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(Leiterin: Prof. Dr. med. Dr. med. vet. H. Ehrenreich)  
am Max-Planck-Institut für experimentelle Medizin  
in Göttingen

**Zur Rolle der Therapeutenrotation und von Patientenmerkmalen für die  
Wirksamkeitsprozesse der Ambulanten Langzeit-Intensivtherapie für Alkoholranke  
(ALITA)**

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**zur Erlangung des Doktorgrades**  
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## 1 Das Forschungsprojekt ALITA

In den beiden Originalartikeln der vorliegenden Dissertation wird die ambulante Langzeit-Intensivtherapie für Alkoholranke (ALITA) aus zwei Perspektiven näher beleuchtet. Der Übersichtsartikel zur Therapeutenrotation stellt die psychotherapeutische Grundlage des Therapiekonzeptes aus der theoretischen Perspektive dar und diskutiert sie im Kontext der Literatur zur multiplen Psychotherapie und zur therapeutischen Beziehung in der Suchttherapie. Die Studie zur psychiatrischen Komorbidität bei den ALITA-Patienten der Rekrutierungsperioden IV und V (N=89) untersucht zwei Fragestellungen:

- (1) den Verlauf komorbider psychischer Störungen während der zweijährigen Therapie, und
- (2) die Vorhersage der Therapieergebnisse während eines Vier-Jahreszeitraumes durch verschiedene Variablen der psychiatrischen Komorbidität und der Schwere der Abhängigkeit.

Zunächst soll das gesamte Forschungsprojekt kurz skizziert werden. ALITA wurde 1993 als Modellprojekt begonnen und im Sommer 2003 abgeschlossen (Ehrenreich *et al.* 1997a; Ehrenreich *et al.* 2000; Krampe *et al.* 2001a; Ehrenreich *et al.* 2002; Ehrenreich & Krampe 2003; Krampe *et al.* 2003a). Die Therapie entstand aus einem biologischen Forschungsprojekt, in dem der Langzeitverlauf physiologischer Regenerationsprozesse bei abstinenten schwer alkoholkranken Patienten untersucht wurde. Zusammenfassend konnte in den biologischen Begleitstudien zu ALITA gezeigt werden, dass viele psychobiologische Systeme, wie z.B. das Stress-System, die Regulierung von Sexualhormonen, sowie die Elektrolyt- und Wasserhomöostase bei abstinenten schwer alkoholabhängigen Patienten langfristig gestört sind. Zur Regeneration kommt es erst nach drei bis neun Monaten, und manche Störungen scheinen sogar chronisch zu persistieren (Ehrenreich *et al.* 1997b; Doering *et al.* 2003; Hasselblatt *et al.* 2001; Hasselblatt *et al.* 2003; Hüttner *et al.* 1999; Schmitt *et al.* 1999).

Da das Projekt als Langzeitstudie konzipiert war, konnten die Patienten aus Kostengründen keiner stationären Alkoholentwöhnung unterzogen werden. Um sie langfristig in einem ambulanten Setting alkoholabstinent zu halten, wurden in hohem Maße innovative Therapieelemente zu einem umfassenden Behandlungsprogramm zusammengestellt. Nach dessen Bewährung im Rahmen der ersten biologischen Studien wurde ALITA explizit als ambulantes Therapieprogramm formuliert und einer ersten Wirksamkeitsüberprüfung unterzogen (Ehrenreich *et al.* 1997a). Damit wurden die Behandlungsmöglichkeiten für

Suchtkranke um einen völlig neuen Ansatz erweitert. Das klassische Suchthilfesystem kennt grundsätzlich zwei Behandlungsstrategien zur Alkoholentwöhnung, zum einen die intensive stationäre Therapie in den Suchtfachkliniken und psychiatrischen Krankenhäusern, zum anderen die weniger intensive ambulante Behandlung in den Suchtberatungsstellen. Mit ALITA wurde erstmals eine Alternative vorgeschlagen, die sich zusammenfassend als ambulant, intensiv, umfassend und langfristig skizzieren lässt (Ehrenreich & Krampe 2002; Ehrenreich & Krampe 2003; Krampe *et al.* 2001a). Im Folgenden sollen zunächst die innovativen Therapieelemente beschrieben werden. Dann wird der aktuelle Stand der Therapieergebnisforschung zu ALITA zusammengefasst, der in Einklang mit den Resultaten vorausgehender Ergebnisstudien zu ALITA während der zehnjährigen Laufzeit des Projektes steht (Ehrenreich *et al.* 1997a; Ehrenreich *et al.* 2000; Krampe *et al.* 2003a).

Das biopsychosoziale Therapiekonzept zielt auf einen sofortigen Beginn der sozialen Wiedereingliederung der Patienten unter psychotherapeutischer und medizinischer Begleitung ab. Als vierstufiges ambulantes Behandlungsprogramm schließt sich ALITA direkt an die stationäre Entgiftung an und erstreckt sich über insgesamt zwei Jahre (siehe Tabelle 1).

#### **Wesentliche Therapieelemente von ALITA sind:**

- **Hochfrequente Kurzgesprächskontakte:** Strukturierte, sichernde Anbindung durch supportive, wenig fordernde Kurzgespräche; initial täglich 15 Minuten, einschließlich an Wochenenden und Feiertagen; langsame Reduktion der Kontaktfrequenz mit dem Ziel einer regelmäßigen und dauerhaften wöchentlichen Gruppenteilnahme.
- **Kriseninterventionsbereitschaft:** Das ALITA-Team ist im Notfall für die Patienten immer erreichbar: 24 Stunden, 365 Tage.
- **Soziale Reintegration und Hausbesuche:** Konkrete Unterstützung beim Aufbau eines abstinenzfördernden sozialen Umfeldes; explizite Beteiligung der Angehörigen an der Therapie; Familien- und Paargespräche; aktive Hilfe bei Problemen am Arbeitsplatz und mit Behörden; Unterstützung bei Wohnungssuche, Umzug, Wiedereinstieg ins Berufsleben, Schuldentilgung und Klärung juristischer Angelegenheiten.
- **Schaffung einer Alkoholunverträglichkeit:** Einnahme von Calciumcarbimid (Colme<sup>®</sup>) bzw. Disulfiram (Antabus<sup>®</sup>) als sogenannte Alkoholaversiva. Die Hemmung des alkoholabbauenden Enzyms Acetaldehyddehydrogenase führt bei Alkoholkonsum zur Anhäufung des toxischen Acetaldehyds mit den Folgen einer "inneren Vergiftung", der sogenannten "Antabusreaktion", d.h. flush-Symptomatik, Blutdruckentgleisung, Pulsrasen,

Übelkeit, Erbrechen, gelegentlich sogar Kreislaufkollaps (Ehrenreich & Krampe 2004).

- **Kontrolle:** Kontrollierte Einnahme der Aversiva, regelmäßige Urin- und Blutuntersuchungen auf Alkohol und andere Suchtstoffe.
- **"Aggressive Nachsorge"** zur sofortigen Beendigung beginnender oder Verhinderung drohender Rückfälle: Patienten, die nicht zum vereinbarten Termin erscheinen, werden mit Telefonanrufen, mehrmaligen spontanen Hausbesuchen oder Briefkontakten zur Fortführung der Behandlung bzw. zur Wiederaufnahme der Abstinenz aufgefordert.
- **Therapeutenrotation:** Im interdisziplinären ALITA-Team sind alle Therapeuten gleichermaßen für alle Patienten verantwortlich und führen nach dem Konzept der Therapeutenrotation im lockeren, nicht festgelegten Wechsel die Gespräche. Neue Therapeuten können jederzeit leicht in das Behandlungsteam eingeführt werden.

Tabelle 1: Die praktische Durchführung des Therapieprogramms

<ul style="list-style-type: none"> <li>• <b>Stationäre Vorphase: Entgiftung (2-3 Wochen)</b> Einführungsgespräch, Motivationsarbeit, Selektion, Anamneseerhebung, Aufbau einer Arbeitsbeziehung, Ausloten der sozialen Einbindung, Beginn der täglichen kontrollierten Einnahme von Colme® (Calciumcarbimid, 50 mg), täglich Urinkontrollen</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Ambulante Phase I: Intensivphase (tägliche Kontakte über 3 Monate)</b> Täglich 15 Minuten Gespräch (primär supportiv), praktische Unterstützung der sozialen Reintegration, Gespräche mit Angehörigen, Hausbesuche, täglich kontrollierte Einnahme von Colme® (Calciumcarbimid, 50 mg), täglich Urinuntersuchung auf Alkohol und andere Suchtstoffe, aggressive Nachsorge</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Ambulante Phase II: Stabilisierungsphase (je nach individuellem Bedarf 3-4 Monate)</b> Schrittweise Kontaktreduktion auf dreimal pro Woche, weiterhin jeweils 15 Minuten supportives Gespräch, Intensivierung der sozialen Reintegrationsbestrebungen, regelmäßige Angehörigengespräche (<i>individuell</i> ausgerichtet), kontrollierte Einnahme von Antabus® (Disulfiram, 400-500 mg), Urinkontrolle, aggressive Nachsorge</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Ambulante Phase III: Ablösungsphase (Erreichen der "Einjahresmarke")</b> Kontaktreduktion auf zweimal pro Woche, jetzt jeweils 30 Minuten Gespräch, Stabilisierung der sozialen Reintegration, kontrollierte Einnahme von Antabus® (Disulfiram, 400-500 mg), Urinkontrolle, aggressive Nachsorge</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Ambulante Phase IV: Nachsorgephase (Überschreiten der "Einjahresmarke")</b> Einmal wöchentlich Teilnahme an der ALITA-Gruppe (therapeutenbegleitete Gruppe), initial noch wöchentlich ein Einzelgespräch (30 Minuten), kontinuierlich aggressive Nachsorge; Ziel: schrittweise Einstellung von Einzelgesprächen und Aversionsmedikation, dauerhafte, regelmäßige Teilnahme an Selbsthilfegruppen oder der ALITA-Gruppe</li> </ul>

## Aktuelle Ergebnisse

Von 1993 bis 2003 wurden 180 schwerst Alkoholranke (144 Männer, 36 Frauen) in sechs Rekrutierungsperioden konsekutiv aufgenommen und behandelt. Die Patienten waren bei Aufnahme in das Programm 44 (SD=8) Jahre alt, 18 (SD=7) Jahre alkoholabhängig, zuletzt mit einem täglichen Konsum von 437 (SD=162) g reinen Alkohols, hatten 7 (SD=9) stationäre Entgiftungen, sowie 1 (SD=1) stationäre Langzeittherapie hinter sich. Bei Eintritt in

ALITA waren 58% der Patienten arbeitslos, 81% litten an psychiatrischen komorbiden Störungen aller Kategorien (DSM-IV, 53% Achse-I-Störungen, 61% Achse-II-Störungen). 30% wiesen schwere Suizidversuche in der Vorgeschichte auf. Die körperliche Beeinträchtigung der Patienten ist gravierend: während bei nur 11% leichte Folgeschäden (z.B. Fettleber) diagnostiziert wurden, litten 33% unter deutlichen (z.B. epileptische Anfälle im Entzug), 44% unter schweren (z.B. Polyneuropathie) und 13% unter schwersten (z.B. Leberzirrhose) Alkoholfolgekrankheiten. In der aktuellen 7-Jahreskatamnese liegt der Prozentsatz abstinenter Patienten bei ca. 50%. Die Arbeitslosenrate fiel auf 22% (bei einer regionalen Arbeitslosenquote von über 15%) (Krampe *et al.* 2003a).

Zusammenfassend hat sich ALITA als eine sehr gute ambulante Behandlungsalternative für chronisch alkoholranke Patienten erwiesen. Mit ihrem umfassenden und sehr strukturierten Ansatz geht die Therapie auf die zentralen Probleme der Patienten ein, indem sie intensive Suchttherapie, konkrete Hilfestellung zur sozialen Wiedereingliederung und psycho- bzw. pharmakotherapeutische Behandlung von komorbiden Störungen integriert (Ehrenreich & Krampe 2003; Krampe *et al.* 2003a).

Um zu gewährleisten, dass die Patienten im klinischen Alltag langfristig, intensiv und umfassend betreut werden, wurde während des gesamten ALITA-Projektes konsequent auf das klassische Bezugstherapeutensystem verzichtet. Statt dessen wurde explizit die gemeinsame Behandlung der Patienten durch ein interdisziplinäres Therapeutenteam gefördert. Im ersten Artikel der vorliegenden Dissertation werden der theoretische Hintergrund, sowie die aktuellen Modellvorstellungen zur Therapeutenrotation ausführlich erörtert.



## 2 Fokus der vorliegenden Arbeit

Wird ALITA aus der Perspektive der Klinischen Psychologie und der Psychotherapie betrachtet, lassen sich zwei zentrale Fragestellungen identifizieren, die bislang kaum wissenschaftlich untersucht worden sind.

Die gemeinsame Behandlung der Patienten durch mehrere rotierende Therapeuten stellt ein psychotherapeutisches Vorgehen dar, das erstmals in der klinischen Praxis von ALITA entwickelt worden ist. Um die Therapeutenrotation empirisch überprüfbar zu machen, ist es notwendig, ihren theoretischen Hintergrund zu erschließen und erste Modellvorstellungen über ihre Wirkmechanismen aufzustellen. Im Rahmen der ersten Fragestellung der vorliegenden Dissertation wurde dies zunächst mit unterschiedlicher Schwerpunktsetzung aus der Perspektive der allgemeinen Psychotherapie (Krampe *et al.* 2001c), der Suchttherapie (Krampe *et al.* 2001b) und der klientenzentrierten Therapie (Krampe *et al.* 2003a) vorgenommen. Im vorliegenden Originalartikel wird die Therapeutenrotation schließlich umfassend aus allen drei Perspektiven dargestellt (Krampe *et al.* 2004, Kap. 3.2).

Die zweite Fragestellung der vorliegenden Arbeit beschäftigt sich ausführlich mit den Merkmalen der Patienten von ALITA (Krampe *et al.* in press, Kap. 4.2). Das Therapiekonzept wurde entwickelt, um schwer abhängige alkoholranke Patienten ambulant zu behandeln (Ehrenreich *et al.* 1997a). Diese Zielsetzung überschreitet die Vorstellungen des klassischen Suchthilfesystems, das je nach der Schwere der Abhängigkeit unterschiedliche Behandlungssettings vorsieht. Während weniger beeinträchtigte Patienten eine niederfrequente ambulante Versorgung durch die Suchtberatungsstellen in Anspruch nehmen sollen, ist für mittelschwer beeinträchtigte Patienten die klassische mehrwöchige stationäre Suchttherapie vorgesehen, und für schwer abhängige chronisch kranke Patienten kommt lediglich eine dauerhafte stationäre psychiatrische Unterbringung in Frage (Ehrenreich & Krampe 2002; Ehrenreich & Krampe 2003; Krampe *et al.* 2001a). Im Rahmen des gesamten Forschungsprojektes wird deshalb untersucht, inwiefern schwer abhängige Patienten auch ambulant behandelt werden können. Somit sind zentrale Themen der psychologischen Teilprojekte von ALITA die Untersuchung der Schwere der Abhängigkeit und der langfristigen Veränderungsprozesse bei abstinenten chronisch Alkoholkranken. Die Fragestellungen beschäftigen sich mit den Interaktionen von soziodemographischen, psychiatrischen und psychologischen Variablen, sowie mit deren gemeinsamer Auswirkung auf die Wirksamkeitsprozesse der Therapie (Krampe *et al.* 2003a; Krampe *et al.* 2003b; Wagner *et al.* 2001). Der zweite Originalartikel der vorliegenden Arbeit richtet seinen Fokus

auf die psychiatrische Komorbidität, die als ein wesentliches Patientenmerkmal im Zusammenhang mit dem Begriff "Schwere der Abhängigkeit" diskutiert wird. Zum einen wird der zweijährige Verlauf komorbider psychiatrischer Störungen während der Therapie untersucht. Desweiteren wird analysiert, welche verschiedenen Variablen der psychiatrischen Komorbidität und der Schwere der Abhängigkeit den höchsten prädiktiven Wert für den Langzeitverlauf von Rückfall und Abstinenz der Patienten aufweisen.

Somit soll die Komorbiditätsstudie Aufschluss darüber geben, ob das primäre Ziel von ALITA, die effektive Therapie von schwer abhängigen alkoholkranken Patienten, erreicht wird. Erfolgreiche Suchttherapie sollte sich nicht nur auf die Aufrechterhaltung von Alkoholabstinenz beschränken, sondern auch zu einem deutlichen Rückgang komorbider Störungen, psychiatrischer Symptome und suchtassoziierter Probleme führen.

Mit der Suche nach Prädiktoren für den langfristigen Erfolg und Misserfolg der Therapie soll empirisch überprüft werden, welche Patientenmerkmale von zentraler Bedeutung für die Prognose der Teilnehmer von ambulanter Suchttherapie sind.

### 3 Therapeutenrotation bei ALITA

#### 3.1 Einführung in die Fragestellung

Die Beteiligung mehrerer gleichermaßen verantwortlicher Therapeuten bei der Behandlung psychisch kranker Menschen wurde bislang kaum als eigenständiger Therapieansatz betrachtet. Nachdem sich die therapeutische Allianz als einer der am häufigsten untersuchten und am besten bestätigten allgemeinen Psychotherapiefaktoren erwiesen hatte, wurde in der Psychotherapie fast immer davon ausgegangen, dass zur Gestaltung der Allianz ausschließlich eine dyadische Interaktion zwischen Klient und Therapeut notwendig sei. Ohne theoretische Hinterfragung oder empirische Überprüfung beschränken somit die meisten Sucht- und Psychotherapieschulen das Phänomen der Allianz auf eine *dyadische* Therapeut-Klient-Beziehung (Krampe *et al.* 2001b; Krampe *et al.* 2001c; Krampe *et al.* 2003a). Daraus ergeben sich für chronisch psychisch kranke Patienten jedoch viele Nachteile, wenn beispielsweise in Urlaubszeiten oder bei Krankheit des Therapeuten die Stabilität der therapeutischen Beziehung ins Wanken gerät. Nicht selten sind Therapieabbrüche die Folge eines daraus notgedrungen resultierenden Therapeutenwechsels. Pragmatischer und vermutlich in vieler Hinsicht effektiver ist das neue Therapieelement der Therapeutenrotation. Sie sieht von Behandlungsbeginn an vor, dass die Patienten mit mehreren gleichermaßen verantwortlichen Therapeuten zusammenarbeiten. Diese Zusammenarbeit ist gezielt, geplant und genau definiert. Die Basis für die Arbeit in Therapeutenrotation ist die Weiterentwicklung der einzelnen Therapeut-Klient-Beziehungen zu einem dynamischen System multipler Beziehungen zwischen den Therapeuten und den Patienten.

Der vorliegende Artikel ist die derzeit einzige internationale Übersichtsarbeit zur Rolle der therapeutischen Beziehung in der Suchttherapie und bietet darüber hinaus einen Überblick über die wichtigsten Forschungsarbeiten zur therapeutischen Beziehung in der allgemeinen Psychotherapie. Es werden sämtliche verfügbaren Originalarbeiten zur Untersuchung der therapeutischen Beziehung in der Suchttherapie, die zwischen 1995 und 2001 veröffentlicht worden sind, diskutiert.

Anschließend wird die Literatur zum historischen Vorläufer der Therapeutenrotation, der multiplen Psychotherapie nach Alfred Adler, referiert. Es werden die Ähnlichkeiten und Unterschiede zur Therapeutenrotation aufgezeigt und Gründe genannt, warum dieses

Therapieverfahren trotz großer Popularität in den 50er und 70er Jahren des vorigen Jahrhunderts so selten zum Einsatz gekommen ist.

Auf der Basis dieser Literaturübersichten und der Theorie der allgemeinen Psychotherapie werden die konkrete Anwendung der Therapeutenrotation in der klinischen Praxis und die pragmatischen Vorteile dargestellt, sowie ihre zwei vermuteten spezifischen Wirkfaktoren erörtert: (1) Kongruenz und Wiederholung, (2) Verschiedenheit und Variation.

Zusammenfassend stellt der vorliegende Artikel erstmals eine umfassende theoretische Grundlage dar, aus der in zukünftigen Studien einzelne Fragestellungen herausgearbeitet werden können, um überprüfbare Hypothesen abzuleiten und empirisch zu untersuchen. Unter Berücksichtigung des langjährig evaluierten Therapieerfolges von ALITA kann vorerst davon ausgegangen werden, dass sich dieses neuartige Therapieelement in der Behandlung chronisch alkoholkranker Patienten sehr gut bewährt hat.

Im zweiten Originalartikel der vorliegenden Arbeit wird gezeigt, dass die Behandlung bei ALITA einen sehr deutlichen Rückgang komorbider psychischer Störungen bewirkt. Somit stellt sich auch die Frage nach weiteren Einsatzmöglichkeiten für die Therapeutenrotation, z.B. bei Depressionen oder Persönlichkeitsstörungen. Abschließend wird deshalb im vorliegenden Originalartikel diskutiert, ob die Therapeutenrotation ein neues Verfahren darstellt, das generell zur Behandlung chronisch psychisch kranker Menschen geeignet ist.

### **3.2 Originalartikel:**

Krampe H, Wagner T, Kufner H, Jahn H, Stawicki S, Reinhold J, Timmer W, Kröner-Herwig B & Ehrenreich H (2004) Therapist rotation - a new element in the outpatient treatment of alcoholism. *Substance Use & Misuse* 39(1): 135-179

DIALOGUE

## Therapist Rotation—A New Element in the Outpatient Treatment of Alcoholism

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### ABSTRACT

For nine years, the so-called “therapist rotation” has been a central part of OLITA, the Outpatient Longterm Intensive Therapy for Alcoholics. Thus far, the participation of several equally responsible therapists in the treatment of a patient has rarely been seen as a specific therapeutic approach. The present article analyzes the

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therapist rotation from a theoretical and clinical perspective. Articles concerned with the therapeutic alliance in the treatment of substance use disorders are reviewed. Furthermore, the literature on multiple psychotherapy, which may be seen as the precedent of the therapist rotation is surveyed. Based on the efficacy of multiple psychotherapy and the importance of the therapeutic alliance in the treatment of substance use disorders, the present work discusses the therapist rotation as an essential factor for the success of OLITA. It considers both potential advantages and disadvantages for patients and therapists and tries to identify conditions under which this approach appears to promote therapeutic interactions. Finally, the implementation of therapist rotation into OLITA is described, including the theoretical background of the program itself and the treatment procedure. New areas of application for the therapist rotation are discussed.

*Key Words:* Alcohol dependence; Multiple psychotherapy; Outpatient treatment; Therapist rotation; Therapeutic alliance; Therapeutic relationship; Common factors; Unique factors.

## INTRODUCTION

### The Therapeutic Alliance in General Psychotherapy

No factor in psychotherapy has been examined more intensively by process-outcome studies than the therapeutic relationship<sup>a</sup>. It can be described as a unique interpersonal working alliance, which the therapist establishes by means of empathy, nonpossessive warmth, genuineness, care, commitment, and active interest. The therapeutic relationship is characterized by a mutual feeling of confidence, positive regard, and acceptance. It is essential for assisting the patient in solving their problems, encouraging personal development, and ensuring well-being (Hatcher and Barends, 1996; Miller and Rollnick, 1991; Patterson, 1985; Perrez, 1992), and has turned out to be the best confirmed predictor of positive treatment outcome (Goldfried et al., 1990; Grawe, 1997; Horvath

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<sup>a</sup>The therapeutic alliance has been conceptualized quite equally by different authors. However, several names exist for this within-treatment factor. The present article uses as synonyms: client-counselor relationship, helping alliance, therapeutic alliance, therapeutic relationship, rapport, working alliance (Etheridge and Hubbard, 2000).



and Symonds, 1991; Martin et al., 2000; Miller and Rollnick, 1991; Orlinsky et al., 1994; Orlinsky and Howard, 1986; Patterson, 1985; Perrez, 1992). It is still unclear how interactions among therapist characteristics, client characteristics, and treatment variables may contribute to improve the treatment effect—in other words, what lies beyond the therapeutic alliance (Carroll, 2001; Carroll et al., 2000; Najavits et al., 1995, 2000).

### The Therapeutic Alliance in Addiction Therapy

There is a tendency in the addiction field to manage without a therapist but involve self-help groups like Alcoholics Anonymous or underline the aspect of self-management or even self-help manuals (see Brown, 1998; Emrick, 2001; Emrick et al., 1993; Heather, 1995; Klingemann, 2001; McCrady and Delaney, 1995; Sobell and Sobell, 1998; Tonigan and Toscova, 1998). Professional therapy is regarded at best as an assistance to self-help. On the other hand, in most professional therapeutic approaches the part of the therapist is stressed as a facilitator, as a helper for specific problems, a benevolent companion, or as a “case manager” who coordinates the various therapeutic supports and motivates the client (see Frances and Miller, 1998; Heather et al., 2001; Marlatt and VandenBos, 1997; Miller and Heather, 1998; Washton, 1995). The therapeutic alliance is particularly important in the early stages of addiction treatment (Etheridge and Hubbard, 2000; Luborsky et al., 1997; Simpson, 2001). In the beginning of a therapy the addicted patient often regards the therapist as part of the system one has learned to mistrust and to deceive in order to survive. To develop a trusting therapeutic relationship at the earliest possible time is therefore considered essential in long-term cognitive-behavioral addiction therapy as well as in brief and motivational interventions, creating a base for working on problems that are intimate and would affect more stress and conflicts (Baker and Dixon, 1991; Beck et al., 1993; Cox et al., 1991; Luborsky et al., 1997; Morgan, 1996; Prochaska and DiClemente, 1986; Rollnick and Bell, 1991; Saunders et al., 1991; vanBilson, 1991). For Perrez (1992), who advocates an eclectic approach, the quality of the therapeutic relationship is one of the most important general factors in alcoholism treatment. He emphasizes that a good working alliance can only be achieved with the help of the typical characteristics of a competent therapist. As examples he cites trust, acceptance, positive regard, authenticity, supportiveness and caring, emotional warmth, optimism, compassion, maturity, and especially empathy—qualities





regarded as desirable by the patients (Rohrer et al., 1992). The research on brief motivational interventions yielded six general factors of effective addiction therapy, condensed under the acronym FRAMES. The therapy has to include Feedback of negative effects, Responsibility, Advice, Menu (choices), Empathy and Self-efficacy. A good therapeutic relationship is imperative for the realization of these factors (Miller, 1983, 1985; Miller and Rollnick, 1991; Miller and Sanchez, 1993).

Compared to the body of literature about therapeutic alliance in general psychotherapy, our knowledge about the therapeutic alliance in addiction therapy is yet quite limited. The main reason for this is that most studies have analyzed in-patient, day-patient, and residential treatment programs. Since alcoholics are treated by several therapists in these facilities, the effect of a single therapist-client relationship is difficult to isolate. A well-known and methodologically sound study made the first step towards process-outcome studies in the addiction field. It examined the contribution of patient factors, therapist factors, and patient-therapist relationship factors in determining outcomes in the treatment of opioid-dependent patients (Luborsky et al., 1985; Woody et al., 1983). The authors found the development of a supportive and trusting relationship to be one of the most crucial predictors of treatment outcome. In a new analysis of these data for the subgroup of antisocial personality disorder patients, Gerstley et al. (1989) found different results for the alliance between patients and professional psychotherapists vs. the alliance between patients and drug counselors: the patient-psychotherapist alliance was a strong predictor of treatment outcome, but there was no significant association between patient-counselor alliance and outcome measures.

Recent studies have confirmed that the therapeutic alliance plays an important role in the treatment of addiction, but that it is embedded in a multifaceted pattern of other process variables (see Table 1). Its association with retention and compliance, as well as its interactions with early treatment outcomes show that the unique contribution of the helping alliance is to nurture positive early treatment processes. A detailed investigation of these articles reporting either no pattern or a weak or an inconsistent pattern of associations between therapeutic alliance and treatment outcomes evokes five interpretations: negative or inconsistent findings might be due to (1) methodological shortcomings of the study (e.g., Carroll et al., 1997; Long et al., 2000; Petry and Bickel, 1999; Öjehagen et al., 1997; Tunis et al., 1995) (2) treatment concepts that subordinate the development of a helping alliance in single therapist-patient dyads under other active ingredients such as educational groups or pharmacological treatment (e.g., Belding et al., 1997, Tunis et al.,



1995); (3) treatment concepts that do not guarantee the ability of all involved therapists to form an alliance with substance abusers [e.g., Barber et al., 2001 (see Najavits et al., 1995)]; (4) the unusual result that the helping alliance not in the early but in the late course of treatment significantly influences outcome (Belding et al., 1997); (5) the concurrent analysis of a single therapist-patient relationship vs. multiple relationships between staff and patients. For example, the evaluation of a multifaceted inpatient treatment program showed that some interpersonal within-treatment factors (patients' treatment involvement, patients' perception of staff control, and patients' perception of treatment as helpful) were better predictors of outcome than the alliance in single therapist-patient dyades (Long et al., 2000).

Investigation of the helping alliance is the linchpin of process-outcome research (Grawe, 1997; Orinsky et al., 1994; Orlinsky and Howard, 1986), and process research has become a major topic in the addiction treatment field (Carroll, 2001; Carroll et al., 2000; Finney et al., 1999; Goubert et al., 1996; Najavits et al., 1995, 2000; Nielsen et al., 2000; Simpson, 2001). Thus, future studies will show whether this "old-fashioned" construct will maintain its central part in contemporary addiction therapy.

Given the impact of the therapeutic alliance on treatment progress, the question arises whether it is possible to multiply its effects. A simple but compelling method would be to increase the "dose of therapeutic relationship per patient" by working with several therapists. This would result in a dynamic interaction of various patient-therapist relationships contributing to the treatment atmosphere (see K ufner and Feurlein, 1989; Moos et al., 1990). The therapist rotation is one way to provide a more intensive experience of therapeutic relationships. In the following, we introduce the historical background of the therapist rotation, multiple psychotherapy. We discuss our treatment philosophy and its clinical potential. Finally, we analyze this new treatment element from a theoretical perspective and consider further applications.

### Multiple Psychotherapy

Although initially, the ideas of Alfred Adler's individual psychology were not included in the concept of OLITA, a surprising similarity between the therapist rotation and the multiple psychotherapy could be found retrospectively. This method, developed by Adler about 1920, is rarely used outside individual psychology and was the subject of vivid discussions from the fifties to the seventies. The term "multiple



**Table 1.** Recent studies of the therapeutic alliance (TA) in alcoholism and drug abuse/dependence treatment.<sup>a</sup>

Study	Objective	Methods	Key findings
Barber et al. (2001)	Prediction of retention (=duration of treatment until patient drops out) and drug outcome by TA in the NIDA Collaborative Cocaine Treatment Study; comparison of three treatment programs: supportive-expressive therapy (SE), cognitive therapy (CT), individual drug counseling (IDC)	<u>Design:</u> 12 months postrandomization follow-up <u>Participants:</u> <i>N</i> = 308 cocaine-dependent outpatients <u>TA:</u> session 2, 5; <u>PR:</u> HAQ-II, CALPAS <u>Treatment D/I:</u> 6 months/2 weekly sessions for months 1–3, 1 weekly session for months 4–6, 1 weekly group session for months 1–6 <u>Design:</u> reliability study <u>Participants:</u> <i>N</i> = 60 substance-dependent outpatients (cocaine dependence and alcohol abuse or dependence) <u>TA:</u> week 2; <u>PR, TR, OR:</u> CALPAS, Penn Helping Alliance Rating Scale, VTAS, WAI (all 3 scales) <u>Treatment D/I:</u> 3 months/?	High levels of TA in all three therapy groups; TA is positively associated with retention in SE and IDC, but it is negatively associated with retention in CT; in all groups, TA was not a significant predictor of drug outcome (ASI drug composite score)
Cecero et al. (2001)	Comparison of six measures of TA across three treatment modalities: cognitive behavioral treatment (CBT), 12-step facilitation (TSF) plus disulfiram, clinical management (CM)	<u>Design:</u> 4 weeks follow-up <u>Participants:</u> <i>N</i> = 340 inpatients with substance dependence (varying drugs); <i>n</i> <sub>1</sub> = 93 (subsample for prospective analyses) <u>TA = N:</u> week 1; <i>n</i> <sub>1</sub> : week 1, 3; <u>PR:</u> HAQ-I, RI <u>Treatment D/I:</u> 4 weeks/?	Strong support for the construct validity of TA in a sample of substance dependent patients; acceptable reliabilities of all measures; low correlations between observer and participant measures; reliabilities varied by treatment condition
DeWeert-Van Oene et al. (DeeWert-VanOene et al. 1999, 2001)	Validity of a Dutch version of the Helping Alliance Questionnaire (HAQ-I); prediction of retention by a variety of within-treatment variables during inpatient detoxification		Strong association between interim outcome measures and TA; TA is a strong predictor of retention



Connors et al. (2000)	Prediction of TA in alcoholism treatment by diverse client characteristics and therapist demographics; Project MATCH, three treatments: TSF, CBT, MET (motivational enhancement therapy)	<p><u>Design:</u> correlation study, multivariate analyses</p> <p><u>Participants:</u> <math>N = 1187</math> patients with low levels of alcohol dependence (95% or alcohol abuse (5%), <math>n_1 = 707</math> outpatients, <math>n_2 = 480</math> aftercare clients</p> <p><u>TA:</u> session 2; PR, TR; WAI</p> <p><u>Treatment D/I:</u> 3 months/weekly sessions CBT, TSF; 4 sessions MET</p> <p><u>Design:</u> 12-months posttreatment follow-up</p> <p><u>Participants:</u> <math>N = 170</math> in- and day-patients with moderate levels of alcohol dependence</p> <p><u>TA:</u> ?; PR; WAI</p> <p><u>Treatment D/I:</u> 16 days/?</p>	<p>In both samples strong prediction of clients' experience of TA by their readiness to change; in addition, subtly different pattern of modest relationships between client characteristics (e.g., age education, gender, depression) and clients' and therapists' ratings of TA</p>
Long et al. (2000)	Prediction of outcome by a variety of within-treatment factors during in- and day-patient CBT for alcoholism (individual counseling and group therapy)	<p><u>Design:</u> qualitative study (semistructured interviews)</p> <p><u>Participants:</u> <math>n_1 = 21</math> inpatients with drug dependence, <math>n_2 = 21</math> inpatients with drug and/or alcohol dependence</p> <p><u>TA:</u> <math>n_1</math>: week 3, 4; <math>n_2</math>: day 7; PR; TA is defined as all relationships with staff or key worker</p> <p><u>Treatment D/I:</u> <math>n_1</math>: 30 days; <math>n_2</math>: 10 days/inpatient treatment</p>	<p>TA fails to predict outcome (relapse vs. abstinence/nonproblem drinking); significant predictors are higher self-efficacy to resist drinking, greater treatment program involvement, lower perception of staff control, greater perception of treatment as helpful, reduction of psychological symptoms during treatment</p>
Bacchus et al. (1999)	Clients' treatment experience of inpatient programs for drug and alcohol dependence (individual and group counseling and other activities)	<p><u>Design:</u> qualitative study (semistructured interviews)</p> <p><u>Participants:</u> <math>n_1 = 21</math> inpatients with drug dependence, <math>n_2 = 21</math> inpatients with drug and/or alcohol dependence</p> <p><u>TA:</u> <math>n_1</math>: week 3, 4; <math>n_2</math>: day 7; PR; TA is defined as all relationships with staff or key worker</p> <p><u>Treatment D/I:</u> <math>n_1</math>: 30 days; <math>n_2</math>: 10 days/inpatient treatment</p>	<p>The quality of TA is one of the most positive aspects of inpatient treatment; clients report that they are comfortable in discussing their problems with any member of the staff</p>

(continued)



Table 1. Continued.

Study	Objective	Methods	Key findings
Fiorentine et al. (1999)	Association between various client characteristics, client engagement (product of intensity and duration of treatment participation), and clients' treatment experience of any of the 25 Los Angeles County outpatient drug-free programs	<u>Design:</u> 8 months follow-up <u>Participants:</u> $N = 302$ outpatients with substance abuse (varying drugs) <u>TA:</u> week 1; PR; 4 questions of a new interview <u>Treatment D/I:</u> on average 27.7 weeks/ on average 3.6 weekly group and individual sessions	TA is one of the strongest predictors of client engagement in treatment
Petry and Bickel (1999)	Prediction of treatment completion in a buprenorphine treatment program (pharmacological and behavioral therapy) by patient characteristics and TA	<u>Design:</u> 3–4 months follow-up <u>Participants:</u> $N = 114$ opioid-dependent outpatients; $n_1 = 46$ , $n_2 = 65$ <u>TA:</u> $n_1$ : session 3; $n_2$ : retrospective completion of the HAQ-II after treatment termination; $n_1$ : PR, TR; $n_2$ : TR; $n_1$ : HAQ-II-T, HAQ-II-P; $n_2$ : HAQ-II-T <u>Treatment D/I:</u> 3–4 months/1–2 weekly individual sessions	TA (TR) is not associated with completion, but an interaction between TA and psychiatric severity predicts completion: patients with more severe psychiatric symptoms are more likely to complete treatment if their therapists rate a strong alliance; among patients with few psychiatric symptoms, therapists' rating of TA is not related to completion.
Raytek et al. (1999)	Comparison of less vs. more experienced therapists with regard to form TA; prediction of retention and drinking outcome by TA in couple therapy for alcoholism three different versions of alcohol behavioral marital therapy)	<u>Design:</u> 6 months posttreatment follow-up <u>Participants:</u> $N = 66$ male outpatients with alcohol dependence or abuse and their female partners without alcohol problems <u>TA:</u> session 1; OR; VTAS <u>Treatment D/I:</u> 1–12 months/15 sessions	More experienced therapists do better in forming a TA than less experienced therapists; Quality of TA is significantly related to retention, but fails to predict treatment outcome



<p>Najavits et al. (1998)</p>	<p>Report on process-outcome results of a new cognitive behavioral group therapy for women with substance dependence and concurrent posttraumatic stress disorder (PTSD)</p>	<p><u>Design:</u> 3 months posttreatment follow-up  <u>Participants:</u> N = 27 female outpatients with PTSD and alcohol dependence  <u>TA:</u> session 3, 24; PR, TR; HAQ-II  <u>Treatment D/I:</u> 12 weeks/2 weekly sessions</p>	<p>Completers show consistently high TA during the treatment and have higher quality of TA than dropouts</p>
<p>Belding et al. (1997)</p>	<p>Prediction of drug outcome in methadone maintenance treatment (standard methadone maintenance treatment and token economy interventions) by TA</p>	<p><u>Design:</u> 6 months-follow-up  <u>Participants:</u> N = 57 methadone maintenance patients (regular use of heroin, cocaine, sedatives)  <u>TA:</u> month 1, 3; PR, TR; HAQ-II  <u>Treatment D/I:</u> 6 months/at least 1 weekly session</p>	<p>TA is not related to treatment retention and improvement in psychiatric severity; TA at month 1 is not related to improvement in drug use. Three-month TA measures are related to reductions in drug use at month 3 and month 6, supporting a complex process model: early reductions in drug use account for increase of TA and subsequent reduction in drug use</p>
<p>Broome et al. (1997)</p>	<p>Prediction of rearrest of first time offenders by drug-related problems, social background, and TA</p>	<p><u>Design:</u> follow-up between 16 and 29 months  <u>Participants:</u> N = 250 clients of a residential treatment program (probationers with substance abuse of alcohol, cocaine/crack, marijuana)  <u>TA:</u> months 3 or 4 (last rating prior to graduation); PR; scale of a new standardized questionnaire  <u>Treatment D/I:</u> 4 months/residential treatment</p>	<p>TA is positively associated with recognition of drug-related problems and is negatively related to rearrest</p>

(continued)



Table 1. Continued.

Study	Objective	Methods	Key findings
Carroll et al. (1997)	Contribution of TA to outcome in active vs. control psychotherapies (comparison of CBT = active psychotherapy vs. CM = control psychotherapy)	<u>Design:</u> 3-months follow-up <u>Participants:</u> $N = 103$ outpatients with cocaine dependence and high comorbidity psychopathology <u>TA:</u> session 2; OR; VTAS <u>Treatment D/I:</u> 12 weeks/1 weekly session	TA is more positive in CBT than in CM; TA predicts retention and drug outcome in CM but not in CBT
Connors et al. (1997)	Prediction of treatment participation and drinking outcomes by TA across three treatment modalities: CBT, TSF, MET (Project MATCH)	<u>Design:</u> 12-months posttreatment follow-up <u>Participants:</u> $N = 1196$ patients with low levels of alcohol dependence (95%) or alcohol abuse (5%); $n_1 = 698$ outpatients, $n_2 = 498$ aftercare clients <sup>a</sup> <u>TA:</u> session 2; PR, TR; WAI <u>Treatment D/I:</u> 3 months/weekly sessions CBT, TSF; 4 sessions MET <sup>a</sup> sample sizes of the different multiple regressions vary slightly because of missing data	In the outpatient sample, TA predicts treatment participation and drinking behavior during treatment and 12-month posttreatment periods, although a variety of other sources of variance are controlled; in the aftercare sample, only therapists' ratings of TA predicted percentage of days abstinent during treatment and follow-up
Öjehagen et al. (1997)	Prediction of long-term drinking outcome by TA in two outpatient alcoholism treatment modalities, multimodal behavioral therapy (MBT) and psychiatric treatment (PT)	<u>Design:</u> 3-years follow-up <u>Participants:</u> $N = 72$ outpatients with alcohol use disorder <u>TA:</u> session 3; OR; Swedish version of the HAQ-1 <u>Treatment D/I:</u> 12 or 24 months/average 24.7 sessions	Data are available only of 35 from 72 patients. Among these 35 completers, there are no significant correlations between TA and drinking outcomes



Simpson et al. (1997)	Prediction of retention in a multifaceted methadone maintenance program by diverse therapeutic process components; comparison of cognitively-enhanced counseling vs. standard counseling	<p><u>Design:</u> 1-year follow-up</p> <p><u>Participants:</u> <math>N = 527</math> opioid dependent outpatients</p> <p><u>TA:</u> month 2; TR items of a new rating scale</p> <p><u>Treatment D/L:</u> up to 1 year/weekly sessions</p>	<p>Cognitively-enhanced counseling procedures improve the quality of TA; TA has a positive relationship with client engagement, has a negative relationship with drug use during treatment, and is amongst the strongest predictors of retention</p>
Bell et al. (1996)	Clients' changes of emotional well-being and TA during short-term drug treatment (chemical dependency education, group and individual counseling, vocational and educational counseling, self-help-groups)	<p><u>Design:</u> 4 weeks follow-up</p> <p><u>Participants:</u> <math>N = 402</math> clients with cocaine and alcohol abuse/dependence (<math>n_1 = 155</math> day-treatment patients; <math>n_2 = 247</math> residential-treatment patients)</p> <p><u>TA:</u> session 1, 2, 3, 4; PR; new scale</p> <p><u>Treatment D/L:</u></p> <p><math>n_1</math>: 4 weeks/5-days-a-week-program</p> <p><math>n_2</math>: 4 weeks/7-days-a-week-program</p>	<p>Among completers, quality of TA and emotional well-being increase over the course of treatment; among dropouts, there are no significant weekly changes in TA, but there are decreases in self-esteem from week 1 to week 3.</p>
Hyams et al. (1996)	Association between clients' experience of assessment interviews and subsequent engagement in a day-treatment program for alcohol problems	<p><u>Design:</u> 3 months follow-up</p> <p><u>Participants:</u> <math>N = 131</math> outpatients with alcohol problems</p> <p><u>TA:</u> assessment interview; PR; 35 items of a new questionnaire</p> <p><u>Engagement:</u> at least 2 individual sessions or 5 group sessions within 3 months</p>	<p>The quality of TA established during the interview is positive associated with subsequent engagement in treatment</p>
Luborsky et al. (1996)	Validity of the revised Helping Alliance Questionnaire (HAQ-II); training phase of the NIDA Collaborative Cocaine Treatment Study; supportive-expressive therapy (SE), cognitive therapy (CT), individual drug counseling (IDC), group drug counseling (GDC), see above	<p><u>Design:</u> correlation study</p> <p><u>Participants:</u> <math>N = 246</math> patients with cocaine dependence</p> <p><u>TA:</u> session 2, 5, 24; PR; TR; HAQ-II, CALPAS</p> <p><u>Treatment D/L:</u> 6 months/2 weekly sessions for the first 3 months and 1 weekly session for months 4-6; 2 weekly group sessions for months 1-2, 1 weekly group session for months 3-6</p>	<p>The HAQ-II demonstrates (1) excellent internal consistency and test-retest reliability, (2) good convergent validity with the CALPAS, (3) good discriminant validity, i.e., no association with sociodemographic variables and pretreatment psychiatric severity or level of depression</p>

(continued)





Table 1. Continued.

Study	Objective	Methods	Key findings
Lovejoy et al. (1995)	Exploration of clients' experience of the process of change during a highly structured intensive relapse prevention program	<u>Design</u> : qualitative study (ethnographic interviews) <u>Participants</u> : $N = 17$ methadone-maintained outpatients with cocaine dependence and high levels of comorbid psychopathology <u>IA</u> : at the end of treatment; <u>PR</u> : themes derived from content analysis <u>Treatment D/I</u> : 6 months/5 weekly individual and group sessions	All patients reported the importance of a strong TA; clients' development of a trust in a therapist is mediated by the experience of therapist's carefulness
Tunis et al. (1995)	Prediction of treatment outcome by counselor and peer alliance in an extended opioid detoxification program	<u>Design</u> : 1 month posttreatment follow-up <u>Participants</u> : $N = 41$ patients with opioid dependence, $n_1 = 21$ (low intensity treatment), $n_2 = 20$ (high intensity treatment) <u>IA</u> : month 3, 4, 5, 6, 7; <u>PR</u> : CALPAS <u>Treatment D/I</u> : $N$ : 6 months/orientation groups for every patient; $n_1$ : monthly IDC; $n_2$ : 1 weekly IDC, 2 weekly educational groups	TA is moderately stable over time; during the final 30 days, high levels of TA are associated with less use of illicit opioids and with less frequent needle sharing. TA fails to predict retention and fails to predict drug use and HIV risk behaviors at nearly all time points

<sup>a</sup>In order to find all relevant published articles between 1995 and 2001, we conducted a literature review using the following databases: PsycINFO, Medline, and Current Contents. Search words were (1) alliance, therapeutic relationship, client-counselor relationship, rapport, or working alliance and (2) substance abuse/dependence treatment/therapy, addiction treatment/therapy, or alcoholism treatment/therapy. All original papers investigating the impact of therapeutic alliance on substance abuse/dependence treatment that have been published in Journals or as book chapters were reviewed; doctoral dissertations, theoretical papers, reviews, case reports and studies with small sample sizes ( $N < 15$ ) were excluded.  
Abbreviations: IA, Therapeutic alliance; Table 1 gives information about assessment time, rating person (patient or therapist or observer rating), and TA measure; PR, Patient rating; TR, Therapist/counselor rating; OR, Observer rating; Treatment D/I, Treatment duration/intensity; ? No information available.  
TA Measures: CALPAS: California Psychotherapy Alliance Scales"; PR, TR (Marmar et al., 1989); Penn Helping Alliance Scales: HAQ-I "Helping Alliance Questionnaire"; PR, TR (Alexander and Luborsky, 1986; Luborsky et al., 1985); HAQ-II "Revised Helping Alliance Questionnaire"; PR, TR (Luborsky et al., 1996); HAR "Helping Alliance Rating Scale"; OR (Alexander and Luborsky, 1986; Luborsky et al., 1983); RJ "Relationship Inventory"; PR, TR (Barrett-Lennard, 1986); VTAS "Vanderbilt Therapeutic Alliance Scale"; OR (Hartley and Strupp, 1983); WAI "Working Alliance Inventory"; PR, TR, OR (Horvath and Greenberg, 1986)



psychotherapy” describes the specific joint treatment of a patient by two or more therapists. In most cases the therapists arrange joint sessions, some take turns and some alternate between individual therapy<sup>b</sup> and multiple therapy (Langegger, 1990). Multiple therapy is not equal to just a simple change of therapists due to a poor therapeutic relationship (Andrews et al., 1986). It also differs from an unplanned change of therapists in spite of a good working alliance and from an enforced treatment by several therapists, which have both proven harmful for the therapeutic relationship and for the well-being of the patients (Martin, 1989; Meyer and Tolman, 1963; Sandler et al., 1980; vanderKolk and Goldberg, 1983). In contrast to these findings Langegger (1990) did not find a single indication of potential harmfulness of multiple therapy in his excellent review of 40 studies about this subject. Out of the many positive experiences gained by the pioneers of multiple therapy, only the most impressive ones will be mentioned here (see Dolber et al., 1977; Dreikurs, 1950; Dreikurs et al., 1952a, 1952b; Dyrud and Rioch, 1953; Greenbank, 1964; Hayward et al., 1952; Kassoff, 1958; Warkentin et al., 1951; Weisman et al., 1969).

#### Benefits for the Patients

Successful application with so-called “hopeless cases,” i.e., patients with massive psychological disorders (aggressive, violent, hostile, unmotivated, and chronic psychotic patients) who are not able to benefit from the dyadic relationship of a classical individual therapy because they have large deficits in their ability to cooperate. The patients receive more assistance, understanding, and encouragement for insight. New learning is facilitated by means of a variety of repetitions, roles, perspectives, and experiences.

#### Benefits for the Therapists

Prevention of therapeutic mistakes by mutual correction and training; continuity of treatment in case of one of the therapists’ absence; more flexibility during working hours; reduction of frustration and feelings of insufficiency; mutual support and supplementation; change of roles; optimal training possibilities.

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<sup>b</sup>The term “individual therapy” describes therapeutic interactions which are limited to a single therapist-patient dyade. “Individual therapy” must not be confused with “individual psychology,” the treatment approach of Alfred Adler.



### Development of the Therapeutic Alliance

Multiplication of the individual therapist's characteristics promoting relationship and adjustment of those characteristics disrupting relationship; stronger emotional intensity. The patient experiences a minor degree of dependence, is able to express feelings of ambivalence and conflict and feels less guilty in case of aggressiveness and hostility.

The rare application of multiple therapy probably has its reason in a higher demand on staff and expenses as well as in the missing willingness and competence of therapists to work as a team. For two areas of application however, no replacement for the successful treatment by multiple therapists has been found up to the present day: (1) the continuous outpatient psychotherapeutic care of persons with chronic mental disorders (for example, Brandwin et al., 1976); (2) operant methods that aim at a generalization and stabilization of the acquired behavior (for example, Engum et al., 1980; Matson et al., 1993; Redd, 1980; Runco et al., 1986).

To sum up, it can be stated that multiple psychotherapy represents an effective form of therapy in spite of its rare application. Amongst the many advantages reported by its advocates, the successful use with severely affected psychiatric patients is especially striking.

## **THE THERAPIST ROTATION AS A THERAPEUTIC ELEMENT OF OLITA**

### **Description of the General Concept of OLITA**

The therapist rotation is one part of the Outpatient Longterm Intensive Therapy for Alcoholics (OLITA), a research project at the University of Göttingen, which has been initiated over 9 years ago. Since then, 180 severely affected chronic alcoholics have been treated with a surprising success rate of approximately 50% of abstinent patients 2 years after termination of the program (Ehrenreich et al., 1997, 2000). OLITA is a four-step program of care for outpatients with the intention of immediate social reintegration. It directly follows an inpatient period of detoxification and extends over a total of 2 years (see Table 2). High-frequency short-term individual therapeutic contacts (initially daily for 15 min, on 7 days a week: "structured guarded attachment") in an atmosphere of warmth and acceptance as essential elements of the therapy are accommodating to the patients' extremely limited biological tolerance threshold of stress (Ehrenreich et al., 1997). These frequent



*Table 2.* Therapeutic phases of OLITA.

Therapeutic phase	Duration	Therapeutic contacts
Inpatient period: detoxification	2–3 weeks	daily individual sessions, 15 minutes
Outpatient period I: intensive phase	3 months	daily individual sessions, 15 minutes
Outpatient period II: stabilizing phase	3–4 months, according to individual need	three times a week individual sessions, 15 minutes
Outpatient period III: weaning-off phase	6 months	twice a week individual sessions, 30 minutes
Outpatient period IV: aftercare phase	12 months	one weekly group session; initially weekly individual sessions (30 minutes) which are gradually reduced

contacts encourage the continuous gradual development of coping and problem-solving skills without expecting too much of the patient. The daily therapeutic contacts are followed by a reduction of contact frequency and resolve in a group session once weekly, which prepares for the regular attendance of self-help groups after the termination of the OLITA program. At the beginning, the therapy is supportive and nondemanding: the patient determines the topics and the therapists deliberately refrain from inquiring more deeply. The only therapeutic rule concerning topics during the first 3 months is that in every contact the word “alcohol” has to be mentioned at least once. This prevents a “fading of the alcohol problem” against the background of overwhelming acute psychosocial difficulties and helps the patients to develop a stable awareness of their alcohol dependence. Only after 6 months, when the patients’ tolerance level for stress has stabilized, the therapy gets more profound (e.g., work on serious problems of interaction and communication, also marital and family therapy, social skills training, treatment of comorbid anxiety disorders). Further elements of therapy are social support, regular urine and blood tests for alcohol and other drugs of abuse, supervised intake of deterrent medication to induce an alcohol intolerance, house visits, crisis interventions, and assistance round the clock in case of emergency as well as “aggressive aftercare” for the immediate interruption of beginning and prevention of threatening relapses (Ehrenreich et al., 1997, 2000).



Because of the initially daily outpatient appointments, the frequency of therapeutic contacts is much higher than in any other form of intervention. To make this feasible the therapeutic sessions are carried out on the principle of rotation. An interdisciplinary cooperating team of 6–7 persons will look after the patients (supervising psychiatrist, psychologist, physician, social worker, nurse, and medical and psychology doctoral students). The renunciation of a classical interaction restricted to a single patient and a single therapist does not signify a general renunciation of a good therapeutic alliance. Rather, the development of trusting relationships between the patient and all therapists are required. All therapists are equally responsible for all patients. They change in irregular order between the therapeutic sessions, and it is not up to the patients to decide who they are going to talk to. Normally they also do not know which therapist they shall meet in their next session. One therapist does not carry out more than three to four successive sessions with a patient. Joint talks of several therapists with one patient are possible but are not practiced as often as in most multiple therapies. The departure from the team of one therapist and the integration of a new colleague can be regarded as a special case of rotation. This is compatible with the therapeutic concept and involves its own advantages and dangers. The important role of the therapeutic relationship in addiction treatment (see above) has some direct implications for the training of the team members. They are encouraged and taught to work with alliance promoting competences and skills, above all empathy, emotional warmth, optimism, resource orientation, and trust. The goal is to develop a structured, nonconfrontative, and supportive cooperation between the team and the patients.

During the nine years of its existence a total of 30 therapists have been working in the OLITA project. At this point it can be stated that the therapist rotation has proven to be feasible, efficient, and compatible with the essential parts of an outpatient addiction therapy.

### **The Supportive Function of a Therapist Rotation**

The detailed description of the OLITA concept reveals several supportive functions:

1. The permanent availability of a therapist: In a team of interchanging therapists someone is always on call. This way it is possible to combine high frequency contacts with long-term



care and crisis intervention. In times of crisis outside of normal working hours, the members of the team are the only trustworthy and informed persons to talk to. There is no need to fill in night shifts or holidays with temporary staff.

2. The daily reminder of the problem “alcohol” and the connected negative consequences: The results of Vaillant’s long-term follow-up study (Vaillant, 1983) show that repeated comments on the problematic nature of alcohol have a positive result when carried out over an extended period of time. This is probably valid as well for the initial phase of a therapy, when the craving for alcohol still occurs frequently and can be dealt with more easily by permanently referring to the main problem.
3. The establishment of positive habits, like the daily self-exploration: By permanent repetition over an extended period, a habit of a short daily reflection is developed, which may contribute to enhance problem-solving activities.
4. The daily confirmation of being on the right path: During the therapeutic contacts a daily feedback about functional and dysfunctional behavior and its consequences is given to guarantee an optimum reinforcement of positive habits.

### **Correction of Subjective Shortcomings of the Individual Therapist**

The rotation causes a permanent balancing correction of subjective shortcomings in the action of the individual therapist. At the same time it automatically prevents the habituation to unfavorable behavioral patterns under the mutual consent between patient and therapist (e.g., tabooing of uncomfortable topics, toleration of lack of discipline, preference of a particular patient).

### **Avoiding a Dyadic Dependence**

Addiction is often related to the dynamics between dependence and autonomy. Dependence on a substance and the negative interpersonal consequences of this dependence might lead to counter-reactions in the struggle for autonomy. This makes it more difficult to accept therapeutic



help. For a patient, it is even more offending to realize that he is unable to cope with the alcohol problem and to handle alcohol in a controlled way, as 85% of the population do. "Why me, what is it I lack, that the others have?" is a question that is hard to answer for the patient and is therefore tested by relapsing again and again. Quite a lot of addicted patients resolve the conflict between dependence and autonomy by evading a dyadic therapeutic relationship with its fixed definition of roles. In classical psychotherapy or drug counseling, they are one-sidedly given the part of someone in need and to accept this role can seem like an insult. In self-help groups, the other members find themselves generally in an equal situation and the patient is always able to take on the part of the supporter when offering his help to other concerned persons. The addict fights for an autonomy he has perhaps given up in regard to his drug. As recommended in the 12 steps by Alcoholics Anonymous, he should bear admission of complete defeat ("acceptance and surrender"). Due to this he may reject any restrictions of autonomy in other areas of his life. Paradoxically though, addicted patients quite often show a strong need for dependence. The setting of therapist rotation tries to resolve the conflict between dependence and autonomy in a new way: with its frequent contacts and generally positive atmosphere the patient's need for dependence is met while the cooperation with the team protects his autonomy.

### **Burn-Out Prophylaxis for the Therapist**

With the therapist rotation the fixation of a patient to a certain person is prevented. The advantages for the therapist are obvious:

#### Relief for the Individual Therapist

- Handing-over to another therapist in case of overwork, absence of a therapist, threatening loss of distance, or excessive identification.
- Mutual support and training; division of tasks (mutual complementation, specific use of personal abilities).
- Joint treatment planning (diversity of ideas, possibility of mutual correction); sharing of responsibility; joint coping with stressful events, such as the relapse or death of a patient.
- The possibility to fulfill assignments a single therapist would be unable to do, such as house visits and crisis interventions.



### Overcoming the “Loneliness” of the Therapist

Teamwork as a balance to the one-sidedness of the therapeutic interactions and the isolation of therapeutic sessions.

## Organizational Aspects

### Quality Guarantee

Due to an orientation of all therapists on fixed standards, the constantly flowing equilibrium between the entering and departure of staff members leads to a continuous renewal of the team without endangering the quality of therapy. In this way, the effectivity of the team is kept up. New admission of patients can take place irrespective of the change of therapists.

### Flexible Working Hours

As all therapists are responsible for every patient, it is possible to guarantee a continuous high quality of care for the patients while at the same time part of the team is liberated temporarily from their clinical duties. The therapist rotation in this way offers an ideal compatibility of staff vacations, periods of research, shift work, and flexible visiting hours for the patients.

## Conditions for a Successful Use of the Therapist Rotation

Every therapist is expected to develop a good relationship with the patient, despite “sharing” with the other therapists. This makes great demands on the abilities of each team member (openness, flexibility, team spirit, diligence, modesty) and on the quality of collaboration in the team.

### Restriction of the Number of Patients and Therapists

The number of patients is restricted to the number a single therapist can responsibly assess. With OLITA it has proven sensible not to admit more than 30 new patients per year, making a total of 60–70 patients who are treated at the same time. The team has to be clearly recognized as a small group, and therefore should not consist of more than seven members.





### Transparency

- To avoid the loss of information, intensive and detailed handing-overs are necessary. OLITA has two extensive team meetings every week, one of 3 and the other of 1.5 hours of duration; short handing-over meetings are added if required.
- Each therapeutic contact with patients is documented in writing, so that every therapist is always up-to-date with the state of the therapeutic process. OLITA's documentation is short and concise; it is supposed to inform about the current state of the patient, changes, or stability in the therapeutic process (e.g., focus of the treatment, course of the session, therapeutic relationship) and new agreements (e.g., homework, future topics).

### The Team as the Most Important Therapeutic Authority

It is essential that every therapist acts as a member of the team, so that the therapeutic relationships of the other members are not endangered (e.g., no criticizing of other therapists in the presence of patients; correct presentation of team decisions, i.e., "We decided . . .," instead of: "I decided . . .").

### Congruence

There has to be an agreement among therapists about the basic concepts of the therapy (e.g., empathy, unconditional positive regard, and authenticity as principle therapeutic conditions; renunciation of any profound and demanding questioning during the first 6 months; strict sticking to the rules during the first year; congruent presentation of essential concepts such as abuse, dependence, chronic disease, relapse, or the handling of alcoholic food).

In spite of all this, no therapist has to renounce his own personal views and preferred procedures when confronted with a specific therapeutic situation. It is exactly the difference between the team members that fosters—under the prerequisite of a basic congruence—positive consequences of the therapist rotation.



### COMMON AND UNIQUE FACTORS OF THE THERAPEUTIC PROCESS—HOW DOES THE THERAPIST ROTATION WORK?

The following section examines the therapist rotation from the perspective of process analysis according to Grawe's theory of four common factors of psychotherapy (Grawe, 1997).

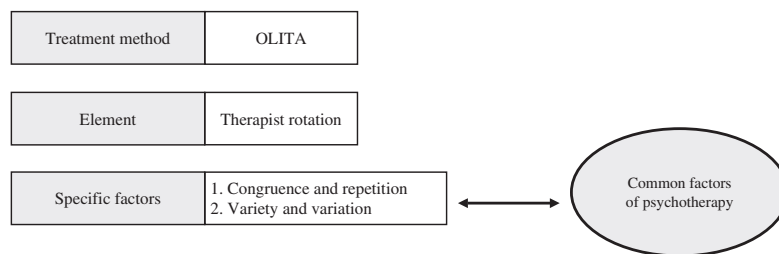
Due to the results of process-outcome research on psychotherapy, there are common factors of a general psychotherapy that explain the effectiveness of specific therapeutic procedures better than the explanations given by the different therapy schools themselves (Grawe, 1997; Orlinsky et al., 1994; Orlinsky and Howard, 1986). The present analysis assumes that the mechanisms of rotation work by activating the common factors of psychotherapy (see Fig. 1). Two main mechanisms for the therapist rotation are postulated:

1. Congruence and repetition: Certain therapeutic processes and topics that are frequently repeated are always carried out and presented in correspondence.
2. Variety and variation: The patients meet various statements and actions of different persons; the goal is to provoke, within the frame of fundamental congruence, a variation of the most important topics of the therapy; thus, the patients are encouraged to reflect new aspects and interpretations and to experience new possibilities of behavior.

Among the different models of a general psychotherapy, above all Grawe's concept of four basic mechanisms of change (Grawe, 1997) has proven itself because it is derived from the empirical results of process-outcome research on psychotherapy:

1. Resource activation: Building upon positive possibilities and characteristics of the patient so that they can experience their own potentials.
2. Problem actuation: Facilitating the patient's experience of one's own problems and how they change during therapy. Problem actuation facilitates changes by producing emotional intensity and instability.
3. Clarification of meaning: Supporting the patient in developing a deeper understanding of the meaning of one's behavior and experience and their changes throughout therapy.





*Figure 1.* Common and specific factors of OLITA.

4. **Mastery/Coping:** Helping the patient to cope with problems by use of specific interventions; successful mastery results in an increase of self-efficacy.

In the following section it will be discussed how the two specific factors of the therapist rotation can activate the four common factors of psychotherapy. The different interactions are interpreted separately (see Fig. 1).

### How Do Congruence and Repetition Work?

#### Resource Activation

Encouragement by the team: Courage, hope, self-esteem, and self-confidence grow faster and more stable by several therapists repeatedly appealing to the patient's resources, than in the case of only one therapist doing so.

#### Problem Actuation

The team's power to convince: If several therapists repeatedly confirm the patient's alcohol problems and give clear, consistent, and tempered advice how to change, they will experience the problems more intensively and will strive with more motivation for a change of addictive behavior.

#### Clarification of Meaning

Personality development with the support of the team: If several therapists agree on defining the alcohol dependence of the patient as a



chronic disease, it is easier for him to develop a functional disease model (“I am alcohol dependent; so I know that there is always the danger of a relapse and that is why I will permanently remain alert to high risk situations”). This concept of the disease requires fundamental changes of beliefs involving the whole personality. These changes can be elaborated and stabilized automatically by the repeated contacts.

### Mastery/Coping

Training, role-play, feedback and positive reinforcement are the best ways to learn and stabilize new problem-solving and social coping skills (like the refusal of alcohol or the ability of actively listening in talks etc.; see Maisto et al. (1999), Monti et al. (1995)). But they are only efficient with regular repetition. By the rotation of therapists who all work according to a certain procedure (e.g., “Be lavish in your praise”; “Keep an eye on feasibility of solutions”; “Give consequent feedback while discussing homework”), this repetition is carried out automatically. Thus the repetition is playful, easy, and not very exhausting. It is supposed that more repetitions are carried out that way so that new abilities can be learned faster and with more permanence.

### How Do Variety and Variation Work?

#### Resource Activation

Varied possibilities of taking up therapeutic relationships and making use of the whole range of potential interaction resources of a patient: The failure to build up a therapeutic relationship at the beginning of an individual therapy is one reason for premature termination of therapy (Garfield, 1994; Mohl et al., 1991). For alcohol-dependent patients this nearly invariably means a relapse (see Haver et al., 2001; Nielsen et al., 2000). In contrast, when working with a team of therapists, it is very probable that at the beginning of therapy the patient perceives at least one of the therapists to be likeable and develops a relationship. Human interaction, though, is not restricted to dyads. The need and ability of a human being to develop a positive, trusting relationship with several other human beings can be met by slowly establishing relationships to other therapists.

Promotion of autonomy and liberty of the patient: One essential condition of well-being is the human ability to feel independent and free. By preventing the danger of becoming dependent on one single therapist in the struggle against dependence on an addictive drug (shifting of



dependence), the therapist rotation promotes the autonomy and independence of the patient. The certainty of having different therapists as partners encourages one to express criticism and even hostility without a bad conscience or separation anxiety, which markedly promotes the progress of the therapy and the quality of the therapeutic alliance (Hatcher and Barends 1996).

Multiple mobilization of individual potentials: Each therapist experiences the patient in a different way. This has the advantage that the therapists are able to discover and activate the whole range of resources of a patient. As already observed by the pioneers of multiple therapy, the result is the patient's positive and optimistic experience of the therapy—the feeling that treatment by a team is preferable, because several therapists are taking a serious interest in him.

#### Problem Actuation

During the interaction with different therapists the individual therapist-patient relationships develop into group dynamics, resulting in a very intensive emotional experience (Forsyth, 1990; Larkin, 1983). The patient is able to experience their problems with a heightened emotional intensity and so to facilitate their alteration.

#### Clarification of Meaning

Multiple perspectives of the functional analysis and the clarification of goals and values: To stop drinking and to maintain abstinence requires profound behavioral changes that can only be successful if the patient develops an exact knowledge of the various individualized factors that might initiate and maintain substance use. One needs to learn the identification of high-risk situations in order to cope with them. To make this process efficient the patient has to think intensively about the compatibility of one's personal goals and values and the goals of the therapy (Morgan, 1996). The necessity of explaining one's current and past situation and history of alcoholism to different therapists results in a very detailed functional analysis and clarification of aims and values, because every therapist stimulates new angles of reflection.

Examination and change of dysfunctional beliefs by discussions with different therapists: Cognitive-behavioral therapies are able to influence the patient's deeply rooted, rigid network of dysfunctional beliefs and thoughts (Beck et al., 1990; Hollon and Beck, 1994). While these processes of change normally can only be brought about by sophisticated therapeutic techniques and an artful conduction of the talks, they develop



much easier with the therapist rotation: During the talks with different therapists the possibility is given to repeatedly vary important beliefs and thoughts without letting the repetitions seem artificial and without provoking counterproductive arguing by the therapist. Through empathic understanding and joint interpretation, patient and therapist have the chance to work out alternative functional cognitions. During this process different aspects occur to different therapists; they look at the patient's statements from different perspectives and ask different questions. The danger of individual therapy—to try to convince the patient by well-put chains of arguments—is banned here because the therapists restrict themselves to the discussion of individual facets during their talks. The patient is able to integrate new aspects of a talk into their way of thinking and can try them out in the next session with another therapist. It is important to leave enough time for the process of change because it means a manipulation of a stable, complex ego-syntonic cognitive system (Beck et al., 1990).

Utilization of splitting: "Splitting" is the attempt to disturb the relationship between persons by saying bad things about somebody behind their back. This is a global phenomenon that has especially negative effects in psychiatric and psychotherapeutic institutions, when a patient disturbs the relationship among team members. Splitting is at the same time the expression of and the solution to intra- and interpersonal conflicts and can be seen as the attempt to end a tormenting ambivalence with regard to the team ("rejection") in order to initiate a relapse. Especially successful methods of splitting are complaining, criticizing, accusing, and the spreading of rumors. The team with their openly displayed relationships and the possibility of interacting with every therapist offers itself temptingly for splitting. Instead of bearing it as an annoying evil, the therapist rotation even makes a utilization of splitting possible: Stable and intact relationships among the therapists and clarifying talks during the team sessions prevent splitting from being successful. Instead, it is used as a helpful, sensitive instrument for the early diagnosis of an acute danger of a relapse: The patients complain to one therapist about another and this way—intentionally or unintentionally—they point to an acute high risk of a relapse situation that can be explored and overcome together with them.

### Mastery/Coping

The training of flexible thinking while practising problem solving: Beside the change in dysfunctional cognitions, the patients learn in



successful cognitive-behavioral therapies how to employ different solution strategies for the mastering of diverse problems to prevent a relapse in high risk situations (Irvin et al., 1999; Maisto et al., 1999; Marlatt and Gordon, 1985; Monti et al., 1995; Morgan, 1996). Above all, they are working on interpersonal conflicts, problems in their families and jobs, as well as legal and financial problems. Here the cooperation with different therapists is useful in every phase of the problem-solving process. As orders from several people tend to be confusing it is very important that the therapists do not give inconsistent advice but leave the patient to search, decide, and judge for oneself. They mainly work by questioning and empathic reflection. Each therapist questions in a different way and stresses different points while questioning. Thereby the patients are able to draw up flexible analyses of the problems, can examine the clearness and feasibility of diverse goals and solutions, and can reflect in detail about the advantages and disadvantages of their decisions. Because they are helped by different therapists, they automatically learn to examine problems from different angles and to consider different ways of solution.

**Social skills training:** Many alcohol-dependent patients suffer from comorbid disorders that are associated with social fears, lack of self-assertion, and relationship problems (e.g., social phobias, depressive disorders, personality disorders; see Kendler et al. (1997), Kessler et al. (1997), Merikangas et al. (1998a, 1998b), Morgenstern et al. (1997), Regier et al. (1990), Rounsaville et al. (1998), Swendsen and Merikangas (2000), Verheul (2001), Wittchen et al. (1992, 1996)). By working with the team social fears can be surmounted in a natural way and social skills can be built up: In sheltered social interactions the patients experience acceptance, confidence, and sympathy from different partners. They receive multifaceted positive feedback and reinforcement for improved communication and self-assured behavior, as well as for a positive self-awareness and self-evaluation. Critical feedback about negative behavior is given cautiously and constructively. In case of marital problems, sessions with the couple are preferably held by two therapists.

In particular, the repeated departure of team members and the establishment of relationships with new therapists promote social skills, independence, and the development of trust. The multiple interactions with the team on the one hand represent a concrete possibility for the surmounting of loneliness and isolation. But mainly they are a preparation for new social interactions outside the therapeutic setting, e.g., making new contacts, as well as expression and assertion of demands of one's own; summarizing, contacts with different therapists prepare for exposure to social situations avoided up to that point.



Theater of therapists: The teamwork of several therapists makes it possible to change the patients' profound problems of communication and interaction by specific role-plays. Here the dysfunctional patterns of interaction are overcome by generating situations where they are ineffective, or by the therapists ignoring the patterns consistently. At the same time the construction of alternative patterns of interaction proceeds by putting the patients into situations where they have to try new, functional strategies that are consistently reinforced by all therapists. In parallel to the training of a new behavior, clarifying talks help to explain the processes of change—provided that the patient is sufficiently stable. By its applicability to patients who are hardly willing or able to cooperate and by facilitating real experience, the theater of therapists has an advantage over other kinds of role-playing in behavioral therapy. With its concurrent activation of mastery/coping, clarification of meaning, and problem actuation, the theater of therapists is as well an impressive example for the interdependence of the common factors of psychotherapy.

Training in group capability: The regular attendance at self-help groups during or after professional treatment increases the chance of alcohol-dependent patients to stay abstinent on a long-term basis (Emrick et al., 1993; Emrick, 2001; Finney et al., 1999; Humphreys et al., 1999; McCrady and Delaney, 1995; McKay and Maisto, 1993; Ouimette et al., 1998; Tonigan and Toscova, 1998). Interacting with the team is a preparation for therapeutic group sessions and self-help groups and makes them feasible even for patients with an aversion to these groups. The acceptance of different personalities, the positive experience of group dynamics (“cohesion”), the training of self-assertive behavior, the dealing with different views, and the use of different alternatives for the solution of problems are important skills that make participation in therapy- and self-help groups possible and effective. On the one hand the team functions as a learning model, on the other hand interacting with different therapists is a kind of training in group behavior.

### **LIMITS, CONTRAINDICATIONS, AND NEW AREAS OF APPLICATION OF THE THERAPIST ROTATION**

Aside from possible psychological effects, the general question arises whether it is harmful to the patients to be treated by a team of therapists. The experiences made with multiple psychotherapy (see above), as well as the success of OLITA so far, have spoken against this. In a case-control study, the relapse rate of the 112 OLITA patients was significantly lower than the one of 224 case controls, who participated in alternative





treatment programs (Ehrenreich et al., 2000). Thus, without having proven a specific effectiveness of the therapist rotation, the present follow-up success rate of 50% of abstinent patients 2 years after termination of OLITA gives every indication of the efficacy of this procedure; at least it excludes any harmful effect it could cause. Even if at some later time the equal effectiveness of the normally practiced dyadic therapy is proven as compared to the therapist rotation, the advantages with respect to working conditions for the therapists (see above) remain an important argument for this new procedure.

The therapist rotation will show few effects if the experience of a good dyadic relationship is of central importance for the treatment progress. It is, however, yet unproven whether this is dependent on certain concurrent disorders or on specific personality characteristics. For some patients with major depression who might have the need for a single, reliable therapeutic relationship, a dyadic constellation could be more helpful, whereas for others who have problems with closeness, the therapist rotation might be more effective.

A prerequisite for an effective therapist rotation is the ability and willingness of a patient to establish a trusting relationship with several therapists. Objections to this could be a mistrust of groups or a lack of continuity between single sessions. Among the patients treated by OLITA though, there have been no bad experiences of this kind so far.

Another question would be if the therapist rotation promotes the tendency of some patients to keep relationships superficial by not primarily treating the social interaction problems. On the other hand, the apparent superficiality of the multiple therapeutic relationships might serve to prevent the patients' tendency to terminate the therapy prematurely. It is, in fact, the initial refraining from a close therapeutic bond that enables the development of relationships that are intensified with caution in the course of the treatment.

The frequency of comorbid psychiatric disorders is very high among alcoholics (Kessler et al., 1997; Regier et al., 1990; Wittchen et al., 1996). At OLITA it amounts to 80%. For the treatment of most of the comorbid disorders (above all anxiety disorders, affective disorders, and personality disorders), the therapist rotation can be used as an effective strategy. Nevertheless, there are certain comorbid disorders where a therapist rotation is not indicated. This is true whenever the working of several therapists on a specific problem is a burden rather than a help. Examples are sexual dysfunctions or posttraumatic stress disorders in rape victims. For this reason at OLITA these kinds of comorbid disorders are either treated by just one therapist, or the patient is referred to a cooperating therapist who is not a member of the team. Nevertheless, it has proven



unproblematic and wise to go on treating the alcohol dependence as the major problem of the patient with the whole team of rotating therapists.

OLITA's success rate regarding the improvement of comorbid disorders is very high. There is a reduction of frequency of comorbid disorders by 75% during the 2 years of the program (Wagner et al., 2001). These results raise the question whether the therapist rotation should not be employed as well outside the therapy for alcohol-dependent patients. Examples of new potential areas of application are drug dependence, depressive syndromes, psychotic disorders, social phobia, or personality disorders. In particular, patients with problems of impulse-control and dissociative tendencies, where the classical psychotherapy does not seem to be very successful, could profit from the therapist rotation. The area of indication is identical with the group of disorders where multiple psychotherapy has already been used successfully decades ago.

## RESUMEN

Por nueve años, la llamada “rotación de terapeuta” ha sido una parte central de OLITA, por las siglas en inglés de “Outpatient Longterm Intensive Therapy for Alcoholics,” la terapia ambulatoria intensiva a largo plazo para alcohólicos. Hasta ahora, la participación de varios terapeutas igualmente responsables en el tratamiento de un paciente ha sido rara vez vista como un acercamiento terapéutico específico. El presente artículo analiza la “rotación de terapeuta” desde una perspectiva teórica y clínica. Se revisan artículos que conciernen a la alianza terapéutica en el tratamiento de desórdenes de abuso de sustancias. Además, se examina la literatura sobre psicoterapia múltiple, que puede ser considerada como el precedente de la “rotación de terapeuta.” Con base en la eficacia de la psicoterapia múltiple y la importancia de la alianza terapéutica en el tratamiento de desórdenes de abuso de sustancias, el presente trabajo discute la “rotación de terapeuta” como un factor esencial para el éxito de OLITA. El trabajo considera tanto ventajas como desventajas potenciales para pacientes y terapeutas y trata de identificar condiciones bajo las cuales esta aproximación parece promocionar interacciones terapéuticas. Finalmente, la implementación de la “rotación de terapeuta” en OLITA es descrita incluyendo los fundamentos teóricos del programa mismo y el procedimiento del tratamiento. Se discuten nuevas áreas para la aplicación de la “rotación de terapeuta.”



## RÉSUMÉ

Pendant neuf ans, la dite “la rotation des thérapeutes” fut au centre de l’ALITA, l’ambulatorio long terme intensif traitement des alcooliques. Jusqu’ici, la participation de plusieurs thérapeutes à responsabilités égales dans le traitement d’un patient a rarement été considérée comme une approche thérapeutique spécifique. Cet article analyse la “rotation des thérapeutes” dans ses perspectives théoriques et cliniques. Les publications concernant l’alliance thérapeutique dans le traitement des désordres liés à la substance d’abus sont passées en revue. Par ailleurs, la littérature concernant les psychothérapies multiples pouvant être vue comme précédant la “rotation des thérapeutes” est examinée. En s’appuyant sur l’efficacité des psychothérapies multiples et sur l’importance de l’alliance thérapeutique dans le traitement des désordres liés à la substance d’abus, ce travail traite de la “rotation des thérapeutes” en temps que facteur essentiel au succès de l’OLITA. Il considère à la fois les potentiels avantages et désavantages pour les patients et pour les thérapeutes et tente d’identifier les conditions sous lesquelles cette approche apparaît favoriser l’interaction thérapeutique. Finalement, la mise en œuvre de la “rotation des thérapeutes” lors de l’OLITA est décrite en incluant le fondement théorique du programme lui-même et la procédure de traitement. Les nouveaux champs d’application de la “rotation des thérapeutes” sont discutés.

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## **4 Verlauf komorbider psychischer Störungen während ALITA**

### **4.1 Einführung in die Fragestellung**

Mit einer Langzeitabstinenzrate von über 50% übertrifft ALITA die Ergebnisse anderer Suchttherapieansätze. Übereinstimmend berichten Meta-Analysen und Literaturübersichten zur Alkoholismustherapie der vergangenen 30 Jahre Abstinenzraten von ca. 30% nach einer Sechs-Monats-Katamnese (Emrick 1974; Finney & Monahan 1996; Holder *et al.* 1991; McCrady & Langenbucher 1996; Miller *et al.* 1995; Miller *et al.* 2001b; Miller & Wilbourne 2002). Sehr selten werden Langzeituntersuchungen des Therapieerfolges durchgeführt. Sie berichten bei Verwendung objektiver Ergebnisvariablen (z.B. Atem- und Blutalkoholuntersuchungen) Abstinenzraten von 6% bis 18% nach zwei Jahren (Burtscheidt *et al.* 2002), und bei Beschränkung auf subjektive Patientenaussagen ungefähr 30% nach drei bis vier Jahren (Miller *et al.* 2001a; Project MATCH Research Group 1998). Eine Möglichkeit, den Vorsprung von ALITA näher zu ergründen, besteht darin, die Therapieergebnisforschung differenzierter zu gestalten. Dadurch können die Ergebnisse auch für die Bearbeitung von Fragestellungen der Indikation und der Prognose verwendet werden (Krampe *et al.* 2003b). Deshalb wurden in der vorliegenden Originalarbeit (Kap. 4.2) neben dem Rückfallgeschehen die psychiatrische Komorbidität und Variablen der Schwere der Abhängigkeit untersucht.

Die Erforschung von psychiatrischer Komorbidität bei Alkoholkranken hat in den letzten 25 Jahren wichtige Erkenntnisse hinsichtlich der Epidemiologie, Ätiologie und Entwicklung komorbider Störungen erbracht. Über die Behandlung komorbider Störungen gibt es jedoch erst wenige Pilotstudien. Wie sich komorbide Störungen während der Suchttherapie verändern, wurde bislang überhaupt nicht erforscht. Mit der langen Behandlungsdauer, dem langen Katamnesezeitraum und der kontinuierlichen objektiven Erfassung des Rückfallgeschehens bietet ALITA ein einzigartiges Setting für eine prospektive Langzeitstudie zur psychiatrischen Komorbidität. Die vorliegende Originalarbeit untersucht zwei Fragestellungen:

- (1) den Verlauf komorbider Achse-I-Störungen nach DSM-IV, psychiatrischer Symptome und suchtasoziiierter Probleme während der zwei Therapiejahre;
- (2) den prädiktiven Wert von komorbiden Achse-I-Störungen und Achse-II-Störungen nach DSM-IV bei der Vorhersage des Rückfallgeschehens während eines Vier-Jahreszeitraumes (zwei Jahre Therapie, zwei Jahre Katamnese).

Es wurden umfassende psychiatrische, suchtassozierte und soziodemographische Variablen von 89 Patienten der Rekrutierungsperioden IV und V zu Behandlungsbeginn ( $t_1$ ), nach sechs Monaten ( $t_2$ ), nach 12 Monaten ( $t_3$ ) und nach 24 Monaten ( $t_4$ ) erhoben. Abstinenz und Substanzkonsum wurden durch regelmäßige Analyse von Urin- und Blutproben während des gesamten Vier-Jahreszeitraumes überprüft. Die statistische Auswertung der Daten erfolgte mit speziellen nonparametrischen Tests für Langzeituntersuchungen an kleinen Stichproben und mit Überlebensanalysen.

Zu Therapiebeginn wiesen 61.8% der Patienten mindestens eine Achse-I-Störung und 63.2% mindestens eine Achse-II-Störung (d.h. Persönlichkeitsstörung) auf. Die Häufigkeit von Achse-I-Störungen sank von  $t_1$  (59.0%), über  $t_2$  (38.5%),  $t_3$  (28.2%) zu  $t_4$  (12.8%) ( $p < .0001$ ). Angststörungen remittierten eher langsam von  $t_1$  (43.6%) zu  $t_3$  (20.5%,  $p = .0086$ ). Affektive Störungen fielen durch einen frühen Rückgang zwischen  $t_1$  (23.1%) und  $t_2$  (5.1%,  $p = .0387$ ) auf, zeigten jedoch einen leichten Wiederanstieg zu  $t_3$  (10.3%). Die psychiatrischen Symptome der Patienten sanken kontinuierlich während der vier Erhebungszeitpunkte ( $p < .0001$  für alle fünf erfassten Symptomgruppen); auch die suchtassozierten Probleme nahmen während der Therapie deutlich ab ( $p$ -Werte für neun verschiedene Problembereiche zwischen  $p = .04$  und  $p < .001$ ).

Während des vierjährigen Untersuchungszeitraumes betrug die kumulative Wahrscheinlichkeit, nicht rückfällig zu werden, .59. Die meisten psychiatrischen, suchtassozierten und soziodemographischen Variablen wiesen keinen prädiktiven Wert für die kumulative Rückfallwahrscheinlichkeit auf. Zwei Faktoren konnten jedoch unabhängig voneinander sehr deutlich den Rückfallverlauf vorhersagen: die Anzahl früherer stationärer Entgiftungsbehandlungen ( $p = .0013$ ) und das Vorliegen von mindestens einer Persönlichkeitsstörung ( $p = .0106$ ).

Die vorliegende Studie zeigt, dass die intensive, umfassende und langfristige Behandlung bei ALITA mit einem deutlichen Rückgang komorbider Achse-I-Störungen bei abstinenten chronisch alkoholkranken Patienten assoziiert ist. Achse-I-Störungen haben keinen prädiktiven Gehalt für den langfristigen Rückfallverlauf. Komorbide Persönlichkeitsstörungen und die Anzahl an früheren Entgiftungen, die sich als Indikator der Chronizität und der Schwere der Abhängigkeit interpretieren lassen, können das Rückfallgeschehen im vierjährigen Untersuchungszeitraum klar prädictieren. Abschließend werden die Ergebnisse im Kontext der Literatur zur psychiatrischen Komorbidität bei alkoholkranken Patienten und zur Therapieergebnisforschung in der Alkoholismustherapie diskutiert. Es zeigt sich, dass im Vergleich zu Langzeitergebnissen anderer Studien sowohl die ALITA-Patienten mit, als auch

diejenigen ohne Persönlichkeitsstörungen sehr gute Behandlungserfolge erzielen. Zwei Schlussfolgerungen für die klinische Praxis werden gezogen: Zum einen sollte in der Behandlung chronisch alkoholkranker Patienten die nötige Intensität und Dauer der Therapie ermöglicht werden, um einen deutlichen Rückgang komorbider Störungen zu gewährleisten. Zum anderen sollten Sucht- und Psychotherapeuten besonders in der Behandlung komorbider Persönlichkeitsstörungen ausgebildet werden.

#### **4.2 Originalartikel:**

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\* Die Autoren trugen zu gleichen Anteilen zu der Arbeit bei

## **Substantial decrease of psychiatric comorbidity in chronic alcoholics upon integrated outpatient treatment - results of a prospective study**

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**Running Title:** Decrease of psychiatric comorbidity upon alcohol abstinence

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**ABSTRACT**

It is far from clear how comorbidity changes during alcoholism treatment. This study investigates (1) the course of comorbid Axis I disorders in chronic alcoholics over 2 years of controlled abstinence in the Outpatient Long-term Intensive Therapy for Alcoholics (OLITA), and (2) the effect of comorbid Axis I and II disorders in this group of patients on subsequent drinking outcome over a 4-year follow-up. This prospective treatment study evaluates psychiatric variables of 89 severely affected chronic alcohol dependent patients on admission ( $t_1$ ), month 6 ( $t_2$ ), 12 ( $t_3$ ) and 24 ( $t_4$ ). Drinking outcomes have been analyzed from 1998 to 2002. On admission, 61.8% of the patients met criteria for a comorbid Axis I disorder, 63.2% for a comorbid personality disorder. Axis I disorders remit from  $t_1$  (59.0% ill),  $t_2$  (38.5%),  $t_3$  (28.2%) to  $t_4$  (12.8%) ( $p < .0001$ ). Anxiety disorders remit more slowly from  $t_1$  (43.6%) to  $t_3$  (20.5%,  $p = .0086$ ), whereas mood disorders remit early between  $t_1$  (23.1%) and  $t_2$  (5.1%,  $p = .0387$ ) with a slight transient increase at  $t_3$  (10.3%). During the 4-year follow-up, the cumulative probability of not having relapsed amounts to .59. Two predictors have a strong negative impact on abstinence probability: number of inpatient detoxifications ( $p = .0013$ ) and personality disorders ( $p = .0106$ ). The present study demonstrates a striking remission of comorbid Axis I disorders upon abstinence during comprehensive long-term outpatient alcoholism treatment. The presence of an Axis II rather than an Axis I disorder on admission strongly predicts drinking outcome over a 4-year follow-up.

**Keywords:**

Outpatient alcoholism treatment, chronic alcohol dependence, prognosis, comorbid personality disorders, chronicity, chronic psychiatric illness

## INTRODUCTION

### **Current research on psychiatric comorbidity in substance use disorders**

Over 20 years, research on the complex interactions between substance use and other mental disorders has provided an impressive body of knowledge: Cross-sectional studies have shown the high co-occurrence of substance abuse and dependence with other psychiatric disorders in epidemiological (e.g. Kessler et al., 1997; Regier et al., 1990; Ross, 1995; Wittchen et al., 1992; Wittchen et al., 1998) and clinical samples (e.g. Hasin et al., 1988; Hesselbrock et al., 1985; Penick et al., 1994; Ross et al., 1988; Schneider et al., 2001; Tomasson & Vaglum, 1995; Toneatto et al., 2000). Cross-sectional and longitudinal studies have investigated etiological, neurobiological and pathogenetic interactions of substance use with comorbid anxiety and mood disorders (see Jacobsen et al., 2001; Kushner et al., 2000; Lepine & Pelissolo, 1998; Swendsen & Merikangas, 2000).

Three main areas have been considered in studies of comorbidity in addiction: 1) unique and shared genetic, biological and environmental risk factors, 2) consequences of comorbidity for etiology and course of substance use disorders, 3) consequences of substance use disorders for etiology and course of comorbid disorders.

### **Research on treatment of alcoholism and comorbid disorders**

On treating the "dual diagnosis patient", an integrated treatment approach has proven to be a particularly successful therapeutic alternative (see Kranzler & Rounsaville, 1998; Lehman & Dixon, 1995; McHugo et al., 1999; McKay & McLellan, 1998; Mueser & Kavanagh, 2001; Ruiz et al., 2002; Teague et al., 1998; Weiss et al., 1998). Treatment programs for alcoholic patients with comorbid disorders indicate that cognitive behavior psychotherapy (CBT) is successful in treating alcohol dependent or abusing patients suffering from comorbid depression (Brown et al., 1997), posttraumatic stress disorder (Najavits et al., 1998; Ouimette et al., 1998), schizophrenia (see Drake et al., 1998; Drake et al., 2001), bipolar disorder (Weiss et al., 2000), personality disorders (Fisher & Bentley, 1996), and social phobia (Thevos et al., 2000). Dual diagnosis treatment orientation (i.e. careful integration of supportive approaches, well-organized program structure, clear rules, social work, psychopharmacotherapy and cognitive behavioral addiction treatment) had a positive effect on psychiatric outcomes of patients with alcohol or drug dependence and concurrent psychotic or nonpsychotic disorders (Moggi et al., 1999a; Moggi et al., 1999b). In contrast, two randomized clinical trials on comorbid anxiety disorders found no difference between CBT and regular alcoholism treatment of alcoholics with comorbid panic disorder (Bowen et al., 2000), or even worsened drinking outcomes upon simultaneous treatment of social phobia and alcohol dependence (Randall et al., 2001). There are, however, no follow-up studies



which consider both, the course of a spectrum of comorbid disorders during integrated long-term treatment and their relationship to substance use outcome. Thus, comorbidity research in the addiction field, despite progress concerning epidemiology, pathogenesis and development of concurrent disorders, is only beginning to deal with treatment issues. It remains unclear, how comorbid disorders change during successful long-term alcoholism treatment (see Kushner et al., 2000). This study contributes to the latter topic. Its purpose is 1) to investigate the course of the most frequent comorbid Axis I disorders in a sample of severely affected chronic alcoholics during the 2-year period of the Outpatient Long-term Intensive Therapy for Alcoholics (OLITA), and 2) to examine whether comorbid Axis I and II disorders are significant predictors of drinking outcome during a 4-year follow-up period.

## **MATERIALS AND METHODS**

### **Setting and design**

The study is part of an on-going research project which has been approved by the Ethics Board of the University of Göttingen. This project investigates the effectiveness of OLITA which was initiated in 1993 and has included a total of 180 severely affected chronic alcoholics assigned to recruitment cohorts 1-6. The success rate, expressed as continuously abstinent patients after termination of the 2-year OLITA program, amounts to approximately 50% (Ehrenreich et al., 1997a; Ehrenreich et al., 2000). The current prospective study includes recruitment cohorts 4 and 5. During 2-3 weeks of inpatient detoxification, OLITA-therapists visited patients daily for motivational interventions. After having passed the most obvious withdrawal symptoms, patients came to first "taster sessions" in the OLITA rooms. Following written informed consent, subjects participated in detailed baseline assessment sessions ( $t_1$ ). To prevent any overtaxing of their capacity, they were allowed to arrange duration and frequency of the assessment sessions within a given framework (see Table 1). Three follow-up assessments were scheduled 6 ( $t_2$ ), 12 ( $t_3$ ), and 24 months ( $t_4$ ) after first therapeutic outpatient contact. Follow-up visits containing collection of urine specimens and blood samples were taken in regular intervals up to 4 years (see Table 1).

### **Treatment**

OLITA is a four-step program of integrated outpatient care aiming at immediate social re-integration. Following inpatient detoxification, it extends over two years. The therapeutic phases of OLITA consist of an inpatient period (detoxification; 2-3 weeks; daily individual sessions, 15 minutes), the outpatient period I (intensive phase; 3 months; daily individual sessions, 15 minutes), the outpatient period II (stabilizing phase; 3-4 months according to

individual need; three times a week individual sessions, 15 minutes), the outpatient period III (weaning-off phase; 6 months; twice a week individual sessions, 30 minutes), and the outpatient period IV (aftercare phase; 12 months; once weekly group session; initially once weekly individual session (30 minutes) which is gradually tapered). High-frequency short-term individual therapeutic contacts (initially daily for 15 minutes, on seven days a week) in an atmosphere of warmth and acceptance as essential elements of the therapy consider the patients' limited biological tolerance for stress (Doering et al., 2003; Ehrenreich et al., 1997b). This "structured guarded attachment" supports development of coping and problem-solving skills. Daily therapeutic contacts are tapered to resolve in a group session once weekly, preparing for regular attendance of self-help groups after termination of OLITA. Initially, psychotherapy is supportive and non-demanding: In every contact the word "alcohol" has to be mentioned at least once. This prevents a "fading of the alcohol problem" against the background of overwhelming acute psychosocial difficulties and helps the patients to develop a stable awareness of their alcohol dependence. Apart from that, patients determine the topics while therapists deliberately refrain from deep exploration. After six months, when patients' tolerance level for stress has stabilized, therapy gets more profound: Focus is now on coping with serious interaction and communication problems, social skills training, explicit treatment of concurrent mental disorders, marital and family therapy. Persisting co-morbid disorders are treated according to an eclectic cognitive-behavioral therapy approach, e.g. exposure in case of anxiety disorders, as well as activity scheduling and restructuring of dysfunctional thinking in case of mood disorders.

Another central element of therapy is the Therapist Rotation, i.e. the patients are treated jointly by an interdisciplinary team consisting of a psychiatrist, psychologist, physician, social worker, nurse or doctoral student. All therapists are equally responsible for all patients and change in irregular order between therapeutic sessions (see Krampe et al., 2004). Further ingredients of the therapeutic setting comprise social support, regular urine and blood tests for alcohol and other drugs of abuse, supervised intake of deterrent medication to induce alcohol intolerance (calciumcarbimide or disulfiram), add-on psychopharmacotherapy (e.g. antidepressants, neuroleptics), house visits, crisis interventions, assistance round the clock in case of emergency, "aggressive aftercare" for immediate interruption of drinking and prevention of threatening relapses. From the perspective of addiction research, OLITA is characterized by three striking advantages which provide a most valid distinction between relapse, lapse and abstention: long duration of treatment, regular follow-up visits of patients after treatment completion, and urine or blood tests after every therapeutic contact. Therefore, the OLITA setting offers the unique opportunity to study alcohol-associated psychological

and physical pathology and processes of recovery upon continuous controlled long-term abstinence.

## **Subjects**

**Selection procedure:** Between March 1998 and September 2001, 89 patients were consecutively admitted. Inclusion criteria were alcohol dependence (DSM-IV), domicile nearby, health insurance-covered treatment costs; exclusion criteria were age over 60 years, Korsakoff syndrome, acute concurrent substance dependence other than alcohol (with the exception of caffeine and nicotine). Of 239 patients to whom the program was presented and who fulfilled eligibility criteria, 119 (49.8%) were inpatients referred from different wards, 59 (24.7%) picked up from the emergency room, 32 (13.4%) outpatients coming on own initiative, 18 (7.5%) referred by external institutions (general practitioners, addiction counselors, probation service), 11 (4.6%) inpatients on own initiative. Of all 239 patients, 118 kept appointments during inpatient detoxification; 107 came for first outpatient "taster sessions" after discharge; 94 patients decided to participate in OLITA. Data of 3 Eastern European participants were not used due to language barriers; 2 patients were illiterates. Of the final 89 subjects, 40 (44.9%) were referred from different wards, 22 (24.7%) outpatients on own initiative, 12 (13.5%) from emergency room, 8 (9%) referred by external institutions, 7 (7.9 %) inpatients on own initiative.

**Sociodemographic and addiction severity characteristics:** Subjects were  $43.73 \pm 7.60$  years old (mean  $\pm$  sd); 64 (71.9%) male;  $11.66 \pm 3.36$  years (mean  $\pm$  sd) of education; 51 (57.3%) married or with partner, 27 (30.3%) divorced or separated, 11 (12.4%) single; 15 (16.9%) shared household with a partner, 37 (41.6%) with their family, 35 (39.3%) were alone, 2 (2.2%) alone with children; 51 (57.3%) were unemployed, 4 (4.5%) temporarily employed, 34 (38.2%) employed. Addiction severity characteristics, revealing a severely affected sample of alcoholics are presented in Table 2.

**Dropout-rate during treatment:** Of the 89 patients, 79 (88.76%) have passed month 6 ( $t_2$ ), 73 (82.02%) month 12 ( $t_3$ ), and 39 (43.82%) have already completed treatment ( $t_4$ , month 24). Ten (11.24%) patients dropped out before  $t_2$ , 4 (4.49%) patients between  $t_2$  and  $t_3$ , and 11 (12.36%) between  $t_3$  and  $t_4$ . Two (2.25%) patients have not yet reached  $t_3$ , and 23 (25.84%) not yet completed the second year of OLITA. Altogether, 25 (28.09%) patients dropped out, 25 (28.09%) are currently in therapy, 39 (43.82%) have completed the two years of treatment. Twenty of the 25 dropouts terminated OLITA with a relapse, 5 dropped out sober but refused to prove abstinence by follow-up interviews. Therefore, all dropouts are treated as relapses.

After complete description of the study to the subjects, written informed consent was obtained.

### **Assessment instruments and main outcome measures**

**Assessment instruments:** Follow-up assessments  $t_1$  -  $t_4$  included the instruments presented in Table 1. Patients administered SCL-90-R, a 5-point scale (0=absence of symptom, 4=maximum intensity) for assessment of current (last 7 days) psychiatric symptoms (Derogatis, 1977; Franke, 1995), comprising 90 items organized within 10 categories: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism, and a category "additional". Of the 3 global indices, the Global Symptom Index (GSI, sum of the item scores divided by 90) is used in this study. Subjects completed SCL-90-R under supervision of a research assistant non-involved in subsequent psychiatric interviews. DSM-IV Axis I disorders were diagnosed with the MiniDIPS, a German adaptation of the Anxiety Disorders Interview Schedule (Barlow, 1988; DiNardo & Barlow, 1988; Margraf, 1994). The MiniDIPS, a structured interview, enquires anxiety, mood, somatoform, eating, substance use disorders, and contains a screening for psychotic disorders. To prevent wrong diagnoses due to withdrawal symptoms, only the 7-day prevalence was investigated in the baseline interview ( $t_1$ ). In the follow-up interviews ( $t_2$ ,  $t_3$ ,  $t_4$ ), the 4-week prevalence was asked. A positive screening result for psychotic symptoms led to application of the module referring to psychotic disorders of the Structured Clinical Interview for DSM-IV (SCID) (German version) (Wittchen et al., 1997). For assessment of addiction severity, the EuropASI (German version) (Gsellhofer et al., 1999), a semistructured interview with good psychometric properties (Scheurich et al., 2000), comparable to the international version, ASI (McLellan et al., 1992), was used. EuropASI assesses functioning in 9 categories related to substance use: medical status, economic status, job satisfaction, alcohol use, drug use, legal status, family relationships, social relationships, psychiatric status. The interview (at  $t_1$ ,  $t_3$ ,  $t_4$ ) was restricted to the 55 items used for ASI composite score calculation. Composite scores (0=no problem to 1=extreme impairment) assess current (last 30 days) functioning. At baseline interview, patients evaluated the last month prior to detoxification; at  $t_3$  and  $t_4$ , the last 4 weeks before assessment. ASI and MiniDIPS interviews were conducted by 5 clinical psychologists/psychiatrists, 3 of them with >5 years, 2 with 1 year of clinical experience. Interviewers were blind to the results of the SCL-90-R. All interviewers were involved in the treatment of the interviewed subjects and participated in finding the final diagnoses. DSM-IV Axis II disorders were diagnosed using the International Diagnostic Checklists for Personality Disorders (IDCL-P) (Bronisch & Mombour, 1998).

Two prerequisites were required for diagnosis: 1) the rater had to have observed a subject throughout a variety of situations over several months; 2) diagnosis of personality disorder was made only for patients who had passed the third abstinent month (N=87) to avoid misinterpretation of temporary withdrawal-related dysfunctions as symptoms of personality disorders. Ratings (based on (semi)structured interviews, questionnaires, therapeutic records, videotapes of therapy sessions, patient files, information by other therapists and relatives) were performed by the same clinicians, who carried out EuropASI and MiniDIPS. Interrater agreement was determined between independent judgements of 1 rater, equally familiar with all 87 patients, and a group of 3 raters finding consensus judgements based on variable personal knowledge of individual patients. Pairwise kappa values (rater 1 vs. 2, 3, 4) for 14 categories of personality disorders (median kappa .80) were good to excellent (see Fleiss, 1981): at least one personality disorder (.85), paranoid (1.00), schizoid (-), schizotypal (-), antisocial (.78), borderline (.82), histrionic (1.00), narcissistic (.84), avoidant (.64), dependent (.64), obsessive-compulsive (-), depressive (-), passive-aggressive (.66), personality disorder NOS (.71). Whereas 13 categories were defined by specific DSM-IV criteria, diagnosis of personality disorder NOS comprised alcohol induced personality impairment and/or mild mental retardation.

Alcoholism characteristics and sociodemographic data were obtained from semistructured history, information of relatives, and patient files. Daily alcohol intake was calculated from self reports on alcoholic drinks over 30 days before admission (g/day). Two independent physicians assessed physical sequelae of alcoholism (Table 2), rating every patient on a 4-point scale recording minor (e.g. steatosis hepatis), serious (e.g. hepatomegalia and steatosis hepatis, delirium, epileptic seizures), very serious (e.g. polyneuropathy, chronic pancreatitis, brain atrophy) and severe sequelae (e.g. liver cirrhosis); the interrater-agreement amounts to .93 (intraclass correlation coefficient, two-way mixed model, absolute agreement, average measure;  $p < .0001$ ).

Primary prediction variables and outcome measures: Objective of the study is to investigate I) the course of psychiatric disorders during OLITA and II) the association of psychiatric and addiction-related problems with the 4-year drinking outcome. I) required three steps: 1) To determine validity of interview diagnoses, the most frequent MiniDIPS categories and the corresponding SCL-90-R scores are correlated at  $t_1$ ,  $t_2$ ,  $t_3$ ,  $t_4$ . 2) To analyze predisposing effects (Domhof et al., 2002), admission values of treatment completers, dropouts and patients currently in therapy are compared a) concerning ordinal variables: SCL-90 GSI, ASI scores, age upon entering OLITA, duration of dependence, sequelae of alcoholism, number of previous detoxifications, number of previous inpatient long-term therapies, amount of daily

alcohol intake, years of education; b) concerning categorical variables: at least 1 comorbid Axis I, at least 1 comorbid Axis II disorder, at least 1 previous suicide attempt, sex, partnership status, living conditions as well as employment status. 3) Finally, course of comorbid disorders and addiction severity is investigated in treatment completers: Frequency of the different disorders as well as mean SCL-90-R scores are compared between  $t_1$ ,  $t_2$ ,  $t_3$  and  $t_4$ ; mean EuropASI composite scores between  $t_1$ ,  $t_3$  and  $t_4$  (see Table 1). To explore whether dropouts show some or no improvement or deterioration, the outcomes of those 11 patients who reached  $t_3$  are compared between  $t_1$ ,  $t_2$ , and  $t_3$  considering the category "at least one Axis I disorder" and the SCL-90-R scales, as well as between  $t_1$  and  $t_3$  considering the EuropASI composite scores.

II) To answer the second main question of the paper - the association of psychiatric and addiction-related problems with the 4-year drinking outcome (see Table 1) - predictive values of several parameters at  $t_1$  (see statistical analysis) for two dependent variables are determined. Dependent variables are 1) time until first alcohol consumption and 2) time until relapse. Alcohol consumption is defined as every intake of an alcoholic beverage, reaching from so-called "mini lapses" (one single drink by accident) over lapses (every re-emergence of drinking which exceeds one day but can be coped with) to full-blown relapses. A relapse is interpreted as recurrence of an addictive drinking pattern which results in a premature termination of treatment or cessation of post-treatment follow-up visits. Blood or urine samples positive for alcohol or other drugs of abuse are counted as (re)lapse as are self-reports of substance use even if not confirmed by laboratory analysis.

### **Statistical analyses**

The statistical programs SPSS for Windows, release 11, and SAS for Windows, release 8.2, are used for statistical analyses. All statistical tests are two-tailed. Pearson correlations and point biserial correlations are calculated to analyze bivariate associations. Kruskal-Wallis-tests, Wilcoxon two-sample tests and  $\chi^2$ -tests are carried out to compare completers, dropouts and patients currently in therapy; for these analyses, adjustment of p-values is not necessary since the closure testing principle is used (Marcus et al., 1976). To investigate the course of DSM-IV disorders, mean SCL-90-R GSI scores and ASI composite scores during  $t_1$ ,  $t_2$ ,  $t_3$  and  $t_4$ , the LDF1-test is used. This special nonparametric procedure for comparing repeated measures data with small sample sizes can be used for metric as well as ordered categorical data (Brunner & Langer, 2000; Brunner et al., 2002). If the overall comparison of a variable between all times is significant, single two-time comparisons are carried out for  $t_1$  vs.  $t_2$ ,  $t_1$  vs.  $t_3$ ,  $t_1$  vs.  $t_4$ ,  $t_2$  vs.  $t_3$ ,  $t_2$  vs.  $t_4$  and  $t_3$  vs.  $t_4$ ; to maintain the 5% error rate for multiple

comparisons, the stepwise rejecting Holm-procedure is used (Holm, 1979). Survival analysis (Kleinbaum, 1996; Marubini & Valsecchi, 1995) is used to investigate two time-to-event measures: 1) days from first outpatient contact to first alcohol consumption; 2) days from first outpatient contact to relapse. The corresponding survival curves of 1) remaining without any alcohol use (i.e. having neither mini lapse, nor lapse, nor relapse) and of 2) remaining without relapse are obtained with Kaplan-Meier estimates. Cox proportional hazard models are used to examine effects of time-invariant predictors. Cases are censored if they have not experienced an event by the end of follow-up, including one patient who has died. As the sample size is too small to include all predictors in one model, we choose the following procedure to construct a valid set of predictors: In the first step, four separate prediction models are calculated for 1) psychiatric variables (at least one Axis I disorder, at least one Axis II disorder, SCL-90-R GSI score, previous suicide attempts), 2) ASI composites (medical status, economic status, job satisfaction, alcohol use, drug use, legal status, family relationships, social relationships, psychiatric status), 3) alcoholism characteristics (duration of dependence, number of previous detoxifications, number of previous long-term inpatient therapies, amount of previously consumed alcohol, sequelae of alcoholism), and 4) sociodemographic variables (age, sex, years of education, partnership status, living conditions, employment status). In the second step, all predictors with a p-value  $\leq .2$  are included in a model consisting of psychiatric predictors, ASI composites, alcoholism characteristics and sociodemographic variables. In the last step, predictors which have shown p-value  $> .2$  in the second step are excluded and a final model with the remaining variables is calculated. This procedure is carried out for the prediction of time to first alcohol consumption and for the prediction of time to relapse.

To describe the results, mean and minimum / maximum of the variables are given instead of mean  $\pm$  standard deviation since most of the distributions are skewed (Tables 2 and 4).

## **RESULTS**

### **Diagnostic characteristics of the patients**

Of the 87 patients who were evaluated for Axis II disorder diagnoses, 55 (63.2%) met criteria for at least one comorbid personality disorder. Fourteen (16.1%) patients had narcissistic personality disorder, 12 (13.8%) personality disorder NOS, 7 (8%) dependent personality disorder. Avoidant, antisocial, borderline and histrionic personality disorder were each diagnosed in 6 (6.9%) patients. Two (2.3%) patients had depressive personality disorder. Paranoid, schizotypal and passive-aggressive personality disorder were assigned for one patient each (1.1%). Six (6.9%) patients met criteria for two personality disorders.

At the beginning of therapy, 55 (61.8%) of the 89 patients received a diagnosis of at least one Axis I disorder with anxiety disorders being the most frequent disorders, followed by mood disorders and substance abuse disorders other than alcoholism (for details see Table 5). At least one eating disorder, at least one psychotic disorder and at least one somatoform disorder were diagnosed in 4 (4.5%), 3 (3.4%) and 3 (3.4%) patients respectively.

### **Association between interview diagnosis of comorbid disorder and self-rating of psychiatric symptoms during the course of OLITA**

Correlations between diagnostic categories of Axis I disorders and corresponding self-ratings are moderate, with the median of 36 correlations amounting to .44 (Table 3). Correlations consistently increase towards  $t_3$  and  $t_4$ . These results are supported by significant associations between EuropASI psychiatric status composite scores and both categories "at least one disorder" at  $t_1$  ( $r=.37$ ,  $p=.0003$ ,  $N=88$ ),  $t_3$  ( $r=.52$ ,  $p<.0001$ ,  $N=73$ ),  $t_4$  ( $r=.44$ ,  $p=.0047$ ,  $N=39$ ), as well as "number of comorbid disorders" at  $t_1$  ( $r=.47$ ,  $p<.0001$ ,  $N=88$ ),  $t_3$  ( $r=.52$ ,  $p<.0001$ ,  $N=73$ ) and  $t_4$  ( $r=.31$ ,  $p=.0528$ ,  $N=39$ ).

### **Initial comparison of completers, dropouts and patients currently in therapy**

At least one Axis II disorder is found significantly more in dropouts than completers and patients currently in therapy who exhibit greater values on almost all measures of addiction severity at the beginning of therapy (Table 4). The differences in duration of dependence and number of previous inpatient detoxifications reach statistical significance.

### **Course of comorbid disorders, psychiatric symptoms and addiction severity**

There is a significant reduction of patients with at least one Axis I disorder from  $t_1$  to  $t_4$  (Figure 1). This significant decrease is reflected in the summarizing categories "at least one anxiety disorder", "at least one mood disorder", and "at least one substance abuse disorder other than alcoholism" (Table 5). Current psychiatric distress of the patients decreased steadily during the two years of therapy with respect to the SCL-90-R scales GSI ( $F=11.7$ ,  $df=2.8$ ,  $p<.0001$ ), anxiety ( $F=10.6$ ,  $df=2.8$ ,  $p<.0001$ ), phobic anxiety ( $F=13.6$ ,  $df=2.7$ ,  $p<.0001$ ), interpersonal sensitivity ( $F=10.4$ ,  $df=2.8$ ,  $p<.0001$ ) and depression ( $F=13.6$ ,  $df=2.8$ ,  $p<.0001$ ). EuropASI composite scores also decreased consistently between  $t_1$  and  $t_4$  for all scales: medical status ( $F=17.8$ ,  $df=1.8$ ,  $p<.0001$ ), economic status ( $F=15.0$ ,  $df=1.5$ ,  $p<.0001$ ), job satisfaction ( $F=30.1$ ,  $df=1.9$ ,  $p<.0001$ ), alcohol use ( $F=1029.7$ ,  $df=1.0$ ,  $p<.0001$ ), drug use ( $F=4.3$ ,  $df=1.0$ ,  $p<.0372$ ), legal status ( $F=4.6$ ,  $df=1.4$ ,  $p=.0211$ ), family relationships ( $F=30.7$ ,



df=1.8,  $p < .0001$ ), social relationships ( $F=4.1$ ,  $df=2.0$ ,  $p=.0163$ ), psychiatric status ( $F=34.6$ ,  $df=1.8$ ,  $p < .0001$ ).

After adjustment of significance levels, single comparisons between two time points reveal three main features of the recovery process: 1) A significant remission of all disorders and global distress throughout therapy: nearly all single comparisons are significant for "at least one axis I disorder" (Table 5) and for SCL-90-R GSI ( $t_1-t_2$ :  $t=-2.2$ ,  $df=37$ ,  $p_{\text{adjust}}=n.s.$ ;  $t_1-t_3$ :  $t=-5.1$ ,  $df=37$ ,  $p_{\text{adjust}} < .0001$ ;  $t_1-t_4$ :  $t=-5.9$ ,  $df=37$ ,  $p_{\text{adjust}} < .0001$ ;  $t_2-t_3$ :  $t=-2.5$ ,  $df=37$ ,  $p_{\text{adjust}}=.0477$ ;  $t_2-t_4$ :  $t=-2.6$ ,  $df=37$ ,  $p_{\text{adjust}}=.0574$ ;  $t_3-t_4$  n.s.); all single comparisons are significant for EuropASI medical, economic, and psychiatric status (ranging from  $t=-7.8$ ,  $df=38$ ,  $p_{\text{adjust}} < .0001$  to  $t=-2.1$ ,  $df=38$ ,  $p_{\text{adjust}}=.0470$ ). 2) The category "at least one anxiety disorder" does not decrease significantly from  $t_1$  to  $t_2$  but from  $t_1$  to  $t_3$  (Table 5). A similar course can be observed concerning the SCL-90-R anxiety scales: the variables "anxiety", "phobic anxiety" and "interpersonal sensitivity" show stronger decreases between  $t_1$  and  $t_3$  (ranging from  $t=-5.5$ ,  $df=37$ ,  $p_{\text{adjust}} < .0001$  to  $t=-4.3$ ,  $df=37$ ,  $p_{\text{adjust}}=.0006$ ) than between  $t_1$  and  $t_2$  (ranging from  $t=-3.4$ ,  $df=37$ ,  $p_{\text{adjust}} < .007$  to  $t=-2.3$ ,  $df=37$ ,  $p_{\text{adjust}}=.0502$ ). 3) The category "at least one mood disorder" shows a significant remission between  $t_1$  and  $t_2$  but -due to a nonsignificant increase from  $t_2$  to  $t_3$ - not between  $t_1$  and  $t_3$  (Table 5).

Outcome analysis of the 11 dropouts who reached  $t_3$  reveal significant remission of "at least one Axis I disorder" from  $t_1$  (82%) over  $t_2$  (64%) to  $t_3$  (46%) ( $F=3.8$ ,  $df=1.8$ ,  $p=.0272$ ). These dropouts show improvement between  $t_1$ ,  $t_2$  and  $t_3$  in the SCL-90-R scales GSI ( $F=11.3$ ,  $df=2.0$ ,  $p < .0001$ ), anxiety ( $F=12.4$ ,  $df=1.5$ ,  $p < .0001$ ), phobic anxiety ( $F=9.0$ ,  $df=2.0$ ,  $p=.0001$ ), interpersonal sensitivity ( $F=17.5$ ,  $df=1.9$ ,  $p < .0001$ ) and depression ( $F=9.1$ ,  $df=1.6$ ,  $p=.0004$ ). Dropouts also decrease in EuropASI composite scores between  $t_1$  and  $t_3$  with respect to medical status ( $t=-3.9$ ,  $df=10.0$ ,  $p=.0029$ ), economic status ( $t=-4.4$ ,  $df=10.0$ ,  $p=.0014$ ), job satisfaction ( $t=-2.6$ ,  $df=10.0$ ,  $p=.0260$ ), alcohol use ( $t=-11.1$ ,  $df=10.0$ ,  $p < .0001$ ), family relationships ( $t=-3.7$ ,  $df=10.0$ ,  $p=.0041$ ), and psychiatric status ( $t=-7.2$ ,  $df=10.0$ ,  $p=.0001$ ), but not to drug use, legal status and social relationships.

### **Prediction of abstinence during the 4-year follow-up period**

During the 4-year follow-up, 47 of the 89 patients have consumed alcohol (6 mini lapses, 12 lapses and 29 relapses). The Kaplan-Meier estimate of cumulative probability of not having consumed any alcohol during the follow-up period amounts to .31 (Figure 2a), of remaining without a relapse to .59 (Figure 2b). To investigate the impact of initial psychiatric and addiction-related problems on the time until first alcohol consumption, several Cox proportional hazard models were calculated (see statistical analysis). The final model

consisted of five predictors (Table 6). The variables "number of previous inpatient detoxifications" and "at least one personality disorder" reduce the time to first alcohol consumption, whereas number of previous inpatient long-term therapies and SCL-90-R GSI prolong it. The Cox proportional hazard models for the prediction of time to relapse show quite consistent results with the final model consisting of three predictors (Table 6). Again, the variables "number of previous inpatient detoxifications" and "at least one personality disorder" are associated with a shorter time to relapse, whereas SCL-90-R GSI reaches borderline significance in increasing time to relapse. Plotting separate Kaplan-Meier estimates for the groups "no personality disorder" versus "at least one personality disorder" illustrates the positive effect of having no personality disorder on both the cumulative probability of not consuming any alcohol (Figure 2c) and the cumulative probability of remaining without relapse (Figure 2d) during the 4-year follow-up period.

## **DISCUSSION**

This study represents the first attempt to prospectively investigate 1) the course of the most frequent comorbid Axis I disorders in a sample of severely affected chronic alcoholics during a 2-year period of an integrated outpatient treatment and 2) the impact of a variety of psychiatric and addiction related variables on abstinence/drinking outcome over a 4-year follow-up period. The results clearly demonstrate a striking remission of comorbid disorders during therapy. Correspondingly, the patients show a consistent decrease of psychiatric distress and addiction related problems.

Dropouts compared to completers and patients currently in therapy are characterized by more personality disorders and previous inpatient detoxifications. This has an important clinical implication: the risk of dropping out of treatment is considerably increased by these two variables. However, even dropouts show significant improvement between admission and month 12 in nearly all outcome variables.

### **Characterization of the study sample**

Previous research investigated whether psychiatric comorbidity affects the course of alcoholism and its treatment, thereby relying on self reports of patients, collateral informants and sporadic breathalyzer or laboratory analyses. In contrast, the present study used regular urine and blood analyses within the framework of high frequency therapeutic contacts assuring highest validity of the main outcome variable. Despite being comprehensible from a clinical perspective, our data are, as outlined below, in some contrast to previous research. The question arises, whether this sample is comparable to samples of other studies in the

alcoholism field. Considering sociodemographic variables, the OLITA patients are similar to samples of clinical studies with (e.g. Brown et al., 1997; Fisher & Bentley, 1996; Randall et al., 2001) or without (e.g. Burtscheidt et al., 2001; Project MATCH Research Group, 1997; Scheurich et al., 2000; Schneider et al., 2001; Tomasson & Vaglum, 1995) focus on treatment of comorbid disorders. A noticeable difference is that the unemployment rate of OLITA patients at admission is higher compared to that reported in other German studies (e.g. Burtscheidt et al., 2001; Scheurich et al., 2000; Schneider et al., 2001).

Since variables to characterize alcohol problems vary considerably among studies, we limit the comparison of addiction severity to those articles using ASI composite scores. Considering medical status, alcohol use, family relationships, social relationships and psychiatric status, the addiction severity of the present sample (completers as well as patients currently in therapy and dropouts) is remarkably higher than that of alcohol dependent patients applying for or attending alcoholism treatment programs; the composite scores economic status and job satisfaction are in the middle range, whereas drug use and legal status show the typically low values of alcoholics without concurrent substance dependence (Cacciola et al., 1995; Dixon et al., 1997; McLellan et al., 1992; Project MATCH Research Group, 1997; Randall et al., 2001; Scheurich et al., 2000; Verheul et al., 1999; Weisner et al., 2000).

The prevalence of at least one comorbid Axis II disorder is quite similar to that reported in recent articles (Morgenstern et al., 1997; Nace et al., 1991; Nurnberg et al., 1993; Rounsaville et al., 1998; Verheul et al., 1998; Verheul, 2001; Woelwer et al., 2001). However, distribution of specific personality disorders differs from other studies. Whereas previous research has found antisocial, borderline, avoidant and paranoid personality disorders to be the most frequent diagnoses (Morgenstern et al., 1997; Nace et al., 1991; Nurnberg et al., 1993; Rounsaville et al., 1998; Verheul, 2001), in this study narcissistic personality disorder, personality disorder NOS and dependent personality disorder are the most prevalent. This difference might be explained by the late assessment time (at least 3 months after admission) of Axis II disorders. After having observed patients for a longer time of abstinence and across a variety of situations, the clinicians of this study may have judged interpersonal behavior patterns and personality traits of the patients differently than they would have done in single cross sectional interviews during the early weeks of abstinence.

Whereas rate and quality of comorbid Axis I disorders (anxiety disorders, mood disorders, substance abuse disorders other than alcoholism, eating disorders, psychotic disorders, somatoform disorders) upon admission resemble other studies on psychiatric or general

alcoholism treatment populations (e.g. Driessen et al., 1996; Regier et al., 1990; Ross et al., 1988; Schneider et al., 2001) self ratings of psychiatric distress of OLITA patients are lower than SCL-90-R profiles of a representative, although less affected sample of alcoholics (Mercier et al., 1992). Correlations between Axis I disorders and corresponding SCL-90-R scores being high at all assessment times in these patients, the lower SCL-90-R values might reflect underestimation of own psychiatric problems, obviously contrasting to high psychiatric ASI ratings. This underestimation, in turn, may even worsen prognosis: Survival analysis revealed that a higher GSI score represents a protective factor for long-term abstinence. Altogether, the sample of the present study is representative of severely affected alcoholism treatment populations.

### **Remission of Axis I disorders during treatment**

The remission of comorbid disorders upon alcohol abstinence during the 2-year follow-up period of this prospective study is a new finding. Etiological and pathogenetic research has demonstrated that alcoholism and comorbid anxiety or mood disorders can be mutual risk factors (Hasin & Grant, 2002; Kendler et al., 1995; Kushner et al., 2000; Lepine & Pelissolo, 1998; Maier & Merikangas, 1996; Merikangas et al., 1998; Preisig et al., 2001; Prescott et al., 2000; Swendsen & Merikangas, 2000). Strict maintenance of long-term abstinence may thus explain recovery from both alcohol related problems and comorbidity. Several prospective studies deal with mood disorders and alcoholism, whereas long-term observations of course and interactions between anxiety and addictive disorders in clinical samples are lacking. In agreement with prospective studies on depression and drinking outcomes in dual diagnosis patients, the OLITA sample shows a general remission of depression within the two years of treatment. Abstinence depression occurring in four patients after the first year of OLITA was treated successfully. Current alcoholism has a deleterious effect on recovery from depression (Mueller et al., 1994), substance-induced and abstinence-related depression are risk factors for alcohol relapse (Curran & Booth, 1999; Greenfield et al., 1998; Hasin et al., 2002; Loosen et al., 1990). Recovery from depression increases the chance of recovery from alcoholism, reducing relapse risk (Hasin et al., 1996). Since alcoholics with current mood disorders have more contacts with health care, prospective long-term studies predict better drinking outcome in case of current comorbid depression (Kranzler et al., 1996; Lewis et al., 1995; O'Sullivan et al., 1988). Comprehensive long-term treatment of both disorders may be the best strategy to interrupt the vicious circle of lifelong miseries seen in these patients.

### **Prediction of alcohol consumption during four year follow-up**

In this study, the presence of an Axis II rather than of an Axis I disorder on admission was a strong predictor of time to first alcohol consumption. This may explain the contradictory results seen in the literature. These results range from clear negative prediction of drinking outcome by different measures of comorbidity, e.g. number of comorbid diagnoses or presence of at least one Axis II disorder (Kranzler et al., 1996; Verheul et al., 1998; Woelwer et al., 2001) to a lack of effect of comorbidity (Cacciola et al., 1995; Longabaugh et al., 1994; O'Sullivan et al., 1988; Powell et al., 1992; Verheul et al., 1999). In a 10-year and a 20-year follow-up study, antisocial personality disorder was associated with worse results for drinking outcome and mortality, respectively (Hunter et al., 2000; Lewis et al., 1995; Powell et al., 1998).

In contrast to these studies, lacking objective information on drinking status, the present results are based on most conservative outcome measures and strict long-term control, consisting of frequent contacts during therapy and follow-up visits after its termination, stand-by setting for crisis interventions, laboratory controls, deterrent medication. Under these conditions, only two patient characteristics were strong predictors of worse drinking outcome: concurrent personality disorders and number of previous inpatient detoxifications.

The adverse impact of personality disorders on treatment outcome has also been described for diverse Axis I disorders and challenges both general psychotherapy and addiction therapy (Massion et al., 2002; Reich & Green, 1991; Reich & Vasile, 1993). This means in practical terms that (1) training of addiction counselors and psychotherapists has to specifically include personality disorder treatment and (2) treatment centers will have to provide the respective adequate setting. Much less is known on the effect of prior detoxification treatments on risk of relapse. In a long-term study, 27% of patients dying during follow-up had more prior detoxifications than patients completing follow-up (Powell et al., 1998). In two different patient cohorts, the number of previous alcoholism-related hospitalizations was a predictor of alcohol-related readmission to medical centers (Booth et al., 1991; Booth et al., 1992). A telephone interview-based long-term study of the same authors failed to prove associations between previous treatments for alcoholism and abstinence (Curran & Booth, 1999). In the present study prior inpatient detoxifications but not inpatient long-term therapies predicted times to first drink and relapse. This difference indicates that rather than treatment experience, the relapse process itself underlies the impact of prior detoxifications. Frequent detoxifications reflect ambivalence between drinking and abstinence, rapid loss of control during relapse or a dissociation between intention and skills to stay abstinent.

### **Methodological limitations**

An inherent problem of this kind of studies (longitudinal observation of psychiatric comorbidity upon alcohol abstinence) is the lack of adequate control groups: (1) Non-treated severely affected alcoholics would be difficult to follow over months, would not allow valid diagnosis of comorbid disorders, and even after detoxification, would exhibit a very high spontaneous relapse rate. (2) Patients with comparable severity of alcoholism on lower frequency contacts or short term-therapies would make a strict abstinence control impossible and certainly hamper long-term follow-up.

Another methodological limitation is the relatively small sample size followed in this study. In fact, it is high enough to statistically analyze the course of comorbidity, and to determine the strongest predictors of treatment dropout. However, it is too small to further compare subsamples.

### **Clinical implications**

The probability of not having relapsed during the 4-year follow-up period amounts to .59 for the whole sample: only .45 for patients with at least one comorbid personality disorder but .88 for patients without personality disorder. The results for both patient groups can be interpreted as very successful compared to the short- and long-term abstinence rates of other alcoholism treatment studies (e.g. Burtscheidt et al., 2001; Curran & Booth, 1999; Finney & Moos, 1991; Lewis et al., 1995; Moos et al., 1999; Ouimette et al., 1999; Powell et al., 1998; Project MATCH Research Group, 1997; Project MATCH Research Group, 1998). Particularly patients without personality disorder performed exceptionally well. This reflects both the intensity and the long-term duration of OLITA. These two factors can improve alcoholism treatment enormously by preventing occasional lapses from growing to full-blown relapses.

The global decrease of comorbid disorders, psychiatric distress and addiction related problems during therapy is characterized by two specific features of the recovery process: 1) Anxiety disorders show a delayed remission, i.e. they do not change significantly until the first year of therapy. 2) The early remission of mood disorders during the first six months harbors the risk of re-occurrence of major depression during long-term abstinence. These data suggest that effective treatment of dual diagnosis patients comprises two basic elements: a) long-term duration as prerequisite of gradual remission of anxiety and protective factor against recidivism of mood disorders; b) comprehensive and careful integration of dual diagnosis interventions considering temporary impairments of coping skills and the imminent danger to overtax current patient resources. Simple addition of some treatment elements for

comorbid disorders to short-term alcoholism therapy has no effect (Bowen et al., 2000) or even causes negative outcome (Randall et al., 2001). The results of the present study support and expand promising findings of pilot studies on integrated treatment of alcoholic patients with comorbid disorders (e.g. Brown et al., 1997; Fisher & Bentley, 1996; McHugo et al., 1999; Moggi et al., 1999a; Moggi et al., 1999b; Najavits et al., 1998; Weiss et al., 2000; Weiss et al., 1999). In accordance with these pilot studies and recent reviews (McKay & McLellan, 1998; Mueser & Kavanagh, 2001; Teague et al., 1998; Weiss et al., 1998) we suggest elements of integrated outpatient treatment, e.g. comprehensive and structured long-term therapy and strict abstinence orientation, as realized in OLITA, to be important factors for treatment success in dual diagnosis patients.

In conclusion, the present study demonstrates that under guarded long-term abstinence alcoholic patients show a dramatic recovery from comorbid depression and anxiety disorders. The presence or absence of a personality disorder represents a major predictor of drinking outcome over a 4-year follow-up and significantly adds to disease severity.

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**Table 1: Study design (instrument and follow-up times)**

Variables	Assessment instruments	Assessment times	Follow-up
DSM-IV Axis I disorders	MiniDIPS (Margraf, 1994), if necessary SCID module "Psychotic disorders" (Wittchen et al., 1997) (45 min.)	At least four weeks after cessation of substance use ( $t_1$ ), month 6 ( $t_2$ ), month 12 ( $t_3$ ), month 24 ( $t_4$ )	2 years
Psychiatric symptoms	SCL-90-R (Derogatis, 1977; Franke, 1995) (15 min.)	Day 14 to day 21 after inpatient admission ( $t_1$ ), month 6 ( $t_2$ ), month 12 ( $t_3$ ), month 24 ( $t_4$ )	2 years
Addiction severity, physical sequelae	Medical examination and history (40 min.)	Day 1 to day 14 after inpatient detoxification	--
Socio-demographic characteristics	Semistructured history (30 min.)	Month 2 to month 3	--
Addiction severity, stable characteristics	Semistructured history (60 min.)	Month 2 to month 3	--
Addiction severity, state variables	Europ-ASI (Gsellhofer et al., 1999) (20 min.)	At least four weeks after cessation of substance use ( $t_1$ ), month 12 ( $t_3$ ), month 24 ( $t_4$ )	2 years
DSM-IV Axis II disorders	IDCL-P (Bronisch & Mombour, 1998) (45 min.)	At least after month 3	--
Alcohol intake	Urine specimen	According to the OLITA program: Daily during months 1-3, three times a week during months 4-6, two times a week during months 7-12, at least weekly during months 13-24, weekly to quarterly after termination of OLITA up to 4 years	4 years
Alcohol intake	Blood sample	According to the OLITA program: At least every two weeks during months 1-3, monthly during months 4-12, bimonthly until the end of therapy, at least twice a year after termination of OLITA up to 4 years	4 years

**Table 2: Patients' characteristics of addiction severity (N=89)**

Duration of dependence (years)	17.39 [2-35] *
Number of previous inpatient detoxifications	7.17 [0-41] *
≤ 2 previous inpatient detoxifications	32 (36%)
3-6 previous inpatient detoxifications	33 (37%)
≥ 7 previous inpatient detoxifications	24 (27%)
Number of previous inpatient longterm therapies	.75 [0-4] *
1 previous inpatient longterm therapy	28 (31.5%)
2 previous inpatient longterm therapies	11 (12.4%)
3-4 previous inpatient longterm therapies	5 (6.6%)
Daily alcohol intake (g/day)	420.5 [96-800] *
EuropASI alcohol use composite score in the month prior to detoxification +	.83 [.33-1] *
Days drinking in the month prior to detoxification +	26.61 [1-30] *
Days intoxicated in the month prior to detoxification +	23.30 [1-30] *
Number of patients with minor sequelae of alcoholism (e.g. steatosis hepatis)	9 (10.1%)
Number of patients with serious sequelae of alcoholism (e.g. hepatomegalia and steatosis hepatis, delirium, epileptic seizures)	28 (31.5%)
Number of patients with very serious sequelae of alcoholism (e.g. polyneuropathy, chronic pancreatitis, brain atrophy)	42 (47.2%)
Number of patients with severe sequelae of alcoholism (e.g. liver cirrhosis)	10 (11.2%)
Number of patients with previous suicide attempts	26 (29.2%)

\* mean [minimum, maximum]

+ (N=88 due to missing data)

**Table 3: Association between diagnoses of axis I disorders (MiniDIPS) and patients' self-rating of psychiatric symptoms (SCL-90-R) during the course of OLITA**

<b>SCL-90-R, GSI</b>				
	<b>t<sub>1</sub></b>	<b>t<sub>2</sub></b>	<b>t<sub>3</sub></b>	<b>t<sub>4</sub></b>
<b>At least 1 disorder</b>	.44**	.34**	.43**	.52**
<b>Number of disorders</b>	.41**	.38**	.61**	.70**
<b>SCL-90-R, Anxiety</b>				
	<b>t<sub>1</sub></b>	<b>t<sub>2</sub></b>	<b>t<sub>3</sub></b>	<b>t<sub>4</sub></b>
<b>At least 1 anxiety disorder</b>	.24*	.45**	.50**	.55**
<b>Number of anxiety disorders</b>	.33**	.41**	.58**	.65**
<b>SCL-90-R, Phobic anxiety</b>				
	<b>t<sub>1</sub></b>	<b>t<sub>2</sub></b>	<b>t<sub>3</sub></b>	<b>t<sub>4</sub></b>
<b>At least 1 anxiety disorder</b>	.24*	.53**	.38**	.50**
<b>Number of anxiety disorders</b>	.39**	.58**	.58**	.70**
<b>SCL-90-R, Interpersonal sensitivity</b>				
	<b>t<sub>1</sub></b>	<b>t<sub>2</sub></b>	<b>t<sub>3</sub></b>	<b>t<sub>4</sub></b>
<b>At least 1 anxiety disorder</b>	.24*	.33**	.46**	.62**
<b>Number of anxiety disorders</b>	.33**	.31**	.46**	.64**
<b>SCL-90-R, Depression</b>				
	<b>t<sub>1</sub></b>	<b>t<sub>2</sub></b>	<b>t<sub>3</sub></b>	<b>t<sub>4</sub></b>
<b>At least 1 mood disorder</b>	.34**	.46**	.35**	.21

**t<sub>1</sub> at least 4 weeks after last alcohol consumption, N=88**

**(one patient was unable to read the SCL-R-90 Items)**

**t<sub>2</sub> end of month 6, N=79**

**t<sub>3</sub> end of month 12, N=73**

**t<sub>4</sub> end of month 24, N=38**

**(one patient refused to complete the SCL-R-90)**

**\* r, p <.05 (two-tailed)**

**\*\*r, p <.01 (two-tailed)**



**Table 4: Comparison of completers (a), patients currently in therapy (b) and dropouts (c) at the beginning of treatment (t<sub>1</sub>)**

	<b>completers<sup>a</sup></b> N=39 mean [min-max]	<b>patients currently in therapy<sup>b</sup></b> N=25 mean [min-max]	<b>dropouts<sup>c</sup></b> N=25 mean [min-max]	<b>Kruskal-Wallis-Test</b> (overall comparison: a-b-c) <b>Wilcoxon Two-Sample Test</b> (pairwise single comparisons: a-b, a-c, b-c *)
<b>SCL-90 GSI score</b>	.56 [.03-1.71] <sup>+</sup>	.52 [.04-1.49]	.60 [.07-1.74] <sup>++</sup>	n.s.
<b>EuropASI medical status</b>	.57 [0-1]	.46 [0-1]	.51 [0-1] <sup>++</sup>	n.s.
<b>EuropASI economic status</b>	.50 [0-1]	.48 [0-1]	.67 [0-1] <sup>++</sup>	n.s.
<b>EuropASI job satisfaction</b>	.50 [0-1]	.60 [0-1]	.44 [0-1] <sup>++</sup>	n.s.
<b>EuropASI alcohol use</b>	.80 [.33-.96]	.84 [.63-1]	.85 [.57-.99] <sup>++</sup>	n.s.
<b>EuropASI drug use</b>	.02 [0-.33]	.00 [-]	.03 [0-.33] <sup>++</sup>	n.s.
<b>EuropASI legal status</b>	.04 [0-.55]	.10 [0-.6]	.15 [0-.82] <sup>++</sup>	n.s.
<b>EuropASI family relationships</b>	.51 [0-1]	.61 [0-.96]	.58 [0-1] <sup>++</sup>	n.s.
<b>EuropASI social relationships</b>	.21 [0-.83]	.20 [0-.77]	.24 [0-1] <sup>++</sup>	n.s.
<b>EuropASI psychiatric status</b>	.43 [0-.82]	.45 [.22-.73]	.52 [0-.82] <sup>++</sup>	n.s.
<b>Age upon entering OLITA</b>	43.54 [26-64]	43.96 [28-59]	43.81 [35-63]	n.s.
<b>Duration of dependence</b>	14.90 [6-30]	18.84 [2-34]	19.84 [10-35]	Overall comparison a-b-c: chi <sup>2</sup> =7.7, df=2, p=.0215 Pairwise comparisons: a<b, Z=2.1, p=.0345; a<c, Z=2.5, p=.0141; b-c, n.s.
<b>Number of previous inpatient detoxifications</b>	5.54 [1-26]	4.56 [0-36]	12.32 [1-41]	Overall comparison a-b-c: chi <sup>2</sup> =9.1, df=2, p=.0107 Pairwise comparisons: a>b, Z=-2.1, p=.0387; b<c, Z=2.8, p=.0059; a-c, n.s.
<b>Number of previous inpatient longterm therapies</b>	.67 [0-4]	.76 [0-3]	.88 [0-4]	n.s.
<b>Daily consumption of alco- hol within the year before admission (g/day)</b>	408.77 [160-800]	394.08 [96-800]	465.2 [224-768]	n.s.

<b>Physical sequelae of alcoholism</b> (1=minor, 2=serious, 3=very serious, 4= severe)	2.49 [1-4]	2.64 [1-4]	2.72 [1-4]	n.s.
<b>Years of education</b>	11.92 [8-19]	12.40 [8-19]	10.52 [8-19]	n.s.
	<b>completers<sup>a</sup></b> N=39 percentage	<b>patients currently in therapy<sup>b</sup></b> N=25 percentage	<b>dropouts<sup>c</sup></b> N=25 percentage	<b><math>\chi^2</math>-Test</b> (overall comparison: a-b-c; pairwise single comparisons: a-b, a-c, b-c *)
<b>Number of patients with at least one Axis I disorder</b>	23/39 (59.0%)	13/25 (52.0%)	19/25 (76.0%)	n.s.
<b>Number of patients with at least one Axis II disorder</b>	21/39 (53.8%)	14/25 (56%)	20/23 <sup>+++</sup> (87%)	Overall comparison a-b-c: $\chi^2=7.6$ , $df=2$ , $p=.0223$ ; Pairwise comparisons: a<c, $\chi^2=7.1$ , $df=1$ , $p=.0078$ ; b<c, $\chi^2=5.6$ , $df=1$ , $p=.0184$ ; a-b, n.s.
<b>Number of patients with previous suicide attempts</b>	11/39 (28.2%)	5/25 (20%)	10/25 (40%)	n.s.
<b>Number of male patients</b>	28/39 (71.8%)	19/25 (76.0%)	17/25 (68.0%)	n.s.
<b>partnership status</b> (1=married/close relationship, 2=divorced/separated, 3=single)	<b>1</b> = 22/39 (56.4%) <b>2</b> = 10/39 (25.6%) <b>3</b> = 7/39 (17.9%)	<b>1</b> = 16/25 (64.0%) <b>2</b> = 9/25 (36.0%) <b>3</b> = 0/25 (0.0%)	<b>1</b> = 13/25 (52.0%) <b>2</b> = 8/25 (32.0%) <b>3</b> = 4/25 (16.0%)	n.s.
<b>living conditions</b> (1=with more than one supportive relative, 2=with partner, 3=alone/alone with children)	<b>1</b> = 18/39 (46.2%) <b>2</b> = 5/39 (12.8%) <b>3</b> = 16/39 (41.0%)	<b>1</b> = 9/25 (36.0%) <b>2</b> = 8/25 (32.0%) <b>3</b> = 8/25 (32.0%)	<b>1</b> = 10/25 (40.0%) <b>2</b> = 2/25 (8.0%) <b>3</b> = 13/25 (52.0%)	n.s.
<b>employment status</b> (1=unemployed, 2=fulltime job/temporarily employed)	<b>1</b> = 19/39 (48.7%) <b>2</b> = 20/39 (51.3%)	<b>1</b> = 15/25 (60.0%) <b>2</b> = 10/25 (40.0%)	<b>1</b> = 17/25 (68.0%) <b>2</b> = 8/25 (32.0%)	n.s.

\* Adjustment of p-values is not necessary since the closure testing principle is used (Marcus et al., 1976)

+ (N=38 due to missing data)

++ (N=24 due to missing data)

+++ (N=23 due to missing data)

**Table 5: Two-year course of comorbid disorders during OLITA (t<sub>1</sub> - t<sub>4</sub>)**

	t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>	t <sub>4</sub>	Multiple comparisons of completers (N=39) over all 4 times (1-2-3-4) and for all pairwise comparisons (1-2 to 3-4)						
					1-2-3-4	1-2	1-3	1-4	2-3	2-4	3-4
<b>At least one Axis I disorder</b>	55/89 (61.8%) <sup>a</sup> 23/39 (59.0%) <sup>b</sup> 13/25 (52.0%) <sup>c</sup> 19/25 (76.0%) <sup>d</sup>	31/79 (39.2%) <sup>a</sup> 15/39 (38.5%) <sup>b</sup> 6/25 (24.0%) <sup>c</sup> 10/15 (66.7%) <sup>d</sup>	22/73 (30.1%) <sup>a</sup> 11/39 (28.2%) <sup>b</sup> 6/23 (26.0%) <sup>c</sup> 5/11 (45.5%) <sup>d</sup>	5/39 (12.8%) <sup>b</sup>	F=13.2 df=2.6 p<.0001	t=-2.7 df=38 P <sub>adjust</sub> =.0285	t=-3.7 df=38 P <sub>adjust</sub> =.0035	t=-5.7 df=38 P <sub>adjust</sub> <.0001	n.s.	t=-3.2 df=38 P <sub>adjust</sub> =.0107	t=-2.6 df=38 P <sub>adjust</sub> =.0246
<b>At least one anxiety disorder</b>	41/89 (46.1%) <sup>a</sup> 17/39 (43.6%) <sup>b</sup> 9/25 (36.0%) <sup>c</sup> 15/25 (60.0%) <sup>d</sup>	23/79 (29.1%) <sup>a</sup> 12/39 (30.8%) <sup>b</sup> 3/25 (12.0%) <sup>c</sup> 8/15 (53.3%) <sup>d</sup>	17/73 (23.3%) <sup>a</sup> 8/39 (20.5%) <sup>b</sup> 4/23 (17.4%) <sup>c</sup> 5/11 (45.5%) <sup>d</sup>	4/39 (10.3%) <sup>b</sup>	F=10.2 df=2.5 p<.0001	n.s.	t=-3.4 df=38 P <sub>adjust</sub> =.0086	t=-4.4 df=38 P <sub>adjust</sub> =.0006	n.s.	t=-3.1 df=38 P <sub>adjust</sub> =.0134	n.s.
<b>At least one mood disorder</b>	17/89 (19.1%) <sup>a</sup> 9/39 (23.1%) <sup>b</sup> 3/25 (12.0%) <sup>c</sup> 5/25 (20.0%) <sup>d</sup>	8/79 (10.1%) <sup>a</sup> 2/39 ( 5.1%) <sup>b</sup> 3/25 (12.0%) <sup>c</sup> 3/15 (20.0%) <sup>d</sup>	5/73 ( 6.8%) <sup>a</sup> 4/39 (10.3%) <sup>b</sup> 1/23 ( 4.3%) <sup>c</sup> 0/11 ( 0.0%) <sup>d</sup>	1/39 ( 2.6%) <sup>b</sup>	F=4.6 df=2.1 p=.0088	t=-2.9 df=38 P <sub>adjust</sub> =.0387	n.s.	t=-2.7 df=38 P <sub>adjust</sub> =.0476	n.s.	n.s.	n.s.
<b>At least one substance abuse disorder other than alcoholism</b>	11/89 (12.4%) <sup>a</sup> 6/39 (15.4%) <sup>b</sup> 0/25 ( 0.0%) <sup>c</sup> 5/25 (20.0%) <sup>d</sup>	3/79 ( 3.8%) <sup>a</sup> 1/39 ( 2.6%) <sup>b</sup> 0/25 ( 0.0%) <sup>c</sup> 2/15 (13.3%) <sup>d</sup>	0/73 ( 0.0%) <sup>a</sup> 0/39 ( 0.0%) <sup>b</sup> 0/23 ( 0.0%) <sup>c</sup> 0/11 ( 0.0%) <sup>d</sup>	0/39 ( 0.0%) <sup>b</sup>	F=5.9 df=1.3 p=.0088	n.s.	n.s.	n.s.	n.s.	n.s.	-

t<sub>1</sub> at least 4 weeks after last alcohol consumption, N=89t<sub>2</sub> end of month 6, N=79t<sub>3</sub> end of month 12, N=73t<sub>4</sub> end of month 24, N=39<sup>a</sup> entire sample at t<sub>1</sub> (N=89), t<sub>2</sub> (N=79), t<sub>3</sub> (N=73)<sup>b</sup> subsample of patients who have completed the two years of treatment at t<sub>1</sub> (N=39), t<sub>2</sub> (N=39), t<sub>3</sub> (N=39), t<sub>4</sub> (N=39)<sup>c</sup> subsample of patients who are currently in therapy at t<sub>1</sub> (N=25), t<sub>2</sub> (N=25), t<sub>3</sub> (N=23)<sup>d</sup> subsample of patients who have dropped out during treatment at t<sub>1</sub> (N=25), t<sub>2</sub> (N=15), t<sub>3</sub> (N=11)

**Table 5: Two-year course of comorbid disorders during OLITA (t<sub>1</sub> - t<sub>4</sub>)**

	t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>	t <sub>4</sub>	Multiple comparisons of completers (N=39) over all 4 times (1-2-3-4) and for all pairwise comparisons (1-2 to 3-4)						
					1-2-3-4	1-2	1-3	1-4	2-3	2-4	3-4
<b>At least one Axis I disorder</b>	55/89 (61.8%) <sup>a</sup> 23/39 (59.0%) <sup>b</sup> 13/25 (52.0%) <sup>c</sup> 19/25 (76.0%) <sup>d</sup>	31/79 (39.2%) <sup>a</sup> 15/39 (38.5%) <sup>b</sup> 6/25 (24.0%) <sup>c</sup> 10/15 (66.7%) <sup>d</sup>	22/73 (30.1%) <sup>a</sup> 11/39 (28.2%) <sup>b</sup> 6/23 (26.0%) <sup>c</sup> 5/11 (45.5%) <sup>d</sup>	5/39 (12.8%) <sup>b</sup>	F=13.2 df=2.6 p<.0001	t=-2.7 df=38 P <sub>adjust</sub> =.0285	t=-3.7 df=38 P <sub>adjust</sub> =.0035	t=-5.7 df=38 P <sub>adjust</sub> <.0001	n.s.	t=-3.2 df=38 P <sub>adjust</sub> =.0107	t=-2.6 df=38 P <sub>adjust</sub> =.0246
<b>At least one anxiety disorder</b>	41/89 (46.1%) <sup>a</sup> 17/39 (43.6%) <sup>b</sup> 9/25 (36.0%) <sup>c</sup> 15/25 (60.0%) <sup>d</sup>	23/79 (29.1%) <sup>a</sup> 12/39 (30.8%) <sup>b</sup> 3/25 (12.0%) <sup>c</sup> 8/15 (53.3%) <sup>d</sup>	17/73 (23.3%) <sup>a</sup> 8/39 (20.5%) <sup>b</sup> 4/23 (17.4%) <sup>c</sup> 5/11 (45.5%) <sup>d</sup>	4/39 (10.3%) <sup>b</sup>	F=10.2 df=2.5 p<.0001	n.s.	t=-3.4 df=38 P <sub>adjust</sub> =.0086	t=-4.4 df=38 P <sub>adjust</sub> =.0006	n.s.	t=-3.1 df=38 P <sub>adjust</sub> =.0134	n.s.
<b>At least one mood disorder</b>	17/89 (19.1%) <sup>a</sup> 9/39 (23.1%) <sup>b</sup> 3/25 (12.0%) <sup>c</sup> 5/25 (20.0%) <sup>d</sup>	8/79 (10.1%) <sup>a</sup> 2/39 ( 5.1%) <sup>b</sup> 3/25 (12.0%) <sup>c</sup> 3/15 (20.0%) <sup>d</sup>	5/73 ( 6.8%) <sup>a</sup> 4/39 (10.3%) <sup>b</sup> 1/23 ( 4.3%) <sup>c</sup> 0/11 ( 0.0%) <sup>d</sup>	1/39 ( 2.6%) <sup>b</sup>	F=4.6 df=2.1 p=.0088	t=-2.9 df=38 P <sub>adjust</sub> =.0387	n.s.	t=-2.7 df=38 P <sub>adjust</sub> =.0476	n.s.	n.s.	n.s.
<b>At least one substance abuse disorder other than alcoholism</b>	11/89 (12.4%) <sup>a</sup> 6/39 (15.4%) <sup>b</sup> 0/25 ( 0.0%) <sup>c</sup> 5/25 (20.0%) <sup>d</sup>	3/79 ( 3.8%) <sup>a</sup> 1/39 ( 2.6%) <sup>b</sup> 0/25 ( 0.0%) <sup>c</sup> 2/15 (13.3%) <sup>d</sup>	0/73 ( 0.0%) <sup>a</sup> 0/39 ( 0.0%) <sup>b</sup> 0/23 ( 0.0%) <sup>c</sup> 0/11 ( 0.0%) <sup>d</sup>	0/39 ( 0.0%) <sup>b</sup>	F=5.9 df=1.3 p=.0088	n.s.	n.s.	n.s.	n.s.	n.s.	-

t<sub>1</sub> at least 4 weeks after last alcohol consumption, N=89t<sub>2</sub> end of month 6, N=79t<sub>3</sub> end of month 12, N=73t<sub>4</sub> end of month 24, N=39<sup>a</sup> entire sample at t<sub>1</sub> (N=89), t<sub>2</sub> (N=79), t<sub>3</sub> (N=73)<sup>b</sup> subsample of patients who have completed the two years of treatment at t<sub>1</sub> (N=39), t<sub>2</sub> (N=39), t<sub>3</sub> (N=39), t<sub>4</sub> (N=39)<sup>c</sup> subsample of patients who are currently in therapy at t<sub>1</sub> (N=25), t<sub>2</sub> (N=25), t<sub>3</sub> (N=23)<sup>d</sup> subsample of patients who have dropped out during treatment at t<sub>1</sub> (N=25), t<sub>2</sub> (N=15), t<sub>3</sub> (N=11)

**Table 6: Prediction of time to first alcohol consumption and time to relapse [data in brackets] during the 4-year follow-up period**

<b>Predictor</b>	<b>Cox Regression Weight (RW)</b>	<b>Standard Error of RW</b>	<b>Wald (<math>\chi^2</math>)</b>	<b>p value</b>
<b>SCL-90-R GSI, t<sub>1</sub></b>	-0.825 [-0.896 ]	0.422 [0.502 ]	3.834 [3.193 ]	.0502 [.0739 ]
<b>At least one personality disorder</b>	1.050 [1.619 ]	0.390 [0.633 ]	7.254 [6.530 ]	.0071 [.0106 ]
<b>At least one Axis I disorder</b>	0.591 [-]	0.366 [-]	2.601 [-]	.1068 [-]
<b>Number of previous detoxifications</b>	0.081 [0.067 ]	0.021 [0.021 ]	15.184 [10.293 ]	<.0001 [.0013 ]
<b>Number of previous inpatient longterm therapies</b>	-0.443 [-]	0.208 [-]	4.541 [-]	.0331 [-]

Note: N=86 (personality disorder diagnoses are missing from two patients, SCL-90-R score is missing from one patient); all  $\chi^2$ -tests are based on one degree of freedom

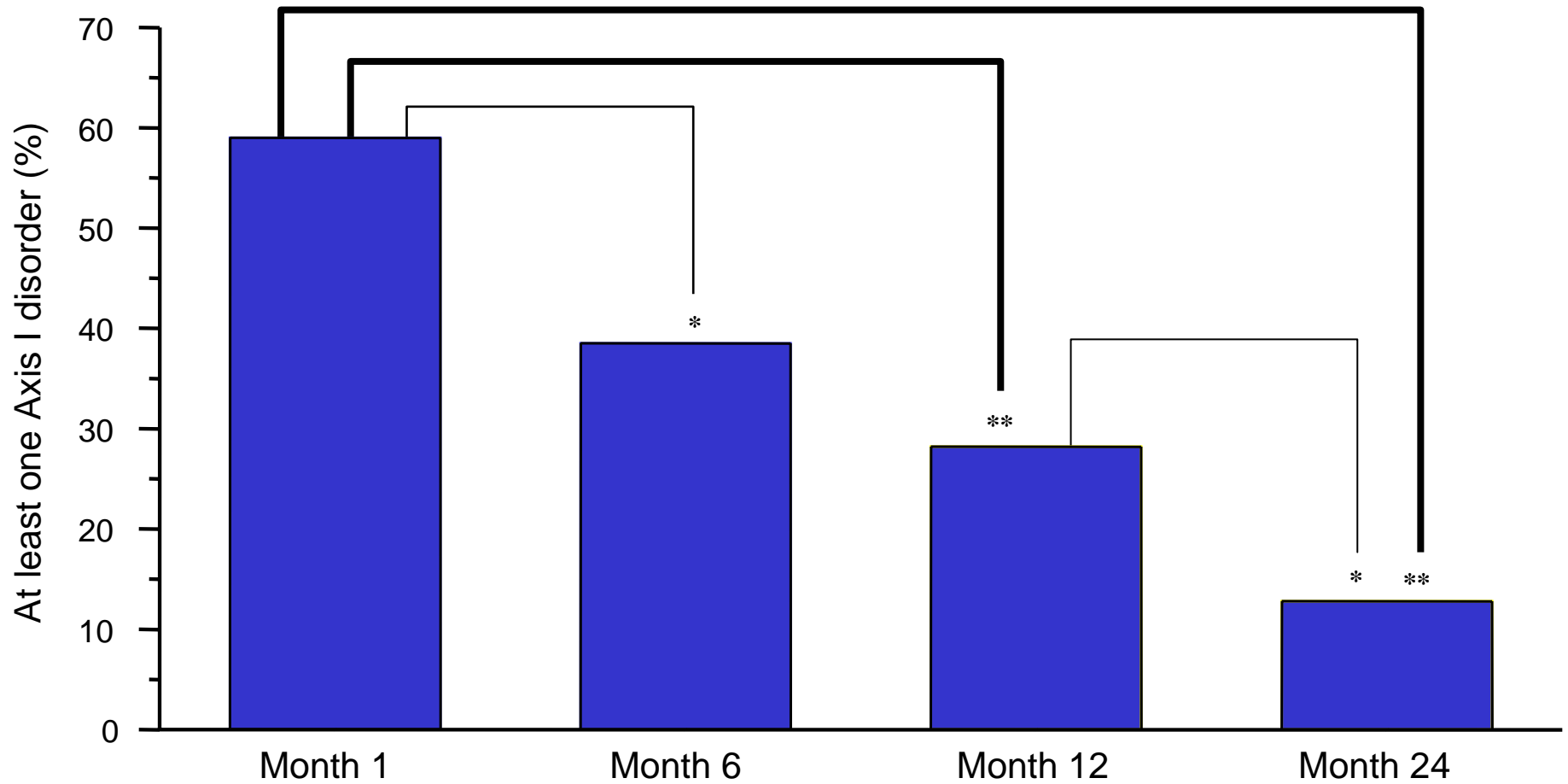
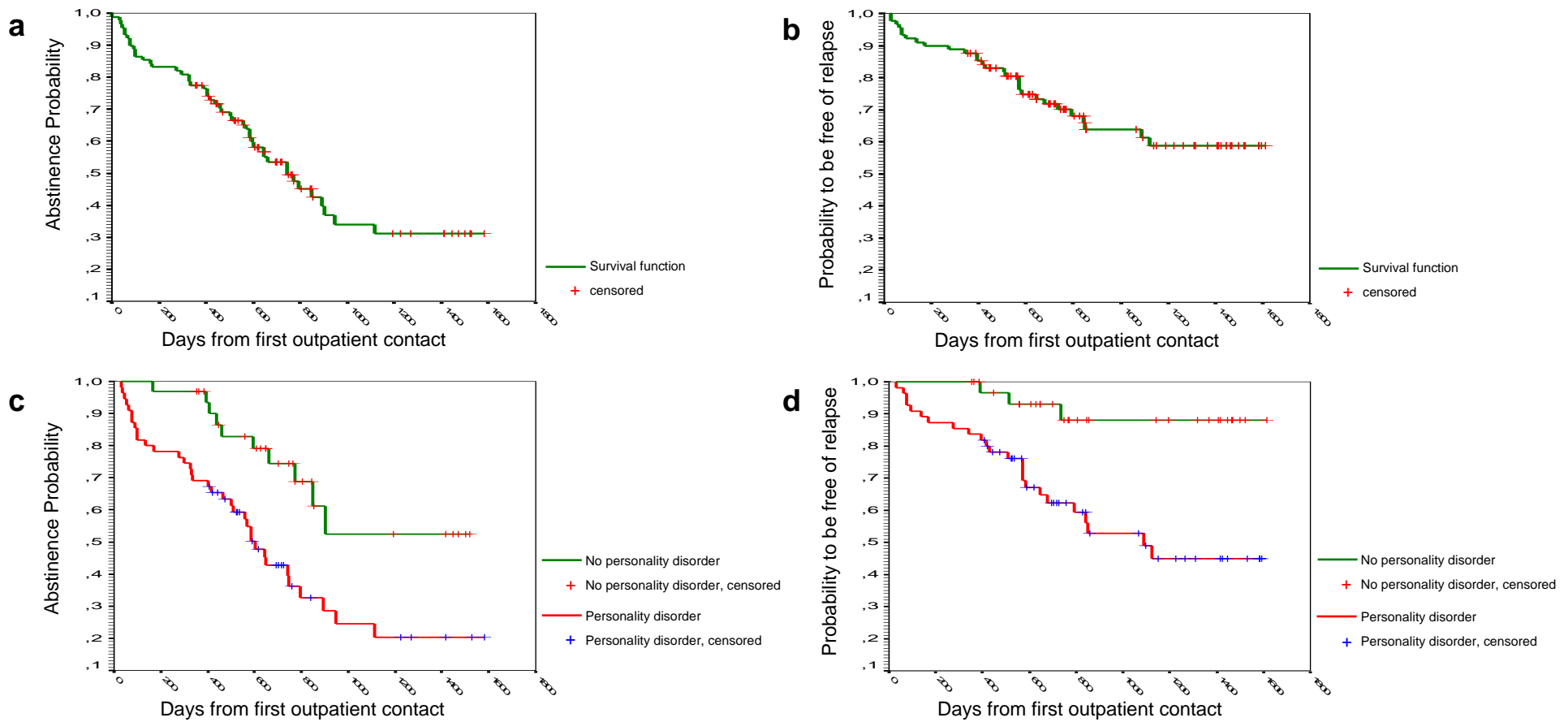


Figure 1  
 Two-year course of comorbid Axis I disorders during OLITA; overall comparison:  $F=13.2$ ;  $df = 2.6$ ;  $p < .0001$ ; single two time comparisons: bold bracket \*\*  $p_{\text{adjust}} < .01$ ; thin bracket \*  $p_{\text{adjust}} < .05$ ;  $N=39$ ; compare table 5 for details.



**Figure 2**  
 Time to first alcohol consumption and time to relapse in the complete study sample versus subgroups with and without personality disorder. Kaplan-Meier estimates; cases are censored if they have not experienced an event (lapse or relapse respectively) by the end of follow-up.

a:  
 The probability of not having consumed any alcohol during the four-year follow-up is .31 for the complete sample (N=89).

b:  
 The probability of not having relapsed during the four-year follow-up is .59 for the complete sample (N=89).

c:  
 The probability of not having consumed any alcohol during the four-year follow-up calculated separately for subgroups of patients with comorbid personality disorder (N=55, red line) and without comorbid personality disorder (N=32, green line). Patients without personality disorder are much more likely to remain without any alcohol consumption (abstinence probability is .52) and show delayed time to first alcohol consumption compared to patients with comorbid personality disorder (abstinence probability is .20).

d:  
 The probability of not having relapsed during the four-year follow-up calculated separately for subgroups of patients with comorbid personality disorder (N=55, red line) and without comorbid personality disorder (N=32, green line). Patients without personality disorder are much more likely to remain without relapse (probability is .88) and show delayed time to relapse compared to patients with comorbid personality disorder (probability is .45).

## 5 Resümee

Der erste Originalartikel der vorliegenden Dissertation diskutiert die Therapeutenrotation im Kontext der Literatur zur therapeutischen Beziehung in der Suchttherapie und zur multiplen Psychotherapie. Aus der Übersicht der Originalarbeiten zur therapeutischen Beziehung lässt sich schließen, dass die therapeutische Allianz in der Suchttherapie einen ebenso wesentlichen Einflussfaktor auf das Therapieergebnis darstellt wie in der allgemeinen Psychotherapie. Während sie dort zu den meistuntersuchten und am besten bestätigten Psychotherapiefaktoren zählt, existieren im Bereich der Suchttherapie jedoch deutlich weniger Studien, die die therapeutische Beziehung empirisch untersuchen. Zusammenfassend lässt sich festhalten, dass Therapeuten den mächtigen Wirkfaktor "Beziehung" auch in der Suchttherapie erfolgreich einsetzen können, wenn sie ihm eine zentrale Rolle im Therapieprozess einräumen.

Die positiven Erfahrungen, die die Pioniere der multiplen Psychotherapie mit der multiplen Beziehungsgestaltung gemacht haben, zeigen, dass die Überwindung dyadischer Beziehungen eine lange Tradition in der Individualpsychologie Alfred Adlers hat. Mit der Therapeutenrotation wurde somit ein historisches Vorgängerkonzept wieder aufgegriffen und systematisch weiter entwickelt.

Die Ausformulierung der praktischen Vorteile der Therapeutenrotation für Patienten und Therapeuten und die Aufstellung von möglichen Wirkmechanismen stellen die Basis für eine zukünftige empirische Untersuchung dieses Therapieelementes dar. Dabei sollte berücksichtigt werden, dass die Therapeutenrotation eine Weiterentwicklung der einzelnen Therapeut-Klient-Beziehungen zu einem dynamischen System von multiplen Beziehungen zwischen den Therapeuten und den Patienten vorsieht. Somit sollten erste empirische Arbeiten zur Therapeutenrotation vor allem die verschiedenen Aspekte der therapeutischen Allianz multimodal erfassen. In einem aktuellen Projekt, in dem Therapieprozess- und Ergebnisvariablen von ALITA analysiert werden sollen, liegt deshalb der Fokus auf den verschiedenen Möglichkeiten, die Allianz zu operationalisieren (Krampe *et al.* 2003a; Stawicki 2004). Fragebögen und ein neu entwickeltes videogestütztes Codiersystem zur Beurteilung von Prozessvariablen in den Therapiekontakten stellen dabei die wesentlichen Erhebungsinstrumente dar. Es lassen sich die Perspektiven von Patienten, von Therapeuten und von Beobachtern unterscheiden. Inhaltlich wird die Allianz zum einen als Komponente der therapeutischen Atmosphäre, zum anderen als eigenständiges Konstrukt betrachtet. Desweiteren werden sowohl die gesamte Therapeut-Klient-Interaktion, als auch die



spezifischen Interaktionsbeiträge der Therapeuten und der Patienten getrennt erfasst. Schließlich wird von den Patienten die Beurteilung der einzelnen Therapeuten und des gesamten Teams, sowie die Einschätzung verschiedener Aspekte der Zufriedenheit mit der Therapeutenrotation erfragt.

Auf dieser multimodalen Erfassung aufbauende Fragestellungen können sich mit der Untersuchung des Langzeitverlaufes der Allianz befassen und verschiedene Vergleiche der Allianz vornehmen, z.B. Beziehungseinschätzungen zu einzelnen Therapeuten vs. zum gesamten Team, oder Vergleiche der Allianzwerte von Patienten, die die Rotation hilfreich finden, mit Patienten, die sie als störend beurteilen. Desweiteren lassen sich sowohl die postulierten pragmatischen Vorteile der Therapeutenrotation als auch die Hypothesen zu ihren Wirkmechanismen und deren Interaktionen mit den allgemeinen Wirkfaktoren von Psychotherapie im subjektiven Erleben der Patienten und der Therapeuten mit Fragebögen oder Interviews messen. Auf diesen ersten Ergebnissen aufbauend könnten weiterführende empirische Studien verschiedene Patientengruppen hinsichtlich ihrer Erfahrungen mit der Therapeutenrotation vergleichen. Hier wäre besonders ein Vergleich von Patienten mit verschiedenen komorbiden Störungen interessant, um sich der Frage nach weiteren Einsatzmöglichkeiten für die Therapeutenrotation bei anderen chronischen psychischen Störungen anzunähern.

Im zweiten Originalartikel der vorliegenden Studie wurde gezeigt, dass es während der zweijährigen Therapie bei ALITA zu einem deutlichen Rückgang komorbider Achse-I-Störungen, psychiatrischer Symptome und suchtassoziierter Probleme bei abstinenten chronisch alkoholkranken Patienten gekommen ist. Die Diskussion der Ergebnisse im Kontext der aktuellen Literatur zur Therapieergebnisforschung in der Alkoholismustherapie kommt zur Schlussfolgerung, dass sowohl die ALITA-Patienten mit, als auch diejenigen ohne Persönlichkeitsstörungen sehr gute Behandlungserfolge erzielen.

Somit stellt die vorliegende empirische Längsschnittstudie eindeutige empirische Ergebnisse vor, die belegen, dass das primäre Ziel von ALITA erreicht worden ist. Mit dem Therapieprogramm können schwer abhängige alkoholranke Patienten wirksam behandelt werden. Der Behandlungserfolg zeigt sich nicht nur in den Abstinenzraten, sondern auch in den Problembereichen, die als Indikatoren der Schwere der Abhängigkeit gelten.

Von den vielen überprüften Patientenmerkmalen haben sich lediglich das Vorliegen einer Persönlichkeitsstörung und die Anzahl an früheren Entgiftungen als bedeutsame Prädiktoren für den langfristigen Therapieerfolg bewährt. Dieses Ergebnis legt nahe, Persönlichkeitsstörungen und Behandlungserfahrung bei der Diskussion von Chronizitäts-

und Prognosemerkmalen in der Therapie Suchtkranker stärker zu betonen. Sozioökonomische Belastungsfaktoren, komorbide Achse-I-Störungen, akute suchtassoziierte Probleme und das Ausmaß an körperlichen Alkoholfolgeschäden scheinen zumindest in einem umfassenden und intensiven ambulanten Behandlungsprogramm keine ungünstigen Prognosefaktoren darzustellen.

Zukünftige Studien sollten untersuchen, inwieweit sich Patienten mit Persönlichkeitsstörungen und erhöhter Chronizität hinsichtlich ihrer Therapieprozesse von Patienten ohne Persönlichkeitsstörungen und mit niedriger Chronizität unterscheiden. Dabei sollten sowohl die Beziehungsgestaltung als auch die verschiedenen Faktoren der Problembearbeitung im Langzeitverlauf betrachtet werden. Potentielle Unterschiede in den Prozessvariablen könnten wiederum wichtige Erkenntnisse für die Weiterentwicklung der Therapieangebote für Alkoholranke mit Persönlichkeitsstörungen und erhöhter Chronizität erbringen (Krampe *et al.* 2003b).

Abschließend lässt sich festhalten, dass sowohl der theoretische als auch der empirische Originalartikel der vorliegenden Dissertation als Beiträge zur Weiterentwicklung der Suchttherapie konzipiert worden sind. Erst zukünftige Untersuchungen werden zeigen, ob sie diesem Anspruch gerecht geworden sind.

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## 7 Kurze Darstellung laufender Forschungsprojekte und Publikationsverzeichnis

Im Rahmen des ALITA-Projektes ist der Autor derzeit bei weiteren psychologischen Teilprojekten maßgeblich beteiligt. Diese finden in der vorliegenden Dissertation keine ausführliche Erwähnung, stehen jedoch eng mit den hier untersuchten Fragestellungen in Verbindung. Hier sind vor allem zwei aktuelle Studien zu nennen:

- (1) die Untersuchung des Stellenwertes des Therapieelementes "Aversionsmedikation" während eines Beobachtungszeitraumes von neun Jahren (zwei Jahre Behandlungszeit, sieben Jahre Katamnese).
- (2) die Entwicklung eines videogestützten Beobachtungsinstrumentes, mit dem Prozessvariablen von Therapiegesprächen im Langzeitverlauf erfasst werden sollen.

Die bereits zum Abschluss gebrachten Fragestellungen, an denen der Autor beteiligt war, sind der folgenden Publikationsliste zu entnehmen:

### Originalartikel

Ehrenreich H, **Krampe H**, Wagner T, Jahn H, Jacobs S, Maul O, Sieg S, Driessen M, Schneider U, Kunze H, Rusteberg W, Havemann-Reinecke U, Rütger E, Poser W (2000) Outpatient long-term intensive therapy for alcoholics, "OLITA": re-considering severe alcoholism, disease and treatment. *Suchtmedizin in Forschung und Praxis* 2: 221-222.

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Schneider U, Altmann A, Baumann M, Bernzen J, Bertz B, Bimber U, Broese T, Broocks A, Burtscheidt W, Cimander KF, Degkwitz P, Driessen M, Ehrenreich H, Fischbach E, Folkerts H, Frank H, Gurth D, Havemann-Reinecke U, Heber W, Heuer J, Hingsammer A, Jacobs S, **Krampe H**, Lange W, Lay T, Leimbach M, Lemke MR, Leweke M, Mangholz A, Massing W, Meyenberg R, Porzig J, Quattert T, Redner C, Ritzel G, Rollnik JD, Sauvageoll R, Schlafke D, Schmid G, Schroder H, Schwichtenberg U, Schwoon D, Seifert J, Sickelmann I, Sieveking CF, Spiess C, Stiegemann HH, Stracke R, Straetgen HD, Subkowski P, Thomasius R, Tretzel H, Verner LJ, Vitens J, Wagner T, Weirich S, Weiss I, Wendorff T, Wetterling T, Wiese B, Wittfoot J. (2001) Comorbid anxiety and affective disorder in alcohol-dependent patients seeking treatment: the first Multicentre Study in Germany. *Alcohol & Alcoholism* 36: 219-223.

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\* Die Autoren trugen zu gleichen Anteilen zu der Arbeit bei

## **Bücher und Buchkapitel**

- Krampe H (1999)** *Die Bedeutung von erlebter Freiheit und volitionaler Selbststeuerung für Depressivität bei Bewohnerinnen und Bewohnern von Altenwohnheimen.* Regensburg: Roderer.
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## **8 Lebenslauf**

Am 01.10.1969 wurde ich als zweites Kind von Wolf-Dieter Krampe und Helmi Krampe in Grafenau, Deutschland, geboren.

Getauft wurde ich in der evangelischen Kirche Grafenau, konfirmiert wurde ich in der evangelischen Kirche Bad Kissingen.

Von 1976 bis 1980 besuchte ich die Grundschule in Ahorn. Das Gymnasium besuchte ich von 1980 bis 1982 in Coburg, und nach dem Umzug der Familie von 1982 bis 1989 in Bad Kissingen. Im Juni 1989 legte ich das Abitur ab.

Nach dem Abitur leistete ich von 1989 bis 1991 Zivildienst bei der Gesellschaft für Integrative Sozialdienste (GIS) in Hannover. Dort war ich in der individuellen Betreuung schwer körperbehinderter Menschen tätig.

Von 1991 bis 1998 studierte ich Psychologie an der Georg-August-Universität Göttingen.

Von November 1998 bis Juni 2003 arbeitete ich als Therapeut bei ALITA (Ambulante Langzeit-Intensivtherapie für Alkoholranke), Klinik für Psychiatrie und Psychotherapie der Georg-August-Universität Göttingen. Seit Dezember 1999 bin ich als Klinischer Psychologe in der Arbeitsgruppe Klinische Neurowissenschaften am Max-Planck-Institut für experimentelle Medizin, Göttingen, angestellt. Im Rahmen der klinischen Arbeit und der wissenschaftlichen Evaluation von ALITA fertigte ich die vorliegenden Untersuchungen unter Leitung von Prof. Dr. Dr. H. Ehrenreich an. Die Durchführung des gesamten Forschungsprojektes zu ALITA erfolgt in enger Kooperation mit Prof. Dr. B. Kröner-Herwig, Abteilung für Klinische Psychologie der Georg-August-Universität Göttingen. Neben der Untersuchung der Therapeutenrotation und der psychiatrischen Komorbidität von alkoholabhängigen Patienten beschäftige ich mich wissenschaftlich vor allem mit der multidimensionalen Erfassung der Schwere der Abhängigkeit von Suchtkranken und der Entwicklung eines videogestützten Beobachtungsinstruments zur Erfassung psychotherapeutischer Prozessvariablen von Therapiegesprächen.

Seit Januar 2000 nehme ich am Weiterbildenden Studiengang Psychologische Psychotherapie (WSPP) der Universitäten Braunschweig und Göttingen teil.

Henning Krampe

Göttingen, im Mai 2004

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