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Research report

# Prediction of the outcome of short- and long-term psychotherapy based on socio-demographic factors

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ABSTRACT

*Background:* Socio-demographic factors predict the outcome of short-term psychotherapy (STT) in the treatment of mood and anxiety disorders, but information on the prediction for long long-term therapy (LPP) is lacking. We aimed to compare the prediction of changes in psychiatric symptoms afforded by socio-demographic factors across two treatment conditions, short- versus long-term psychotherapy.
*Methods:* In the Helsinki Psychotherapy Study, 326 outpatients with mood or anxiety disorders, aged 20–46 years, were randomly assigned to STT or LPP. Socio-demographic factors (i.e. age, gender, education, employment status, marital status, and living arrangement) were self-reported. Psychiatric symptoms were measured by the Symptom Check List, Global Severity Index (SCL-90-GSI) and Anxiety scale (SCL-90-Anx), and the Beck Depression Inventory (BDI) at baseline and seven times during a three-year follow-up period.
*Results:* Socio-demographic factors were found to predict symptom development during follow-up irrespective of the baseline symptom level. Patients in a relatively good position, i.e. married and highly educated patients benefited from STT, whereas patients in less advantaged positions, i.e. homemakers, lone parents, and divorced patients needed LPP or did not benefit from either therapy. In several categories of socio-demographic factors, the extent to which a patient's background predicted the outcome of the psychotherapy varied according to whether general, anxiety or depressive symptoms were studied.
*Limitations:* We were unable to assess widows and pensioners. For ethical reasons, a no-treatment control group with a long follow-up could not be included in the study design.
*Conclusions:* Socio-demographic factors may need to be considered in the selection of patients for short- and long-term therapy.



## 1. Introduction

Mood and anxiety disorders are unevenly distributed between age groups, genders, and marital and employment groups (Pirkola et al., 2005), and socio-demographic factors are known to predict the naturalistic outcomes for mood and anxiety disorders (Bjerkeset et al., 2008; Ramsawh et al., 2009; Spijker et al., 2001). The literature on psychotherapy has mainly assessed the prediction of socio-demographic factors in the outcomes of short-term therapies for depressive and anxiety disorders. Furthermore, the focus of some of the individual studies has been on only some socio-demographic factors.

Age and gender have been the most studied dimensions, and the majority of the studies did not find that age predicted the outcome for depressive (Blom et al., 2007; Jarrett et al.,

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1991; Manber et al., 2008; Mynors-Wallis and Gath, 1997) or anxiety disorders (Crits-Christoph et al., 2004; Ehlers et al., 2005; Tarrier et al., 2000). One study reported that young age predicted a better outcome for short-term therapy in the treatment of minor depression (Frank et al., 2002), and another study found that older age predicted a worse outcome for major depression (Sotsky et al., 1991). Some studies have shown that female gender predicted a better outcome of short-term therapy for minor depression (Frank et al., 2002) and post-traumatic stress disorder (PTSD) (Tarrier et al., 2000), but other studies did not support gender differences regarding depressive (Blom et al., 2007; Jarrett et al., 1991; Manber et al., 2008; Mynors-Wallis and Gath, 1997; Sotsky et al., 1991; Thase et al., 1994; Zlotnick et al., 1996) or anxiety disorders (Crits-Christoph et al., 2004; Ehlers et al., 2005). There is some agreement that educational level does not predict the outcome of short-term therapy for depression (Blom et al., 2007; Frank et al., 2002; Jarrett et al., 1991), but the results on PTSD are less consistent (Ehlers et al., 2005; Tarrier et al., 2000). High occupational status has been found to predict a better outcome for depression (Durham et al., 1997), whereas low occupational status has been shown to predict a better outcome for PTSD (Ehlers et al., 2005). In one study, income did not predict the outcome for depression (Frank et al., 2002). Other studies found no association between social class and depression (Mynors-Wallis and Gath, 1997; Sotsky et al., 1991). Most studies have reported that employment status does not predict a better outcome for depression (Manber et al., 2008; Thase et al., 1994) or PTSD (Tarrier et al., 2000). However, another study on depression found that being unemployed, as compared with being a homemaker or retired, predicted a worse outcome of short-term therapy (Frank et al., 2002).

Regarding living arrangement, living alone has been shown to predict a worse outcome for PTSD as compared with living with parents or with a spouse (Tarrier et al., 2000). Furthermore, there is some evidence that being married or cohabiting predicts a better outcome for anxiety disorder (Durham et al., 1997) and depression (Jarrett et al., 1991), whereas in most studies marital status did not predict the outcome of short-term therapy for depression (Blom et al., 2007; Frank et al., 2002; Manber et al., 2008; Mynors-Wallis and Gath, 1997; Thase et al., 1994) or anxiety disorders (Crits-Christoph et al., 2004; Ehlers et al., 2005; Tarrier et al., 2000). The majority of the literature assessed cognitive or interpersonal therapy. There are no apparent trends regarding the extent to which socio-demographic factors predict the outcome of different types of short-term therapy, although the large variation in methodology limits the comparability of previous studies. Thus, a comparison of short- and long-term therapies may better increase our understanding of the extent to which socio-demographic factors predict the outcomes of different types of psychotherapy.

So far, however, there is no evidence that socio-demographic factors predict the results of long-term psychotherapies, nor have any comparisons between short- and long-term therapies been made. New insight into how socio-demographic factors predict different outcomes for short-and long-term therapies would provide clinicians with an additional tool in the complex process of choosing the optimal psychotherapy for a patient. The aim of this study is to evaluate the extent to which a wide range of socio-demographic factors predict the outcome of short-term versus long-term psychotherapy. The main issue is to clarify whether the length of therapy modifies the strength of the prediction.

## 2. Methods

The study follows the Helsinki Declaration and was approved by the Helsinki University Central Hospital's ethics council. The patients gave written informed consent.

### 2.1. Patients and settings

A total of 459 outpatients were recruited from psychiatric services in the Helsinki region between 1994 and 2000 (Knekt and Lindfors, 2004). Eligible patients were 20–46 years of age and had a long-standing (>1 year) disorder causing dysfunction in work ability. They had to meet DSM-IV criteria (American Psychiatric Association, 1994) for anxiety or mood disorders. Patients were excluded for any of the following reasons: psychotic disorders or a severe personality disorder, an adjustment disorder, a substance-related disorder, severe organic disease, mental retardation, employment in psychiatric health care or ties to members of the research team. We also excluded patients who had received psychotherapy within the previous two years, as a recently concluded therapeutic process might have confounded the effect of the study interventions. Of the patients referred to the project, 133 refused to participate (Knekt et al., 2008). Of the remaining 326 patients, 128 were randomly assigned to long-term psychodynamic psychotherapy (LPP) and 198 to short-term psychotherapy (101 to short-term psychodynamic psychotherapy (SPP), and 97 to solution-focused therapy (SFT)). Of the randomized patients, 26 of those assigned to long-term psychotherapy and seven of those assigned to short-term therapies refused to participate, mainly due to the type of therapy. Of the patients who began the assigned therapy a total of 21 in the long-term psychotherapy group and 21 in the short-term group discontinued the treatment prematurely. The most common reasons for this were a change in life situation and disappointment with the treatment.

#### 2.1.1. The therapies

SFT is a brief, resource-oriented and goal-focused therapeutic approach which helps clients change by constructing solutions (Johnson and Miller, 1994). The orientation was based on an approach developed by de Shazer et al. (1986). The frequency of sessions in SFT was flexible; usually one session every second or third week, with up to a maximum of 12 sessions over no more than eight months. SPP is a brief, focal, transference-based therapeutic approach which helps patients by exploring and working through specific intrapsychic and interpersonal conflicts. The orientation was based on approaches described by Malan (1976) and Sifneos (1978). SPP was scheduled for 20 treatment sessions, one session per week, over 5–6 months. LPP is an open-ended, intensive, transference-based therapeutic approach which helps patients by exploring and working through a broad area of intrapsychic and interpersonal conflicts. Therapy includes both expressive and supportive elements, depending on patient needs (Gabbard, 2004). The frequency of sessions in LPP was 2–3 times a week and the therapy lasted for up to three years.