ELSEVIER

Journal of Substance Abuse Treatment 24 (2003) 115–120

Journal of Substance Abuse Treatment

Regular article

# Stability and change in dimensional ratings of personality disorders in drug abuse patients during treatment

Martin H. de Groot, M.A.[a,*], Ingmar H.A. Franken, M.S.c.[b], Chris W. van der Meer, M.D.[c], Vincent M. Hendriks, Ph.D.[c]

[a]*Parnassia - FPA, Bertus de Harderweg 30, 2553 PX The Hague, The Netherlands*
[b]*Erasmus University Rotterdam, Institute of Psychology, PO Box 1738, 3000 DR Rotterdam, The Netherlands*
[c]*Parnassia Addiction Research Centre, PO Box 53002, 2505 AA The Hague, The Netherlands*

Received 29 January 2002; received in revised form 19 September 2002; accepted 14 October 2002

**Abstract**

The objective of the study was to determine the extent of change in dimensional scores of personality disorders during treatment of drug abuse patients. The drug abuse patients were monitored prospectively during treatment. Over a period of 6 years, at 3-monthly intervals, all residents in a therapeutic community for drug abuse patients were administered the Millon Clinical Multiaxial Inventory-II (MCMI-II), a questionnaire developed to measure *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., revised) personality disorders. Subjects who completed the MCMI-II at least at four different times were selected for this study ($n$ = 72). Results of the study showed that treatment had resulted in significant changes in the dimensional scores of some personality disorders, whereas other dimensional scores did not change at all. Implications for treatment are discussed. 

*Keywords:* Drug abuse; Treatment effect; Repeated measurements; Dual diagnosis; Therapeutic community

## 1. Introduction

According to the official nomenclature in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; DSM-IV) of the American Psychiatric Association (1994), a personality disorder (PD) is 'an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment'. This definition stresses that the diagnosis of PD is dependent upon a pattern of clinical features manifested consistently over a prolonged period of time and that PDs remain present once a PD is diagnosed.

Over the last decade there has been a great deal of interest in the stability of PDs once they have been assessed (Ravndal & Vaglum, 1991a; McDavid & Pilkonis, 1996; McMahon & Richards, 1996; Grilo & McGlashan, 1999). A number of longitudinal studies evaluating the treatment outcome of normals with PD features (Lenzenweger, 1999) and of psychiatric patients with PDs (Perry, 1993; Stone, 1993; Bateman & Fonagy, 2000) have been published. Overall they conclude that a substantial percentage of the psychiatric patients with one or more lifetime PDs had significant symptoms and impairment in social functioning at follow-up.

Psychiatric and drug abuse comorbidity is among the highest in health care; axis I disorders are often mentioned (Brooner, King, Kidorf, Schmidt, & Bigelow, 1997) as well as axis II disorders, especially anti-social and borderline PDs (Hendriks, 1990; Nace, Davis, & Gaspari, 1991; Verheul, 1997; Kokkevi, Stefanis, Anastasopoulou, & Kostagianni, 1998). Further, a large proportion of the patients referred for treatment of personality disorders were also diagnosed with comorbid substance abuse disorders (Skodol, Oldham, & Gallaher, 1999). In other studies the prevalence of PDs in drug abuse patients

* Corresponding author: Tel.: +31-70-3916545; fax: +31-70-3917795.
*E-mail address*: m.de.groot@parnassia.nl (M.H. de Groot).

0740-5472/03/$ – see front matter 
doi:10.1016/S0740-5472(02)00351-3

has varied considerably. In their systematic review of the literature on personality disorders in drug abuse patients, Verheul, Van den Brink, and Hartgers (1995) found that across 25 studies of drug abuse patients the median prevalence of any PD was 61%. Most of the substance abusers who seek treatment fit the criteria for more than one PD (Barber et al. 1996). The presence of PDs among drug abuse patients has been associated with longer and heavier drug use histories, with poorer functioning with respect to employment, and with family and social problems (Rutherford, Cacciola, & Alterman, 1994). Rehabilitation of these drug abuse patients is more complicated; treatment times are longer and treatment outcomes poorer (Reich & Vasile, 1993; Verheul et al., 1995; Kokkevi et al., 1998; Ravndal & Vaglum, 1998). Drug abuse patients tend to be more resistant to change and often discontinue treatment prematurely (Reich & Vasile, 1993; Ravndal & Vaglum, 1998).

One of the objectives of treatment of drug abuse patients is to instill changes in thinking and behavior, most specifically to have patients change their attitude toward various aspects of life's challenges (Kooijman, 1992). Focusing the treatment of drug abuse patients on PD symptoms sometimes alleviates the specific symptoms. As a result it would be understandable that the percentage of drug abuse patients with a PD may change accordingly.

There are several studies on the long-term effects of psychotherapeutic treatment on PDs. However, only few studies have measured change in PDs during treatment, and there is a strong need for studies with repeated measurements (Perry, 1993). Such studies would provide data on changes during the therapeutic process.

The Millon Clinical Multiaxial Inventory (MCMI), an instrument to measure PDs, is frequently used in research on drug abuse patients (Craig & Weinberg, 1992; Flynn & McMahon, 1997). McMahon, Flynn and Davidson (1985) administered the MCMI to drug abuse patients at intake and again after 1 and 2 months of treatment. After 1 month of treatment significant changes were recorded on almost all the PD scales of the MCMI. Ravndal and Vaglum (1991a, 1991b) have presented data on substance abusers who followed a long-term program; after treatment most of the dimensional scores on the MCMI-II, the successor of the MCMI, changed significantly. The treatment periods for cocaine abusers in the study of McMahon and Richards (1996) were relatively short, but nonetheless changes on several of the PD scales of the MCMI-II were recorded. Schinka and collaborators (1999), using the MCMI-II, also found significant changes in different dimensional scores before and after treatment of female drug abuse patients.

To our knowledge no studies have been published in which the number of (or the dimensional scores of) PDs has been measured more than three times during treatment.

In our study we wanted to examine the change in the different PDs during treatment by measuring the severity of pathology every 3 months. Many therapeutic communities consider successful treatment for substance abuse to take at least 12 months (Ravndal & Vaglum, 1991a, Kooijman 1992), thus allowing program-completers to be screened four times. Because there are gender differences in the prevalence of PDs (Verheul, 1997), gender was included as an independent variable.

## 2. Materials and methods

### *2.1. Subjects and setting*

A total of 369 drug abusers consecutively applied for treatment at the residential therapeutic community of the 'Emiliehoeve' in The Hague, The Netherlands. All subjects met DSM-III-R (American Psychiatric Association, 1987) criteria for opiate dependence or abuse, or cocaine dependence or abuse, or both. Most were polydrug users. The procedures followed were in accord with the standards of the Committee on Human Experimentation and the guidelines of good clinical practice were followed. When a patient entered treatment, the study was explained and written informed consent obtained. At fixed times, in the last week of March, June, September and December, all patients were administered the MCMI-II (Millon, 1987), a questionnaire measuring PDs as defined in DSM-III-R.

Of the initial pool of 369 drug abuse patients a substantial number (n = 114) were in treatment for only 1 or 2 months and they were not in treatment when the MCMI-II was administered; no data are available for this group. Due to administrative problems (for example correctional measures or an absence for not more than several days or weeks), or poor reading skills, a few drug abuse patients (n = 8) were not able to complete the MCMI-II. Five drug abusers refused to participate in completing the MCMI-II. Thus a total of 242 substance abusers completed at least one MCMI-II. Of this group 150 left treatment within 9 months, so 92 drug abuse patients completed at least 9 months of treatment. There were no significant differences in age or sex between those who stayed and those who left the program early. However the scores of the program completers on the schizotypal scale were significantly lower ($p$ = .022) than those who left treatment early. The 92 drug abuse patients completed the MCMI-II four times are considered treatment-completers. Due to invalid responses on the MCMI-II on one or more occasions, the results from only 72 drug abuse patients could be used for the final analysis.

The Emiliehoeve, a treatment clinic in The Hague, is set up to treat substance abusers with long addictive histories. The treatment program is organized as in the Phoenix Houses in England and the United States and modeled after the Synanon Community in California (Kooijman, 1992). The residential treatment is highly