

# **Master Thesis**

Master of Psychology in the Field of Safety and Health

## **Abstinence Rate, Participation in Follow-Up Rehabilitation and Life Satisfaction after Qualified Alcohol Detoxification Treatment – Predictors of Recovery at 1-Month Follow-Up**

Running Head:

*Predictors of Recovery following Qualified Alcohol Detoxification Treatment*

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## **Abstract**

**Objective:** Alcohol dependence and abuse are important issues within the health-related context, displaying a high prevalence and considerable individual and societal consequences. Treatment of alcohol use disorders seems to be far from ideal, as relapse rates are high. The present research aims to improve treatment outcomes, by identifying predictors of alcohol abstinence, following qualified inpatient detoxification treatment.

**Method:** This research is designed as one-month follow-up study of one sample, with three points of measurement in time. Differences at baseline and at the end of treatment are assessed by questionnaires, and the outcome after one month following discharge is investigated by standardized telephone calls. In total, 84 alcohol dependent men and women of an inpatient detoxification treatment participated.

**Results:** At follow-up, 73% of the patients responded. In accordance with intention-to-treat analysis, 57% were continuously abstinent. Abstinence self-efficacy emerged as the most consistent predictor of abstinence. Higher levels of mental life satisfaction and being treated for alcohol problems for the first time also increased the likelihood of abstaining. Against expectation, abstinence motivation, perceived social support, participation in follow-up rehabilitation and patient characteristics did not significantly predict the outcome.

**Conclusion:** A high degree of abstinence self-efficacy seems to be essential for the ability to sustain abstinence after discharge. Furthermore, the likelihood of abstinence among potential high-risk patients, as characterized by depression tendencies and unemployment, may be greatly enhanced by increasing their self-efficacy during therapy.

## **Samenvatting**

**Doel:** Alcoholverslaving en misbruik zijn belangrijke onderwerpen binnen de gezondheidsgerelateerde context, die een hoge prevalentie en aanzienlijke individuele en maatschappelijke consequenties vertonen. De behandeling van stoornissen in het alcoholgebruik blijkt verre van ideaal te zijn, omdat de frequenties van terugval hoog zijn. Het huidige onderzoek probeert de uitkomsten van behandeling te verbeteren, door voorspellers van alcohol abstinentie te identificeren, volgende een gekwalificeerde klinische afkickbehandeling.

**Methode:** Dit onderzoek is opgezet als een één-maand follow-up studie van één steekproef, met drie punten van de meting in tijd. Verschillen aan het begin en aan het eind van de behandeling worden met behulp van vragenlijsten benaderd. De uitkomst één maand na afronding van de behandeling is onderzocht door middel van gestandaardiseerde telefoongesprekken. In totaal hebben 84 alcohol verslaafde mannen en vrouwen van een klinische afkickbehandeling deelgenomen.

**Resultaten:** Bij het vervolg interview hebben 73% van de patiënten geantwoord. In overeenstemming met de intention-to-treat analyse waren 57% doorgaans abtinent. Abtinentie zelf-effectiviteit bleek de meest consistente voorspeller van abtinentie te zijn. Hogere niveaus van mentale levenstevredenheid en voor de eerste keer behandeld te worden voor alcoholproblematieken kon ook de kans op afstand doen van alcohol verhogen. Tegen de verwachting hebben de motivatie voor abtinentie, de waargenomen sociale ondersteuning, de participatie in follow-up revalidatie en de patiënten karakteristieken de uitkomst niet significant voorspeld.

**Conclusie:** Een hoog niveau van abtinentie zelf-effectiviteit blijkt essentieel te zijn voor het vermogen om abtinentie bij te kunnen houden na afronding van de behandeling. Bovendien zou de kans op abtinentie voor patiënten met een potentieel hoog risico, zoals gekenmerkt door depressieve tendenties en werkloosheid, groter zijn als hun zelf-effectiviteit wordt versterkt tijdens de therapie.

## **1. Introduction**

### **1.1 Alcohol Use Disorder – Prevalence and Consequences**

The consumption of the psychoactive substance alcohol is legal, and evident around the world. According to the World Health Organization (WHO) about 2 billion people worldwide consume alcoholic beverages, and 76.3 million of those with diagnosable alcohol use disorder (WHO, 2004). In the International Classification of Diseases, tenth edition (ICD-10) and the Diagnostic Statistical Manual of Mental Disorders, fourth edition (DSM-IV), the term ‘alcohol use disorder’ (AUD) refers to two disorders: alcohol dependence on the one hand, and alcohol abuse (DSM-IV), respectively harmful use (ICD-10) on the other hand (Hasin, Hatzenbuehler, Keyes, & Ogburn, 2006). In the year 2000/2001 the alcohol per capita consumption in Germany amounts to 12.89 liters pure alcohol, the 9<sup>th</sup> highest of 185 available countries (WHO, 2004). As the results of the 2006 epidemiological survey of substance abuse in a sample of 7.912 adult persons revealed, alcohol dependence is estimated to be present in 2,4% (1,3 million), and alcohol abuse in 3,8% ((2 million), disjunctive prevalence data) of the German adult population during the last 12 months (Pabst & Kraus, 2008; German Centre for Addiction Issues [DHS], 2011)

The medical, psychosocial, and economic consequences of alcohol dependence and abuse are considerable. Concerning the individual, medical consequences involve harm to nearly all organs, for example cardiovascular disease, cerebral degeneration, esophageal cancer, liver cancer and liver cirrhosis (Rehm, Mathers, Popova, Thavorncharoensap, Teerawattananon & Patra, 2009; WHO, 2009). Psychosocial consequences include depression, anxiety, crime, accidents, impaired social and occupational functioning (WHO, 2009). According to the global status report on alcohol and health 2011 of the WHO, alcohol is a causal factor in more than 60 types of diseases and injuries, constituting the third leading risk factor for the global burden of disease. Burden of disease is defined as gap between current and ideal health status and is assessed by disability-adjusted life years (DALYs), which are years of life lost due to premature mortality combined with years of life lost due to time lived in less than full health. In 2004, worldwide 4,5% of DALYs and almost 4% of all deaths were attributable to alcohol, greater than deaths caused by HIV/AIDS, violence and tuberculosis (WHO, 2011). Economically, alcohol causes large costs to societies, including health care costs as well as costs related to social harm, which in total amount to more than 1% of the gross national product in high-income and middle-income countries (Rehm et al., 2009).

## **1.2 Treatment and Recovery Prognosis of Alcohol Use Disorders**

Given the high prevalence and the severe consequences of alcohol use disorders, the need for effective treatment of alcohol dependence and abuse becomes obvious (Pelc, Ansoms, Lehert, Fischer, Fuchs, Landron, et al., 2002). The spectrum of treatment services is broad and ranges from brief interventions to intensive, more specialist interventions as medically assisted withdrawal, psychosocial- and pharmacotherapy (Parker, Marshall & Ball, 2008). In the case of longtime and severe alcohol dependence, stationary detoxification treatment under medical supervision is vital to be able to manage withdrawal symptoms, syndromes as delirium tremens, and thus to ensure survival of the patient (Croissant & Mann, 2003; Parker, Marshall & Ball, 2008). Traditional detoxification programs in general hospitals often last just a few days and are limited to physical treatment. Consequently, lifetime abolishment of dependence respectively living in abstinence from alcohol (i.e. consuming no more alcohol at all) is seldom achieved and additional detoxifications are likely to follow (Croissant & Mann, 2003). In contrast, qualified detoxification programs in specialist hospitals last three to six weeks and, besides medical treatment, aim to reach adequate insight into illness, and to enhance motivation for abstinence and follow-up treatment (Croissant & Mann, 2003).

Despite such efforts at efficaciously treating alcohol dependents, relapse rates are high. A relapse is defined as recurrence to the initial level of abuse respectively dependence after a period of improvement. A lapse or slip means one, or at the most a few backslides, without returning to regular consumption (Rüesch & Hättenschwiler, 2002). Following traditional hospital inpatient detoxification, relapse rates range from 19% to 92% between the first and sixth month and only 46% to 64% initiate some sort of aftercare treatment (Blondell, Smith, Canfield & Servoss, 2006). Concerning specialist hospitals for alcohol and medicines, the German association for stationary assistance of addicts (Bundesverband für stationäre Suchtkrankenhilfe, [buss]) has published 12-months follow-up data of up to 54 centers. In accordance with negative calculations, that is including and defining patients as relapsed who did not complete therapy regular, the relapse rate of the year 2005 amounted to 74,7% and nearly continuously regressed to 58,3% in 2009 (buss, 2011). Because of differing time intervals, calculations and sample types and sizes, relapse rates are difficult to compare, but obviously, they are far from ideal. Relapse respectively abstinence rates and regular treatment completion are popular outcome measures of detoxification programs (Jülch, Süß, Langer & Hippen, 2003). Indeed, regular treatment completion has been shown to be one of the most important predictors of long-term course (Rüesch & Hättenschwiler, 2002). At this point, it has to be noted, that in some institutions, the consumption of alcohol leads to premature

treatment exclusion, while this is not necessarily the case in others. In the former case, any use of alcohol (i.e. lapsing) is defined as treatment failure, leading to an all-or-nothing dichotomy of the dependence recovery process (Marlatt & George, 1984). However, not all lapses inevitably lead to full-blown relapse, meaning the return to pretreatment drinking levels (Marlatt, 1996). As an investigation by Rüesch and Hättenschwiler (2002) has demonstrated, patients who completed treatment were able to achieve abstinence even when they had a lapse. In this sample, treatment prognosis turned out to be similar to that of patients without lapse. Therefore, evaluating treatments exclusively in terms of absolute abstinence may significantly underestimate treatment effectiveness. Despite having lapsed, which may lead to premature exclusion, patients may nevertheless benefit from treatment in terms of regaining abstinence, returning to a less severe than initial consumption level, or otherwise in terms of some form of enhanced quality of life. As research by Morgan, Landron and Lehert (2004) has shown, abstaining from alcohol as well as reducing consumption considerably improved quality of life. This is not to say that abstinence rates should not be used as primary treatment evaluation criterion, but rather that the incorporation of additional outcome measures as Quality of Life would provide a more differentiated assessment of health changes (Foster, Powell, Marshall, & Peters, 1999). Besides evaluating the outcome of a treatment, it seems even more important to investigate which factors may influence the outcome, as this is the only possible way to increase treatment successes. Receiving equivalent treatment, why do some patients relapse, while others do not? Obviously, there is a high need to get insight into the factors accounting for relapses. Therefore the investigation of the interaction between patient characteristics and treatment outcome should be of major concern (Foster et al., 1999).

### **1.3 Predictors of Abstinence – Social Cognitive Factors**

One main reason why abstinence may not be achieved is that patients are often insufficiently motivated to change or to maintain behavioral change. Regardless of the harmful and distressing consequences of their drinking behavior, compliance with treatment programs is poor, and more often than not these patients are difficult to motivate for follow-up sessions (Wicks, Hammar, Heilig, & Wisén, 2001). The motivation or readiness to change and the continued participation in follow-up recovery programs as self-help groups (for example Alcoholics Anonymous or the German “Kreuzbund”) have been identified as strong predictors of long-term abstinence (Laudet & Stanick, 2010; McGovern & Caput, 1983). Patients entering treatment in response to external pressure by family members or on basis of a sanction terminate therapy more frequently than patients who are internally motivated



(Rüesch & Hättenschwiler, 2002). The latter are of course more likely to present themselves with an internal need to change and consequently comply with treatment to a greater extent than the former.

In addition to a high level of motivation, patients also need to perceive themselves as being capable of adjusting their behavior. This introduces a second cognitive predictor of remission, namely the concept of self-efficacy, as identified numerously in the literature (Charney, Zikos & Gill, 2010; Laudet & Stanick, 2010; Vielva, & Iraurgi, 2001; Witkiewitz & Marlatt, 2004). A high degree of self-efficacy is especially crucial in resisting the urge to drink in high-risk situations. Moreover, the relation of self-efficacy and abstinence is bidirectional, meaning that a period of successful abstinence is also likely to enhance the perceived self-efficacy. This is in line with Marlatt's cognitive-behavioral model of relapse, where an effective coping response (i.e. resisting the urge to drink), following a high-risk situation, leads to increased perceptions of self-efficacy and an ineffective or no coping response at all leads to a decrease in perceived self-efficacy (Marlatt, 1996). Thus, a high degree of self-efficacy, either initial but especially due to an increase during treatment, is assumed to significantly enhance the probability of being able to achieve and sustain abstinence, and furthermore of being able to regain abstinence after the occurrence of a lapse (Schindler, Körkel, Grohe & Stern, 1997). An initial high degree of self-efficacy may reflect unrealistic overconfidence at the entering of treatment and, in turn, lead to relative low gains or even decreases in self-efficacy during treatment (Adamson, Sellman & Frampton, 2009).

Finally, the perception of available social support, as general emotional and instrumental support, is found to predict better outcomes, at least during the first critical months following treatment (Beattie & Longabaugh, 1999).

#### **1.4 The Influence of Patient Characteristics**

In addition to general perceptions of social support, actual relationships with family and friends add significantly to the patients' resources of recovery (Charney et al., 2010; Laudet & Stanick, 2010). Stated differently, characteristics as being unmarried, divorced (Charney et al., 2010), or living alone (Pelc et al., 2002) might be predictive of a worse prognosis. Moreover, even brief integration of supportive relatives into the treatment process has been shown to increase participation in follow-up rehabilitation programs (O'Farrell, Murphy, Alter & Fals-Stewart, 2008). Adding further to ones resources, a higher socio-economic status of a patient, in terms of educational level, income, and employment, predicts a more favorable treatment outcome (Adamson et al., 2009).

Other demographic characteristics assumed to exert an influence on recovery are gender and age, with being female (Charney et al., 2010), and of older age (Pelc et al., 2002), being associated with higher abstinence rates. Concerning the gender issue, it needs to be noted that existing evidence is mixed. What can be stated with confidence is that women are typically underrepresented in substance abuse treatment programs, partly due to women facing greater barriers to treatment entry, e.g. concerns about child care arrangements, than men do (Tuchman, 2010). However, once in treatment, gender seems not to be a significant predictor of treatment retention, completion, or outcome, as Greenfield, Brooks, Gordon, Green, Kropp, McHugh et al. (2007) found in their literature review on this issue. A possible explanation for this contradictory evidence may be that there seem to be gender specific differences in psychiatric comorbidity of substance use disorders, with women displaying higher proportions of co-occurring psychiatric disorders, as major depression, social phobia, post-traumatic stress disorders, and eating disorders (Tuchman, 2010). According to Pelc et al. (2002), patients displaying psychiatric comorbidities, as symptoms of anxiety and depression, are less likely to remain abstinent. That is, in some studies female gender may have not been identified as beneficial factor, but may have turned out to be if psychiatric comorbidity had been controlled for. Therefore, both factors should be incorporated as possible covariates, prior to making claims about causality.

As a further concept relating to recovery prognosis, neuropsychological functioning has been identified as predictor of treatment outcome (Adamson et al., 2009), with neuropsychological impairment, such as impaired working memory and inhibitory abilities, significantly impeding ability to remain abstinent (Morrison, 2011). This is not surprising as executive functioning covers essential skills for the ability to effectively cope with high-risk situations (Morrison, 2011).

Finally, aspects of drug dependence history deserve closer attention. Patients characterized by higher alcohol dependence severity, the use of a secondary drug (cocaine, cannabis, nicotine), and higher number of prior treatments are more likely to lapse or relapse (Charney et al., 2010; Pelc et al., 2002). Likewise, a longer duration of dependence is associated with a worse recovery prognosis (Morgan, Landron & Lehert, 2004). Concerning the use of a secondary drug, especially smoking is of interest for mainly two reasons: firstly, co-dependence of nicotine and alcohol is quite frequent, and secondly, being a non-smoker seems to predict alcohol abstinence (Hintz & Mann, 2007). Beside this, Hintz & Mann (2007) found that the beneficial effects of abstinence from one drug can carry over to the other drug. That is, patients who abstain from smoking are more likely to stop drinking alcohol and patients

who reach abstinence from alcohol are more likely to quit smoking. Although beyond the scope of the current research, this is an important finding, because “successful smoking cessation will not only possibly improve the prognosis of future alcohol consumption but will also counteract the most dangerous risk factor for ill health and death in sober alcoholics – namely that of smoking.” (Hintz & Mann, 2007).

In addition to dependence severity, duration, secondary drug use and the number of prior treatments, age at drinking onset and family history of substance dependence are shown to impact the development of alcohol dependence. More specifically, being of young age, i.e. 14 years or younger, at first alcohol consumption and dependence among first-degree relatives, i.e. parents, siblings and children, is associated with a higher risk of developing dependency (Grant, 1998). Concerning the family history of alcoholism, it has to be noted that this association may reflect an interplay between environmental and genetic factors, thus not clarifying how or why this association exists. Relating to the age at drinking onset, Hingson, Heeren & Winter (2006) furthermore found that the younger the age at first consumption, the greater the likelihood of chronic relapsing episodes and longer durations, thereby worsening recovery prognosis.

In conclusion it can be stated that, alcohol dependence respectively abuse and its treatment are highly complex issues, which demand careful and differentiated investigation of the factors influencing recovery prognosis. The purpose of the present study is to identify these factors by investigating the outcome of a six-week qualified inpatient detoxification treatment. In addition to evaluations about treatment effectiveness in terms of abstinence and aspects of quality of life, the identification of predisposing as well as mediating factors will enable an improvement in treatment quality. That is, subgroups of high-risk patients may be identified and specifically targeted and promotive social cognitions and behaviors may receive increased attention during therapy to maximize the likelihood of treatment success.

## **1.5 The Current Research: Research Questions**

On basis of the above discussed issues, the current research aims to investigate the outcome of a qualified inpatient detoxification treatment at the end of treatment and at four weeks follow-up.

Four global research questions are formulated:

1. *What are the changes during a 6-week qualified inpatient detoxification treatment for alcohol abusers and dependents in the level of the following factors:*

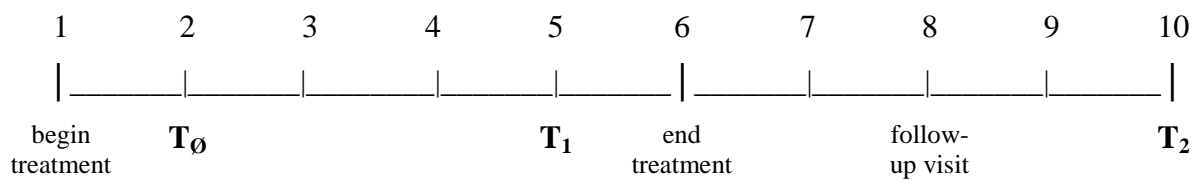
### 1.1 Abstinence motivation

- 1.2 Perceived abstinence self-efficacy
  - 1.3 Motivation to participate in follow-up rehabilitation (i.e. to make use of addiction counseling service, self-help group and/or withdrawal therapy)
  - 1.4 Perceived self-efficacy to participate in follow-up rehabilitation
  - 1.5 Perceived social recovery support
  - 1.6 Quality of Life in terms of physical and mental life satisfaction
2. *What is the outcome of a 6-week qualified inpatient detoxification treatment for alcohol abusers and dependents at four weeks follow-up:*
- 2.1 What is the rate of abstinence at four weeks following qualified inpatient detoxification?
  - 2.2 What is the rate of participation in follow-up rehabilitation at four weeks following qualified inpatient detoxification?
  - 2.3 What are the changes in abstinence motivation, abstinence self-efficacy, and Quality of Life, in terms of mental life satisfaction at four weeks following qualified inpatient detoxification?
3. *Do the factors, as defined by research question one, predict or mediate the outcome at four weeks follow-up, as defined by research question two?*
4. *Is the outcome of a qualified inpatient detoxification treatment for alcohol abusers and dependents at the end of the treatment and at 4 weeks follow-up moderated by patient characteristics:*
- 4.1 age
  - 4.2 gender
  - 4.3 nationality
  - 4.4 marital status
  - 4.5 domestic situation
  - 4.6 socio-economic status (SES): education and employment
  - 4.7 alcohol dependence history: dependence severity, years of dependence, age at first consumption, dependence within the family, number of previous detoxifications and withdrawal treatments, use of a secondary drug (especially nicotine)
  - 4.8 anxiety and depression
  - 4.9 intelligence and cerebral (in-)sufficiency

## 2. Method

### 2.1 Research Design

This research is designed as one-month follow-up panel study with three points of measurement in time. Measurement one, the baseline assessment ( $T_0$ ), takes place toward the end of week two, at the thirteenth day of the qualified inpatient detoxification treatment. It is chosen not to start earlier to eliminate interfering influences of abstinence phenomenon and medication symptoms, which may be highly pronounced during the first week. Reassessment of the variables ( $T_1$ ) takes place after three weeks, at the 35<sup>th</sup> day of treatment. Measurement three ( $T_2$ ) takes place four weeks after completion of the detoxification program and is accomplished by telephone calls. The following scale gives an overview of the treatment period and the measurement points across the ten weeks:



### 2.2 Participants, Setting, and Procedure

Participants of this research are adult patients of a German hospital for qualified stationary detoxification treatment of alcohol- and drug dependent men and women. This psychiatric specialist hospital is a 50-bed non-profit institution with an average of 508 patients per year (2008 – 2010), who are predominantly diagnosed as alcohol dependent (mean = 95%). Based on the concept of integrative addiction treatment, regular treatment period spans six weeks and offers at least one individual therapeutic sessions, three group sessions per week, a one-day family member meeting, psycho education, dietary and occupational counseling, physio-, exercise-, ergo-, creative-, and relaxation therapy. Every patient is part of a fixed group of usually 8 – 12 persons. The main objective of the first half of the treatment is to physically detoxify and psychically stabilize patients, and to increase insight into disease condition. The primary aim of the second half is to intensify the readiness to live abstinent, inclusion of family members and particularly to initiate proximate assignment to follow-up rehabilitation. After two weeks following treatment completion, patients and the corresponding group therapist meet again at the hospital to exchange experiences and to discuss and dissolve difficulties if necessary.

In total, 100 patients participated, whereof data of 84 were applicable. Exclusion criteria were not having sufficiently knowledge of the German language, not being treated for

alcohol problems, and having cerebral deficiencies. By the exception of five (6.0%), all patients were classified as alcohol dependents in accordance with ICD-10. Data collection took place between April 7<sup>th</sup> and August 26<sup>th</sup> 2011, at a time one group of three to eleven patients every week being assessed. To enhance motivation, the appropriate therapist explains the contents, procedure and purpose of the study and promotes participation. Furthermore it is emphasized that, firstly participation as well as refusal does not have any personal consequences, secondly that data are used anonymously and thirdly that data privacy policies are adhered to. Unfortunately, the name needs to be mentioned to allow incorporation of data collected by the clinic, which would not be possible by use of pseudonyms. The therapist then leaves the room to minimize social desirable responding, while the researcher remains within the group to be available for questions. Four individuals refused to participate; all other patients signed informed consent. Completion of the questionnaires is done by paper-and-pencil procedure and takes approximately 25 minutes at measurement one, and 20 minutes at measurement two. The two questionnaires are identical, except for demographic and alcohol history variables, which are assessed only once at the first measurement. Additionally the study incorporates a battery of tests, which are standard administered by the hospital and therefore need not be included in the questionnaire. These include screenings of alcohol and nicotine dependence (both assessed during the first week of treatment), intelligence, cerebral insufficiency, anxiety and depression (all assessed during the fourth week of treatment). The telephone call took place on Fridays at one-month follow-up and demanded about 5-10 minutes. A maximum of five attempts was made to reach a participant. Recorded data includes information concerning relapse and follow-up participation. Furthermore abstinence motivation and self-efficacy as well as life satisfaction relating to the own person (mental life satisfaction) are reassessed.

The following section describes the measurement instruments. For a complete overview of the scales and questionnaires, see Appendix A.

## **2.3 Measures**

### **2.3.1 Baseline only measures ( $T_0$ )**

*Demographic Variables:* firstly demographic information of the participants is assessed, including age, gender, nationality, marital status, domestic situation, and socio-economic status in terms of education and employment.

*Alcohol Dependence History:* six items are used to obtain information in relation to alcohol dependence. The first item assures whether patients are treated for an alcohol problem

exclusively or additionally for a drug or medicine dependence. The remaining items assess age at first alcohol consumption, years of alcohol dependence, number of previous detoxification and weaning off treatments, secondary drug use (nicotine, cannabis, cocaine or other), and alcohol and/or drug dependence within the family.

*ICD-10 criteria for alcohol dependence:* for the diagnosis F10.2 alcohol dependence syndrome to be assigned, minimal three out of six criteria, e.g. craving, reduced ability to control consumption, physiological withdrawal symptoms, or tolerance development, must simultaneously be met during the last twelve months. The criteria are transformed into six corresponding questions which can be answered in yes/no-format (e.g. “Did it happen that you could not stop drinking once you had started?”).

*The Fagerström Test for nicotine dependence:* the Fagerström test consists of 8 items, e.g. “How many cigarettes do you usually smoke per day?”, and gives an indication of the severity of nicotine dependence, ranging from very low to very severe dependence. Current as well as former smokers’ dependence severity is assessed, therefore the Fagerström test does not necessarily differentiate between actual and previous smoking behavior.

*The Multiple Choice Vocabulary Intelligence Test (MWT-B):* the MWT-B contains 37 items, each presenting five letter-strings, whereof only one string constitutes an existing word (e.g.: “Nahle – Sahe – Nase – Nesa – Sehna”, correct answer is the German word “Nase”, in English ‘nose’). Depending on the number of correctly identified words, the MWT-B classifies into one out of five possible intelligence levels.

*WHO Depression Screening:* the WHO depression screening consists of five items and examines whether a depression might be present. For example: “I was glad and in a good mood”, answer choices ranging from 5 (*all the time*) to 0 (*at no time*) during the last two weeks.

*Anxiety Screening:* by means of seven items, the anxiety questionnaire assesses whether an inclination to anxiety disorders exists (e.g. Agoraphobia: “During the last weeks, did you have unfoundedly strong fears to go into stores or to stay on public places?”, answer choices in yes/no-format).

*Cerebral Insufficiency Scale:* this scale consists of 38 items which need to be answered in yes/no format. Sample item: “I cannot concentrate so well anymore”. By further incorporating the results of the MWT-B and the WHO Depression Screening the scale investigates whether an organic psycho-syndrome is likely to be present.

### 2.3.2 Social Cognitions (measured at baseline [T<sub>0</sub>] and at the end of treatment [T<sub>1</sub>])

For reasons of practicality, four single-item questions are asked, the first two thereof primary to be equipped with a suitable short measure that can easily be reassessed at the follow-up telephone call. Answer choices range from 1 to 5, each with an anchor at the extreme ends.

*Abstinence motivation:* the first question, “On a scale from 1 to 5, how important is it to you to drink no more alcohol?” assesses the abstinence motivation and can be answered on a five-point scale, with the anchors 1 (*unimportant*) and 5 (*very important*).

*Abstinence Self-Efficacy:* the second question, “On a scale from 1 to 5, how confident are you that you will succeed in drinking no more alcohol in the future?” measures the perceived abstinence self-efficacy. The appropriate answer choice anchors are 1 (*not confident at all*), and 5 (*absolutely confident*).

*Follow-up Care Motivation:* the third single-item, “On a scale from 1 to 5, how important is it to you to take up further help (addiction counseling service, self-help group, weaning off treatment) after completion of the current treatment?” measures the motivation to participate in some sort of aftercare treatment. The corresponding anchors are again 1 (*unimportant*) and 5 (*very important*).

*Follow-up Care Self-Efficacy:* the fourth question, “On a scale from 1 to 5, how confident are you that you will take up further helping?” assesses the perceived self-efficacy to participate in some sort of follow-up rehabilitation. The appropriate anchors are 1 (*not confident at all*) and 5 (*absolutely confident*).

*The Readiness to Change Questionnaire (RCQ):* the RCQ is based on the assumptions of the Transtheoretical Model by Prochaska and DiClemente (1983). Consisting of 12 items in total, the RCQ assigns respondents into one of three possible stages: precontemplation, contemplation or action. Each subscale contains four items and is measured on a 5-point-Likert scale [1 (*strongly disagree*) to 5 (*strongly agree*)]. The scale precontemplation consists of the following items: 1. “I think I drink too much” (recoded). 5. “Thinking about my drinking is a waste of time”. 10. “I think it is necessary for me to think about changing my drinking” (recoded) 12. “Drinking less alcohol makes sense for me” (recoded). The reliability of this scale was extremely low, Cronbach’s alpha ( $\alpha$ ) = 0.29. Deleting item 5 does not sufficiently enhance reliability ( $\alpha$  = 0.38), so the scale is not usable. The contemplation stage, consisting of the items 3, 4, 8, and 9, for example “I like to drink, but sometimes I drink too much”, reveals an alpha of 0.67. The action subscale consisting of the items 2, 6, 7 and 11 has a reliability of 0.43 (sample item: “I am changing my drinking habits right now at this moment”). In accordance with the dissatisfying reliabilities, the questionnaire in its original



form needs to be excluded from the study. Therefore it is chosen to integrate the contemplation and action stage into one construct with a higher total value being indicative of a higher degree of motivation to change. This scale revealed an alpha of 0.62, which is increased to 0.69 after deletion of item 6 of the action stage: “I have changed my drinking habits recently”.

*The Alcohol Abstinence Self-Efficacy Scale – German Version (AASE-G):* the AASE-G scale consists of 20 items and assesses the perceived self-efficacy or confidence to remain abstinent from alcohol across a variety of potential relapse situations. The items can be answered on a five-point-Likert scale, with the anchors 1 (*not confident at all*) and 5 (*absolutely confident*). Thus, respondents are asked to indicate how confident they are not to drink e.g. in the following situation: “When I feel sad”. The 20 items are summed up so that a higher value is indicative of a high degree of self-efficacy and a lower value of low self-efficacy. The items formed a highly reliable scale with an alpha of 0.93.

*The Berliner Social Support Scales (BSSS) – Perceived Available Support:* The Perceived Available Support scale is the first subscale of the BSSS and consists of eight items, half addressing emotional, and the other half instrumental support. Participants could rate their agreement with each statement on a four-point scale [1 (*strongly disagree*), 2 (*somewhat disagree*), 3 (*somewhat agree*) and 4 (*strongly agree*)]. The four items measuring emotional support, for example “Whenever I am sad, there are people who cheer me up.”, formed a reliable scale, disposing an alpha of 0.86. The instrumental support scale also displayed good internal consistency with an alpha of 0.83 (sample item: “There are people who offer me help when I need it”).

*Questionnaire on Life Satisfaction (FLZ):* the two subscales ‘Health’ and ‘Own Person’ of the FLZ are measured with seven statements each. The degree of satisfaction with each area of life can be indicated on a seven-point scale [1 (*very dissatisfied*), 2 (*dissatisfied*), 3 (*rather dissatisfied*), 4 (*neither satisfied nor dissatisfied*), 5 (*rather satisfied*), 6 (*satisfied*), 7 (*very satisfied*)]. A sample item of the Health scale is: “With my physical condition I am...”. The scale Own Person relates to issues as physical appearance, self-confidence, or vitality, e.g. “With my self-confidence and my self-assurance, I am...” Both scales proved reliable, each with  $\alpha = 0.86$ .

### **2.3.3 Follow-up Measures after four weeks of treatment completion (T<sub>2</sub>)**

The above described social cognitive factors *Abstinence Motivation*, *Abstinence Self-Efficacy* and the subscale ‘Own Person’ of the *Questionnaire on Life Satisfaction (FLZ)* are reassessed

for the third time by telephone calls. Due to the sevenfold graded answer choices of the FLZ, only one scale is measured again. Preference of the subscale 'Own Person' over 'Health' is based on the assumption that variables as perceived vitality and especially evaluations of the way life is lived so far are more prone to variation after four additional weeks of abstinence than the somewhat more 'objective' evaluations relating primary to physical health. That is, satisfaction with health-related aspects as physical condition, degree of pain and illness, are expected to increase relatively fast after detoxification, thus during treatment, while an further increase after additional four weeks of abstinence is not expected to the same extent as for items relating to the own person or mental health.

*Relapse:* first of all, relapse respectively lapse data are recorded during the telephone call. More specifically, it is asked whether alcohol was drunk during the last four weeks. If so, initiation and duration of this drinking episode is assessed as well as possible additional drinking days and the degree of current alcohol consumption in comparison to initial levels (consuming no alcohol at all, less than before entering treatment, just as much, or consuming greater amounts of alcohol than before treatment entry).

*Follow-up Participation:* the rate of participation in some sort of follow-up rehabilitation is recorded by one question: "Did you make use of further help after the qualified detoxification treatment respectively do you currently make use of further help?" Answer choices are: no, or yes, in a day hospital, in a self-help group, in an addiction counseling service (inclusive ambulant rehabilitation or not), in a detoxification treatment (stationary or ambulant), in a withdrawal treatment (stationary or ambulant), or other.

*Debriefing:* finally participants are asked if they would like to receive a report of the study results and if so, either e-mail or postal address is noted.

*Intoxication:* upon telephone call completion, the researcher evaluated and subsequently recorded whether the participant displayed signs of intoxication during the conversation. Indicators include extremely slow, slurred or otherwise disturbed speech patterns. To receive a positive mark on intoxication the indications clearly need to be highly pronounced, so that solely extreme cases can be identified. Of course, the main obstacle to this form of identification is the restriction to auditory information, having no opportunity to integrate visibly signs. In line with this, slurred speech emerged indeed as reliable estimator of drunkenness, but only in combination with observations of gait (Perham, Moore, Shepherd & Cusens, 2006). Thus, while this measure is not able to discriminate slightly intoxicated from sober patients, it nevertheless may help to reduce false negatives (i.e. marked

backsliders falsely being classified as abstainers), in turn preventing overestimation of abstinence rates respectively treatment effectiveness.

## 2.4 Data Analysis

All statistical analyses are performed using the statistical package for social sciences (SPSS 16.0). Abstainers and relapsers between-group differences are tested by independent samples t-tests and for categorical variables by use of Chi-Square ( $\chi^2$ ). Differences across measurement points, between abstinent and relapsed patients, as well as interactions thereof are analyzed by repeated measures ANOVA. For the whole sample, differences between  $T_0$  and  $T_1$  are analyzed by paired samples t-tests. In all cases statistical significance is achieved when  $p < .05$ .

To evaluate whether the current sample is representative of the general patient population of the hospital, averaged percentage data are used as comparison. For the demographic information (section 3.1.1), comparison data of the years 2008 – 2010 ( $N = 1525$ ) are available and for the alcohol dependence history (section 3.1.2), data of the years 2008 – 2009 ( $N = 1036$ ) can be used for evaluations. Due to differing data collection methods, direct comparison values are not always available; in such cases the abbreviation of ‘not applicable’ (n/a) is noted. Furthermore, these values are rounded, thus not necessarily summing up to 100 percent. In all other cases differences between both samples are analyzed by chi-square tests ( $\chi^2$ ).

To be able to manage low sample sizes and therefore to warrant the highest statistical power possible, between group differences in relation to patient characteristics and the participation in rehabilitation programs, are analyzed with the aid of twofold categorical variables. That is, categorical variables are transformed into one prognostic advantaging and one prognostic disadvantaging factor, by merging categories, whereas continuous variables are transformed into two groups by split median method. If the expected count of one or more cells is less than five, no reliable chi-square analysis is exercisable, consequently results are not displayed and differences between groups cannot statistically be proved.

### **3. Results**

In this paragraph, the results are presented. The first three sections cover the sample characteristics, in the form of descriptive results. In the following sections, the research questions one to four are answered, by investigating the outcomes at the end of treatment and at four weeks follow-up.

#### **3.1 Sample Characteristics**

##### **3.1.1 Demographic Characteristics**

Table 1 presents the demographic information of the sample. The reference value of the general patient population is depicted in italic in the last column.

## Predictors of Recovery following Qualified Alcohol Detoxification Treatment

Table 1

Demographic information of the sample, displayed in frequencies (*n*) and percent (%), and averaged percent of the hospital statistics 2008-2010, *N* = 1525 as reference value (*Ref. %*)

	<i>N</i> = 84	%	<i>Ref. %</i>
<b>Age</b>			
Mean (standard deviation [ <i>SD</i> ])	47.14 (9.68)		<i>n/a</i>
Minimum	23		
Maximum	68		
<b>Gender</b>			
Male	58	69	73
Female	26	31	27
<b>Nationality</b>			
German	83	98.8	89
Other	1	1.2	11
<b>Marital Status</b>			
Single	20	23.8	27
Married, living together	28	33.3	36
Married, living apart	9	10.7	10
Divorced	24	28.6	22
Widowed	3	3.6	4
<b>Living Situation</b>			
Living together with someone else	53	63.1	59
Living alone	31	36.9	41
<b>Education</b>			
No graduation	5	6.0	7
Special school	—		4
Secondary modern school ( <i>Hauptschule</i> )	42	50.0	50
Secondary school ( <i>Realschule</i> )	21	25.0	21
General university entrance qualification	12	14.3	13
University education	4	4.8	<i>n/a</i>
<b>Vocational education</b>			
Yes	70	83.3	<i>n/a</i>
No	14	16.7	
<b>Employment</b>			
Full-/part-time	45	53.6	36***
Pensioner	8	9.5	14
Housewife/househusband	3	3.6	6
Unemployment benefit I <sup>1</sup>	6	7.1	7
Unemployment benefit II <sup>2</sup>	22	26.2	27

Note. \*\*\*  $p \leq .001$ , describing significant differences between the current and the hospital sample

<sup>1</sup> paid during the first 12-18 months of unemployment

<sup>2</sup> paid after the first 12-18 months of unemployment

In total 84 patients who met the research criterion participated, whereof 69% are male and 31% female, reflecting the well-established gender ratio of 1:3 (buss, 2011) and being comparable to the patient population of the hospital (73% male, 27% female). Age ranges from 23 to 68, with an average age of 47 years. By the exception of one Dutch person (1.2%), all patients are German (98.8%). While age matches that of the hospital population, where the highest proportions lie in the range of 40-50 years, nationality differs. Due to the exclusion criteria of insufficiently knowledge of the German language a higher percentage of the hospital population is not German (11%; no reliable chi-square analysis possible). Concerning the marital status, most patients of this sample are married, living together (33.3%), followed by being divorced (28.6%). In both samples, more than half of the patients are living together with someone else (63.1% resp. 59%). Relating to the socio-economical status, half of the participants completed secondary modern school (“Hauptschule”), followed by the higher secondary school qualification (“Realschule”, 25%), and general university entrance qualification (14.3%), which nearly equals that of the hospital population (50% resp. 21% resp. 13%). By 83.3%, most patients completed some sort of vocational education (no comparison data available). Finally, 53.6% are employed, which is, in comparison to only 36% of the hospital population, prognostic advantageously ( $\chi^2(1, N = 1609) = 10.25, p < .01$ ). The second highest percentage receives unemployment benefit II (26.2%), which means that the person is permanently unemployed.

By the exception of employment and nationality, the demographic characteristics are quite similar to the statistics of the hospital throughout the years 2008 – 2010, displaying no further significant differences. Therefore, it can be concluded, that this sample is representative of the patient population of that hospital in general.

### 3.1.2 Alcohol Dependence History

Table 2

Alcohol dependence history of the sample, displayed in frequencies (*n*) and percent (%), and averaged percent of the hospital statistics 2008-2009, *N* = 1036 as reference value (*Ref. %*)

	<i>N</i> = 84	%	<i>Ref. %</i>
<b>Treatment of</b>			
Alcohol	73	86.9	<i>n/a</i>
Alcohol and drugs	6	7.1	<i>n/a</i>
Alcohol and medicines	5	6.0	<i>n/a</i>
<b>Age at first consumption</b>			
≤ 14	20	23.8	36.0*
15 – 17	52	61.9	41.5***
≥ 18	12	14.3	22.5
<b>Years of dependence</b>			
< 5	15	17.9	<10: <sup>1</sup>
5 – 10	33	39.3	36.5***
11 – 20	19	22.6	30.5
21 – 30	12	14.3	22.5
> 30	5	6.0	10.5
<b>Previous treatments</b>			
One or more detoxifications	40	47.6	63.0**
One or more withdrawals	22	26.2	24.5
None	37	44.0	<i>n/a</i>
<b>Regular use of further drugs</b>			
Nicotine	52	61.9	<i>n/a</i>
Cannabis	9	10.7	<i>n/a</i>
Cocaine	2	2.4	<i>n/a</i>
Other	3	3.6	<i>n/a</i>
None	30	35.7	<i>n/a</i>
<b>Family history of substance dependence</b>			
Partner	5	6.0	12.5
Parent(s)	32	38.1	26.5*
Sibling(s)	22	26.2	20.0
Other relative(s)	18	21.4	<i>n/a</i>
None	31	36.9	39.0

Note. \**p* < .05 \*\**p* < .01 \*\*\**p* < .001; describing significant differences between current and hospital sample  
<sup>1</sup>category of less than 10 years compared to the sum of categories < 5 and 5-10 years

As table 2 shows, most patients are treated for an alcohol problem exclusively (86.9%), and only a minority is additionally treated for a drug or medicine problem. Although dual diagnoses are not recorded that way in the hospital statistics, the majority of 95% is primarily diagnosed as alcohol dependent. The consumption of the first alcoholic beverage predominantly takes place between the ages 15 to 17 (61.9%), followed by age 14 or younger,

and the fewest participants initiate drinking at age 18 or older. The same order applies to the hospital population, whilst the distribution is a bit more evenly. Fewer patients (41.5%) start drinking between the ages 15 and 17 ( $\chi^2(1, N = 1120) = 13.19, p < .001$ ), and marginally more have their first drink at age 18 or older ( $\chi^2(1, N = 1120) = 3.06, p = .08$ ). Noteworthy is the additional proportion of 12.2% starting at age 14 or younger, meaning that the hospital population is prognostic somewhat disadvantaged ( $\chi^2(1, N = 1120) = 5.07, p = .02$ ). Pertaining to the duration of dependence, the greatest proportion lies in the range of 5 – 10 years (39.3%). The hospital statistics do not differentiate between ‘less than 5’ and ‘5 to 10 years’, depicting a total of 36.5% being dependent less than 10 years. In order to compare these values, the first two categories are summed up in the sample, revealing a significant higher percentage of 57.2 ( $\chi^2(1, N = 1120) = 14.07, p < .001$ ). More than half of the patients has already undergone at least one previous treatment, while the percentages for the hospital population are even higher ( $\chi^2(1, N = 1120) = 7.82, p < .01$ ). Most patients are currently smokers, and only 35.7% declare not to use any further addictive substance (no comparison data available). Concerning dependence among the family environment, a great percentage of the patients’ parents (38.1%) is or has been suffering some substance dependence. This prognostic worsening factor of dependence among first-degree relatives is significantly higher in this sample ( $\chi^2(1, N = 1120) = 5.21, p = .02$ ), whereas the percentage of dependence of the partner is slightly higher in the hospital population ( $\chi^2(1, N = 1120) = 3.19, p = .07$ ). In only 36.9% respectively 39% of the cases, there is no dependence within the family.

In comparison to the greater hospital sample, the current sample seems to be prognostic advantaged, with respect to the factors age at first alcohol consumption, years of dependence and proportion of previous detoxification treatments, while disadvantaged in regard of familiar substance dependence.

### **3.1.3 Dependence Severity, Intelligence and Psychiatric Comorbidity**

In table 3 the results of the following clinical screenings are presented: International Classification of Diseases (ICD-10) criteria for alcohol dependence, Fagerström Test for nicotine dependence, Multiple Choice Vocabulary Intelligence Test (MWT-B), WHO Depression Screening, Anxiety Screening, and Cerebral Insufficiency Scale (c.I. Scale). Alcohol and nicotine dependence severity are assessed within the first week of treatment, the remaining four are screened during the fourth week, where two patients terminated therapy before week four, yielding a sample size of 82.



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Table 3

Clinical screening assessments of the sample, displayed in frequencies (*n*), percentages (%), means (*M*), standard deviations (*SD*), minimum (Min.) and maximum (Max.)

	<i>n</i>	%	<i>M</i>	<i>SD</i>	Min.	Max.
<b>ICD-10</b>	<i>N</i> = 84		4.5	1.28	1	6
< 3 criteria	5	6.0				
≥ 3 criteria (F10.2)	79	94.0				
<b>Fagerström Test</b>	<i>N</i> = 69		4.84	2.17	1	9
0-2: very slight dependence	10	14.5				
3-4: slight dependence	23	33.3				
5-6: medium dependence	20	29.0				
7-8: strong dependence	12	17.4				
9-10: very strong dependence	4	5.8				
<b>MWT-B</b>	<i>N</i> = 82		27.85	4.35	18	35
0-5: very low IQ ≤ 72	—					
6-20: low IQ 73-90	4	4.9				
21-30: average IQ 91-109	52	63.4				
31-33: high IQ 110-127	19	23.2				
34-37: very high IQ ≥ 128	7	8.5				
<b>Depression Screening</b>	<i>N</i> = 82		15.61	4.56	3	25
≥ 13	65	79.27				
< 13 (depression possibility)	17	20.73				
<b>Anxiety Screening</b>	<i>N</i> = 82		1.43	1.63	0	6
0	35	42.7				
≥ 1 (anxiety disorder tendency)	47	57.3				
<b>c.I. Scale</b>	<i>N</i> = 82		9.48	8.31	0	29
< 20	69	84.15				
≥ 20 (suspicion of organic psycho-syndrome)	13*	15.85				

*Note.* \*7 thereof displaying also less than 13 points on the depression screening

As table 3 shows, the diagnosis alcohol dependence syndrome (F10.2) is assigned in 94% of all cases, and only 6% met less than 3 criteria of the ICD-10. The range of minimal 1 to maximal 6 criteria covers all possible scores ( $M = 4.5$ ,  $SD = 1.28$ ). The ICD-10 is used as indication of the dependence severity, with higher scores, being indicative of stronger dependence.

The data of the Fagerström test for nicotine dependence reveal that 69 persons are either actual or former smokers. Most patients thereof lie in the categories of slight or medium nicotine dependence,  $M = 4.84$ ,  $SD = 2.17$ .

Intelligence is assessed by the MWT-B, which constitutes a verbal measure and thus

does not cover other aspects of intelligence. More than half (63.4%) are assigned an average intelligence quotient (IQ) of 91 – 109, minor proportions lie in the ranges of low and very high intelligence.

For the majority of the patients, no indication of depression is given (79.27%), while more than half (57.3%) display at least one symptom of anxiety. Although, the full range of 1 to 6 symptoms of anxiety disorder is covered, note that the greatest proportion thereof (20.2%) shows “just” one sign (cp.  $M = 1.43$ ,  $SD = 1.63$ ).

In relation to the c.I. Scale, it has to be explained, that a value of 20 or more is indicative of an organic psycho-syndrome, only if the IQ is minimal 80 (at least 13 points MWT-B), and depression is absent (at least 13 points depression screening). That is, 15.85% score 20 points or higher, whereof suspicion of an organic psycho-syndrome is present in 7.32% ( $n = 6$ ).

### **3.2 Social Cognitive Factors**

In the following section, the proximate changes after therapy are described, that is, means of the baseline measure at the beginning of therapy ( $T_0$ ), are compared to means of the reassessment at the end of treatment ( $T_1$ ). With the aid of paired samples t-tests, the first research question, ‘What is the effect of a 6-week qualified inpatient detoxification treatment at the end of treatment on the social cognitive factors?’ is answered.

The assessed cognitions are: Abstinence Motivation & Readiness to Change Questionnaire (RCQ), Abstinence Self-Efficacy & Alcohol Abstinence Self-Efficacy Scale – German Version (AASE-G), Motivation and Self-Efficacy to participate in Follow-Up Rehabilitation, Berliner Social Support Scales (BSSS Emotional & Instrumental Support), and Questionnaire on Life Satisfaction (FLZ Health & Own Person);

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Table 4

Descriptive statistics of the social cognitions, displayed in means (*M*) and standard deviations (*SD*) for the pretest ( $T_0$ ) and posttest ( $T_1$ ), and paired samples t-tests, displayed in t-values (*t*) with degrees of freedom (*df* = 76), and significance level (*p*) for differences between measurement points ( $T_0$ -  $T_1$ )

	$T_0$		$T_1$		<i>t</i> (76)	<i>p</i>
	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )		
<b>Abstinence Motivation</b>	4.79	(.69)	4.90	(.50)	1.58	.12
<b>RCQ</b>	4.38	(.59)	4.37	(.66)	.15	.88
<b>Abstinence Self-Efficacy</b>	4.01	(.85)	4.10	(.70)	1.02	.31
<b>AASE-G</b>	3.93	(.84)	4.03	(.87)	.96	.34
<b>Follow-Up Motivation</b>	4.57	(.77)	4.71	(.69)	1.95	.06
<b>Follow-Up Self-Efficacy</b>	4.53	(.74)	4.64	(.81)	1.11	.27
<b>BSSS Emotional Support*</b>	3.38	(.67)	3.46	(.64)	1.52	.13
<b>BSSS Instrumental Support*</b>	3.40	(.64)	3.38	(.73)	.24	.81
<b>FLZ Health**</b>	4.64	(1.27)	5.17	(1.17)	4.79	< .001
<b>FLZ Own Person**</b>	4.65	(1.19)	5.11	(1.03)	4.49	< .001

Note. scales range from 1 to 5 \*scale ranges from 1 to 4 \*\*scale ranges from 1 to 7

First of all, it has to be noted, that seven patients (8.3%) are lost at reassessment, reducing sample size to 77. Whether treatment termination was due to disciplinary discharge, the patient's own wish, or in accordance with treatment staff, is not further specified.

Table 4 displays means and standard deviations of  $T_0$  and  $T_1$  and whether there are significant changes across the treatment period. A strong increase for both subscales of the questionnaire on life satisfaction (FLZ) is observed (Health:  $t(76) = 4.79$ ,  $p < .001$ ; Own Person:  $t(76) = 4.49$ ,  $p < .001$ ). That is, patient's physical and mental satisfaction significantly improves during detoxification treatment, as expected. There are no further significant changes, but the motivation to participate in follow-up rehabilitation ( $t(76) = 1.95$ ,  $p = .06$ ), increases on marginal level.

Summing up, life satisfaction and the motivation to participate in follow-up rehabilitation increase, but the other variables show no significant changes. By exclusion of the readiness to change (RCQ) and the perceived available instrumental support, the tendency of all other cognitions is nevertheless in the expected and favorable direction.

### 3.3 Outcome at Four Weeks Follow-up

In this paragraph, the results of the telephone assessments (T<sub>2</sub>) are presented, answering the second research question “What is the outcome of the detoxification treatment at four weeks follow-up?”

#### 3.3.1 Abstinence and Relapse Data

Table 5  
Descriptive statistics of the main outcome at one month follow-up, displayed in frequencies (*n*) and percent (%)

<i>N</i>	<b>Recourse</b>	<b>Abstainers</b>	<b>Relapsers</b>	<b>Success rate</b>
84	61 (72.6%)	48 (78.7%)	13 (21.3%)	48 (57.14%)

Of the 84, 72.6% of the patients (*n* = 61) are reached by telephone after four weeks of treatment completion. Of those, 78.7% (*n* = 48) were continuously abstinent, while 21.3% (*n* = 13) had lapsed or relapsed. In accordance with intention-to-treat analysis, that is including and defining all non-responders as relapsed (Heritier, Gebski & Keech, 2003), this reveals a one-month follow-up success rate of 57.14%.

Of the 13 persons who relapsed, one patient was highly intoxicated, revealing no further reliable information. The following table gives an overview of the relapse data of the remaining 12 patients.

Table 6  
Descriptive statistics of relapse data, displayed in means (*M*), standard deviations (*SD*), minimum (Min.) and maximum (Max.)

	<i>M</i>	<i>SD</i>	Min.	Max.
<b>Number of days until first alcohol consumption</b>	10.5	6.33	2	21
<b>Number of days relapse lasted</b>	2	1.81	1	7
<b>Sum of all drinking days</b>	3.3	3.14	1	12
<b>Actual alcohol consumption*</b>	1.17	.58	1	3

*Note.* \*scale ranges from 1 (consuming no alcohol) to 4 (consuming more than before treatment entering)

On average, relapsed patients started drinking alcohol 11 days after treatment completion and stopped drinking after two days. While 7 patients (58%) had just one drinking episode, which may constitute a single lapse, 5 patients (42%) relapsed again within one month, revealing an averaged sum of 3 drinking days. By exception of one patient, who stated to drink as much alcohol as before treatment entering, all other patients were actually, that is during the last two days, drinking no alcohol.

### 3.3.2 Participation in Follow-up Rehabilitation

Of the 60 interviewed patients at T<sub>2</sub>, 86.7% ( $n = 52$ ) said to make use of any form of follow-up care, while 13% ( $n = 8$ ) did not make use of any further care. Table 7 presents the rate of participation in the specific types of follow-up care.

Table 7

Rate of participation in follow-up care, displayed in frequencies ( $n$ ) and percent (%), for abstinent and relapsed patients and total sample

	<b>Abstainers (<math>n = 48</math>)</b>		<b>Relapsers (<math>n = 12</math>)</b>		<b>Total (<math>N = 60</math>)</b>	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<b>Addiction counseling service</b>	27	56.3	8	66.7	35	58.3
without ambulant rehabilitation	18	37.5	7	58.3	25	41.7
with ambulant rehabilitation	9	18.8	1	8.3	10	16.7
<b>Self-help group</b>	21	43.8	7	58.3	28	46.7
<b>Inpatient withdrawal treatment</b>	9	18.8	—		9	15.0
<b>None</b>	7	14.6	1	8.3	8	13.3
<b>Day hospital</b>	—		2	16.7	2	3.3
<b>Other (psychological treatment)</b>	1	2.1	1	8.3	2	3.3

Most patients (58.3%) made use of an addiction counseling service, whereof 41.7% had at least one contact with an addiction counselor, and 16.7% are following an ambulant rehabilitation program. Of the abstinent patients, a greater percentage participates in ambulant rehabilitation (18.8%) than of relapsed patients (8.3%). Nearly half of the patients (46.7%) are attending a self-help group, 43.8% of abstinent, 58.3% of relapsed patients. 15% were actually following a long-term withdrawal treatment, which not surprisingly, all remained abstinent, as most hospitals discharge clients who consume alcohol. An unexpected higher percentage of abstinent persons (14.6%) stated to make no use of any further care, while only 8.3% of relapsed patients said so. A minority of each 2 patients needed an additional detoxification treatment in a day hospital, or received psychiatric or psychological help.

### 3.3.3 Changes in Abstinence Motivation, Self-Efficacy, and Mental Life Satisfaction from Posttest to Follow-up Measure

Table 8

Descriptive statistics of the social cognitions, displayed in means (*M*) and standard deviations (*SD*) for the posttest (*T*<sub>1</sub>) and 1-month follow-up (*T*<sub>2</sub>) measurement, and paired samples t-tests, displayed in t-values (*t*) with degrees of freedom (*df* = 53), and significance level (*p*) for differences between measurement points (*T*<sub>1</sub>- *T*<sub>2</sub>)

	<b>T<sub>1</sub></b>		<b>T<sub>2</sub></b>		<i>t</i> (53)	<i>p</i>
	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )		
<b>Abstinence Motivation</b>	4.85	(.60)	4.96	(.27)	1.23	.22
<b>Abstinence Self-Efficacy</b>	4.13	(.70)	4.35	(.76)	2.27	<b>.03</b>
<b>FLZ Own Person*</b>	5.20	(.98)	5.33	(.87)	1.35	.18

*Note.* scales range from 1 to 5 \* scale ranges from 1 to 7

As can be seen, all variables show a further increase in the expected direction, after treatment completion. While abstinence motivation, during as well as after treatment, does not significantly change, the perceived self-efficacy to live abstinent increases significantly after treatment ( $t(53) = 2.27, p = .03$ ). That means, patients become more confident in their ability to sustain abstinence, after four weeks outside treatment setting. Whether this improvement may relate to a successful period of abstinence will be investigated in section 3.4.2 of the following paragraph. Finally, satisfaction with the own person increases, but does not anew reach significance.

### 3.4 Prognostic Value of Social Cognitive Factors

This paragraph gives an answer to the third global research question, of whether social cognitive factors predict or mediate the outcome at four weeks follow-up.

#### 3.4.1 Predictive Value of Social Cognitive Factors on Abstinence Rates

This section starts by presenting the descriptive statistics of the social cognitive factors, separated for abstinent and relapsed patients. In the following, main effects of time, main effects of group, and interaction effects thereof are accomplished, closing with covariance analysis.

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Table 9

Descriptive statistics of the social cognitions, displayed in means (*M*) and standard deviations (*SD*) for the pretest ( $T_0$ ) and posttest ( $T_1$ ), separated on basis of condition (abstinent & relapsed patients)

	<b>Abstinent Patients (<i>n</i> = 43)</b>		<b>Relapsed Patients (<i>n</i> = 12)</b>	
	Pretest [ $T_0$ ]	Posttest [ $T_1$ ]	Pretest [ $T_0$ ]	Posttest [ $T_1$ ]
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
<b>Abstinence Motivation</b>	4.72 (.88)	4.81 (.66)	4.92 (.29)	5.00 (.00)
<b>RCQ</b>	4.35 (.61)	4.37 (.73)	4.38 (.52)	4.33 (.63)
<b>Abstinence Self-Efficacy</b>	4.14 (.89)	4.19 (.70)	3.58 (.67)	3.83 (.72)
<b>AASE-G</b>	3.98 (.89)	4.25 (.72)	3.55 (.56)	3.59 (.76)
<b>Follow-Up Motivation</b>	4.42 (.85)	4.65 (.81)	4.92 (.29)	4.92 (.29)
<b>Follow-Up Self-Efficacy</b>	4.42 (.79)	4.56 (1.01)	4.58 (.67)	4.75 (.45)
<b>BSSS emotional support*</b>	3.48 (.56)	3.57 (.52)	3.10 (.96)	3.29 (.90)
<b>BSSS instrumental support*</b>	3.51 (.56)	3.51 (.64)	3.25 (.64)	3.19 (.92)
<b>FLZ Health**</b>	4.78 (1.36)	5.25 (1.23)	4.45 (.81)	5.02 (.89)
<b>FLZ Own Person**</b>	4.99 (1.15)	5.33 (.94)	4.18 (1.07)	4.48 (1.20)

Note. scales range from 1 to 5 \*scale ranges from 1 to 4 \*\*scale ranges from 1 to 7

On examination of the changes from pre- to posttest means for both groups apart, it can be observed that most values increase during treatment (from  $T_0$  to  $T_1$ ), as expected and requested. For abstinent as well as relapsed patients, the greatest increases are observed for physical and mental life satisfaction. Exclusively the readiness to change (RCQ) and the perceived available instrumental support slightly worsens within the group of relapsed patients, while abstinent patients do not or negligible change on both scales. These observations seem to be in line with the results of the paired samples t-test for the whole sample (see table 4, p. 27). In addition to changes during treatment overall, repeated measures analyses give insight into differences between abstinent and relapsed patients, and interactions between these groups and changes during treatment, displayed in the following table.

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Table 10

Repeated measures analyses, displayed in F-values ( $F$ ) with degrees of freedom ( $df = 1,53$ ) and significance level ( $p$ ) for differences between measurement points (pretest [ $T_0$ ], posttest [ $T_1$ ]), condition (abstinence [A], relapse [R]) and interactions between measurement point and condition

	<u>Time [<math>T_0</math>-<math>T_1</math>]</u>		<u>Conditon [A-R]</u>		<u>Time*Condition</u>	
	$F(1,53)$	$p$	$F(1,53)$	$p$	$F(1,53)$	$p$
<b>Abstinence Motivation</b>	.69	.41	.89	.35	.00	.96
<b>RCQ</b>	.01	.95	.00	.98	.09	.77
<b>Abstinence Self-Efficacy</b>	1.28	.26	4.35	<b>.04</b>	.60	.44
<b>AASE-G</b>	1.84	.18	5.74	<b>.02</b>	1.05	.31
<b>Follow-Up Motivation</b>	1.05	.31	3.07	.09	1.05	.31
<b>Follow-Up Self-Efficacy</b>	1.04	.31	.59	.45	.01	.93
<b>BSSS emotional support*</b>	3.01	.09	2.84	.10	.34	.56
<b>BSSS instrumental support*</b>	.15	.70	2.16	.15	.15	.70
<b>FLZ Health**</b>	12.58	<b>.001</b>	.58	.45	.12	.73
<b>FLZ Own Person**</b>	6.12	<b>.02</b>	6.65	<b>.01</b>	.03	.87

Note. scales range from 1 to 5 \*scale ranges from 1 to 4 \*\*scale ranges from 1 to 7

As table 10 shows, the significant increases during treatment period, established for the whole sample (table 4, p. 27), also hold for the smaller subsample of all responders (physical life satisfaction:  $F(1,53) = 12.58, p = .001$ ; mental life satisfaction:  $F(1,53) = 6.12, p = .02$ ).

In addition to the effects of time, there are also averaged differences between relapsed and abstinent patients. Abstinent patients are significantly higher in their confidence to sustain abstinence than relapsed patients (Abstinence Self-Efficacy:  $F(1,53) = 4.35, p = .04$ ; AASE-G:  $F(1,53) = 5.74, p = .02$ ). That is, those persons who perceive themselves, at the beginning as well as at the end of treatment, as generally more able to resist alcohol, are more likely to be abstinent at four weeks follow-up. The same relation applies to the mental life satisfaction (FLZ Own Person:  $F(1,53) = 6.65, p = .01$ ) and on marginal level, to the perceived social resources (BSSS emotional support:  $F(1,53) = 2.84, p = .10$ ). There is another marginal difference between abstinent and relapsed patients in the motivation to participate in follow-up care ( $F(1,53) = 3.07, p = .09$ ). However, against expectation, relapsed patients are more



highly motivated to make use of aftercare than abstinent patients.

There are no interaction effects of time and condition established. That is, treatment outcome, in terms of abstinence and relapse at four weeks follow-up is not attributable to changes in any of the social cognitive factors during treatment period.

In sum, significant improvements during treatment are observed for physical and mental life satisfaction, and on marginal level for perceived emotional support. Prognostic beneficial factors are generally higher baseline and posttest levels of abstinence self-efficacy, higher mental life satisfaction and to a lesser degree, higher perceptions of emotional support.

As abstinent and relapsed patients do not constitute equivalent groups, which differ on pretest, analysis of covariance (ANCOVA) is additionally performed (due to limited space not displayed), because this method is more robust against such baseline differences than repeated measures analysis. That is, the analysis of covariance tests whether there are differences on posttest means, adjusted for baseline differences. The results of these analyses confirm that the values of the alcohol abstinence self-efficacy scale are significantly higher on the posttest for abstinent than for relapsed patients ( $F(1,52) = 5.00, p = .03$ ). Thus, abstinent patients are generally more confident in their capacity to remain abstinent (scoring higher on pre- and posttest), but they also benefit more strongly from treatment, supporting the hypothesis. No significant difference in mental life satisfaction is found, if controlled for baseline differences ( $F(1,52) = 1.98, p = .17$ ).

Finally, it is of importance that responders ( $n = 55$ ) do not systematically differ from non-responders ( $n = 22$ ) on social cognitions, which is statistically proved by additional repeated measures analyses (not displayed). There are no significant differences between both groups, but one interaction effect is established. Responders as well as non-responders become more satisfied with their own person during treatment, but this increase is significantly stronger for non-responders ( $F(1,75) = 4.20, p = .04$ ). This interaction effects explains why the increase in mental life satisfaction is relatively weaker in the sample of responders ( $F(1,53) = 6.12, p = .02$ ) as compared to the whole sample ( $t(76) = 4.49, p < .001$ ; cp. table 4, p. 27). In closing, the established effects for the social cognitions seem to be representative for the whole sample, thus independent of responding or non-responding.

### **3.4.2 The Relation of Recovery and Social Cognitive Factors at Follow-up**

As already discussed in section 3.3.3 (p. 30), there is an additional significant increase in abstinence self-efficacy after treatment completion. In this section the outcomes relating to social cognitive factors at four weeks follow-up are investigated more differentiated by

comparing relapsed and abstinent patients across the entire study period. Table 11 starts with means and standard deviations of all three measurement points, separated for both groups, and the interaction effects of condition and time one to time two differences. Table 12 presents the repeated measures analyses of the three measurements.

Table 11

Descriptive statistics of social cognitions, displayed in means (*M*) and standard deviations (*SD*) for the pretest ( $T_0$ ), posttest ( $T_1$ ), and 1-month follow-up ( $T_2$ ), for abstinence and relapse condition, the total sample, and repeated measures analyses for the interaction effect between measurement points [ $T_1$ -  $T_2$ ] and condition, displayed in *F*-values (*F*) with degrees of freedom (*df* = 1,52) and significance level (*p*)

	$T_0$		$T_1$		$T_2$		[ $T_1$ - $T_2$ ]* Condition	
	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )	<i>F</i> (1,52)	<i>p</i>
<b>Abstinence Motivation</b>								
Abstinent ( <i>n</i> = 43)	4.72	(.88)	4.81	(.66)	5.00	(.00)	2.78	.10
Relapsed ( <i>n</i> = 11)	4.91	(.30)	5.00	(.00)	4.82	(.27)		
Total ( <i>N</i> = 54)	4.76	(.80)	4.96	(.27)	4.96	(.27)		
<b>Abstinence Self-Efficacy</b>								
Abstinent ( <i>n</i> = 43)	4.14	(.89)	4.19	(.70)	4.56	(.67)	10.91	<b>.002</b>
Relapsed ( <i>n</i> = 11)	3.64	(.67)	3.91	(.70)	3.55	(.52)		
Total ( <i>N</i> = 54)	4.04	(.87)	4.13	(.70)	4.35	(.76)		
<b>FLZ Own Person*</b>								
Abstinent ( <i>n</i> = 43)	4.99	(1.15)	5.33	(.94)	5.55	(.79)	3.70	.06
Relapsed ( <i>n</i> = 11)	4.34	(.96)	4.68	(1.02)	4.47	(.64)		
Total ( <i>N</i> = 54)	4.86	(1.14)	5.20	(.98)	5.33	(.87)		

*Note.* scales range from 1 to 5 \* scale ranges from 1 to 7

In consideration of both groups apart, it can be observed that all mean values of abstinent patients continuously increase from  $T_0$  to  $T_2$ . For relapsed patients, the values also increase from pre- to posttest, but they decrease at follow-up. In view of the changes from end of treatment to four weeks follow-up, thus independent of baseline differences, this interaction is significant for the abstinence self-efficacy ( $F(1,52) = 10.91, p < .01$ ) and marginal for the abstinence motivation ( $F(1,52) = 2.78, p = .10$ ) and mental life satisfaction ( $F(1,52) = 3.70, p = .06$ ). That is, the additional increases after treatment completion, found in table 8 (p. 30), can entirely be ascribed to the group of abstinent patients. To prove whether the already established effects of time, condition, and interactions thereof also apply for the threefold assessment, repeated measure analyses are accomplished again, displayed in the following table.

Table 12

Repeated measures analyses, displayed in F-values ( $F$ ) with degrees of freedom ( $df = 2,51$ ) and significance level ( $p$ ) for differences between measurement points (pretest [ $T_0$ ], posttest [ $T_1$ ], 1-month follow-up [ $T_2$ ]), condition (abstinence [A], relapse [R]) and interactions between measurement point and condition

	<u>Time [<math>T_0</math>-<math>T_1</math>-<math>T_2</math>]</u>		<u>Condition [A-R]</u>		<u>Time*Condition</u>	
	$F(2,51)$	$p$	$F(2,51)$	$p$	$F(2,51)$	$p$
<b>Abstinence Motivation</b>	.35	.71	.20	.66	1.40	.26
<b>Abstinence Self-Efficacy</b>	.83	.44	8.96	<b>.004</b>	5.54	<b>.007</b>
<b>FLZ Own Person*</b>	3.47	<b>.04</b>	7.90	<b>.007</b>	1.78	.18

Note. scales range from 1 to 5 \* scale ranges from 1 to 7

The previous results (table 10 and 11) are confirmed in the threefold measurement. Mental life satisfaction does, on average, improve from baseline to follow-up assessment ( $F(2,51) = 3.47, p = .04$ ) and abstinent patients are significantly more satisfied during the entire study period than relapsed patients ( $F(2,51) = 7.90, p < .01$ ). Likewise, abstinent patients score higher on self-efficacy to live abstinent ( $F(2,51) = 8.96, p < .01$ ). Finally, both groups improve in their self-efficacy from baseline to posttest, but abstinent patients improve even further after treatment completion, while relapsed patients' confidence declines ( $F(2,51) = 5.54, p < .01$ ).

As mental life satisfaction, which constitutes an additional outcome measure to abstinence respectively relapse rates, increases from baseline to posttest, to follow-up measure overall, it is of interest, whether relapsed patients profit from treatment despite having relapsed. In comparing those patients' mental life satisfaction at baseline ( $M = 4.34$ , see table 11) with satisfaction at follow-up ( $M = 4.47$ ), relapsed patients do not significantly improve ( $t(11) = .47, ns$ ).

### 3.4.3 Participation in Follow-up Rehabilitation and Recovery

This section aims to investigate the predictive value of the motivation and self-efficacy regarding follow-up rehabilitation on behavioral level, i.e. actual participation, and in turn the predictive value of follow-up participation on abstinence rates. For this purpose, the multitudinous possible combinations of follow-up participation are transformed into two groups of 'Rehabilitation' and 'No Rehabilitation'. The group of no rehabilitation includes all patients who did not make use of any aftercare, patients who exclusively had contact with an addiction counseling service but did not follow ambulant rehabilitation, and patients who exclusively underwent an additional detoxification in a day hospital, as this constitutes a

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necessary consequence of relapsing. The rehabilitation group therefore consists of all patients following ambulant rehabilitation, withdrawal treatment, a self-help group, other care, or any possible combination of the different forms of aftercare.

Table 13

Descriptive statistics of social cognitions, displayed in means (*M*) and standard deviations (*SD*) for the pretest ( $T_0$ ) and posttest ( $T_1$ ), separated on basis of condition (rehabilitation & no rehabilitation)

	<b>Rehabilitation (<i>n</i> = 37)</b>		<b>No Rehabilitation (<i>n</i> = 17)</b>	
	Pretest [ $T_0$ ]	Posttest [ $T_1$ ]	Pretest [ $T_0$ ]	Posttest [ $T_1$ ]
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
<b>Follow-Up Motivation</b>	4.73 (.61)	4.86 (.42)	4.06 (.97)	4.35 (1.11)
<b>Follow-Up Self-Efficacy</b>	4.65 (.59)	4.76 (.72)	4.00 (.94)	4.24 (1.20)

Note. scales range from 1 to 5

The descriptive statistics of table 13 demonstrate that both groups increase in their means from pre- to posttest, for both cognitions. Moreover, the rehabilitation group seems to be more highly motivated and confident to participate in follow-up care at both times, than the group of no rehabilitation. These observations are analyzed for statistical significance in the following table.

Table 14

Repeated measures analyses, displayed in F-values (*F*) with degrees of freedom (*df* = 1,52) and significance level (*p*) for differences between measurement points (pretest [ $T_0$ ], posttest [ $T_1$ ]), condition (rehabilitation [R], no rehabilitation [NR]) and interactions between measurement point and condition

	<b>Time [<math>T_0</math>-<math>T_1</math>]</b>		<b>Condition [R-NR]</b>		<b>Time*Condition</b>	
	<i>F</i> (1,52)	<i>p</i>	<i>F</i> (1,52)	<i>p</i>	<i>F</i> (1,52)	<i>p</i>
<b>Follow-Up Motivation</b>	4.32	<b>.04</b>	10.21	<b>.002</b>	.59	.45
<b>Follow-Up Self-Efficacy</b>	1.60	.21	9.01	<b>.004</b>	.22	.64

Note. scales range from 1 to 5

The repeated measures analyses reveal that the motivation to make use of follow-up care increases from pre- to posttest ( $F(1,52) = 4.32, p = .04$ ), and that the motivation ( $F(1,52) = 10.21, p < .01$ ) and self-efficacy ( $F(1,52) = 9.01, p < .01$ ) to participate in aftercare is generally higher in the rehabilitation group. That is, higher levels of motivation and self-efficacy overall, significantly predict behavioral participation in follow-up rehabilitation. In view of this finding and the generally high rate of follow-up care participation (68.3% of all 60 reached patients), this seems promising, as the participation in follow-up rehabilitation is

assumed to predict abstinence. However, as 66.7% ( $n = 8$ ) of the relapsed, and 68.8% ( $n = 33$ ) of the abstinent patients follow rehabilitation, participation in follow-up care does not predict abstinence (no reliable chi-square analysis possible).

Table 15

Descriptive statistics of participation in follow-up rehabilitation, displayed in frequencies ( $n$ ) and percent (%), for abstinent and relapsed patients, and total sample

	<b>Abstinence (<math>n = 48</math>)</b>		<b>Relapse (<math>n = 12</math>)</b>		<b>Total (<math>N = 60</math>)</b>	
	$n$	%	$n$	%	$N$	%
<b>Follow-up participation</b>						
Rehabilitation	33	68.8	8	66.7	41	68.3
No Rehabilitation	15	31.2	4	33.3	19	31.7

### 3.5 Prognostic Value of Patient Characteristics

This paragraph is concerned with differences in sample characteristics between abstinent and relapsed patients and answers the fourth global research question of whether there are differences in the outcome at the end of treatment and at four weeks follow-up, depending on patient characteristics. The first section briefly summarizes differences in demographic information, alcohol dependence history, and aspect of dependence severity, intelligence and psychiatric comorbidity. For a full report of the results see Appendix B. The final section presents three-way interactions of time ( $T_0 - T_1$ ) and group (abstinent/relapsed) and patient characteristics.

#### 3.5.1 Predictive Value of Demographic Characteristics, Alcohol Dependence History, Dependence Severity, Intelligence and Psychiatric Comorbidity

With respect to the demographic characteristics gender, nationality, marital status, living situation, vocational education and employment, no significant differences between abstinent and relapsed patients are found. Against expectation, higher educated patients tend to more often relapse (69.2%) as compared to higher educated patients who are able to remain abstinent (43.8%,  $\chi^2(1, N = 61) = 2.66, p = .10$ ). Concerning the gender issue, it has to be noted that female gender nevertheless may display a prognostic advantageously tendency as the expectation of higher psychiatric comorbidity, i.e. higher degrees of depressive symptoms ( $t(57) = 3.42, p = .001$ ) and more signs of anxiety ( $t(57) = 1.09, ns$ ) among women as compared to men, is partly confirmed. However, as depression levels are found to not differ between abstinent and relapsed patients, this assumption seems unlikely. Analysis of

covariance reveals that depression levels do not mediate treatment outcomes for males and females ( $F(1,52) = 1.88, p = .18$ ), as the result of the analysis of variance without depression as covariate is similar ( $F(1,52) = 1.73, p = .19$ ). Although controlled for psychiatric comorbidity, female gender tends not to be a prognostic beneficial factor, which is contrary expectation. In addition to the absent prognostic value of depression levels, there are no differences found for aspects of dependence severity, intelligence, and psychiatric comorbidity (ICD-10, Fagerström test, MWT-B, c.I. scale, and Anxiety screening, all *ns*).

By the exception of previous treatments, the alcohol dependence history does not differ between abstinent and relapsed patients (age at first consumption, years of dependence, regular consumption of further substances, and substance dependence within the family, all *ns*). In line with expectation, having underwent previous detoxification and/or withdrawal treatments, significantly increases the risk of relapsing ( $\chi^2(1, N = 61) = 4.48, p = .03$ ). On the other hand, the number of previous detoxifications (abstainers:  $M = 3.90, SD = 6.55$ ; relapsers:  $M = 4.67, SD = 4.09$ ) and the number of previous withdrawals (abstainers:  $M = 2.20, SD = 2.82$ ; relapsers:  $M = 1.57, SD = .53$ ) do not differ between groups ( $t(27) = .32, ns$ ; resp.  $t(15) = .58, ns$ ).

### 3.5.2 Moderator Analysis of Treatment Effects

This section investigates whether treatment effects on the alcohol abstinence self-efficacy scale differ, depending on patients characteristics. The following table presents the results of the interaction effect with depression and with employment. The original interaction of time ( $T_0 - T_1$ ) and group (abstinent/relapsed) is also displayed for comparison. All other sample characteristics do not interact with time and group (all *ns*), with respect to the AASE-G, and are therefore not presented.

Table 16  
Repeated measures analyses, displayed in F-values ( $F$ ) with degrees of freedom ( $df$ ) and significance level ( $p$ ) the interaction between measurement point (pretest [ $T_0$ ], posttest [ $T_1$ ]), and condition (abstinence, relapse) and interaction between time, condition and depression, and interaction between time, condition and employment

	Time*Group		Time*Group *Depression		Time*Group *Employment	
	$F(1,53)$	$p$	$F(1,51)$	$p$	$F(1,51)$	$p$
<b>AASE-G</b>	1.05	.31	3.49	.07	7.26	<b>.01</b>

The moderator analysis reveals a significant interaction of time, group and employment ( $F(1,51) = 7.26, p = .01$ ). In the category of employed persons, abstinence self-efficacy

increases from pre- to posttest for both, abstinent ( $T_0$ :  $M = 4.06$ ,  $SD = .89$ ;  $T_1$ :  $M = 4.26$ ,  $SD = .69$ ), as well as for relapsed patients ( $T_0$ :  $M = 3.44$ ,  $SD = .36$ ;  $T_1$ :  $M = 3.80$ ,  $SD = .58$ ). In the category of unemployed persons, abstinence self-efficacy increases for abstinent ( $T_0$ :  $M = 3.75$ ,  $SD = .90$ ;  $T_1$ :  $M = 4.25$ ,  $SD = .86$ ), but decreases for relapsed patients ( $T_0$ :  $M = 3.76$ ,  $SD = .93$ ;  $T_1$ :  $M = 3.51$ ,  $SD = .98$ ). That is, neither an increase in self-efficacy, nor employment seems to protect from relapse independently. Rather the relation is such that, among unemployed patients, those who become less confident in their ability to sustain abstinence from pre- to posttest are more likely to relapse.

Relating to the groups of less depressive and more depressive patients (note that the latter does not imply a depression diagnosis, due to split median method), the three-way interaction is marginal ( $F(1,51) = 3.49$ ,  $p = .07$ ). In examination of the mean values, the relation appears to be the same as for the employment interaction. For less depressed patients, abstinence self-efficacy increases during treatment, no matter whether patients remain abstinent ( $T_0$ :  $M = 4.02$ ,  $SD = 1.02$ ;  $T_1$ :  $M = 4.29$ ,  $SD = .79$ ), or relapse ( $T_0$ :  $M = 3.64$ ,  $SD = .39$ ;  $T_1$ :  $M = 4.25$ ,  $SD = .20$ ). Among more depressive patients, who experience a decrease in self-efficacy ( $T_0$ :  $M = 3.51$ ,  $SD = .68$ ;  $T_1$ :  $M = 3.26$ ,  $SD = .72$ ), the likelihood of relapse is higher, while those patients who improve ( $T_0$ :  $M = 3.94$ ,  $SD = .72$ ;  $T_1$ :  $M = 4.22$ ,  $SD = .64$ ) are more likely to maintain abstinence.

In closing, being unemployed and displaying a higher depressive symptomatic are not per se prognostic disadvantageously, but if these patients at risk suffer decrease in self-efficacy during treatment, they are likely to relapse within one month.

## **4. Discussion**

### **4.1 Conclusion**

The primary objective of the current research is to identify factors that predict the outcome of a qualified inpatient detoxification treatment. The secondary purpose is to evaluate treatment effectiveness, in terms of abstinence rates, participation in follow-up rehabilitation and mental life satisfaction.

Starting by the outcome at one-month follow-up, 48 patients were continuously abstinent, while 13 patients relapsed and 23 were classified as relapsed as they did not respond. Therefore, the intention-to-treat analysis reveals an abstinence rate of 57%. In comparison to other studies, this result seems quite promising: in their one-month follow-up study of alcohol and drug dependents, Blondell et al. (2006) found an intention-to-treat abstinence rate of 42%. In a three-month follow-up study of alcohol dependents and abusers exclusively, the success rate amounts to 47% (Demmel & Rist, 2005). Although the abstinence rate of the current sample is higher, these proportions are difficult to compare as the risk of relapsing is higher for drug dependence and is also likely to increase with time.

With respect to follow-up rehabilitation, 62% of the responders initiated some form of aftercare, i.e. followed ambulant rehabilitation, inpatient withdrawal treatment, and/or attended a self-help group, which seems acceptable high compared to proportions of 46-64% as reviewed by Blondell et al. (2006). In conclusion, it can be stated that treatment success, in terms of abstinence and re-assignment to aftercare, which is assumed to increase the likelihood of abstinence, is achieved on a satisfying level.

Concerning the changes in social cognitions for the whole study sample, it is hypothesized that these factors increase during treatment period, which is confirmed for physical and mental life satisfaction. Especially for the subscale Health, this is not surprising as a detoxification and subsequently relief of withdrawal symptoms leads to pronounced improvements in physical condition. Additionally, there is a marginal increase in the motivation to participate in follow-up rehabilitation established, which is in line with the relatively high rates of aftercare initiation, already mentioned. Against expectation, there are no further significant increases observed for the motivation to maintain abstinence, abstinence self-efficacy, self-efficacy to participate in follow-up rehabilitation, and perceived social support. In the latter case this is not per se expected, as changes in perceptions of available social support will likely be influenced by the pre- or absence of relatives at the one-day family member meeting during therapy, which is not controlled for in this study. Furthermore, mean values of most social cognitive factors are initially very high, thereby producing a



ceiling effect which makes an additional increase during treatment nearly impossible. It may also be the case, that e.g. some patients' overconfidence in the ability to sustain abstinence at baseline, as reflected by maximum scores, declines to more realistic levels during therapy, which in turn may underscore overall improvements in self-efficacy scores. Although no further increases are observed, the scores of the social cognitive factors are already high at baseline and remain high during treatment, composing by itself a beneficial outcome.

In addition to changes during treatment, mean differences between abstainers and relapsers, at baseline and the end of treatment, are investigated. As expected, patients who are more confident in their ability to sustain abstinence are more likely to remain abstinent than patients who are less confident. Furthermore, a higher level of satisfaction with the own person, and to a lesser degree, higher perceptions of available emotional support increase the likelihood of abstinence. Against expectation, being more highly motivated to participate in follow-up rehabilitation programs marginally predicts relapse. A possible explanation is that these patients perceive a greater need for additional help, as they initially may suspect that they are facing a high risk of relapsing. This explanation seems reasonable as these patients also display lower abstinence self-efficacy scores at treatment entering and discharge.

Finally, there are no interactions of changes during treatment and the likelihood of abstinence at one month follow-up. While such interactions are not necessarily expected, in so far, that either increases as well as initial high levels may both be beneficial, this is contrary expectation with regard to the abstinence self-efficacy. It was hypothesized that especially an increase in self-efficacy to live abstinent during treatment is prognostic highly advantageously. As already mentioned, ceiling effects and possible biases of unrealistic initial confidence may impede the observation of changes during treatment as well as interaction effects. On the other hand, it seems that in this sample higher posttest levels of abstinence self-efficacy, as confirmed by the analysis of covariance, are predictive of abstinence at four weeks follow-up, irrespective of whether self-efficacy increases during treatment or is already high at baseline.

The implications for qualified alcohol detoxification programs of the results so far, implicate that strengthening patients' abstinence self-efficacy is of outermost importance. Thereby, it seems relatively unimportant whether patients enter treatment with an initial high degree of confidence or not. In each case the aim is to discharge patients with a high level of self-efficacy, which may be achieved by interventions as coping skills training. Secondly, targeting patient's self-esteem may increase their satisfaction with their own person, in turn improving the outcome of abstinence. Moreover, giving attention to patients' personal

characteristics and underlining their strengths, may not only increase their satisfaction with themselves, but may additionally lead to increased perceptions of emotional support. Staff members of the hospital should also undertake great efforts to integrate family members during therapy. That is, encouraging patients to invite their family as well as contacting family members directly, to increase their comprehension of the importance of their presence during the one-day family member meeting, increases the chances of enhancing patients' perceptions of social support. Finally, patients expressing a strong motivation for aftercare should alert therapists of the possibility of those patients' subsequently relapsing. Therefore, these patients should receive additional encouragement of their self-efficacy, and care should be taken in considerations of the most appropriate level of aftercare. It may be advisable to try to re-assign these patients to stationary withdrawal treatment, to guarantee a protective environment that exceeds a period of six weeks, as six weeks may not suffice in these cases for maintaining abstinence on one's own.

The factors abstinence motivation, self-efficacy and mental life satisfaction are investigated for the third time at follow-up. It is found, that abstinence self-efficacy increases during the four weeks following discharge. This increase is entirely attributable to patients who successfully sustained abstinence, as abstinent patients become even more confident, while relapsed patients become less confident in their ability to maintain or regain abstinence. This result demonstrates the bidirectional relation of abstinence and self-efficacy, as high perceptions of self-efficacy predict abstinence and a period of abstinence enhances self-efficacy, while the opposite applies for relapse (Marlatt, 1996). On marginal level, the same interaction effect is established for abstinence motivation and mental life satisfaction, thus abstainers become more highly motivated not to drink and more satisfied with their selves, whereas relapsers become less motivated and less satisfied with their own person. These interactions are in line with the abstinence violation effect (AVE) of Marlatt's cognitive behavioral model of relapse, which is characterized by cognitive dissonance and a personal attribution effect (Marlatt & George, 1984). The AVE is stronger, that is reacting with helplessness to a first lapse, and may lead to full-blown relapse, to the degree that the person attributes the lapse to internal, stable and uncontrollable factors and the emotional reactions involve guilt and self-blame (Curry, Marlatt & Gordon, 1987). For relapsed patients, self-blame and guilt may account for the decrease in satisfaction with the own person, and cognitive dissonance may explain the decreases in abstinence motivation, i.e. adjusting the cognition of high abstinence motivation ("It's really important to me to live abstinent") to the dissonant or contradictory behavior of drinking.

The practical implication of this finding is that patients need to be educated about the abstinence violation effect (Witkiewitz & Marlatt, 2004). The widely held cognition that one setback leads to a full-blown relapse and further efforts to regain abstinence are no more than a waste of time, needs to be restructured. The experience of a motivational crisis following a lapse is likely to lead to resignation. To counteract this reaction, patients firstly need to realize that recovery from alcohol dependence is a highly challenging task and, despite greatest efforts, a lapse may occur. Secondly, lapsers must understand that their setback is attributable to external, unstable and controllable factors, as a high-risk situation. Finally, patients need to be able to effectively cope with high-risk situations. For these purposes of relapse prevention, patients should also be encouraged to contact their therapist or an addiction counselor after having lapsed or in response to otherwise experienced difficulties. In conclusion, patients should be educated about the mechanisms of the AVE, their general as well as specific recovery self-efficacy should be bolstered, and they need to acquire adequate coping skills during treatment.

As mental life satisfaction functions as additional treatment outcome to recovery, it would be desirable if patients benefit from treatment, despite having lapsed or relapsed. Against this expectation, relapsed patient's satisfaction does not significantly improve from baseline to follow-up measure. That is, treatment outcomes in terms of abstinence and mental life satisfaction seem to be closely related, supporting the hospital's employed notion of absolute abstinence.

With respect to follow-up rehabilitation, actual behavior is successfully predicted by the motivation and perceived self-efficacy to participate in aftercare. Against expectation, however, the current study did not identify the participation in follow-up programs as predictor of abstinence, which may indicate limited effectiveness of several forms of aftercare. It has to be noted that this result needs to be viewed with caution, as only large effect sizes ( $w = .05$ ) are detectable, because the statistical power of contingency tables is far too low in small samples to uncover small effect sizes. Thus, the probability of a type II error is very high, meaning that no difference between the groups is detected although it does exist. Furthermore, the categorizations are outermost global, not differentiating between more or less intensive levels of care. As the participation in aftercare is commonly identified as predictor of abstinence in the literature, the finding that social cognitive factors are able to predict actual behavior is interesting, because two brief single-item measures may be sufficiently to identify patients who will initiate some sort of aftercare and those who will not. Consequently, patients who presumably will not follow a rehabilitation program could be

specifically targeted during treatment, for example by increased contacts to an addiction counselor or self-help group members. Additional research is needed to clarify the relation of aftercare and abstinence, and to investigate the prognostic value of the diverse forms of rehabilitation more differentiated.

Patient characteristics predominantly did not predict the outcome in this sample. Against expectation, the demographic variables gender, marital status, living situation, vocational education and employment displayed no prognostic value. Furthermore, higher levels of education marginally influenced the risk of relapsing instead of abstaining. In relation to the alcohol dependence history, having underwent at least one previous treatment significantly predicted relapse, as expected, while all other variables did not differ between abstinent and relapsed patients. Finally, no differences in alcohol and nicotine dependence severity, intelligence, and psychiatric comorbidity are identified between the groups. Again, statistical power of these comparison analyses is quite limited, leaving out the detection of small effect sizes. On the other hand, not discovering differing outcomes depending on patient characteristics possibly reflects successful individual tailoring during therapy. Sensitization of disadvantaging, predisposing characteristics may have induced therapist to specifically target at-risk patients, so that their chances of abstinence increase to levels comparable to those of patients who are not that disadvantaged by personal circumstances.

Although the above described results did not reveal that higher levels of depression, nor unemployment predicts relapse, the outcome is moderated by these factors through their impact on perceptions of self-efficacy. Among unemployed as well as among depressed patients, attenuation of self-efficacy during treatment significantly respectively marginally predicts relapse. That is, low levels of self-efficacy at treatment discharge interact with hindering circumstances of unemployment, which may relate to boredom and financial sorrows, and mental instability of depressed patients. In high-risk situations, these factors may add to the experienced stress, impeding coping ability, and consequently increasing the likelihood of drinking alcohol. It seems that unemployed and depressed patients are at special risk of relapsing, and need to be particularly encouraged in their confidence to be able to live abstinent. This may also be reflected by the fact that unemployed patients who display the highest increase in self-efficacy are more likely to sustain abstinence than unemployed patients without such an increase in self-efficacy.

In conclusion, treatment successes in terms of abstinence rates and participation in follow-up rehabilitation are satisfactorily achieved. Furthermore, physical and mental life satisfaction increases to a great extent during therapy. Patients who turn out to maintain

abstinence are generally more confident in their ability to remain abstinent and are more satisfied with their own person. Patients who turn out to relapse already show a higher motivation to participate in follow-up rehabilitation, because they apparently experience more difficulties already during treatment. Actual participation in aftercare is not predictive of the outcome. Independent of treatment effects, a successful period of abstinence after discharge is related to increases in abstinence motivation, self-efficacy and mental life satisfaction at follow-up, and failure to abstain is related to decreases in these cognitions. Lower educational levels, however, and previous treatments for alcohol problems tend to be prognostic disadvantaging and unemployed as well as depressed patients seem to be high-risk groups which need to be protected from decreases in their perceived self-efficacy to live life in abstinence.

#### **4.2 Limitations and Recommendations**

The present study is designed as one group panel study as opposed to a randomized clinical trial, so that conclusions about causality cannot be made. The main limitation of this research is therefore the absence of an adequate control group. The second main limitation constitutes the small sample size, especially for the group of relapse patients ( $n = 13$ ), significantly impeding statistically reliable analyses of between group differences. Furthermore, the investigated period of four weeks after discharge is of constricted informational value, as differentiations of lapse and relapse are not possible, and the risk of relapsing is highest during the first twelve weeks following discharge. Future research should therefore obtain at least three-, six-, or twelve-month follow-up data.

There are also difficulties relating to measures and assessment methods. Firstly, all measures obtain self-reported data. In the case of sensible issues as dependence, social desirable responding is likely to distort answers and results. Clinical screenings as the ICD-10, Fagerström test and anxiety screening are also based on the patients' own subjective perception instead of objective evaluations of hospital staff, which for example may be distorted by the patient's denial of dependency. The readiness to change questionnaire (RCQ) proved unreliable in its original form, so that the contemplation and action stage needed to be integrated as one global construct. Nevertheless, this scale may not apply to inpatient detoxification settings as these patients are already required to be abstinent. For the reassessment at the end of treatment, the problem is even more pronounced, as items such as "I am changing my drinking habits right now at this moment" have great chance of being negated after five inpatient weeks of abstinence. Correct answering of the items presupposes

patients in treatment to retrospect their drinking habits, which may be quite troublesome. Future research should apply a more suitable measure of the readiness to change, such that it includes the readiness to maintain abstinence. Another difficulty relates to the alcohol abstinence self-efficacy scale and the single self-efficacy item. Changes in this cognitive factor might be undetected as some patients may enter treatment overconfident in their ability to sustain abstinence, which then declines to more realistic levels at posttest.

An interesting objective for future research would be the expansion of the investigation of the value of social support. Besides general social support, specific recovery support has been identified as predictor abstinence, especially for the long-term outcome (Beattie & Longabaugh, 1999). Moreover, differing effects in response to the presence or absence of family members during therapy are of interest. The integration of family members into patient's treatment is found to improve the outcome (Berglund, Thelander, Salaspuro, Franck, Andréasson, & Öjehagen, 2003), either directly or indirectly by its impact on perceptions of available social support.

Crime is another serious issue in addiction disorders. Especially in cases of severe dependence, delinquent behaviors, as driving under influence and violent offences, may be highly pronounced. Being indicative of the dependence severity, follow-up studies should take care of such behaviors, by including reports of previously convictions. Previously committed crimes in response to alcohol problems are likely to impede the recovery process.

Finally, future research should investigate the effectiveness of differing forms of follow-up rehabilitation in their relation to abstinence rates. If some types of present-day aftercare turn out to be of low effectiveness, this would have great implications for the current system of addiction assistance. Patients would no longer spend time and energy in the participation of aftercare types that do not benefit them, and pension and health insurance companies would no longer fund these programs. Moreover, identifying and integrating effective components of differing types of aftercare, may lead to the offering of reformed programs in the addiction rehabilitation.

In closing, the practical implications of the results of the present study are that therapists in the addiction assistance should take great efforts to increase patients' self-efficacy. Furthermore they should pay attention to patients' self-esteem to increase their mental life satisfaction as well as perceptions of emotional support. Integrating the family into the treatment process and choosing the appropriate level of aftercare is likely to improve the outcome. Finally, therapists should educate patients about the abstinence violation effect and be particularly attentive to attenuations in self-efficacy among high-risk patients.

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## Appendixes

### Appendix A: Measurement Instruments

#### Fragebogen zum Alkoholkonsum I (T<sub>0</sub>)

*Wie müssen Sie diese Fragenliste ausfüllen?*

*Es geht in dieser Fragenliste um Ihre persönliche Einschätzung über eine Anzahl Dinge. Es gibt keine „falschen“ oder „richtigen“ Antworten, tragen Sie die Antworten ein, die am ehesten auf Sie zutreffen. Lassen Sie bitte keine Frage aus. Die Fragenlisten werden streng vertraulich behandelt.*

*Um Sie für den dritten Teil dieser Untersuchung erreichen zu können werden Sie zunächst gebeten Ihre Telefonnummer anzugeben. Ihre Angaben werden ausschließlich zu diesem Zweck verwendet und nicht an Dritte weitergegeben!*

**Telefonnummer:** \_\_\_\_\_

**und/oder Mobil:** \_\_\_\_\_

*Zuerst folgen ein paar allgemeine Fragen zu Ihrer Person:*

**1. Wie alt sind Sie?**

\_\_\_\_\_ Jahre (*bitte eintragen*)

**2. Was ist Ihr Geschlecht?**

(*zutreffendes bitte ankreuzen*)

männlich

weiblich

**3. Welche Nationalität haben Sie?**

(*bitte eintragen*)

\_\_\_\_\_

**4. Wie ist Ihr Familienstand?**

(*zutreffendes bitte ankreuzen*)

ledig

verheiratet, zusammenlebend

verheiratet, getrennt lebend

geschieden

verwitwet

**5. Wie ist Ihre Wohnsituation?**

(*zutreffendes bitte ankreuzen*)

alleinlebend

mit einem festen Partner zusammenlebend

in einer Wohngemeinschaft lebend

bei den Eltern lebend

anders, nämlich: \_\_\_\_\_ (*bitte eintragen*)

**6. Welche Schulbildung haben Sie?**

(bitte nur den höchsten Abschluss ankreuzen)

- kein Schulabschluss
- Sonderschule
- Hauptschule
- Realschule
- Fach-/ Abitur
- abgeschlossenes Hochschulstudium

**7. Haben Sie eine abgeschlossene Berufsausbildung (erfolgreich beendete Lehre)?**

(zutreffendes bitte ankreuzen)

- ja
- nein

**8. Welchen Erwerbsstatus haben Sie?**

(zutreffendes bitte ankreuzen, mehrere Antworten möglich)

- Arbeiter/in, Angestellte/r, Beamtin/er, Selbständige/r (Vollzeit)
- Arbeiter/in, Angestellte/r, Beamtin/er, Selbständige/r (Teilzeit)
- Mini-Job (bis max. 400€)
- Rentner/in
- Hausfrau/-mann
- Schüler/in oder Student/in
- Auszubildende/r
- arbeitslos (ALG I-Empfänger)
- arbeitslos (ALG II-Empfänger)

*Im Folgenden werden Ihnen einige Fragen bezüglich Ihres Alkoholkonsums gestellt. Sollten Sie nicht wegen Ihres Alkoholkonsums behandelt werden, beachten Sie bitte das Sternchen bei Frage 9*

**9. Aufgrund welcher Substanz(en) werden Sie im St. Antonius Krankenhaus behandelt?**

(zutreffendes bitte ankreuzen, mehrere Antworten möglich)

- Alkohol
- Medikamente \*
- Drogen \*

*\* Wenn Sie Medikamente oder Drogen angekreuzt haben, versuchen Sie bitte die folgenden Fragen auf Ihren Medikamenten- bzw. Drogenkonsum zu beziehen, sodass Sie die Fragen beantworten können.*

**10. Wie alt waren Sie, als Sie zum ersten Mal Alkohol getrunken haben?**

(zutreffendes bitte ankreuzen)

- 14 Jahre oder jünger
- 15 – 17 Jahre
- 18 Jahre oder älter

**11. Wie viele Jahre sind Sie vom Alkohol abhängig?**

*(zutreffendes bitte ankreuzen)*

- weniger als 5 Jahre
- 5 – 10 Jahre
- 11 – 20 Jahre
- 21 – 30 Jahre
- mehr als 30 Jahre

**12. Haben Sie sich schon einmal eher wegen Ihres Alkoholkonsums behandeln lassen und wenn ja wie oft?**

*(zutreffendes bitte ankreuzen, mehrere Antworten möglich)*

- ja, \_\_\_\_ *(Anzahl bitte eintragen)* Entzugs-/Entgiftungsbehandlung(en)
- ja, \_\_\_\_ *(Anzahl bitte eintragen)* Entwöhnungsbehandlung(en)
- ja, anders \_\_\_\_\_ *(bitte eintragen)*
- nein

**13. Konsumieren Sie, neben Alkohol, regelmäßig weitere Drogen?**

*(zutreffendes bitte ankreuzen, mehrere Antworten möglich)*

- ja, Nikotin (Zigaretten, Zigarren, Zigarillos)
- ja, Cannabis (Joints)
- ja, Kokain
- ja, anders: \_\_\_\_\_ *(bitte eintragen)*
- nein
- keine Angabe, möchte ich nicht sagen

**14. Ist oder war jemand aus Ihrer Familie alkohol- und/oder drogenabhängig?**

*(zutreffendes bitte ankreuzen, mehrere Antworten möglich)*

- ja, mein Partner
- ja, meine Mutter und/oder Vater
- ja, meine Schwester und/oder Bruder
- ja, andere Verwandte
- nein, niemand aus meiner Familie

**15. Auf einer Skala von 1 bis 5, wie wichtig ist es Ihnen, keinen Alkohol mehr zu trinken?**

*1 bedeutet: ist mir unwichtig*

*5 bedeutet: ist mir sehr wichtig.*

*Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

*(bitte kreuzen Sie den Kreis an, der zu Ihrer Antwort gehört)*

	1 unwichtig	2	3	4	5 sehr wichtig
Keinen Alkohol mehr zu trinken ist mir...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**16. Auf einer Skala von 1 bis 5, wie zuversichtlich sind Sie, dass es Ihnen künftig gelingen wird, keinen Alkohol mehr zu trinken?**

*1 bedeutet: ich bin **überhaupt nicht zuversichtlich***

*5 bedeutet: ich bin **absolut zuversichtlich***

*Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

*(bitte kreuzen Sie den Kreis an, der zu Ihrer Antwort gehört)*

	1 überhaupt nicht zuversichtlich	2	3	4	5 absolut zuversichtlich
Ich bin...	○	○	○	○	○

**17. Auf einer Skala von 1 bis 5, wie wichtig ist es Ihnen, nach Beendigung der Behandlung im St. Antonius Krankenhaus Hörstel weitere Hilfe (Suchtberatungsstelle, Selbsthilfegruppe, Entwöhnungsbehandlung) in Anspruch zu nehmen?**

*1 bedeutet: ist mir **unwichtig***

*5 bedeutet: ist mir **sehr wichtig**.*

*Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

*(bitte kreuzen Sie den Kreis an, der zu Ihrer Antwort gehört)*

	1 unwichtig	2	3	4	5 sehr wichtig
Weitere Hilfe in Anspruch zu nehmen ist mir...	○	○	○	○	○

**18. Auf einer Skala von 1 bis 5, wie zuversichtlich sind Sie, dass Sie weitere Hilfe in Anspruch nehmen werden?**

*1 bedeutet: ich bin **überhaupt nicht zuversichtlich***

*5 bedeutet: ich bin **absolut zuversichtlich***

*Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

*(bitte kreuzen Sie den Kreis an, der zu Ihrer Antwort gehört)*

	1 überhaupt nicht zuversichtlich	2	3	4	5 absolut zuversichtlich
Ich bin...	○	○	○	○	○

Predictors of Recovery following Qualified Alcohol Detoxification Treatment

*Es folgen jetzt Aussagen, die sich auf Ihre Einstellungen zum Alkoholtrinken beziehen. Geben Sie bitte zu jeder Aussage an, wie sehr Sie ihr zustimmen.*

*1 bedeutet: **stimme überhaupt nicht zu**, 5 bedeutet: **stimme sehr zu**. Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

	<b>1 stimme über- haupt nicht zu</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5 stimme sehr zu</b>
19. Ich glaube, dass ich zu viel trinke.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Ich versuche weniger zu trinken als früher oder gar nicht mehr zu trinken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Ich trinke gern, aber manchmal trinke ich zu viel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Manchmal denke ich, dass ich weniger oder gar nicht mehr trinken sollte.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Über mein Trinken nachzudenken ist reine Zeitverschwendung.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Ich habe erst vor kurzem meine Trinkgewohnheiten geändert.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Jeder kann darüber <b>reden</b> , dass er wegen des Trinkens etwas tun will, aber ich <b>tue</b> tatsächlich etwas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Ich bin an dem Punkt angelangt, wo ich darüber nachdenken sollte, weniger oder gar keinen Alkohol mehr zu trinken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Mein Trinken ist manchmal ein Problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Ich finde es notwendig für mich, über eine Änderung meines Trinkens nachzudenken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Ich ändere meine Trinkgewohnheiten genau jetzt im Moment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Weniger Alkohol zu trinken ergibt für mich einen Sinn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Unten aufgeführt finden Sie eine Reihe von Situationen, die einige Menschen zum Trinken verleiten. Wir möchten nun von Ihnen wissen, wie sicher Sie sind, dass Sie in dieser Situation nicht trinken. Bitte kreuzen Sie jeweils die Antwort an, die am besten beschreibt, wie sicher Sie sich in der jeweiligen Situation sind.*

*1 bedeutet **überhaupt nicht sicher**, 5 bedeutet **absolut sicher**. Mit den Werten dazwischen können Sie Ihre Meinung abstimmen.*

	<b>1 über- haupt nicht sicher</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5 absolut sicher</b>
31. Wenn es mich quält, dass ich mit dem Trinken aufgehört habe oder Entzugserscheinungen habe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Wenn ich Kopfschmerzen habe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. Wenn ich mich traurig fühle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. Wenn ich im Urlaub bin und mich entspannen möchte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Wenn ich um jemanden besorgt bin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. Wenn ich sehr beunruhigt bin und mir Sorgen mache	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. Wenn ich den Drang verspüre, nur ein einziges alkoholisches Getränk zu probieren, um zu sehen, was dann passiert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. Wenn ich in einer sozialen Situation ein alkoholisches Getränk angeboten bekomme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. Wenn ich davon träume ein alkoholisches Getränk zu mir zu nehmen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. Wenn ich meine Willenskraft über das Trinken testen möchte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. Wenn ich ein körperliches Bedürfnis oder ein starkes Verlangen nach Alkohol verspüre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. Wenn ich körperlich erschöpft bin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. Wenn ich körperliche Verletzungen oder Schmerzen habe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. Wenn ich so frustriert bin, dass ich in die Luft gehen könnte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. Wenn ich andere in einer Gaststätte oder bei einer Feier trinken sehe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. Wenn ich das Gefühl habe, dass bei mir alles schief läuft	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. Wenn Menschen, mit denen ich früher getrunken habe, mich zum Alkoholtrinken auffordern	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Predictors of Recovery following Qualified Alcohol Detoxification Treatment

	<b>1 über- haupt nicht sicher</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5 absolut sicher</b>
48. Wenn ich ärgerlich bin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. Wenn mich ganz unerwartet das Verlangen oder der Drang trifft, etwas Alkoholisches zu trinken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. Wenn ich voller Freude bin oder mit anderen feiere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Nun folgen acht Aussagen über Menschen aus Ihrem Umfeld. Geben Sie bitte bei jeder Aussage an, inwieweit Sie der Aussage zustimmen, indem Sie den Kreis, der zu Ihrer Antwort gehört, ankreuzen.*

	<b>Stimmt nicht</b>	<b>Stimmt kaum</b>	<b>Stimmt eher</b>	<b>Stimmt genau</b>
51. Es gibt Menschen, die mich wirklich gern haben.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52. Wenn es mir schlecht geht, zeigen andere mir, dass sie mich mögen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53. Wenn ich traurig bin, gibt es Menschen, die mich aufmuntern.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
54. Wenn ich Trost und Zuspruch brauche, ist jemand für mich da.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
55. Ich habe Menschen, auf die ich mich immer verlassen kann.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
56. Wenn ich Sorgen habe, gibt es jemanden, der mir hilft.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
57. Es gibt Menschen, die mir ihre Hilfe anbieten, wenn ich sie brauche.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
58. Wenn mir alles zu viel wird, helfen mir andere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Im Folgenden sind Aussagen über die Zufriedenheit in verschiedenen Lebensbereichen aufgeführt. Geben Sie bitte bei jeder Aussage an wie zufrieden Sie im Bezug auf die betreffende Aussage sind, indem Sie den Kreis der am ehesten Ihrer Zufriedenheit entspricht ankreuzen.*

<b>GESUNDHEIT</b>		<b>1 sehr unzu- frieden</b>	<b>2 unzu- frieden</b>	<b>3 eher unzu- frieden</b>	<b>4 weder/ noch</b>	<b>5 eher zu- frieden</b>	<b>6 zu- frieden</b>	<b>7 sehr zu- frieden</b>
59.	Mit meinem körperlichen Gesundheitszustand bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
60.	Mit meiner seelischen Verfassung bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
61.	Mit meiner körperlichen Verfassung bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
62.	Mit meiner geistigen Leistungsfähigkeit bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
63.	Mit meiner Widerstandskraft gegen Krankheit bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
64.	Wenn ich daran denke, wie häufig ich Schmerzen habe, dann bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
65.	Wenn ich daran denke, wie oft ich bisher krank gewesen bin, dann bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>EIGENE PERSON</b>		<b>1 sehr unzu- frieden</b>	<b>2 unzu- frieden</b>	<b>3 eher unzu- frieden</b>	<b>4 weder/ noch</b>	<b>5 eher zu- frieden</b>	<b>6 zu- frieden</b>	<b>7 sehr zu- frieden</b>
66.	Mit meinen Fähigkeiten und Fertigkeiten bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
67.	Mit der Art, wie ich mein Leben bisher gelebt habe, bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
68.	Mit meiner äußeren Erscheinung bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
69.	Mit meinem Selbstvertrauen und meiner Selbstsicherheit bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
70.	Mit meiner charakterlichen Eigenart/meinem Wesen bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
71.	Mit meiner Vitalität (d.h. Lebensfreude und Lebenskraft) bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
72.	Wenn ich daran denke, wie ich mit anderen Menschen auskomme, bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

***Dies ist das Ende der Fragenliste. Vielen Dank für Ihre Mitarbeit!***

**Fragebogen zum Alkoholkonsum II (T<sub>1</sub>)**

Vor drei Wochen haben Sie freundlicher Weise bereits eine Fragenliste ausgefüllt. Nun folgt eine zweite Fragenliste, in der es darum geht wie Sie **inzwischen** über einige Dinge denken. Es gibt keine „falschen“ oder „richtigen“ Antworten, tragen Sie die Antworten ein, die am ehesten auf Sie zutreffen. Lassen Sie bitte keine Frage aus. Die Fragenlisten werden streng vertraulich behandelt.

Um Sie für den dritten Teil dieser Untersuchung erreichen zu können geben Sie bitte erneut Ihren Namen und Telefonnummer an. Ihre Angaben werden ausschließlich zu diesem Zweck verwendet und nicht an Dritte weitergeleitet!

**Ihr Name:** \_\_\_\_\_

**Telefonnummer:** \_\_\_\_\_

**und/oder Mobil:** \_\_\_\_\_

**1. Auf einer Skala von 1 bis 5, wie wichtig ist es Ihnen, keinen Alkohol mehr zu trinken?**

*1 bedeutet: ist mir **unwichtig***

*5 bedeutet: ist mir **sehr wichtig**.*

*Mit den Werten dazwischen können Sie Ihre Meinung abstimmen.*

*(bitte kreuzen Sie den Kreis an, der zu Ihrer Antwort gehört)*

	1 unwichtig	2	3	4	5 sehr wichtig
Keinen Alkohol mehr zu trinken ist mir...	○	○	○	○	○

**2. Auf einer Skala von 1 bis 5, wie zuversichtlich sind Sie, dass es Ihnen künftig gelingen wird, keinen Alkohol mehr zu trinken?**

*1 bedeutet: ich bin **überhaupt nicht** zuversichtlich*

*5 bedeutet: ich bin **absolut zuversichtlich***

*Mit den Werten dazwischen können Sie Ihre Meinung abstimmen.*

*(bitte kreuzen Sie den Kreis an, der zu Ihrer Antwort gehört)*

	1 überhaupt nicht zuversichtlich	2	3	4	5 absolut zuversichtlich
Ich bin...	○	○	○	○	○

- 3. Auf einer Skala von 1 bis 5, wie wichtig ist es Ihnen, nach Beendigung der Behandlung im St. Antonius Krankenhaus Hörstel weitere Hilfe (Suchtberatungsstelle, Selbsthilfegruppe, Entwöhnungsbehandlung) in Anspruch zu nehmen?**

*1 bedeutet: ist mir unwichtig*

*5 bedeutet: ist mir sehr wichtig.*

*Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

*(bitte kreuzen Sie den Kreis an, der zu Ihrer Antwort gehört)*

	1 unwichtig	2	3	4	5 sehr wichtig
Weitere Hilfe in Anspruch zu nehmen ist mir...	○	○	○	○	○

- 4. Auf einer Skala von 1 bis 5, wie zuversichtlich sind Sie, dass Sie weitere Hilfe in Anspruch nehmen werden?**

*1 bedeutet: ich bin überhaupt nicht zuversichtlich*

*5 bedeutet: ich bin absolut zuversichtlich*

*Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

*(bitte kreuzen Sie den Kreis an, der zu Ihrer Antwort gehört)*

	1 überhaupt nicht zuversichtlich	2	3	4	5 absolut zuversichtlich
Ich bin...	○	○	○	○	○

Predictors of Recovery following Qualified Alcohol Detoxification Treatment

*Es folgen jetzt Aussagen, die sich auf Ihre Einstellungen zum Alkoholtrinken beziehen. Geben Sie bitte zu jeder Aussage an, wie sehr Sie ihr zustimmen.*

*1 bedeutet: **stimme überhaupt nicht zu**, 5 bedeutet: **stimme sehr zu**. Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

	1 stimme über- haupt nicht zu	2	3	4	5 stimme sehr zu
5. Ich glaube, dass ich zu viel trinke.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Ich versuche weniger zu trinken als früher oder gar nicht mehr zu trinken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Ich trinke gern, aber manchmal trinke ich zu viel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Manchmal denke ich, dass ich weniger oder gar nicht mehr trinken sollte.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Über mein Trinken nachzudenken ist reine Zeitverschwendung.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Ich habe erst vor kurzem meine Trinkgewohnheiten geändert.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Jeder kann darüber <b>reden</b> , dass er wegen des Trinkens etwas tun will, aber ich <b>tue</b> tatsächlich etwas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Ich bin an dem Punkt angelangt, wo ich darüber nachdenken sollte, weniger oder gar keinen Alkohol mehr zu trinken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Mein Trinken ist manchmal ein Problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Ich finde es notwendig für mich, über eine Änderung meines Trinkens nachzudenken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Ich ändere meine Trinkgewohnheiten genau jetzt im Moment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Weniger Alkohol zu trinken ergibt für mich einen Sinn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Unten aufgeführt finden Sie eine Reihe von Situationen, die einige Menschen zum Trinken verleiten. Wir möchten nun von Ihnen wissen, wie sicher Sie sind, dass Sie in dieser Situation nicht trinken. Bitte kreuzen Sie jeweils die Antwort an, die am besten beschreibt, wie sicher Sie sich in der jeweiligen Situation sind.*

*1 bedeutet **überhaupt nicht sicher**, 5 bedeutet **absolut sicher**. Mit den Werten dazwischen können Sie Ihre Meinung abstimmen.*

	1 über- haupt nicht sicher	2	3	4	5 absolut sicher
17. Wenn es mich quält, dass ich mit dem Trinken aufgehört habe oder Entzugserscheinungen habe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Wenn ich Kopfschmerzen habe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Wenn ich mich traurig fühle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Wenn ich im Urlaub bin und mich entspannen möchte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Wenn ich um jemanden besorgt bin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Wenn ich sehr beunruhigt bin und mir Sorgen mache	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Wenn ich den Drang verspüre, nur ein einziges alkoholisches Getränk zu probieren, um zu sehen, was dann passiert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Wenn ich in einer sozialen Situation ein alkoholisches Getränk angeboten bekomme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Wenn ich davon träume ein alkoholisches Getränk zu mir zu nehmen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Wenn ich meine Willenskraft über das Trinken testen möchte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Wenn ich ein körperliches Bedürfnis oder ein starkes Verlangen nach Alkohol verspüre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Wenn ich körperlich erschöpft bin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Wenn ich körperliche Verletzungen oder Schmerzen habe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Wenn ich so frustriert bin, dass ich in die Luft gehen könnte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. Wenn ich andere in einer Gaststätte oder bei einer Feier trinken sehe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Wenn ich das Gefühl habe, dass bei mir alles schief läuft	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. Wenn Menschen, mit denen ich früher getrunken habe, mich zum Alkoholtrinken auffordern	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Predictors of Recovery following Qualified Alcohol Detoxification Treatment

	<b>1 über- haupt nicht sicher</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5 absolut sicher</b>
34. Wenn ich ärgerlich bin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Wenn mich ganz unerwartet das Verlangen oder der Drang trifft, etwas Alkoholisches zu trinken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. Wenn ich voller Freude bin oder mit anderen feiere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Nun folgen acht Aussagen über Menschen aus Ihrem Umfeld. Geben Sie bitte bei jeder Aussage an, inwieweit Sie der Aussage zustimmen, indem Sie den Kreis, der zu Ihrer Antwort gehört, ankreuzen.*

	<b>Stimmt nicht</b>	<b>Stimmt kaum</b>	<b>Stimmt eher</b>	<b>Stimmt genau</b>
37. Es gibt Menschen, die mich wirklich gern haben.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. Wenn es mir schlecht geht, zeigen andere mir, dass sie mich mögen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. Wenn ich traurig bin, gibt es Menschen, die mich aufmuntern.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. Wenn ich Trost und Zuspruch brauche, ist jemand für mich da.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. Ich habe Menschen, auf die ich mich immer verlassen kann.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. Wenn ich Sorgen habe, gibt es jemanden, der mir hilft.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. Es gibt Menschen, die mir ihre Hilfe anbieten, wenn ich sie brauche.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. Wenn mir alles zu viel wird, helfen mir andere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Predictors of Recovery following Qualified Alcohol Detoxification Treatment

*Im Folgenden sind Aussagen über die Zufriedenheit in verschiedenen Lebensbereichen aufgeführt. Geben Sie bitte bei jeder Aussage an wie zufrieden Sie im Bezug auf die betreffende Aussage sind, indem Sie den Kreis der am ehesten Ihrer Zufriedenheit entspricht ankreuzen.*

<b>GESUNDHEIT</b>		<b>1 sehr unzu- frieden</b>	<b>2 unzu- frieden</b>	<b>3 eher unzu- frieden</b>	<b>4 weder/ noch</b>	<b>5 eher zu- frieden</b>	<b>6 zu- frieden</b>	<b>7 sehr zu- frieden</b>
45.	Mit meinem körperlichen Gesundheitszustand bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46.	Mit meiner seelischen Verfassung bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47.	Mit meiner körperlichen Verfassung bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48.	Mit meiner geistigen Leistungsfähigkeit bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49.	Mit meiner Widerstandskraft gegen Krankheit bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50.	Wenn ich daran denke, wie häufig ich Schmerzen habe, dann bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
51.	Wenn ich daran denke, wie oft ich bisher krank gewesen bin, dann bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>EIGENE PERSON</b>		<b>1 sehr unzu- frieden</b>	<b>2 unzu- frieden</b>	<b>3 eher unzu- frieden</b>	<b>4 weder/ noch</b>	<b>5 eher zu- frieden</b>	<b>6 zu- frieden</b>	<b>7 sehr zu- frieden</b>
52.	Mit meinen Fähigkeiten und Fertigkeiten bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53.	Mit der Art, wie ich mein Leben bisher gelebt habe, bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
54.	Mit meiner äußeren Erscheinung bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
55.	Mit meinem Selbstvertrauen und meiner Selbstsicherheit bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
56.	Mit meiner charakterlichen Eigenart/meinem Wesen bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
57.	Mit meiner Vitalität (d.h. Lebensfreude und Lebenskraft) bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
58.	Wenn ich daran denke, wie ich mit anderen Menschen auskomme, bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

***Dies ist das Ende der Fragenliste. Vielen Dank für Ihre Mitarbeit!***



**Telefongespräch 4 Wochen nach Behandlungsende (T<sub>2</sub>)**

Datum:

Name:

Beginn & Ende des Gesprächs:

Guten Tag! Manuela Schliek von der Universität Twente. Sie haben während der Behandlung im St. Antonius-Krankenhaus Hörstel meine Fragebögen ausgefüllt und sich bereit erklärt, vier Wochen nach Abschluss der Behandlung noch mal ein paar Fragen zu beantworten. Deswegen rufe ich heute an. Haben Sie einen Moment Zeit? Es dauert nur fünf bis zehn Minuten...

Die Fragen, die ich Ihnen nun stelle, beziehen sich immer auf die Zeit nach der Entlassung aus dem St. Antonius-Krankenhaus Hörstel.

***KONSUM/RÜCKFALL***

Zuerst möchte ich Ihnen ein paar Fragen zum Alkoholkonsum stellen:

**1. Haben Sie nach Abschluss der Behandlung im St. Antonius-Krankenhaus in Hörstel Alkohol getrunken?**

O ja

O nein, keinen einzigen Tropfen

Wenn „ja“:

**1.2 Wie viele Tage nach Abschluss der Behandlung haben Sie erstmals wieder Alkohol getrunken?**

\_\_\_\_\_ (0 – 30 Tage)

**1.3 Wie lange dauerte dieser Rückfall?**

\_\_\_\_\_ (0 – 30 Tage)

**1.4 Alles in allem, an wie vielen Tagen haben Sie seit der Entlassung aus dem St. Antonius-Krankenhaus in Hörstel, Alkohol getrunken?**

\_\_\_\_\_ (0 – 30 Tage)

**1.5 Welche Aussage trifft auf Ihren aktuellen Alkoholkonsum (während der letzten 2 Tage) zu?**

O ich trinke gar keinen Alkohol

O ich trinke Alkohol, jedoch weniger als vor Beginn der Behandlung im St. Antonius Krankenhaus

O ich trinke genauso viel Alkohol wie vor Beginn der Behandlung im St. Antonius Krankenhaus

O ich trinke mehr Alkohol als vor Beginn der Behandlung im St. Antonius Krankenhaus

**ABSTINENZMOTIVATION**

**2. Auf einer Skala von 1 bis 5, wie wichtig ist es Ihnen, keinen Alkohol mehr zu trinken?**

*1 bedeutet: ist mir unwichtig*

*5 bedeutet: ist mir sehr wichtig.*

*Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

*(bitte den entsprechenden Kreis ankreuzen)*

	1 unwichtig	2	3	4	5 sehr wichtig
Keinen Alkohol mehr zu trinken ist mir...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**ABSTINENZZUVERSICHT**

**3. Auf einer Skala von 1 bis 5, wie zuversichtlich sind Sie, dass es Ihnen künftig gelingen wird, keinen Alkohol mehr zu trinken?**

*1 bedeutet: ich bin überhaupt nicht zuversichtlich*

*5 bedeutet: ich bin absolut zuversichtlich*

*Mit den Werten dazwischen können Sie Ihre Meinung abstufen.*

*(bitte den entsprechenden Kreis ankreuzen)*

	1 überhaupt nicht zuversichtlich	2	3	4	5 absolut zuversichtlich
Ich bin...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**FOLLOW-UP REHABILITATION/NACHSORGE**

**4. Haben Sie nach der Behandlung in Hörstel weitere Hilfe in Anspruch genommen bzw. nehmen sie derzeit Hilfe in Anspruch?**

nein

ja, in einer Tagesklinik (teilstationäre Rehabilitation)

ja, bei einer Selbsthilfegruppe

ja, bei einer Suchtberatungsstelle: mit ambulanter Rehabilitation:  ja  nein

ja, in einer Entwöhnungsbehandlung  stationär  ambulant

ja, in einer Entzugsbehandlung:  stationär  ambulant

ja, anders: \_\_\_\_\_

**LEBENSZUFRIEDENHEIT**

Abschließend möchte ich Sie bitten, Ihre Zufriedenheit bezüglich sieben Aussagen zu Ihrer eigenen Person anzugeben. Die Antwortmöglichkeiten gehen von 1 = sehr unzufrieden, bis 7 = sehr zufrieden.

<b>EIGENE PERSON</b>	<b>1 sehr unzu- frieden</b>	<b>2 unzu- frieden</b>	<b>3 eher unzu- frieden</b>	<b>4 weder/ noch</b>	<b>5 eher zu- frieden</b>	<b>6 zu- frieden</b>	<b>7 sehr zu- frieden</b>
5. Mit meinen Fähigkeiten und Fertigkeiten bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Mit der Art, wie ich mein Leben bisher gelebt habe, bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Mit meiner äußeren Erscheinung bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Mit meinem Selbstvertrauen und meiner Selbstsicherheit bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Mit meiner charakterlichen Eigenart/meinem Wesen bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Mit meiner Vitalität (d.h. Lebensfreude und Lebenskraft) bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Wenn ich daran denke, wie ich mit anderen Menschen auskomme, bin ich...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Das war es auch schon.

Es ist angedacht, eventuell eine weitere Befragung in 2 Monaten durchzuführen: dürfte ich Sie in diesem Falle erneut anrufen?  ja  nein

Möchten Sie über die Ergebnisse der Untersuchung informiert werden?

ja: E-Mail/Adresse:

nein

Vielen Dank für Ihre Mitarbeit!

Ich wünsche Ihnen noch einen schönen Tag. Auf Wiederhören.

War der Patient während des Gespräches merklich alkoholisiert?

ja

nein

## ICD-10-Kriterien: 6 Fragen zum Suchmittelkonsum

*Sie finden nachfolgend Fragen, die sich auf Ihre Alkoholtrinkgewohnheiten beziehen. Bitte kreuzen Sie bei jeder Frage die Antwort an, die am ehesten zutrifft, auch wenn es Ihnen manchmal schwer fällt, sich für eine zu entscheiden.*

*Wenn Sie an die vergangenen 12 Monate zurückdenken:*

Spürten Sie (häufig) einen starken Drang, eine Art unbezwingbares Verlangen, Alkohol zu trinken?

ja  nein

Kam es vor, dass Sie nicht mehr aufhören konnten zu trinken, wenn Sie einmal begonnen hatten?

ja  nein

Haben Sie manchmal morgens getrunken, um Übelkeit oder das Zittern (z.B. Ihrer Hände) zu lindern?

ja  nein

Brauchten Sie zunehmend mehr Alkohol, bevor Sie eine bestimmte (die gewünschte) Wirkung erzielten?

ja  nein

Änderten Sie Tagespläne, um Alkohol trinken zu können bzw. richteten Sie den Tag so ein, dass Sie regelmäßig Alkohol konsumieren konnten?

ja  nein

Haben Sie getrunken, obwohl Sie spürten, dass der Alkoholkonsum zu schädlichen körperlichen, psychischen oder sozialen Folgen führt?

ja  nein

## Diagnose einer Alkoholabhängigkeit

Für die Diagnose eines Abhängigkeitssyndroms sollte auf die **ICD-10-Kriterien** der WHO zurückgegriffen werden. Von **sechs** angegebenen Kriterien sollten innerhalb der letzten 12 Monate **mindestens drei gleichzeitig** erfüllt sein, um die Diagnose zu rechtfertigen:

1. starker Wunsch oder Zwang, psychotrope Substanzen (Alkohol) zu konsumieren
2. verminderte Kontrollfähigkeit bezüglich des Beginns, der Beendigung und der Menge des Konsums
3. körperliches Entzugssyndrom bei Beendigung oder Reduktion des Konsums
4. Toleranzentwicklung – die Notwendigkeit, höhere Dosen zu konsumieren, um die gleiche Wirkung zu erreichen
5. Fortschreitende Vernachlässigung anderer Vergnügungen oder Interessen zugunsten des Substanzkonsums; erhöhter Zeitaufwand, um die Substanz zu beschaffen, zu konsumieren oder sich von den Folgen zu erholen.
6. anhaltender Substanzgebrauch trotz Nachweis eindeutig schädigender Folgen

Predictors of Recovery following Qualified Alcohol Detoxification Treatment

<b>Fagerström-Test für Nikotinabhängigkeit</b>	
Rauchen Sie zur Zeit?	
Ja	
Nein	
Haben Sie früher geraucht?	
Ja	
Nein	
Wenn Sie früher geraucht haben, wie lange sind sie nikotinfrei (in Jahren oder Monate)? (Beziehen Sie Ihre Antworten bitte auf die Zeit, in der Sie geraucht haben)	
Wann nach dem Aufwachen rauchen Sie Ihre erste Zigarette?	
innerhalb von 5 Minuten	3
innerhalb von 6 bis 30 Minuten	2
innerhalb von 31 bis 60 Minuten	1
nach 60 Minuten	0
Finden Sie es schwierig, an Orten, wo das Rauchen verboten ist, das Rauchen sein zu lassen?	
Ja	1
Nein	0
Auf welche Zigarette würden Sie nicht verzichten wollen?	
die Erste am Morgen	1
Andere	0
Wie viele Zigaretten rauchen Sie im Allgemeinen pro Tag?	
bis 10	0
11-20	1
21-30	2
mehr als 30	3
Rauchen Sie am frühen Morgen im Allgemeinen mehr als am Rest des Tages?	
Ja	1
Nein	0
Kommt es vor, dass Sie Rauchen, wenn Sie krank sind und tagsüber im Bett bleiben müssen?	
Ja	1
Nein	0

Name, Vorname \_\_\_\_\_

Datum \_\_\_\_\_

<b>MWT-B</b>
Sie sehen hier mehrere Reihen mit Wörtern. In jeder Reihe steht höchstens ein Wort, das Ihnen vielleicht bekannt ist. Wenn Sie es gefunden haben, streichen Sie es bitte durch
1. Nahle – Sahe – Nase – Nesa - Sehna
2. Funktion – Kuntion – Finzahn – Tuntion - Tunkion
3. Struk – Streik – Sturk – Streck - Kreik
4. Kulinse – Kulerane – Kulisse – Klubihle - Kubistane
5. Kenekel – Gesonk – Kelume – Gelenk - Gelerge
6. siziol – salzahl – sozihl – sziam - sozial
7. Sympasie – Symmofeltrie – Symmantrie – Symphonie - Symplanie
8. Umma – Pamme – Nelle – Ampe - Amme
9. Krusse – Surke – Krustelle – Kruste - Struke
10. Kirse – Sirke – Krise – Krospe - Serise
11. Tinxur – Kukutur – Fraktan – Tinktur - Rimsuhr
12. Unfidion – Fudision – Infusion – Syntusion – Nuridion
13. Feudasmus – Fonderismus – Föderalismus – Födismus - Föderasmus
14. Redor – Radium – Terion – Dramin - Orakium
15. kentern – knerte – kanzen – kretern - trekern
16. Kantate – Rakante – Kenture – Krutehne - Kallara
17. schalieren – waschieren – wakieren – schackieren - kaschieren
18. Tuhl – Lar – Lest – Dall - Lid
19. Dissonanz – Diskrisanz – Distranz – Dinotanz - Siodenz
20. Ferindo – Inferno – Orfina – Firanetto - Imfindio
21. Rilkiase – Kilister – Riliker – Klistier - Linkure
22. kurinesisch – kulinarisch – kumensisch – kullisarisch - kannastrisch
23. Rosto – Torso – Soro – Torgos - Tosor
24. Kleiber – Beikel – Keibel – Reikler - Biekerl
25. Ralke – Korre – Ruckse – Recke - Ulte
26. Lamone – Talane – Matrone – Tarone - Malonte
27. Tuma – Umat – Maut – Taum - Muta
28. Sorekin – Sarowin – Rosakin – Narosin - Kerosin
29. beralen – gerältet – anälteren – untären - verbrämen
30. Kapaun – Paukan – Naupack – Aupeck - Ankepran
31. Sickaber – Bassiker – Kassiber – Sassiker - Askiber
32. Pucker – Keuper – Eucker – Reuspeck - Urkane
33. Spirine – Saprin – Parsin – Purin - Asprint
34. Kulon – Solgun – Koskan – Soran - Klonus
35. Adept – Padet – Edapt – Epatt - Taped
36. Gindelat – Tingerat – Indigenat - Nitgesaar
37. Berkizia – Brekzie – Birakize – Brikazie - Bakiria

<b>Hirnorganische Leistungsfähigkeit</b>		
<b>Kreuzen Sie bitte an, was für Sie zutrifft</b>		
1. Ich kann nicht mehr so lange fernsehen wie früher	ja	nein
2. Ich bekomme leichter eine Wut als früher	nein	ja
3. Ich schlafe gut ein	ja	nein
4. Ich habe einen unruhigen Schlaf	nein	ja
5. Ich wache zu früh auf	ja	nein
6. Ich bin morgens unausgeschlafen	nein	ja
7. Ich bin am Tage müde	ja	nein
8. Wenn ich etwas zusammenzähle, muss ich es noch einmal nachrechnen, weil ich mir nichts mehr zutraue und Angst habe Fehler zu machen	ja	nein
9. Bei längerem Autofahren bin ich schneller erschöpft als früher	ja	nein
10. Man lächelt manchmal über mich, wenn ich etwas vergesse	ja	nein
11. Ich habe Ohrensausen	ja	nein
12. Namen vergesse ich öfter als früher	ja	nein
13. Erledigungen vergesse ich öfter als früher	nein	ja
14. Ich benutze häufiger als früher Notizzettel, damit ich etwas nicht vergesse	ja	nein
15. Ich habe öfter ein Kälte- oder Wärmegefühl in der Stirngegend	ja	nein
16. Morgens ist mein Kopf immer benommen	ja	nein
17. Ich muss in letzter Zeit mehrmals hintereinander gähnen	nein	ja
18. Ich bin nervöser als früher; Kleinigkeiten können mich aus der Ruhe bringen	ja	nein
19. Ich bin ängstlicher als früher und traue mir weniger zu	ja	nein
20. Ich habe morgens immer so einen trockenen Mund	ja	nein
21. Ich kann nicht mehr so lange lesen wie früher	ja	nein
22. Ich habe Schwierigkeiten, mir beim Kartenspielen die Karten zu merken	ja	nein
23. Ich überlege abends häufiger, wie ich eine bestimmte Arbeit am nächsten Tag fertig stellen kann, weil ich Angst habe, ich schaffe es sonst nicht	ja	nein
24. Ich kann mich nicht mehr so gut konzentrieren	nein	ja
25. Meine Angehörigen machen mich oft darauf aufmerksam, dass ich etwas vergessen habe	ja	nein
26. Ich habe oft ein Gefühl, als hätte ich einen Reif um den Kopf	ja	nein
27. Ich höre schwerer als früher	nein	ja
28. Ich habe beim Bücken Schwindelgefühle	ja	nein
29. Ich kann nicht mehr so schnell umschalten	nein	ja
30. Ich begreife manches langsamer als früher	ja	nein
31. Ich bin noch genauso leistungsfähig wie früher	ja	nein
32. Mich ärgert häufig „die Fliege an der Wand“	nein	ja
33. Manchmal habe ich schon die Bemerkung gehört, ich müsse mich besser konzentrieren	ja	nein
34. Ich habe schon bemerkt, dass ich beim Schreiben mehr Fehler mache als früher	ja	nein
35. Ich brauche für vieles mehr Zeit als früher	ja	nein
36. Ich habe öfter einen benommenen Kopf als früher, so ein dumpfes Gefühl in und um den Kopf	nein	ja


37. Ich fürchte mich davor, dass meine Fähigkeiten (Gedächtnis, Konzentration) noch weiter nachlassen	ja	nein
38. Ich habe öfter Angst als früher	ja	nein

### Screening Depression

In den letzten beiden Wochen	Die ganze Zeit	Meistens	Über die Hälfte der Zeit	Weniger als die Hälfte der Zeit	Ab und zu	Zu keinem Zeitpunkt
1. Ich war froh und guter Laune	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
2. Ich habe mich ruhig und entspannt gefühlt	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
3. Ich habe mich aktiv und voller Energie gefühlt	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
4. Beim Aufwachen habe ich mich frisch und ausgeruht gefühlt	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
5. Mein Alltag war voller Dinge, die mich interessieren	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>



<b>Angst- Fragebogen</b>		
<b>1. Allgemeine Beschwerden</b>		
Leiden Sie derzeit unter Schmerzen?	ja	nein
... Leiden Sie derzeit unter psychischen oder emotionalen Problemen?	ja	nein
Leiden Sie derzeit unter körperlichen Beschwerden oder Krankheiten?	ja	nein
<i>Wenn ja, welchen?</i>		
Leiden Sie derzeit unter anderen Problemen?	ja	nein
<i>Wenn ja, welchen?</i>		
2. Haben Sie in den letzten Wochen die meiste Zeit unter Gefühlen von Traurigkeit und Niedergeschlagenheit oder Energieverlust gelitten?	ja	nein
3. Hatten Sie in den letzten Wochen Angstattacken, bei denen Sie ganz plötzlich von einem Gefühl starker Angst, Beklommenheit oder Unruhe überfallen wurden?	ja	nein
4. Litten Sie in den letzten Wochen unter unbegründet starken Ängsten in sozialen Situationen, wie z.B. vor anderen etwas zu tun, vor oder mit anderen Leuten zu sprechen oder im Mittelpunkt der Aufmerksamkeit zu stehen?	ja	nein
5. Hatten Sie in den letzten Wochen unbegründet starke Ängste in Geschäfte zu gehen oder sich auf öffentlichen Plätzen aufzuhalten?	ja	nein
6. Haben Sie in den letzten Wochen oft unter den Nachwirkungen eines ungewöhnlich schrecklichen oder bedrohlichen Ereignisses gelitten?	ja	nein
7. Wurden Sie während der letzten Wochen oft durch Sorgen, Ängste und Gefühle von Anspannung belastet?	ja	nein

<b>Auswertung</b>				
<b>ICD-10 Kriterien</b>				
mindestens 3 Kriterien: Diagnose Abhängigkeitssyndrom				
<b>FAGERSTRÖM Test:</b>				
0 - 2: sehr geringe Abhängigkeit 3 - 4: geringe Abhängigkeit 5 - 6: mittlere Abhängigkeit 7 - 8: starke Abhängigkeit 9 - 10: sehr starke Abhängigkeit				
<b>MWT-B</b>				
Lösungen				
1. Nase	9. Kruste	17. kaschieren	25. Recke	33. Purin
2. Funktion	10. Krise	18. Lid	26. Matrone	34. Klonus
3. Streik	11. Tinktur	19. Dissonanz	27. Maut	35. Adept
4. Kulisse	12. Infusion	20. Inferno	28. Kerosin	36. Indigenat
5. Gelenk	13. Föderalismus	21. Klistier	29. verbrämen	37. Brekzie
6. sozial	14. Radium	22. kulinarisch	30. Kapaun	
7. Symphonie	15. kentern →	23. Torso	31. Kassiber	
8. Amme	16. Kantate	24. Kleiber	32 Keuper	
Gesamtpunkte	Intelligenzstufe		IQ	
0 – 5	sehr niedrige Intelligenz		bis 72	
6 – 20	niedrige Intelligenz		73 – 90	
21 – 30	durchschnittliche Intelligenz		91 – 109	
31 – 33	hohe Intelligenz		110 – 127	
34 - 37	sehr hohe Intelligenz		128 und höher	
<b>WHO 5 Depressionsscreening</b>				
weniger als 13 Punkte: es könnte eine Depression vorliegen				
<b>Angst- Screening</b>				
1. Grobcharakteristik der Allgemeinbeschwerden				
2. Komorbidität der Angst mit Depression 3. Panikattacken, Panikstörungen 4. Soziale Phobien 5. Agoraphobie 6. Posttraumatische Belastungsstörung 7. Generalisiertes Angstsyndrom			<b>Wurde eine oder mehrere der Fragen 2. bis 7. mit „ja“ beantwortet, besteht eine Neigung zu Angststörungen</b>   <b>weitere Diagnostik notwendig</b>	
<b>Hirnorganische Leistungsfähigkeit (c.I. Scala)</b>				
- IQ muss mindestens 80 sein (mindestens 13 richtige Wörter im MWT-B) - es darf keine Depression vorliegen (mindestens 13 Punkte im WHO 5) - jede „Ja“- Antwort einen Punkt, bei Frage 3 und Frage 31 für „nein“ einen Punkt - <b>Summe weniger als 20 Punkte: spricht gegen eine cerebrale Leistungsminderung</b> - <b>Summe 20 oder mehr Punkte: Verdacht auf ein organisches Psychosyndrom</b>				

**Appendix B:** Analyses of Prognostic Value of Patient Characteristics

**1. Prognostic Value of Patient Characteristics**

This paragraph is concerned with differences in sample characteristics between abstinent and relapsed patients. The first section highlights differences in demographic information, the second part deals with the alcohol dependence history, and the third section covers aspect of dependence severity, intelligence and psychiatric comorbidity.

**1.1 Prognostic Value of Demographic Characteristics**

Table 1

Demographic information of responders ( $N = 61$ ), displayed in frequencies ( $n$ ) and percent (%), for abstinent and relapsed patients, and chi-square tests for differences between abstinent and relapsed patients, displayed in Pearson chi-square ( $\chi^2$ ), with degrees of freedom ( $df = 1$ ), and significance level ( $p$ )

	<b>Abstinent (<math>n = 48</math>)</b>		<b>Relapsed (<math>n = 13</math>)</b>		$\chi^2(1)$	$p$
	$n$	%	$n$	%		
<b>Gender</b>						
Male	35	72.9	7	53.8		
Female	13	27.1	6	46.2		
<b>Nationality</b>						
German	48	100	12	92.3		
Dutch	—		1	7.7		
<b>Marital Status</b>						
Married, living together	23	47.9	4	30.8	1.22	.27
Other	25	52.1	9	69.2		
<b>Living Situation</b>						
Living together with someone else	33	68.8	8	61.5		
Living alone	15	31.2	5	38.5		
<b>Education</b>						
Lower education <sup>1</sup>	27	56.2	4	30.8	2.66	.10
Higher education <sup>2</sup>	21	43.8	9	69.2		
<b>Vocational education</b>						
Yes	41	85.4	9	69.2		
No	7	14.6	4	30.8		
<b>Employment</b>						
Employed <sup>3</sup>	36	75.0	8	61.5		
Unemployed <sup>4</sup>	12	25.0	5	38.5		

Note. <sup>1</sup> no graduation, secondary modern school; <sup>2</sup> secondary school, general university entrance qualification, university education; <sup>3</sup> full-/part-time, pensioner, housewife/househusband; <sup>4</sup> unemployment benefit I and II

Table 1 presents the demographic characteristics (age not displayed) of responders, separated on basis of abstinence and relapse. It has to be emphasized that all comparisons of this and the following section are of limited explanatory power, as sample size of relapsed patients is far too small and categorizations are outermost global.

Starting by age, abstinent patients ( $M = 48.23$ ,  $SD = 8.98$ ) are on average three years older than relapsed patients ( $M = 44.85$ ,  $SD = 10.31$ ). Although in line with expectation, this difference of just three years is negligible and insignificant ( $t(59) = 1.17$ , *ns*). With respect to gender, it seems that women are, against expectation, slightly more likely to relapse. While nearly half of all relapsed patients are female (46.2%), only 27.1% of abstinent patients are female. Stated differently, 31.6% of all female responders relapsed within one month, whereas 16.7% of males did so. Nevertheless, female gender does not necessarily display a prognostic worsening tendency as the expectation of higher psychiatric comorbidity, i.e. higher degrees of depressive symptoms ( $t(57) = 3.42$ ,  $p = .001$ ) and more signs of anxiety ( $t(57) = 1.09$ , *ns*) among women as compared to men, is partly confirmed. Concerning the marital status, a higher proportion of abstinent patients is married, living together (47.9% as compared to 30.8%), as expected. Nevertheless, this tendency does not reach significance ( $\chi^2(1, N = 61) = 1.22$ , *ns*). Living together with someone else is assumed to be beneficial, but in this sample, living situation is found not to differ between groups. Contrary expectation, higher educated patients are more likely to relapse (69.2%) than to remain abstinent (43.8%,  $\chi^2(1, N = 61) = 2.66$ ,  $p = .10$ ). Finally, patients who are employed (75%) and who have completed a vocational education (85.4%) tend to be more often abstinent than relapsed (61.5% resp. 69.2%), as expected.

## 1.2 Prognostic Value of Alcohol Dependence History

This section presents the results of the alcohol dependence history. By the exception of age at first alcohol consumption, reliable chi-square analyses of differences between abstinent and relapsed patients are possible.

Predictors of Recovery following Qualified Alcohol Detoxification Treatment

Table 2

Alcohol dependence history of responders ( $N = 61$ ), displayed in frequencies ( $n$ ) and percent (%), for abstinent and relapsed patients, and chi-square tests for differences between abstinent and relapsed patients, displayed in Pearson chi-square ( $\chi^2$ ), with degrees of freedom ( $df = 1$ ), and significance level ( $p$ )

	<b>Abstinent (<math>n = 48</math>)</b>		<b>Relapsed (<math>n = 13</math>)</b>		$\chi^2(1)$	$p$
	$n$	%	$n$	%		
<b>Age at first consumption</b>						
≤ 14	11	22.9	3	23.1		
≥ 15	37	77.1	10	76.9		
<b>Years of dependence</b>						
≤ 10	30	62.5	6	46.2	1.13	.29
≥ 11	18	37.5	7	53.8		
<b>Previous treatments</b>						
Yes	25	52.1	11	84.6	4.48	<b>.03</b>
No	23	47.9	2	15.4		
<b>Regular use of further drugs</b>						
Yes	29	60.4	8	61.5	.01	.94
No	19	39.6	5	38.5		
<b>Family history of substance dependence</b>						
Yes	29	60.4	8	61.5	.01	.94
No one	19	39.6	5	38.5		

The descriptive statistics of table 2 reveal that percentages of abstinent and relapsed patients do not differ for age at first alcohol consumption, not supporting the hypothesis that starting drinking at the age of 14 or younger does predict relapse. As aforementioned, the extremely low frequencies constrain analyses and argumentations. With respect to the duration of alcohol dependence, there is an expected, but insignificant tendency of patients who turn out to maintain abstinence to be more likely to be dependent, not longer than 10 years (62.5%), while patients who relapse more often exceed 10 years of dependence (53.8%). The proportions of previous detoxification and/or withdrawal treatments do significantly differ, with subsequently relapsing patients having underwent previous treatment more often ( $\chi^2(1, N = 61) = 4.48, p = .03$ ). On the other hand, the number of previous detoxifications (abstinent:  $M = 3.90, SD = 6.55$ ; relapsed:  $M = 4.67, SD = 4.09$ ) and previous withdrawals (abstinent:  $M = 2.20, SD = 2.82$ ; relapsed:  $M = 1.57, SD = .53$ ) do not differ between groups ( $t(27) = .32, ns$ ; resp.  $t(15) = .58, ns$ ). Round 60% of both groups consume a further drug, including nicotine, on regular basis, constituting no difference, accordingly. This is against the

assumption that abstaining patients, more often than relapsing patients, do not consume any secondary drug. The same applies to substance dependence among the family, which, by chance, displays exactly the same proportions.

### 1.3 Prognostic Value of Dependence Severity, Intelligence and Psychiatric Comorbidity

Table 3

Clinical screening assessments of responders, displayed in sample sizes (*n*), means (*M*) and standard deviations (*SD*), for abstinent and relapsed patients, and independent samples t-test for differences between abstinent and relapsed patients, displayed in t-values (*t*), with degrees of freedom (*df*) and significance level (*p*)

	Abstinent			Relapsed			<i>t</i>	<i>df</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
<b>ICD-10<sup>1</sup></b>	48	4.25	1.36	13	4.85	1.21	1.43	59	.16
<b>Fagerström Test<sup>2</sup></b>	41	4.59	2.07	10	4.90	2.60	.41	49	.68
<b>MWT-B<sup>3</sup></b>	47	27.15	4.55	12	29.08	4.32	1.33	57	.19
<b>Depression Screening<sup>4</sup></b>	47	16.11	4.54	12	15.33	1.75	.53	57	.60
<b>Anxiety Screening<sup>5</sup></b>	47	1.36	1.65	12	1.75	1.91	.71	57	.48
<b>c.I. Scale<sup>6</sup></b>	47	9.17	8.75	12	8.33	4.81	.32	57	.75

Note. scale range: <sup>1</sup>0 – 6, <sup>2</sup>0 – 10, <sup>3</sup>0 – 37, <sup>4</sup>0 – 25, <sup>5</sup>0 – 7, <sup>6</sup>0 – 38

As can be seen in the above table, the mean value of the ICD-10 criteria for alcohol dependence tends to be higher in the group of relapsed participants ( $t(59) = 1.43, p = .16$ ). In line with expectation, patients who confirm more criteria of the ICD-10, where higher values are indicative of more severe dependence, display a greater likelihood to relapse. The Fagerström test for the severity of nicotine dependence, again with higher values being indicative of more severe dependence, reveals no difference between both groups. For the MWT-B, higher values indicate higher levels of intelligence, which are assumed to be predictive of abstinence. Contrary to this assumption, patients who score higher on the intelligence test ( $t(57) = 1.33, p = .16$ ), more often relapse. Nevertheless, both means lie in the same range of average intelligence, constituting a negligible difference. Concerning the Anxiety and Cerebral Insufficiency Scale, lower values, and with respect to the WHO-5 Depression Screening, higher values are hypothesized to be prognostic advantageously. There are no differences observed for all three scales.