., Kinsella, A., Larkin, C., & O'Callaghan, E. (1996). Quality of life in schizophrenia: relationship to sociodemographic factors, symptomatology and tardive dyskinesia. *Acta Psychiatrica Scandinavica*, 94, 118-124.
- Buchkremer, G., Klingberg, S., Holle, R., Schulze Mönking, H., & Hornung, W.P. (1997). Psychoeducational psychotherapy for schizophrenic patients and their key relatives or care-givers: results of a 2-year follow-up. *Acta Psychiatrica Scandinavica*, 96, 483-491.
- Buckley, L.A., Petit, T.A.C.L., & Adams, C.E. (2007). Supportive psychotherapy for schizophrenia. *Cochrane Database of Systematic Reviews*, Issue 2. Art. No.; CD004716. DOI: 10.1002/14651858.CD004716.pub
- Buckley, P.F., Wirshing, D.A., Bhushan, P., Pierre, J.M., Resnick, S.A., & Wirshing, W.C. (2007). Lack of insight in schizophrenia: impact on treatment adherence. *CNS Drugs*, 21(2), 129-141.
- Buckley, P.F., Miller, B.J., Lehrer, D.S., & Castle, D.J. (2009). Psychiatric comorbidities and schizophrenia. *Schizophrenia Bulletin*, 35(2), 383-402.
- Budd, R.J., & Hughes, I.C. (1997). What do relatives of people with schizophrenia find helpful about family intervention? *Schizophrenia Bulletin*, 23, 341-347.

- Byrne, C.M., Woodside, H., Landeen, J., Kirkpatrick, H., Bernardo, A., & Pawlick, J. (1994). The importance of relationships in fostering hope. *Journal of Psychosocial Nursing and Mental Health Services, 32*(9), 31-34.
- Bäumli, J., Froböse, T., Kraemer, S., Rentrop, M., & Pitschel-Walz, G. (2006). Psychoeducation: A basic psychotherapeutic intervention for patients with schizophrenia and their families. *Schizophrenia Bulletin, 32*(suppl.1), 1-9.
- Bäumli, J., Pitschel-Walz, G., Volz, A., Engel, R.R., & Kissling, W. (2007). Psychoeducation in schizophrenia: 7-year follow-up concerning rehospitalization and days in hospital in the Munich Psychosis Information Project Study. *Journal of Clinical Psychiatry, 68*(6), 854-861.
- Bäumli, J., & Pitschel-Walz, G. (Eds.). (2008). *Psychoedukation bei schizophrenen Erkrankungen. Konsensuspapier der Arbeitsgruppe "Psychoedukation bei schizophrenen Erkrankungen"*. Stuttgart: Schattauer.
- Candilis, P.J., Geppert, C.M.A., Fletcher, K.E., Lidz, C.W., & Appelbaum, P.S. (2006). Willingness of subjects with thought disorder to participate in research. *Schizophrenia Bulletin, 32*(1), 159-165.
- Carlin, P., Gudjonsson, G., & Yates, M. (2005). Patient satisfaction with services in medium secure units. *The Journal of Forensic Psychiatry & Psychology, 16*(4), 714-728.
- Carroll, A., Fattah, S., Clyde, Z., Coffey, I., Owens, D.G.C., & Johnstone, E.C. (1999). Correlates of insight and insight change in schizophrenia. *Schizophrenia Research, 35*, 247-253.
- Carroll, A., Pantelis, C., & Harvey, C. (2004). Insight and hopelessness in forensic patients with schizophrenia. *Australian and New Zealand Journal of Psychiatry, 38*, 169-173.
- Chambless, D.L., & Hollon, S.D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology, 66*(1), 7-18.
- Chambless, D.L., & Ollendick, T.H. (2001). Empirically supported psychological interventions: controversies and evidence. *Annual Review of Psychology, 52*, 685-716.
- Chaplin, R., & Timehin, C. (2002). Informing patients about tardive dyskinesia: four-year follow up of a trial of patient education. *Australian and New Zealand Journal of Psychiatry, 36*, 99-103.
- Chemerinski, E., Bowie, C., & Anderson, H. (2008). Depression in schizophrenia: Methodological artifact or distinct feature of the illness? *The Journal of Neuropsychiatry and Clinical Neuroscience, 20*, 431-440.
- Chien, W.-T., Kam, C.-W., & Lee, I.F.-K. (2001). An assessment of patients' needs in mental health education. *Journal of Advanced Nursing, 34*(3), 304-311.
- Chue, P. (2006). The relationship between patient satisfaction and treatment outcomes in schizophrenia. *Journal of Psychopharmacology, 20*(6), 38-56.
- Clafferty, R.A., McCabe, E., & Brown, K.W. (2000). Telling patients with schizophrenia their diagnosis. *British Medical Journal, 321*(7257), 384.
- Clafferty, R.A., McCabe, E., & Brown, K.W. (2001). Conspiracy of silence? Telling patients with schizophrenia their diagnosis. *Psychiatric Bulletin, 25*, 336-339.

- Clayton, J., & Tse, S. (2003). An educational journey towards recovery for individuals with persistent mental illnesses: A New Zealand perspective. *Psychiatric Rehabilitation Journal*, 27(1), 72-78.
- Cleary, M., Hunt, G.E., Matheson, S.L., Siegfried, N., & Walter, G. (2007). Psychosocial interventions for people with both severe mental illness and substance abuse. *Cochrane Database of Systematic Reviews, Issue 4*. Art. No.; CD001088. DOI:10.1002/14651858.CD001088.pub2
- Coffey, M. (2006). Researching service user views in forensic mental health: A literature review. *The Journal of Forensic Psychiatry & Psychology*, 17(1), 73-107.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences (2nd edition)*. NY: Academic Press.
- Coid, J.W. (1993). Quality of life for patients detained in hospital. *The British Journal of Psychiatry*, 162, 611-620.
- Coleman, R. (1999). *Recovery: An Alien Concept*. Gloucester: Handsell Publishing.
- Conley, R.R., & Buchanan, R.W. (1997). Evaluation of treatment-resistant schizophrenia. *Schizophrenia Bulletin*, 23(4), 663-674.
- Conley, R.R., Ascher-Svanum, H., Zhu, B., Faries, D.E., & Kinon, B.J. (2007). The burden of depressive symptoms in the long-term treatment of patients with schizophrenia. *Schizophrenia Research*, 90(1-3), 186-197.
- Contopoulos-Ioannidis, D.G., Gilbody, S.M., Trikalinos, T.A., Churchill, R., Wahlbeck, K., & Ioannidis, J.P. (2005). Comparison of large versus smaller randomized trials for mental health-related interventions. *American Journal of Psychiatry*, 162, 578-584.
- Cooke, M.A., Peters, E.R., Kuipers, E., & Kumari, V. (2005). Disease, deficit or denial? Models of poor insight in psychosis. *Acta Psychiatrica Scandinavica*, 112, 4-17.
- Cooke, M., Peters, E., Fannon, D., Anilkumar, A.P., Aasen, I., Kuipers, E., & Kumari, V. (2007). Insight, distress and coping styles in schizophrenia. *Schizophrenia Research*, 94(1-3), 12-22.
- Corrigan, P.W. (2003). Towards an integrated, structural model of psychiatric rehabilitation. *Psychiatric Rehabilitation Journal*, 26(4), 346-358.
- Crawford, M. J., & Kessel, A. S. (1999). Not listening to patients – the use and misuse of patient satisfaction studies. *International Journal of Social Psychiatry*, 45(1), 1-6.
- Cross, D., & Kirby, S. D. (2001). Using psychoeducational interventions within an integrated psychological approach to forensic mental health and social care. In A. M. Kettles (Ed.), *Therapeutic Interventions for Forensic Mental Health Nurses* (pp. 72-91). London: Jessica Kingsley Publishers.
- Cunningham Owens, D.G., Carroll, A., Fattah, S., Clyde, Z., Coffey, I., & Johnstone, E.C. (2001). A randomized, controlled trial of a brief interventional package for schizophrenic out-patients. *Acta Psychiatrica Scandinavica*, 103, 362-369.
- Curran, D., Molenberghs, G., Fayers, P.M., & Machin, D. (1998). Incomplete quality of life data in randomized trials: missing forms. *Statistics in Medicine*, 17, 697-709.
- Czuchta, D.M., & Johnson, B.A. (1998). Reconstructing a sense of self in patients with chronic mental illness. *Perspectives in Psychiatric Care*, 34(3), 31-36.
- Davidson, L. (2010). PORT through a recovery lens. *Schizophrenia Bulletin*, 36(1), 107-108.

- Day, J.C., Bentall, R.P., Roberts, C., Randall, F., Rogers, A., Cattell, D., Healy, D., Rae, P., & Power, C. (2005). Attitudes toward antipsychotic medication: the impact of clinical variables and relationships with health professionals. *Archives of General Psychiatry*, *62*(7), 717-724.
- Deegan, P. (1996). Recovery as a journey of the heart. *Psychiatric Rehabilitation Journal*, *19*(3), 91-97.
- Degmecic, D., Pozgain, I., & Filakovic, P. (2007). Psychoeducation and compliance in the treatment of patients with schizophrenia. *Collegium Antrpologicum*, *31*, 1111-1115.
- Dinos, S., Stevens, S., Serfaty, M., Weich, S., & King, M. (2004). Stigma: the feelings and experiences of 46 people with mental illness. *British Journal of Psychiatry*, *184*, 176-181.
- Dixon, L.B., Dickerson, F., Bellack, A.S., Bennett, M., Dickinson, D., Goldberg, R.W., ... Kreyenbuhl, J. (2010). The 2009 schizophrenia PORT psychosocial recommendations and summary statements. *Schizophrenia Bulletin*, *36*(1), 48-70.
- Dolder, C.R., Lacro, J.P., Leckband, S., & Jeste, D.V. (2003). Interventions to improve antipsychotic medication adherence: review of recent literature. *Journal of Clinical Psychopharmacology*, *23*(4), 389-399.
- Donenberg, G.R., Lyons, J.S., & Howard, K.I. (1999). Clinical trials versus mental health services research: Contributions and connections. *Journal of Clinical Psychology*, *55*(9), 1135-1146.
- Dressing, H., Salize, H.J., & Gordon, H. (2007). Legal frameworks and key concepts regulating diversion and treatment of mentally disordered offenders in European Union member states. *European Psychiatry*, *22*, 427-432.
- Dumville, J.C., Torgerson, D.J., & Hewitt, C.E. (2006). Reporting attrition in randomised controlled trials. *BMJ*, *332*, 969-971.
- Duncan, E.A.S., Nicol, M.M., Ager, A., & Dalgleish, L. (2006). A systematic review of structured group interventions with mentally disordered offenders. *Criminal Behaviour and Mental Health*, *16*, 217-241.
- Dunn, G. (2005). Can we obtain credible estimates of the causal effects of interventions from non-randomized trials (observational studies or so-called quasi-experiments)? *Criminal Behaviour and Mental Health*, *15*(2), 123-125.
- Dunn, L.B., & Roberts, L.W. (2005). Emerging findings in ethics of schizophrenia research. *Current Opinion in Psychiatry*, *18*, 111-119.
- Dunn, L.B. (2007). Ethical issues in schizophrenia: considerations for treatment and research. *Psychopharmacological Bulletin*, *40*(4), 145-155.
- Eack, S.M., & Newhill, C.E. (2007). Psychiatric symptoms and quality of life in schizophrenia: a meta-analysis. *Schizophrenia Bulletin*, *33*(5), 1225-1237.
- Eack, S.M., Newhill, C.E., Anderson, C.M., & Rotondi, A.J. (2007). Quality of life for persons living with schizophrenia: more than just symptoms. *Psychiatric Rehabilitation Journal*, *30*(3), 219-222.
- Eckman, T.A., Wirshing, W.C., Marder, S.R., Liberman, R.P., Johnston-Cronk, K., Zimmermann, K., & Mintz, J. (1992). Techniques for training schizophrenic patients in illness self-management: a controlled trial. *American Journal of Psychiatry*, *149*, 1549-1555.

- Eldth, A.C., Ekman, I., & Ehnfors, M. (2006). Conditions for patient participation and non-participation in health care. *Nursing Ethics, 13*(5), 503-514.
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing, 62*(1), 107-115.
- Emsley, R., Chiliza, B., & Schoeman, R. (2008). Predictors of long-term outcome in schizophrenia. *Current Opinion in Psychiatry, 21*(2), 173-177.
- Eronen, M., Tiihonen, J., & Hakola, P. (1996). Schizophrenia and homicidal behavior. *Schizophrenia Bulletin, 22*(1), 83-89.
- Eronen, M., Repo, E., Vartiainen, H., & Tiihonen, J. (2000). Forensic psychiatric organization in Finland. *International Journal of Law and Psychiatry, 23*(5-6), 541-546.
- Fairburn, C.G., Jones, R., Peveler, R.C., Hope, R.A., & O'Connor, M. (1993). Psychotherapy and bulimia nervosa: Longer-term effects of interpersonal psychotherapy, behavior therapy and cognitive therapy. *Archives of General Psychiatry, 50*, 419-428.
- Falloon, I.R.H. (2003). Family interventions for mental disorders: efficacy and effectiveness. *World Psychiatry, 2*, 20-28.
- Fazel, S., Gulati, G., Linsell, L., Geddes, J.R., & Grann, M. (2009). Schizophrenia and violence: systematic review and meta-analysis. *PLoS Medicine, 6*(8), e1000120. Epub 2009 Aug 11.
- Feldmann, R., Buchkremer, G., & Hornung, W.P. (2000). Prognostische und therapeutische Relevanz kognitiver Ressourcen für den Langzeitverlauf schizophrener Erkrankung nach psychoedukativ-psychotherapeutischer Behandlung. [Cognitive deficits of schizophrenic patients as predictors of the course of illness after psychoeducational psychotherapeutic interventions]. *Fortschritte der Neurologie und Psychiatrie, 68*, 54-60.
- Feldmann, R., Hornung, W.P., Prein, B., Buchkremer, G., & Arolt, V. (2002). Timing of psychoeducational psychotherapeutic interventions in schizophrenic patients. *European Archives of Psychiatry and Clinical Neuroscience, 252*, 115-119.
- Fenton, W.S., Blyler, C., & Heinssen, R.K. (1997). Determinants of medication compliance in schizophrenia: empirical and clinical findings. *Schizophrenia Bulletin, 23*, 637-651.
- Fleischhacker, W.W., Meise, U., Günther, V., & Kurz, M. (1994). Compliance with antipsychotic drug treatment: influence of side effects. *Acta Psychiatrica Scandinavica, 89*(suppl. 382), 11-15.
- Forbes, N.F., Carrick, L.A., McIntosh, A.M., & Lawrie, S.M. (2008). Working memory in schizophrenia: a meta-analysis. *Psychological Medicine, 23*, 1-17.
- Frank, J.D. (1971). Therapeutic factors in psychotherapy. *American Journal of Psychotherapy, 25*, 350-361.
- Fung, K.M., Tsang, H.W., & Corrigan, P.W. (2008). Self-stigma of people with schizophrenia as predictor of their adherence to psychosocial treatment. *Psychiatric Rehabilitation Journal, 32*(2), 95-104.
- Garety, P.A., Fowler, D., & Kuipers, E. (2000). Cognitive behavioral therapy for medication-resistant symptoms. *Schizophrenia Bulletin, 26*(1), 73-86.

- Garrett, M. (2005). *CBT for chronically psychotic forensic patients in settings of high security*. XXXV Annual Congress of EABCT, 21.-24.9.2005. Thessaloniki, Greece.
- Garrett, M., & Lerman, M. (2007). CBT for psychosis for long-term inpatients with a forensic history. *Psychiatric Services, 58*(5), 712-713.
- Gibson, C.H. (1991). A concept analysis of empowerment. *Journal of Advanced Nursing, 16*, 354-361.
- Global Assessment of Functioning Scale (GAF), in *Diagnostic and Statistical Manual of Mental Disorders, 4th ed (DSM-IV)*. Washington, DC: American Psychiatric Association, 1994.
- Gold, J.M., Rehkemper, G., Binks, S.W., Carpenter, C.J., Fleming, K., Goldberg, T.E., & Weinberger, D.R. (2000). Learning and forgetting in schizophrenia. *Journal of Abnormal Psychology, 109*(3), 534-538.
- Goldman, C.R. (1988). Toward a definition of psychoeducation. *Hospital and Community Psychiatry, 39*(6), 666-668.
- Goldman, C.R., & Quinn, F.L. (1988). Effects of a patient education program in the treatment of schizophrenia. *Hospital and Community Psychiatry, 39*, 282-286.
- Graneheim, U.H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today, 24*, 105-112.
- Gray, R. (2000). Does patient education enhance compliance with clozapine? A preliminary investigation. *Journal of Psychiatric and Mental Health Nursing, 7*, 285-286.
- Green, M.F. (1998). *Schizophrenia from a Neurocognitive Perspective*. Boston: Allyn & Bacon.
- Greenberg, L., Fine, S.B., Cohen, C., Larson, K., Michaelson-Baily, A., Rubinton, P., & Glick, I. (1988). An interdisciplinary psychoeducation program for schizophrenic patients and their families in an acute care setting. *Hospital and Community Psychiatry, 39*, 277-282.
- Greenwood, N., Key, A., Burns, T., Bristow, M., & Sedgwick, P. (1999). Satisfaction with in-patient psychiatric services. Relationship to patient and treatment factors. *The British Journal of Psychiatry, 174*, 159-163.
- Gumley, A., Karatzias, A., Power, K., Reilly, J., McNay, L., & O'Grady, M. (2006). Early intervention for relapse in schizophrenia: Impact of cognitive behavioural therapy on negative beliefs about psychosis and self-esteem. *British Journal of Clinical Psychology, 45*, 247-260.
- Haddock, G., Barrowclough, C., Shaw, J.J., Dunn, G., Novaco, R.W., & Tarrrier, N. (2009). Cognitive – behavioural therapy v. social activity therapy for people with psychosis and a history of violence: randomised controlled trial. *British Journal of Psychiatry, 194*, 152-157.
- Hall, P.L., & Tarrrier, N. (2003). The cognitive-behavioural treatment of low self-esteem in psychotic patients: a pilot study. *Behaviour Research and Therapy, 41*, 317-332.
- Hamann, J., Pitschel-Walz, G., & Kissling, W. (2004). Medication adherence studies in schizophrenia. Letter to the Editor. *American Journal of Psychiatry, 161*, 582.
- Hansson, L. (2006). Determinants of quality of life in people with severe mental illness. *Acta Psychiatrica Scandinavica, 113*(suppl. 429), 46-50.

- Harmon, R.B., & Tratnack, S.A. (1992). Teaching hospitalized patients with serious, persistent mental illness. *Journal of Psychosocial Nursing, 30*, 33-36.
- Hasson-Ohayon, I., Kravetz, S., Meir, T., & Rozencwaig, S. (2009). Insight into severe mental illness, hope, and quality of life of persons with schizophrenia and schizoaffective disorders. *Psychiatry Research, 167*(3), 231-238.
- Hauser, M., Lautenschlager, M., Gudlowski, Y., Ozgürdal, S., Witthaus, H., Bechdorf, A., ... Juckel, G. (2009). Psychoeducation with patients at-risk for schizophrenia – an exploratory pilot study. *Patient Education & Counseling, 76*(1), 138-142.
- Hayes, R., & Gantt, A. (1992). Patient psychoeducation: The therapeutic use of knowledge for the mentally ill. *Social Work in Health Care, 17*(1), 53-67.
- Hayward, P., & Bright, J.A. (1997). Stigma and mental illness: a review and critique. *Journal of Mental Health, 6*(4), 345-354.
- Henry, L. (2004). Psychological intervention in recovery from early psychosis: Cognitively oriented psychotherapy. In J.F.M. Gleeson and P.D. McGorry (Eds.), *Psychological Interventions in Early Psychosis* (pp. 63-80). Chichester: John Wiley & Sons.
- Herbert, C.P. (1996). Giving information: usually necessary, but often insufficient to achieve behavior change. *Patient Education and Counseling, 29*, 229-230.
- Herz, M.I., Lambert, J.S., Mintz, J., Scott, R., O'Dell, S.P., McCartan, L., & Nix, G. (2000). A program for relapse prevention in schizophrenia. A controlled study. *Archives of General Psychiatry, 57*, 277-283.
- Hickey, G., & Kipping, C. (1998). Exploring the concept of user involvement in mental health through a participation continuum. *Journal of Clinical Nursing, 7*, 83-88.
- Hillbr, M. (2005). Obstacles to research in forensic psychiatry. *Journal of the American Academy of Psychiatry and the Law, 33*(3), 295-298.
- Hodgins, S. (1998). Research in forensic hospitals: possibilities and limitations. *Criminal Behaviour and Mental Health, 8*, 7-12.
- Hodgins, S., & Müller-Isberner, R. (2000). *Violence, crime and mentally disordered offenders. Concepts and methods for effective treatment and prevention*. Chichester: John Wiley & Sons.
- Hodgins, S. (2000). Conclusions. In S. Hodgins & R. Müller-Isberner (Eds.), *Violence, crime and mentally disordered offenders. Concepts and methods for effective treatment and prevention* (pp. 217-228). Chichester: John Wiley & Sons.
- Hodgins, S. (2002). Research priorities in forensic mental health. *International Journal of Forensic Mental Health, 1*(1), 7-23.
- Hofer, A., Kemmler, G., Eder, U., Edlinger, M., Hummer, M., & Fleischhacker, W.W. (2004). Quality of life in schizophrenia: the impact of psychopathology, attitude toward medication, and side-effects. *Journal of Clinical Psychiatry, 65*(7), 932-939.
- Hofer, E., Amering, M., Windhaber, J., Wancata, J., & Eberstaller, M. (1998). Does psychoeducation change the concept of illness of schizophrenic patients. Abstracts of the Ninth Biennial Workshop on Schizophrenia. *Schizophrenia Research, 29*, 194.
- Hofer, E., Wancata, J., & Amering, M. (2001). "Ich bin ein unverstandenes Wesen auf Erden." Krankheitskonzepte von Patientinnen mit der Diagnose Schizophrenie vor und nach Psychoedukation. ["I am misunderstood being on earth" -- Concept

- of illness of patients suffering from schizophrenic psychosis before and after psychoeducational treatment]. *Psychiatrische Praxis*, 28, 287-291.
- Hoffmann, H., Kupper, Z., & Kunz, B. (2000). Hopelessness and its impact on rehabilitation outcome in schizophrenia – an exploratory study. *Schizophrenia Research*, 43, 147-158.
- Hogan, T.P., Awad, A.G., & Eastwood, R. (1983). A self-report scale predictive of drug compliance in schizophrenics: reliability and discriminative ability. *Psychological Medicine*, 13, 177-183.
- Holzinger, A., Loffler, W., Muller, P., Priebe, S., & Angermeyer, M.C. (2002). Subjective illness theory and antipsychotic medication compliance by patients with schizophrenia. *Journal of Nervous & Mental Disease*, 190(1), 597-603.
- Honigfeld, R., Roderic, D., & Klett, J.C. (1966). NOSIE-30: a treatment sensitive ward behavior scale. *Psychological Reports*, 19, 180-182.
- Hornsveld, R.H.J., & Nijman, H.L.I. (2005). Evaluation of cognitive-behavioral program for chronically psychotic forensic inpatients. *International Journal of Law and Psychiatry*, 28, 246-254.
- Hornung, W.P., Kieserg, A., Feldmann, R., & Buchkremer, G. (1996). Psychoeducational training for schizophrenic patients: background, procedure and empirical findings. *Patient Education and Counseling*, 29, 257-268.
- Hornung, W.P., Klingberg, S., Feldmann, R., Schonauer, K., & Schulze Mönking, H. (1998). Collaboration with drug treatment by schizophrenic patients with and without psychoeducational training: results of a 1-year follow-up. *Acta Psychiatrica Scandinavica*, 97, 213-219.
- Hornung, W.P., Feldmann, R., Klingberg, S., Buchkremer, G., & Reker, T. (1999a). Long-term effects of a psychoeducational psychotherapeutic intervention for schizophrenic outpatients and their key-persons – results of a five-year follow-up. *European Archives of Psychiatry and Clinical Neuroscience*, 249, 162-167.
- Hornung, W.P., Klingberg, S., Feldmann, R., Schonauer, K., & Schulze Mönking, H. (1999b). Collaboration with drug treatment by schizophrenic patients with and without psychoeducational training: results of a 1-year follow-up. *Acta Psychiatrica Scandinavica*, 97, 213-219.
- Hotti, A. (2004). *Mitä psykiatrinen potilas haluaa tietää? Tutkimus skitsofreniaan sairastuneiden tiedon saannista ja tarpeista*. University of Turku: Annales Universitatis Turkuensis, C 212.
- Hutchinson, D.S., Gagne, C., Bowers, A., Russinova, Z., Skrinar, G.S., & Anthony, W.A. (2006). A framework for health promotion services for people with psychiatric disabilities. *Psychiatric Rehabilitation Journal*, 29(4), 241-250.
- Jacobson, N.S., & Truax, P. (1991). Clinical significance: a statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, 59(1), 12-19.
- Jacobson, N., & Greenley, D. (2001). What is recovery? A conceptual model and explication. *Psychiatric Services*, 54(4), 482-485.

- Jennings, L., Harris, B., Gregoire, J., Merrin, J., Peyton, J., & Bray, L. (2002). The effect of a psycho-educational programme on knowledge of illness, insight and attitudes towards medication. *The British Journal of Forensic Practice*, 4, 3-10.
- Johansson, I.M., & Lundman, B. (2002). Patients' experience of involuntary psychiatric care: good opportunities and great losses. *Journal of Psychiatric and Mental Health Nursing*, 9, 639-647.
- Jones, R.B., Coia, D.A., Paterson, L., Morton, A.R., McKenna, K., Craig, N.,...Gilmour, W.H. (2001). Randomised trial of personalised computer based information for patients with schizophrenia. *BMJ*, 322, 835.
- Karow, A., & Pajonk, F.G. (2006). Insight and quality of life in schizophrenia: recent findings and treatment implications. *Current Opinion in Psychiatry*, 19(6), 637-641.
- Karow, A., Pajonk, F.G., Reimer, J., Hirdes, F., Osterwald, C., Naber, D., & Moritz, S. (2008). The dilemma of insight into illness in schizophrenia: self- and expert-rated insight and quality of life. *European Archives of Psychiatry and Clinical Neuroscience*, 258, 152-159.
- Katsching, H. (2000). Schizophrenia and quality of life. *Acta Psychiatrica Scandinavica*, 102 (suppl. 407), 33-37.
- Kazdin, A.E., & Bass, D. (1989). Power to detect differences between alternative treatments in comparative psychotherapy outcome research. *Journal of Consulting and Clinical Psychology*, 57, 138-147.
- Kelly, G.R., & Scott, J.E. (1990). Medication compliance and health education among outpatients with chronic mental disorders. *Medical Care*, 28(12), 1181-97.
- Kelly, M., & Gamble, C. (2005). Exploring the concept of recovery in schizophrenia. *Journal of Psychiatric and Mental Health Nursing*, 12, 245-251.
- Kemp, R., & David, A. (1996). Psychological predictors of insight and compliance in psychotic patients. *British Journal of Psychiatry*, 169(4), 444-450.
- Kemp, R., Kirov, G., Everitt, B., Hayward, P., & David, A. (1998). Randomised controlled trial of compliance therapy. 18-month follow-up. *British Journal of Psychiatry* 172, 413-419.
- Kikkert, M.J., Schene, A.H., Koeter, M.W.J., Robson, D., Born, A., Helm, H., ... Gray, R.J. (2006). Medication adherence in schizophrenia: Exploring patients', carers' and professionals' views. *Schizophrenia Bulletin*, 32(4), 786-794.
- Kilian, R., Lindenbach, I., & Angermeyer, M.C. (2001). "(...) manchmal zweifle ich an mir, wenn es mir nicht gut geht". Die Wirkung eines ambulanten psychoedukativen Gruppenprogramms aus der subjektiven Perspektive von Patienten mit schizophrenen Erkrankungen. [" (...) sometimes I have doubts about myself, when I'm not doing well." Effect of an ambulatory psychoeducational group program from the subjective perspective of patients with schizophrenic illnesses]. *Psychiatrische Praxis*, 28, 168-173.
- Kilkku, N., Munnukka, T., & Lehtinen, K. (2003). From information to knowledge: the meaning of information-giving to patients who had experienced first-episode psychosis. *Journal of Psychiatric and Mental Health Nursing*, 10, 57-64.

- Kim, C.-H., Jayathilake, K., & Meltzer, H.Y. (2003). Hopelessness, neurocognitive function, and insight in schizophrenia: relationship to suicidal behavior. *Schizophrenia Research, 60*, 71-80.
- Kingdon, D. G., & Turkington, D. (1994). *Cognitive-behavioural therapy of schizophrenia*. Hove: Lawrence Erlbaum.
- Kirkpatrick, H., Landeen, J., Byrne, C., Woodside, H., Pawlick, J., & Bernardo, A. (1995). Hope and schizophrenia: clinicians identify hope-instilling strategies. *Journal of Psychosocial Nursing and Mental Health Services, 33*(6), 15-19.
- Kirkpatrick, H., Landeen, J., Byrne, C., Woodside, H., & Byrne, C. (2001). How people with schizophrenia build their hope. *Journal of Psychosocial Nursing and Mental Health Services, 39*(1), 46-53.
- Klinitz, H. (2006). Psychoedukation bei schizophrenen Störungen – Psychotherapie oder “Unterwanderung”? [Psychoeducation in schizophrenic disorders – Psychotherapy or “infiltration”?] *Psychiatrische Praxis, 33*, 372-382.
- Knight, M.T.D., Wykes, T., & Hayward, P. (2006). Group treatment of perceived stigma and self-esteem in schizophrenia: a waiting list trial of efficacy. *Behavioural and Cognitive Psychotherapy, 34*, 305-318.
- Kopelowicz, A., Wallace, C.J., & Zarate, R. (1998). Teaching psychiatric inpatients to re-enter the community: a brief method of improving the continuity of care. *Psychiatric Services, 49*, 1313-1316.
- Kopelowicz, A., & Liberman, R.P. (2003). Integrating treatment with rehabilitation for persons with major mental illness. *Psychiatric Services, 54*(11), 1491-1498.
- Kovnick, J.A., Appelbaum, P.S., Hoge, S.K., & Leadbetter, R.A. (2003). Competence to consent to research among long-stay inpatients with chronic schizophrenia. *Psychiatric Services, 54*, 1247-1252.
- Kraemer, H.C. (2000). Methodological and statistical progress in psychiatric clinical research. *Neuropsychopharmacology: The Fifth Generation of Progress*. <http://www.acnp.org/g4/GN401000081/CH.html>
- Kroll, T., & Morris, J. (2009). Challenges and opportunities in using mixed method designs in rehabilitation research. *Archives of Physical Medicine & Rehabilitation, 90*(11suppl.1), 11-16.
- Kuosmanen, L. (2009). *Personal liberty in psychiatric care – towards service user involvement*. Department of Nursing Science, Faculty of Medicine, University of Turku, Finland.
- Kurs, R., Farkas, H., & Ritsner, M. (2005). Quality of life and temperament factors in schizophrenia: Comparative study of patients, their siblings and controls. *Quality of Life Research, 14*, 433-440.
- Kylmä, J., Juvakka, T., Nikkonen, M., Korhonen, T., & Isohanni, M. (2006). Hope and schizophrenia: an integrative review. *Journal of Psychiatric and Mental Health Nursing, 13*, 651-664.
- Lacro, J.P., Dunn, L.B., Dolder, C.R., Leckband, S.G., & Jeste, D.V. (2002). Prevalence of and risk factors for medication nonadherence in patients with schizophrenia: a comprehensive review of recent literature. *Journal of Clinical Psychiatry, 63*(10), 892-909.

- Lally, S.J. (1989). "Does being in here mean there is something wrong with me?" *Schizophrenia Bulletin*, 15(2), 253-265.
- Lambert, M., & Naber, D. (2004). Current issues in schizophrenia: overview of patient acceptability, functioning capacity and quality of life. *CNS Drugs*, 18(suppl. 2), 5-17.
- Lamberti, J.S. (2007). Understanding and preventing criminal recidivism among adults with psychotic disorders. *Psychiatric Services*, 58(6), 773-781.
- Landsverk, S.S., & Kane, C.F. (1998). Antonovsky's sense of coherence: theoretical basis of psychoeducation in schizophrenia. *Issues in Mental Health Nursing*, 19, 419-431.
- Larsen, E.B., & Gerlach, J. (1996). Subjective experience of treatment, side-effects, mental state and quality of life in chronic schizophrenic out-patients treated with depot neuroleptics. *Acta Psychiatrica Scandinavica*, 93, 381-388.
- Lawrie, S.M. (2001). Commentary on "Review: patient education is effective for improving patient knowledge of schizophrenia" (Merinder, 2000). *Evidence Based Mental Health*, 4, 11.
- Lecomte, T., Cyr, M., Lesage, A.D., Wilde, J., Leclerc, C., & Ricard, N. (1999). Efficacy of a self-esteem module in the empowerment of individuals with schizophrenia. *Journal of Nervous & Mental Disease*, 187(7), 406-413.
- Lehman, A.F., Kreyenbuhl, J., Buchanan, R.W., Dickerson, F.B., Dixon, L.B., Goldberg, R., ... Steinwachs, D.M. (2004). The schizophrenia patient outcomes research team (PORT): Updated treatment recommendations 2003. *Schizophrenia Bulletin*, 30(2), 193-217.
- Leon, A.C. (2008). Implications of clinical trial design on sample size requirements. *Schizophrenia Bulletin*, 34(4), 664-669.
- Leucht, S., & Heres, S. (2006). Epidemiology, clinical consequences, and psychosocial treatment of nonadherence in schizophrenia. *Journal of Clinical Psychiatry*, 67(suppl. 5), 3-8.
- Liberman, R.P. (1989). *Social & Independent Living Skills: The Symptom Management Module*. Los Angeles: Psychiatric Rehabilitation Consultants.
- Liberman, R.P. (1994). *Social and Independent Living Skills: The Community Re-Entry Program*. Los Angeles: Psychiatric Rehabilitation Consultants.
- Liddle, P.F., Barnes, T.R.E., Curson, D.A., & Patel, M. (1993). Depression and the experience of psychological deficits in schizophrenia. *Acta Psychiatrica Scandinavica*, 88, 243-247.
- Lieberman, J.A., Stroup, S.S., McEvoy, J.P., Swartz, M.S., Rosenheck, R.A., Perkins, D.O., ... Hsiao, J.K. (2005). Effectiveness of antipsychotic drugs in patients with chronic schizophrenia. *The New England Journal of Medicine*, 353(12), 1209-1223.
- Lincoln, T.M., Wilhelm, K., & Nestoriuc, Y. (2007a). Effectiveness of psychoeducation for relapse, symptoms, knowledge, adherence and functioning in psychotic disorders: A meta-analysis. *Schizophrenia Research*, 96, 232-245.
- Lincoln, T.M., Lüllmann, E., & Rief, W. (2007b). Correlates and long-term consequences of poor insight in patients with schizophrenia. A systematic review. *Schizophrenia Bulletin*, 33(6), 1324-1342.

- Lindenmayer, J.-P. (2000). Treatment refractory schizophrenia. *Psychiatric Quarterly*, 71(4), 373-384.
- Linder-Pelz, S. (1982). Social psychological determinants of patient satisfaction: a test for five hypotheses. *Social Science & Medicine*, 16, 583-589.
- Lindqvist, P., & Skipworth, J. (2000). Evidence-based rehabilitation in forensic psychiatry. *British Journal of Psychiatry*, 176, 320-323.
- Link, B.G. (1987). Understanding labeling effects in the area of mental disorders: an assessment of the effects of expectations of rejection. *American Sociological Review*, 52(1), 96-112.
- Link, B., Cullen, F., & Struening, E. (1989). A modified labeling theory approach to mental disorders: an empirical assessment. *American Sociological Review*, 54(3), 400-423.
- Link, B.G., & Phelan, J.C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363-385.
- Link, B.C., Struening, E.L., Neese-Todd, S., Asmussen, S., & Phelan, J.C. (2001). The consequences of stigma for the self-esteem of people with mental illness. *Psychiatric Services*, 52(12), 1621-1626.
- Llorca, P.M. (2008). Partial compliance in schizophrenia and the impact on patient outcomes. *Psychiatry Research*, 161(2), 235-247.
- Loffler, W., Kilian, R., Toumi, M., & Angermeyer, M.C. (2003). Schizophrenic patients' subjective reasons for compliance and noncompliance with neuroleptic treatment. *Pharmacopsychiatry*, 36(3), 105-112.
- Lysaker, P.H., Roe, D., & Yanos, P.T. (2007). Toward understanding the insight paradox: Internalized stigma moderates the association between insight and social functioning, hope, and self-esteem among people with schizophrenia spectrum disorders. *Schizophrenia Bulletin*, 33(1), 192-199.
- MacDonald, L., Sibbald, B., & Hoare, C. (1988). Measuring patient satisfaction with life in a long-stay psychiatric hospital. *International Journal of Social Psychiatry*, 34(4), 292-304.
- Macpherson, R., Jerrom, B., & Hughes, A. (1996). A controlled study of education about drug treatment in schizophrenia. *British Journal of Psychiatry*, 168, 709-717.
- Marshall, M., Lockwood, A., Bradley, C., Adams, C., Joy, C., & Fenton, M. (2000). Unpublished rating scales: a major source of bias in randomised controlled trials of treatments for schizophrenia. *British Journal of Psychiatry*, 176, 249-252.
- Mason, S., Tovey, P., & Long, A. (2002). Evaluating complementary medicine: methodological outcome challenges of randomized controlled trials. *BMJ*, 325, 832-834.
- McCabe, R., Röder-Wanner, U.U., Hoffmann, K., & Priebe, S. (1999). Therapeutic relationships and quality of life: association of two subjective constructs in schizophrenia patients. *International Journal of Social Psychiatry*, 45(4), 276-283.
- McCabe, R., & Priebe, S. (2004). The therapeutic relationship in the treatment of severe mental illness: a review of methods and findings. *International Journal of Social Psychiatry*, 50(2), 115-128.
- McCabe, R., Saidi, M., & Priebe, S. (2007). Patient-reported outcomes in schizophrenia. *British Journal of Psychiatry*, 191(suppl. 50), 21-28.

- McCann, T.V. (2002). Uncovering hope with clients who have psychotic illness. *Journal of Holistic Nursing*, 20(1), 81-99.
- McCann, T.V., & Clark, E. (2004). Advancing self-determination with young adults who have schizophrenia. *Journal of Psychiatric and Mental Health Nursing*, 11, 12-20.
- McFarlane, W.R., Dixon, L., Lukens, E., & Lucksted, A. (2003). Family psychoeducation for schizophrenia: a review of the literature. *Journal of Marital and Family Therapy*, 29(2), 223-245.
- McGlashan, T.H. (1994). What has become of the psychotherapy of schizophrenia? *Acta Psychiatrica Scandinavica*, 90(suppl. 384), 147-152.
- McGorry, P.D. (1995). Psychoeducation in first-episode psychosis: A therapeutic process. *Psychiatry*, 58, 313-328.
- McGorry, P., & Edwards, J. (1997). *Early Psychosis Training Pack*. Victoria Mill, Australia: Gardiner-Caldwell Communications.
- McHugo, G.J., Drake, R.E., Brunette, M.F., Xie, H., Essock, S.M., & Green, A.I. (2006). Enhancing validity in co-occurring disorders treatment research. *Schizophrenia Bulletin*, 32(4), 655-665.
- McInery, T., & Minne, C. (2004). Principles of treatment for mentally disordered offenders. *Criminal Behaviour and Mental Health*, 14, s43-s47.
- Medalia, A., & Lim, R. (2004). Treatment of cognitive dysfunction in psychiatric disorders. *Journal of Psychiatric Practice*, 10(1), 17-25.
- Megens, Y., & van Meijel, B. (2006). Quality of life for long-stay patients of psychiatric hospitals: a literature study. *Journal of Psychiatric and Mental Health Nursing*, 13, 704-712.
- Meijer, C.J., Koeter, M.W., Sprangers, M.A., & Schene, A.H. (2008). Predictors of general quality of life and the mediating role of health related quality of life in patients with schizophrenia. *Social Psychiatry & Psychiatric Epidemiology*, 44(5), 361-368.
- Melville, C., & Brown, C. (1987). The use of patient education in a prison mental health treatment program. *Journal of Offender Counseling, Services & Rehabilitation*, 12, 131-140.
- Mental Health Act (1990). 14.12.1990 /1116, Ministry of Social Affairs and Health, Helsinki, Finland.
- Menzies, V. (2000). Depression in schizophrenia: nursing care as a generalized resistance resource. *Issues in Mental Health Nursing*, 21, 605-617.
- Merinder, L.B. (2000). Patient education in schizophrenia: a review. *Acta Psychiatrica Scandinavica*, 102, 98-106.
- Miles, H., Peters, E., & Kuipers, E. (2007). Service-user satisfaction with CBT for psychosis. *Behavioural and Cognitive Psychotherapy*, 35, 109-116.
- Miller, R., & Mason, S.E. (1998). Group work with first episode schizophrenia clients. *Social Work with Groups*, 21(1/2), 19-33.
- Miller, P.M., Johnstone, E.C., Lang, F.H., & Thomson, L.D.G. (2000). Differences between patients with schizophrenia within and without a high security psychiatric hospital. *Acta Psychiatrica Scandinavica*, 102, 12-18.

- Mintz, A.R., Dobson, K.S., & Romney, D.M. (2003). Insight in schizophrenia: a meta-analysis. *Schizophrenia Research*, *61*(1), 75-88.
- Moher, D., Schulz, K.F., & Altman, D.G. (2001). The CONSORT Statement: Revised recommendations for improving the quality of reports of parallel-group randomized trials. *Annals of Internal Medicine*, *134*(8), 657-662.
- Morrison, P., & Burnard, P. (1996). Patient satisfaction in a forensic unit. *Journal of Mental Health*, *5*, 369-377.
- Mueser, K.T., Drake, R.E., Ackerson, T.H., Alterman, A.I., Miles, K.M., & Noordsy, D.L. (1997). Antisocial personality disorder, conduct disorder, and substance abuse in schizophrenia. *Journal of Abnormal Psychology*, *106*(3), 473-477.
- Mueser, K.T., Corrigan, P.T., Hilton, D.W., Tanzman, B., Schaub, A., Gingerich, S., ... Herz, M.I. (2002). Illness management and recovery: a review of the research. *Psychiatric Services*, *53*, 1272-1284.
- Mueser, K.T., & McGurk, S.R. (2004). Schizophrenia. *Lancet*, *363*, 2063-2072.
- Mueser, K.T., Meyer, P.S., Penn, D.L., Clancy, R., Clancy, D.M., & Salyers, M.P. (2006). The illness management and recovery program: Rational, development, and preliminary findings. *Schizophrenia Bulletin*, *32*(suppl. 1), 32-43.
- Mullen, K.D. (1986). Wellness: the missing concept in health promotion programming for adults. *Health Values*, *10*(3), 34-37.
- Müller-Isberner, R. (1999). *Treatment of mentally ill offenders*. NATO Advanced Study Institute Prevention of Criminality and Violence among the Mentally Ill. Castelvechio Pascoli, 16- 26.5. 1999.
- Müller-Isberner, R., & Hodgins, S. (2000). Evidence-based treatment for mentally disordered offenders. In S. Hodgins & R. Müller-Isberner (Eds.), *Violence, crime and mentally disordered offenders: Concepts and methods for effective treatment and prevention* (pp. 9-38). Chichester: John Wiley.
- Murphy, S.A., & Johnson, L.C. (2006). Methodological issues associated with group intervention research. *Archives of Psychiatric Nursing*, *20*(6), 276-281.
- Mysore, A., Parks, R.W., Lee, K.H., Bhaker, R.S., Birkett, P., & Woodruff, P.W. (2007). Neurocognitive basis of insight in schizophrenia. *British Journal of Psychiatry*, *190*, 529-530.
- Mäkinen, J., Miettunen, J., Isohanni, M., & Koponen, H. (2008). Negative symptoms in schizophrenia: a review. *Nordic Journal of Psychiatry*, *62*(5), 334-341.
- Naber, D., & Vita, A. (2004). Tools for measuring clinical effectiveness. *European Neuropsychopharmacology*, *14*(suppl. 4), 435-444.
- Narvaez, J.N., Twamley, E.W., McKibbin, C.L., Heaton, R.K., & Patterson, T.L. (2008). Subjective and objective quality of life in schizophrenia. *Schizophrenia Research*, *98*(1-3), 201-208.
- Newman, D. L., Moffitt, T. E., Caspi, A., & Silva, P. A. (1998). Comorbid mental disorders: Implications for treatment and sample selection. *Journal of Abnormal Psychology*, *107*, 305-311.
- van Nieuwenhuizen, Ch., Schene, A.H., & Koeter, M.W.J. (2002). Quality of life in forensic psychiatry: an unreclaimed territory? *International Review of Psychiatry*, *14*, 198-202.

- Nightingale, L.C., & McQueeney, D.A. (1996). Group therapy for schizophrenia: Combining and expanding the psychoeducational model with supportive psychotherapy. *International Journal of Group Psychotherapy, 46*(4), 517-533.
- Noble, L.M., Douglas, B.C., & Newman, S.P. (2001). What do patients expect of psychiatric services? A systematic and critical review of empirical studies. *Social Science & Medicine, 52*, 985-998.
- Nose, M., Barbui, C., Gray, R., & Tansella, M. (2003). Clinical interventions for treatment non-adherence in psychosis: meta-analysis. *British Journal of Psychiatry, 183*,197-206.
- Nuechterlein, K.H., & Dawson, M.E. (1984). A heuristic vulnerability/stress model of schizophrenic episodes. *Schizophrenia Bulletin, 10*(2), 300-312.
- Nuechterlein, K.H., Dawson, M.E., Ventura, J., Gitlin, M., Subotnik, K.L., Snyder, K.S., Mintz, J., & Bartzokia, G. (1994). The vulnerability/stress model of schizophrenic relapse: a longitudinal study. *Acta Psychiatrica Scandinavica, 89*(suppl. 382), 58-64.
- O'Brien, W.H., & Haynes, S.N. (1993). Behavioral assessment in the psychiatric setting. In A.S. Bellack & M. Hersen (Eds.), *Handbook of behavior therapy in the psychiatric setting* (pp. 39-71). New York: Plenum Press.
- Olatunji, B.A., & Lohr, J.M. (2004). Nonspecific factors and the efficacy of psychosocial treatments for anger. *The Scientific Review of Mental Health Practice, 3*(2). <http://www.srmhp.org/0302/anger.html>
- van Os, J., & Kapur, S. (2009). Schizophrenia. *Lancet, 374*(22), 635-645.
- Overall, J.E., & Gorham, D.R. (1962). The Brief Psychiatric Rating Scale. *Psychological Reports 10*, 799-812.
- Paley, G., & Shapiro, D.A. (2002). Lessons from psychotherapy research for psychological interventions for people with schizophrenia. *Psychology and Psychotherapy: Theory, Research and Practice, 75*, 5-17.
- Palmer, B.W., Dawes, S.E., & Heaton, R.K. (2009). What do we know about neuropsychological aspects of schizophrenia? *Neuropsychology Review, 19*(3), 365-384.
- Parker, J.C., Singsen, B.H., Hewett, J.E., Walker, S., Hazelwood, S., Hall, P., ... Rodon, C. (1984). Educating patients with rheumatoid arthritis: A prospective analysis. *Archives of Physical Medicine and Rehabilitation, 65*, 771-774.
- Patterson, T.L., & Leeuwenkamp, O.R. (2008). Adjunctive psychosocial therapies for the treatment of schizophrenia. *Schizophrenia Research, 100*, 108-119.
- Pekkala, E., & Merinder, L. (2002). Psychoeducation for schizophrenia and other mental illnesses. *Cochrane Database Syst Rev. 2002*; (3): CD002831. DOI: 10.1002/14651858
- Penn, D.L., Mueser, K.T., Tarrrier, N., Gloege, A., Cather, C., Serrano, D., & Otto, M.W. (2004). Supportive therapy for schizophrenia: Possible mechanisms and implications for adjunctive psychosocial treatments. *Schizophrenia Bulletin, 30*(1), 101-112.
- Perkins, D.O. (2002). Predictors of noncompliance in patients with schizophrenia. *Journal of Clinical Psychiatry, 63*(12), 1121-1128.

- Perreault, M., Rogers, W. L., Leichner, P., & Sabourin, S. (1996). Patients' requests and satisfaction with services in an outpatient psychiatric setting. *Psychiatric Services, 47*(3), 287-292.
- Perris, C., & Skagerlind, L. (1994). Cognitive therapy with schizophrenic patients. *Acta Psychiatrica Scandinavica, 89*(suppl. 382), 65-70.
- Peternelj-Taylor, C.A., & Hufft, A.G. (2010). *Forensic Nursing*.  
<http://connectiondev.lww.com/Products/mohr6e/documents/pdfs/Mohr-CH20.pdf>. Retrieved 17.8.2010.
- Pfammatter, M., Junghan, U.M., & Brenner, H.D. (2006). Efficacy of psychological therapy in schizophrenia: conclusions from meta-analyses. *Schizophrenia Bulletin, 32*(suppl. 1), 64-80.
- Pilling, S., Bebbington, P., Kuipers, E., Garety, P., Geddes, J., Orbach, G., & Morgan, C. (2002). Psychological treatments in schizophrenia: I. Meta-analysis of family intervention and cognitive behavior therapy. *Psychological Medicine, 32*(5), 763-782.
- Pilsecker, C. (1981). On educating schizophrenics about schizophrenia. *Schizophrenia Bulletin, 7*(3), 379-382.
- Pinto, A., La Pia, S., Mennella, R., Giorgio, D., & DeSimone, L. (1999). Cognitive-behavioral therapy and clozapine for clients with treatment-refractory schizophrenia. *Psychiatric Services, 50*(7), 901-904.
- Piredda, M. (2004). Patient education: A concept analysis. *International Journal of Nursing Perspectives, 4*(2), 63-71.
- Pitschel-Walz, G., Leucht, S., Bäuml, J., Kissling, W., & Engel, R.R. (2001). The effect of family interventions on relapse and rehospitalization in schizophrenia – A meta-analysis. *Schizophrenia Bulletin, 27*(1), 73-92.
- Pitschel-Walz, G., Bäuml, J., Bender, W., Engel, R.R., Wagner, M., & Kissling, W. (2006). Psychoeducation and compliance in the treatment of schizophrenia: results of the Munich Psychosis Information Project Study. *Journal of Clinical Psychiatry, 67*(3), 443-452.
- Pitschel-Walz, G., Bäuml, J., Froböse, T., Gsottschneider, A., & Jahn, T. (2009). Do individuals with schizophrenia and a borderline intellectual disability benefit from psychoeducational groups? *Journal of Intellectual Disabilities, 13*(4), 305-320.
- Pocock, S.J. (1997). Clinical trials with multiple outcomes: a statistical perspective on their design, analysis, and interpretation. *Controlled Clinical Trials, 18*, 530-545.
- Porporino F.J., & Motiuk, L. L. (1995). The prison careers of mentally disordered offenders. *International Journal of Law and Psychiatry, 18*(1), 29-44.
- Priebe, S., & Bröker, M. (1999). Prediction of hospitalizations by schizophrenia patients' assessment of treatment: an expanded study. *Journal of Psychiatric Research, 33*, 113-119.
- Priebe, S., McCabe, R., Bullenkamp, J., Hansson, L., Lauber, C., Martinez-Leal, R., ... Wright, D.J. (2007). Structured patient-clinician communication and 1-year outcome in community mental healthcare: cluster randomized controlled trial. *British Journal of Psychiatry, 191*, 420-426.
- Prince, J. D. (2006). Determinants of care satisfaction among inpatients with schizophrenia. *Community Mental Health Journal, 42*(2), 189-196.

- Puschner, B., Born, A., Giessler, A., Heim, H., Becker, T., & Angermeyer, M.C. (2005). Compliance- Interventionen in der medikamentösen Behandlung schizophrener Erkrankter. Befunde aktueller Übersichtsarbeiten. [Effects of interventions to improve compliance with antipsychotic medication in people suffering from schizophrenia – results of recent reviews]. *Psychiatrische Praxis*, 32(3), 62-67.
- Putkonen, A., Kotilainen, I., Joyal, C.C., & Tiihonen, J. (2004). Comorbid personality disorders and substance use disorders of mentally ill homicide offenders: A structures clinical study on dual and triple diagnoses. *Schizophrenia Bulletin*, 30(1), 59-72.
- Quayle, M., & Moore, E. (1998). Evaluating the impact of structured groupwork with men in a high security hospital. *Criminal Behaviour and Mental Health*, 8, 77-92.
- Rabin, S., Matalon, A., Maoz, B., & Shiber, A. (2005). Keeping doctors healthy: A salutogenic perspective. *Families, Systems, & Health*, 23(1), 94-102.
- Rankin, S.H., & Stallings, K.D. (1990). *Patient education. Issues, principles, practices*. Philadelphia: Lippincott Company.
- Ratzlaff, S., McDiarmid, D., Mart, D., & Rapp, C. (2006). The Kansas Consimer as Provider Program: measuring the effects of a supported education initiative. *Psychiatric Rehabilitation Journal*, 29(3), 174-182.
- Reichenberg, A., & Harvey, P.D. (2007). Neuropsychological impairments in schizophrenia: integration of performance-based and brain imaging findings. *Psychological Bulletin*, 133(5), 833-858.
- Reichhart, T., Pitschel-Walz, G., Kissling, W., Bäuml, J., Schuster, T., & Rummel-Kluge, C. (2010). Gender differences in patient and caregiver psychoeducation for schizophrenia. *European Psychiatry*, 25, 39-46.
- Reine, G., Lancon, C., Di Tucci, S., Sapin, C., & Auquier, P. (2003). Depression and subjective quality of life in chronic phase schizophrenic patients. *Acta Psychiatrica Scandinavica*, 108, 297-303.
- Renvick, S.J., Black, L., Ramm, M., & Novaco, R.W. (1997). Anger treatment with forensic hospital patients. *Legal and Criminological Psychology*, 2, 103-116.
- Repo-Tiihonen, E., Vuorio, O., Koivisto, H., Paavola, P., & Hakola, P. (2004). Opinions about treatment modalities among patients involuntary committed to a forensic psychiatric hospital in Finland. *Journal of Offender Rehabilitation*, 38(3), 81-95.
- Resnick, S.G., Fontana, A., Lehman, A.F., & Rosenheck, R.A. (2005). An empirical conceptualization of the recovery orientation. *Schizophrenia Research*, 75, 119-128.
- Rettenbacher, M.A., Hofer, A., Eder, U., Hummer, M., Kemmler, G., Weiss, E.M., & Fleischhacker, W.W. (2004). Compliance in schizophrenia: psychopathology, side effects, and patients' attitudes toward the illness and medication. *Journal of Clinical Psychiatry*, 65(9), 1211-1218.
- Revheim, N., & Marcopulos, B.A. (2006). Group treatment approaches to address cognitive deficits. *Psychiatric Rehabilitation Journal*, 30(1), 38-45.
- Ritsner, M., Ben-Avi, I., Ponizovsky, A., Timinsky, I., Bistrov, E., & Modai, I. (2003). Quality of life and coping with schizophrenia symptoms. *Quality of Life Research*, 12(1), 1-9.

- Roberts, L. W., Warner, T. D., & Brody, J. L. (2000). Perspectives of patients with schizophrenia and psychiatrists regarding ethically important aspects of research participation. *American Journal of Psychiatry*, *157*(1), 67-74.
- Robins, C.S., Ware, N.C., dosReis, S., Willging, C.E., Chung, J.Y., & Lewis-Fernández, R. (2008). Dialogues on mixed-methods and mental health services research: anticipating challenges, building solutions. *Psychiatric Services*, *59*(7), 727-731.
- Rogers, A., Day, J., Randall, F., & Bentall, R.B. (2003). Patients' understanding and participation in a trial designed to improve the management of anti-psychotic medication. *Social Psychiatry & Psychiatric Epidemiology*, *38*, 720-727.
- Rose, D., Thornicroft, G., & Slade, M. (2006). Who decides what evidence is? Developing a multiple perspectives paradigm in mental health. *Acta Psychiatrica Scandinavica*, *113*(suppl. 429), 109-114.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: different concepts, different outcomes. *American Sociological Review*, *60*, 141-156.
- Rouget, B.W., & Aubry, J.-M. (2007). Efficacy of psychoeducational approaches in bipolar disorder: A review of the literature. *Journal of Affective Disorders*, *98*, 11-27.
- Rummel, C.B., Hansen, W.P., Helbig, A., Pitschel-Walz, G., & Kissling, W. (2005). Peer-to-peer psychoeducation in schizophrenia: a new approach. *Journal of Clinical Psychiatry*, *66*(12), 1580-1585.
- Rummel-Kluge, C., & Kissling, W. (2008). Psychoeducation in schizophrenia: new developments and approaches in the field. *Current Opinion in Psychiatry*, *21*, 168-172.
- Rummel-Kluge, C., Schuster, T., Peters, S., & Kissling, W. (2008). Partial compliance with antipsychotic medication is common in patients with schizophrenia. *Australian and New Zealand Journal of Psychiatry*, *42*(5), 382-388.
- Rüsch, N., Angermeyer, M.C., & Corrigan, P.W. (2005). Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. *European Psychiatry*, *20*, 529-539.
- Ryglewicz, H. (1991). Psychoeducation for clients and families: Way in, out, and through in working with people with dual diagnoses. *Psychosocial Rehabilitation Journal*, *15*(2), 79-89.
- Räsänen, P., Tiihonen, J., Isohanni, M., Rantakallio, P., Lehtonen, J., & Moring, J. (1998). Schizophrenia, alcohol abuse, and violent behavior: a 26-year follow-up study of an unselected birth cohort. *Schizophrenia Bulletin*, *24*(3), 437-441.
- Salokangas, R.K.R. (Ed.). (2001, 2008). Skitsofrenia. Käypä Hoito-Suositus. *Duodecim*, *117*, 2640-2657.
- Sands, J.R., & Harrow, M. (1999). Depression during the longitudinal course of schizophrenia. *Schizophrenia Bulletin*, *25*(1), 157-171.
- Schennach-Wolff, R., Jäger, M., Seemüller, F., Obermeier, M., Messer, T., Laux, G., ... Riedel, M. (2009a). Defining and predicting functional outcome in schizophrenia and schizophrenia spectrum disorders. *Schizophrenia Research*, *113*(2-3), 210-217.

- Schennach-Wolff, R., Jäger, M., Seemüller, F., Obermeier, M., Messer, T., Laux, G., ... Riedel, M. (2009b). Attitude towards adherence in patients with schizophrenia at discharge. *Journal of Psychiatric Research*, 43(16), 1294-1301.
- Schindler, V.P. (2005). Role development: an evidence-based intervention for individuals diagnosed with schizophrenia in a forensic facility. *Psychiatric Rehabilitation Journal*, 28(4), 391-394.
- Schooler, N.R. (2006). Relapse prevention and recovery in the treatment of schizophrenia. *Journal of Clinical Psychiatry*, 67(suppl. 5), 19-23.
- Schwartz, C.E., Chesney, M.A., Irvine, M.J., & Keefe, F.J. (1997). The control group dilemma in clinical research: applications for psychosocial and behavioral medicine trials. *Psychosomatic Medicine*, 59, 362-371.
- Sensky, T., Turkington, D., Kingdon, D., Scott, J.L., Scott, J., Siddle, R., ... Barnes, R.E. (2000). A randomized controlled trial of cognitive-behavioral therapy for persistent symptoms in schizophrenia resistant to medication. *Archives of General Psychiatry*, 57(2), 165-172.
- Sibitz, I., Gössler, R., Katsching, H., & Amering, M. (2006). "Wissen – geniessen -- besser leben" - Ein Seminar für Psychoseerfahrene zur Verbesserung der Lebensqualität und Verringerung der Verletzlichkeit. Erste Erfahrungen und Ergebnisse. ["Knowing -- enjoying -- better living" -- A seminar for persons with psychosis to improve their quality of life and reduce their vulnerability.] *Psychiatrische Praxis*, 33, 13-20.
- Sibitz, I., Amering, M., Gössler, R., Unger, A., & Katsching, H. (2007a). One-year outcome of low-intensity booster sessions versus care as usual in psychosis patients after a short-term psychoeducational intervention. *European Psychiatry*, 22, 203-210.
- Sibitz, I., Amering, M., Gössler, R., Unger, A., & Katsching, H. (2007b). Patients' perspectives on what works in psychoeducational groups for schizophrenia. *Social Psychiatry & Psychiatric Epidemiology*, 42, 909-915.
- Sibitz, I., Unger, A., Woppmann, A., Zidek, T., & Amering, M. (2009). Stigma resistance in patients with schizophrenia. *Schizophrenia Bulletin*, 190, 192-193
- Silver, H., Feldman, P., Bilker, W., & Gur, R.C. (2003). Working memory deficit as a core neuropsychological dysfunction in schizophrenia. *American Journal of Psychiatry*, 160, 1809-1816.
- Silverstein, S.M., & Bellack, A.S. (2008). A scientific agenda for the concept of recovery as it applies to schizophrenia. *Clinical Psychology Review*, 28, 1108-1124.
- Sintonen, H. (1994). Outcome measurement in acid-related diseases. *PharmacoEconomics*, 5(suppl. 3), 17-26.
- Sintonen, H. (2001). The 15D instrument in health-related quality of life: properties and applications. *Annals of Medicine*, 33(5), 328-336.
- Skipworth, J., & Humberstone, V. (2002). Community forensic psychiatry: restoring some sanity to forensic psychiatric rehabilitation. *Acta Psychiatrica Scandinavica*, 106(suppl. 412), 47-53.
- Smith, J., & Birchwood, M. (1992). Informing people with schizophrenia about their illness: the effect of residual symptoms. *Journal of Mental Health*, 1, 61-70.

- Snellman, M., & Pekurinen, E. (2005). *Erityisen kalliit ja vaativat hoidot*. Sosiaali- ja terveysministeriön selvityksiä 18. Helsinki: Yliopistopaino.
- Snyder, C.R., Ilardi, S.S., Cheavens, J., Michael, S.T., Yamhure, L., & Sympson, S. (2000). The role of hope in cognitive-behavior therapies. *Cognitive Therapy and Research, 24*(6), 747-762.
- Spaniol, L., Wewiorski, N.J., Gagne, C., & Anthony, W.A. (2002). The process of recovery from schizophrenia. *International Review of Psychiatry, 14*, 327-336.
- Spaniol, L. (2008). What would a recovery-oriented program look like? *International Journal of Psychosocial Rehabilitation, 13*(1), 57-66.
- Staring, A.B.P., Van der Gaag, M., Van den Berge, M., Duivenvoorden, H.J., & Mulder, C.L. (2009). Stigma moderates the associations of insight with depressed mood, low self-esteem, and low quality of life in patients with schizophrenia spectrum disorders. *Schizophrenia Research, 115*(2), 363-369.
- Stiles, P.G., Poythress, N.G., Hall, A., Falkenbach, D., & Williams, R. (2001). Improving understanding of research consent disclosures among persons with mental illness. *Psychiatric Services, 52*, 780-785.
- Stone, W.N. (1996). *Group psychotherapy for people with chronic mental illness*. New York: Guilford Press.
- Stratford, P.W., & Riddle, D.L. (2005). Assessing sensitivity to change: choosing the appropriate change coefficient. *Health and Quality of Life Outcomes, 3*, 23.
- Svensson, B., & Hansson, L. (2006). Satisfaction with mental health services. A user participation approach. *Nordic Journal of Psychiatry, 60*, 365-371.
- Swinton, M., Oliver, J., & Carlisle, J. (1999). Measuring quality of life in secure care: comparison of mentally ill and personality disordered patients. *International Journal of Social Psychiatry, 45*(4), 284-291.
- Swofford, C.D., Kasckow, J.W., Scheller-Gilkey, G., & Inderbitzin, L.B. (1996). Substance use: a powerful predictor of relapse in schizophrenia. *Schizophrenia Research, 20*, 145-151.
- Tarrier, N., & Barrowclough, C. (1986). Providing information to relatives about schizophrenia: some comments. *British Journal of Psychiatry, 149*, 458-63.
- Tarrier, N., Yusupoff, L., Kinney, C., McCarthy, E., Gledhill, A., Haddock, G., & Morris, J. (1998). Randomised controlled trial of intensive cognitive behavior therapy for patients with chronic schizophrenia. *BMJ, 317*, 303-307.
- Tarrier, N., & Wykes, T. (2004). Is there evidence that cognitive behaviour therapy is an effective treatment for schizophrenia? A cautious or cautionary tale? *Behaviour Research and Therapy, 42*, 1377-1401.
- Tattan, T., & Tarrier, N. (2000.) The expressed emotion of case managers of the seriously mentally ill: the influence of expressed emotion on clinical outcomes. *Psychological Medicine, 30*, 195-204.
- Tattersall, R. (1995). Patient education 2000: Take-home messages from the congress. *Patient Education and Counseling, 26*, 373-377.
- Taylor, P.J., Leese, M., Williams, D., Butwell, M., Daly, R., & Larkin, E. (1998). Mental disorder and violence. A special (high security) hospital study. *British Journal of Psychiatry, 172*, 218-226.

- Thomas, S., Leese, M., Dolan, M., Harty, M.-A., Shaw, J., Middleton, H., ... Appleby, L. (2004). The individual needs of patients in high secure psychiatric hospitals in England. *Journal of Forensic Psychology & Psychiatry*, 15(2), 222-243.
- Tiihonen, J., Hakola, P., Eronen, M., Vartiainen, H., & Ryyänen, O.-P. (1996). Risk of homicidal behavior among discharged forensic psychiatric patients. *Forensic Science International*, 79(2), 123-129.
- Tiihonen, J., Isohanni, M., Räsänen, P., Koironen, M., & Moring, J. (1997). Specific major mental disorders and criminality: a 26-year prospective study of the 1966 northern Finland birth cohort. *American Journal of Psychiatry*, 154(6), 840-845.
- Tiihonen, J. (2007). Oikeuspsykiatria. In J. Lönnqvist, M. Heikkinen, M. Henriksson, M. Marttunen & T. Partonen (Eds.), *Psykiatria (5<sup>th</sup> revised edition)* (pp. 650-667). Jyväskylä: Gummerus.
- Traverso, G.B., Ciappi, S., & Ferracuti, S. (2000). The treatment of the criminally insane in Italy: an overview. *International Journal of Law and Psychiatry*, 23(5/6), 493-508.
- Turkington, D., & Kingdon, D. (1996). Using a normalizing rationale in the treatment of schizophrenic patients. In G. Haddock and P.D. Slade (Eds.), *Cognitive-behavioural interventions with psychotic disorders* (pp. 103-115). London: Routledge.
- Turkington, D., Dudley, R., Warman, D.M., & Beck, A.T. (2006). Cognitive-behavioral therapy for schizophrenia: A review. *The Journal of Lifelong Learning in Psychiatry*, 4(2), 223-233.
- Turner, D. S. & Stokes, L. (2006). Hope promoting strategies of registered nurses. *Journal of Advanced Nursing*, 56(4), 363-372.
- Tyrer, P., & Simmonds, S. (2003). Treatment models for those with severe mental illness and comorbid personality disorder. *British Journal of Psychiatry*, 182 (suppl. 44), 15-18.
- Vallentine, V., Tapp, J., Dudley, A., Wilson, C., & Moore, E. (2010). Psycho-educational groupwork for detained patients: understanding mental illness. *Journal of Forensic Psychiatry & Psychology* 21(3), 393-406.
- Vaughn, C.E., & Leff, J.P. (1976). The influence of family and social factors on the course of psychiatric illness. A comparison of schizophrenic and depressed neurotic patients. *The British Journal of Psychiatry*, 129, 125-137.
- Verhaege, M., Bracke, P., & Bruynooghe, K. (2008). Stigmatization and self-esteem of persons in recovery from mental illness: the role of peer support. *International Journal of Social Psychiatry*, 54, 206-218.
- Volkow, N.D. (2009). Substance use disorders in schizophrenia – Clinical implications of comorbidity. *Schizophrenia Bulletin*, 35(3), 469-472.
- Vuorio, O., Tenkanen, H., Kivimies, K., Hyvärinen, S., Juvonen, T., Metelinen, M., ... Korhonen, P. (Eds.). (2005). *Skitsofrenian käypä hoito –suositus Niuvianniemen sairaalassa*. 13.5.2005. Niuvianniemen sairaala, Finland.
- Välimäki, M., Leino-Kilpi, H., & Helenius, H. (1996). Self-determination in clinical practice: the psychiatric patient's point of view. *Nursing Ethics*, 3(4), 329-344.
- Välimäki, M. (1998). Psychiatric patients' views on the concept of self-determination: findings from a descriptive study. *Journal of Clinical Nursing*, 7, 59-66.

- Walker, H. (2004). Using psychosocial interventions within a high-security hospital. *Nursing Times*, 100(31), 36-39.
- Walker, H. (2006). Computer-based education for patients with psychosis. *Nursing Standard*, 20(30), 49-56.
- Walker, J., & Gudjonsson, G. (2000). The Lancashire Quality of Life Profile-data and experiences with 58 detained mentally disordered offenders. *Criminal Behaviour and Mental Health*, 10, 123-135.
- Warner, R. (2009). Recovery from schizophrenia and the recovery model. *Current Opinion in Psychiatry*, 22, 374-380.
- Webster, C. D., Douglas, K. S., Eaves, D., & Hart, S. D. (1997). *HCR-20: Assessing risk for violence, version 2*. Burnaby, British Columbia: Simon Fraser University.
- Wiedemann, G., Klingberg, S., Pitschel-Walz, G., & Arbeitsgruppe Psychoedukation (2003). Psychoedukative Interventionen in der Behandlung von Patienten mit schizophrenen Störungen. *Der Nervenarzt*, 9, 789-808.
- Wienberg, G., Schünemann-Wurmthaler, S., & Sibum, B. (2003). *Schizophrenie zum Thema machen. PEGASUS – Manual mit Materialien*. Bonn: Psychiatrie-Verlag.
- Wiersma, D., Nienhuis, F.J., Giel, R., & Slooff, C.J. (1998). Stability and change in needs of patients with schizophrenic disorders: a 15- and 17- year follow-up from first onset of psychosis, and a comparison between "objective" and "subjective" assessments of needs for care. *Social Psychiatry and Psychiatric Epidemiology*, 33, 49-56.
- Williams, B., & Wilkinson, G. (1995). Patient satisfaction in mental health care. *The British Journal of Psychiatry*, 166, 559-562.
- Williams, B., Coyle, J., & Healy, D. (1998). The meaning of patient satisfaction: An explanation of high reported levels. *Social Science & Medicine*, 47(9), 1351-1359.
- Wong, I.C.K. (2004). Randomised controlled trials (RCTs) to evaluate complex healthcare interventions – a case study. *Pharmacy World & Science*, 26, 247-252.
- Wykes, T., & Carroll, S. (1993). Patient satisfaction with intensive care psychiatric services: Can it be assessed? *Journal of Mental Health*, 2(4), 339-347.
- Wykes, T., Steel, C., Everitt, B., & Tarrier, N. (2008). Cognitive behavior therapy for schizophrenia: effect sizes, clinical models, and methodological rigor. *Schizophrenia Bulletin*, 34(3), 523-537.
- Yates, K.F., Kunz, M., Khan, A., Volavka, J., & Rabinowitz, S. (2010). Psychiatric patients with histories of aggression and crime five years after discharge from a cognitive-behavioral program. *The Journal of Forensic Psychiatry & Psychology*, 21(2), 167-188.
- Zimmerman, G., Favrod, J., Trieu, V.H., & Pomini, V. (2005). The effect of cognitive behavioral treatment on the positive symptoms of schizophrenia spectrum disorders: A meta-analysis. *Schizophrenia Research*, 77, 1-9.
- Zubin, J., & Spring, B. (1977). Vulnerability – a new view of schizophrenia. *Journal of Abnormal Psychology*, 86(2), 103-126.
- Zubin, J. (1980). Chronic schizophrenia from the standpoint of vulnerability. In C. F. Baxter & T. Melnechuck (Eds.), *Perspectives in Psychiatric Research* (pp. 269-294). New York: Raven Press.

Zygmunt, A., Olfson, M., Boyer, C.A., & Mechanic, D. (2002). Interventions to improve medication adherence in schizophrenia. *American Journal of Psychiatry*, 159, 1653-1664.

**PUBLICATIONS OF THE UNIVERSITY OF EASTERN FINLAND  
DISSERTATIONS IN EDUCATION, HUMANITIES, AND THEOLOGY**

1. Taru Viinikainen. *Taipuuko "akrobaatti Aleksandra"? Nimikekonstruktio ja nimikkeen taipuminen lehtikielessä 1900-luvulta 2000-luvulle.* 2010.
2. Pekka Metso. *Divine Presence in the Eucharistic Theology of Nicholas Cabasilas.* 2010.
3. Pekka Kilpeläinen. *In Search of a Postcategorical Utopia. James Baldwin and the Politics of 'Race' and Sexuality.* 2010.
4. Leena Vartiainen. *Yhteisöllinen käsityö. Verkostoja, taitoja ja yhteisiä elämyksiä.* 2010.
5. Alexandra Simon-López. *Hypersurrealism. Surrealist Literary Hypertexts.* 2010.
6. Merja Sagulin. *Jälkiä ajan hiekassa. Kontekstuaalinen tutkimus Daniel Defoen Robinson Crusoen suomenkielisten adaptaatioiden aatteellisista ja kirjallisista traditioista sekä subjektikäsitteistä.* 2010.
7. Pirkko Pollari. *Vapaan sivistystyön kieltenopettajien pedagogiset ratkaisut ja käytänteet teknologiaa hyödyntävässä vieraiden kielten opetuksessa.* 2010.
8. Ulla Piela. *Kansanparannuksen kerrotut merkitykset Pohjois-Karjalassa 1800- ja 1900-luvuilla.* 2010.
9. Lea Meriläinen. *Language Transfer in the Written English of Finnish Students.* 2010.
10. Kati Aho-Mustonen. *Group Psychoeducation for Forensic Long-term Patients with Schizophrenia.* 2011.

**KATI AHO-MUSTONEN**  
*Group psychoeducation  
for forensic long-term  
patients with schizophrenia*

The present set of studies provides information about the feasibility and effects of a group psychoeducation program for challenging forensic long-term patients with schizophrenia in a high-security forensic context. The results suggest that group psychoeducation could be seen as a low threshold psychosocial intervention, since even severely ill and symptomatic patients were able to join and may benefit from the group. Based on the obtained empirical as well as earlier findings on patient psychoeducation for schizophrenia, a tentative model of the effective factors in group psychoeducation is presented. The importance of trust and hope in the process of psychoeducation, especially when offered to forensic patients, is highlighted.



UNIVERSITY OF  
EASTERN FINLAND

PUBLICATIONS OF THE UNIVERSITY OF EASTERN FINLAND  
*Dissertations in Education, Humanities, and Theology*

ISSN 1798-5625

ISBN 978-952-61-0302-0

ISSNL 1798-5625