JOURNAL OF DUAL DIAGNOSIS
2017, VOL. 13, NO. 2, 136–143
http://dx.doi.org/10.1080/15504263.2017.1287457

Taylor & Francis
Taylor & Francis Group

Demoralization in Patients With Substance Use and Co-Occurring Psychiatric Disorders

Gerdien H. De Weert, PhD[a,b,c], Wiebren Markus, Msc[a,d,e], David W. Kissane, PhD[f], and Cornelis A. J. De Jong, PhD[a]

[a]Nijmegen Institute for Scientist-Practitioners in Addiction (NISPA), Nijmegen, The Netherlands; [b]Victas, Center for Addiction Treatment, Utrecht, The Netherlands; [c]Arkin Mental Health, Amsterdam, The Netherlands; [d]IrisZorg, Center for Addiction Treatment, Arnhem, The Netherlands; [e]NISPA, Nijmegen, The Netherlands; [f]Department of Psychiatry, School of Clinical Sciences at Monash Health, Monash University, Victoria, Australia

ABSTRACT

Objective: In recent years, treatment of substance use disorder has rekindled emphasis on recovery which, being a gradual process, starts with remoralization. In this study, we examine the level of demoralization throughout the treatment process for patients with comorbid substance dependence and psychiatric disorders. **Methods**: 217 patients with co-occurring disorders and 179 community-based individuals participated in this study. Demoralization was measured twice over one month as inpatient treatment happened. **Results**: In contrast with the community sample, we found high levels of demoralization in the clinical cohort, with 86% of patients having demoralization scores above threshold. During the first month there was a statistically significant reduction in demoralization scores. However, clinically relevant change appeared limited, with only 3% of patients moving from dysfunctional to functional status in this naturalistic setting without targeted intervention aimed at remoralization. **Conclusions**: Although the level of demoralization is significantly improved during the first month of treatment, patients still remain strongly demoralized. Clinically relevant improvement is limited. It could be worthwhile to set up targeted interventions aimed at remoralization. Furthermore, we advocate for the assessment of demoralization in the clinical setting to monitor patients' treatment outcomes.

KEYWORDS

Demoralization; patients with co-occurring disorders; recovery; remoralization; reliable change index

Among patients in mental health services, both in general psychiatry and in substance dependence speciality practice, dual diagnosis is an expectation, not an exception (Minkoff & Cline, 2004). Patients with substance dependence and comorbid psychiatric disorders often have to face somatic problems, a deprived social life, unemployment, and/or homelessness, alongside their symptoms of psychiatric and substance dependence disorders. Accordingly, many patients feel hopeless about their future and are unable to improve their prospects. According to Frank (1974), people do not seek help solely because they hallucinate or "drink too much," but because of these feelings of hopelessness and subjective incompetence. He described these phenomena as demoralization.

The distress associated with demoralization may include anxiety, disheartenment, anger, or rancor (Frank, 1974). Subjective incompetence is the self-perceived incapacity to perform appropriately in a stressful situation (De Figueiredo & Frank, 1982), leaving the person feeling trapped by their predicament. As patients recognize the discrepancy between their expectations and their impaired functioning, they experience demoralization (Restifo, Harkavy-Friedman, & Shrout, 2009).

Demoralization is associated with concepts such as hope, helplessness, depressed mood reduction, or positive psychology. In previous evaluation research of the Demoralization Scale (De Jong, Kissane, Geessink, & Van der Velden, 2008), overlap was found among these concepts, but there were also differences. Demoralization is a multidimensional concept in which hopelessness and meaninglessness are central characteristics (Clarke & Kissane, 2002). Demoralization develops across a spectrum of severity, from feelings of dysphoria and disheartenment, through more entrenched feelings of helplessness and sense of failure, to eventually complete loss of meaning and purpose (Kissane et al., 2004). According to De Figueiredo and Frank (1982), this spectrum illustrates an increasing subjective incompetence. Demoralization has been further described as a state characterized by a tendency to attribute negative life events to causes that are internal (i.e., subjective incompetence) and stable (i.e., hopelessness; Tecuta, Tomba, Frandi, & Fava, 2015). Insight into existential distress has proved crucial to

CONTACT Gerdien H. De Weert gdweert@victas.nl Victas, Center for Addiction Treatment, P.O. Box 14116, 3508 SE Utrecht, The Netherlands.

optimizing our clinical response to patients with advanced somatic diseases, where hopelessness is associated with poor outcomes in not only physical but also any related psychiatric illness (Clarke & Kissane, 2002). Ameliorating demoralization (remoralization) will create new opportunities to optimize symptom reduction and gain fresh control over one's life and thereby possibly over substance use. This process of gaining control over one's life is congruent with recovery. De Jong (2006) described a phased approach in the process of recovery according to the "four R's": remoralization, remediation, rehabilitation, and recovery. Addiction treatment should be aimed at supporting this process of recovery (McLellan, Lewis, O'Brien, & Kleber, 2000; Dennis, Scott, Funk, & Foss, 2005), starting with attention to demoralization and to remoralization.

It is estimated that around 2% to 5% of the general population is demoralized, depending on the assessment instrument that is applied. The highest prevalence of demoralization is found in psychiatric populations and in patients with (advanced) cancer (Tecuta et al., 2015). Most studies of demoralization have been conducted in patients with physical and psychiatric disorders. However, very few studies have been conducted in patients with substance use disorders. De Jong et al. (2008) studied demoralization in patients with opioid dependence, where significantly higher rates of demoralization were found than in patients with advanced cancer. Tossani, Garotti, and Cosci (2013) performed a study among 58 outpatients with substance use disorder and found a frequent occurrence of demoralization in these patients. In fact, demoralization had a great likelihood to be associated with a *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition* (DSM-IV) diagnosis, particularly with mood disorders (Tossani et al., 2013).

Thus far, to our knowledge, no longitudinal research has been conducted on demoralization in patients with co-occurring psychiatric disorders. Furthermore, the review of Tecuta et al. (2015) showed that the Demoralization Scale has not been used in the general population. The cutoffs that are used to determine whether the level of demoralization is clinically relevant have not been based on the Jacobson and Truax (1991) algorithm for computing cutoffs and reliable change indexes. The aims of this study are (a) to assess the level of demoralization in various subcategories of patients with co-occurring disorders, based upon the comorbidity of alcohol, opiate, cocaine, or cannabis dependence, and other Axis I diagnoses of psychotic, mood, and anxiety disorders; and (b) to assess the level of remoralization after one month of inpatient treatment without targeted intervention (treatment as usual) and to determine the relative contribution of comorbid disorders to this remoralization.

Methods

Participants

Two cohorts were examined and compared to address the study aims. The first cohort was obtained from 563 patients with co-occurring disorders who entered treatment in one of eight dual diagnosis treatment clinics in the Netherlands. Figure 1 presents the flow diagram of

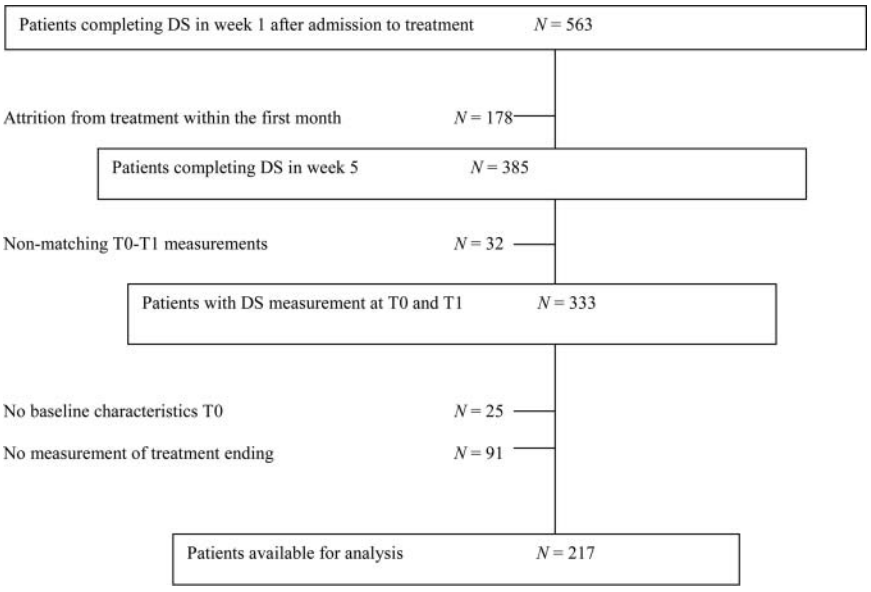

Figure 1. Flow diagram for inclusion of patients in clinical cohort. *Note*. DS = Demoralization Scale.

patients for inclusion in this cohort. The resulting clinical cohort consisted of 217 patients who were eligible through admission to one of these centers. With respect to age, gender, ethnicity, and substance use, this final clinical cohort was representative of the initial cohort of 563 patients.

Patients in dual diagnosis clinics are offered a three-month treatment program, with integrated treatment of both substance dependence and other psychiatric disorders. Comorbid diagnoses are often known at intake from previous treatments and/or referrals in the patient's dossier. During treatment, diagnostic procedures are set up on indication. Medication is prescribed if necessary. The psychosocial program consists of motivational interviewing, cognitive behavioral therapy, stabilizing physical conditions during withdrawal (detoxification according to guidelines), and relapse management. Recovery is the focus of the program in a broad sense.

A community cohort was obtained from a survey of the general Dutch population. Individuals were recruited as a convenience sample via the Internet from a pool of coworkers, friends, or relatives. Two hundred eleven persons responded to this survey, of whom 85.3% ($n = 179$) took part in the repeated measurement after one month. This community cohort contained more women and averaged just six years older but was essentially a non–substance-dependent community sample that could be compared to the clinical sample.

Design

Patients in the clinical cohort completed a measure of demoralization at treatment entry and one month thereafter. Individuals in the community cohort were asked to complete the same measure of demoralization, together with their sociodemographic characteristics. The study was approved ethically by the institutional review boards of the participating institutions. All patients gave informed consent to this procedure and for the use of their data for scientific purposes. The clinical procedure was part of a routine monitoring process. All data were reported anonymously.

Measures

Sociodemographic information was obtained from the patient's electronic file. Data were placed at the disposal of the researchers by the clinicians after anonymizing them.

The Demoralization Scale (Kissane et al., 2004) measures five dimensions describing dysphoria (5 items), disheartenment (6 items), helplessness (4 items), sense of failure (4 items), and loss of meaning and purpose (5 items). This 24-item self-report questionnaire (see Appendix) is answered on a 5-point scale ranging from "never" to "all the time." Subscale and total scores are calculated by summing the items, with higher scores reflecting higher levels of demoralization in all subscales. The validated Dutch version of the Demoralization Scale was used (De Jong et al., 2008), with psychometric properties comparable to the English version and showing adequate reliability and validity. Scale reliabilities in the study population of patients with co-occurring disorders were Cronbach's $\alpha = 0.79$ for dysphoria; $\alpha = 0.77$ for disheartenment; $\alpha = 0.82$ for helplessness; $\alpha = 0.61$ for sense of failure; $\alpha = 0.82$ for loss of meaning; and $\alpha = 0.92$ for the total demoralization score.

Statistical analyses

All quantitative data were entered and analysed using SPSS 20.0 (SPSS Inc., Chicago, IL). The alpha level was set at 0.05 throughout. To test for differences in demoralization on the five subscales and total scores of the Demoralization Scale between the cohorts, between-group analyses of variance were performed. Test-retest reliability was computed in the community cohort ($r = .74$, $p < .0001$). Clinical cases were based upon cutoffs that were computed applying the data from both cohorts, using the formula ((meanclin x SDnorm) + (meannorm x SDclin)) / (SDnorm + SDclin) (Jacobson & Truax, 1991; Parabiaghi, D'Avanzo, Erlicher, & Lora, 2005). Below these cutoffs, individuals are considered not demoralized; values above the cutoff generate a "diagnosis of demoralization."

Results

The sample of 217 patients comprised mainly men (77%). Mean age was 35 years. The majority of patients were of Dutch origin. Patients differed from the community sample in that they were more often male and of non-Dutch ethnic origin, and they were younger (Table 1). Patients had diagnoses based on the DSM-IV criteria for an Axis I substance use disorder (95%) and an Axis I or Axis II psychiatric disorder (68%). Most patients had a history of substance use for more than 10 years.

Patients experienced severe comorbid disorders (Table 2). Frequently occurring comorbidity was seen in alcohol dependence with anxiety and mood disorders, cannabis dependence with psychotic disorders, cocaine dependence with psychotic disorders, and in opioid dependence with anxiety disorders. Patients with substance dependence experienced the highest levels of demoralization in comorbidity with anxiety disorders

Table 1. Baseline characteristics of the clinical and community cohorts.

	Community cohort $N = 179$	Clinical cohort $N = 217$	Differences between populations (p)
Gender (%)			
▪Male	31.7	77.4	$\chi^2 = 91.86$ (< .001)
▪Female	68.3	22.6	
Age (*M, SD*)	41.96 (14.7)	35.42 (9.9)	$t = 5.44$ (< .001)
Ethnicity (%)	n.k.		
▪Dutch		81.5	
▪Non-Dutch		18.5	
Substance used (%)			
▪Opiates	0	20.2	$\chi^2 = 29.31$ (< .001)
▪Cocaine	1.4	46.5	$\chi^2 = 122.32$ (< .001)
▪Cannabis	4.1	52.1	$\chi^2 = 124.58$ (< .001)
▪Benzodiazepines	n.k.	16.4	
▪Amphetamines	0.9	19.2	$\chi^2 = 40.70$ (< .001)
▪Other	2.7	5.2	$\chi^2 = 1.70$ (.19)
Duration of substance use (%)	n.a.		
▪< 2 years		2.4	
▪2–5 years		11.8	
▪5–10 years		14.2	
▪> 10 years		71.6	
Diagnosis of dependence and/or misuse DSM-IV (%)	n.a.		
Alcohol		46.9	
Opioid		13.5	
Cocaine		27.1	
Cannabis		34.3	
Sedatives		11.4	
Amphetamine		10.7	
Hallucinogens		1.4	
Other/multiple substance use disorder		15.9	
GAF at admission (*M, SD*)	n.a.	44.25 (7.1)	

Note. n.a. = Not applicable; n.k. = not known; GAF = Global Assessment of Functioning; DSM-IV = Diagnostic and Statistical Manual of Mental Disorders, 4th Edition; *M* = mean; *SD* = standard deviation.

and the lowest in the presence of psychotic disorders (Figure 2). These differences were statistically significant for patients with cocaine and cannabis dependence ($F = 29.58$ [$p < .005$] and $F = 3.69$ [$p = .03$], respectively), but not for those with alcohol or opioid dependence.

Mean demoralization scores for the general population were between 1.7 for loss of meaning and purpose and 5.1 for dysphoria. Mean scores were higher for women than for men on all subscales, including the Demoralization Scale total. These differences between men and women were not statistically significant for most subscales, but they were for dysphoria and for demoralization total. Furthermore, we found no significant correlations between age and demoralization scores.

Mean time lapse between T0 and T1 measurements was 30.3 ($SD = 8.2$) days for the community cohort and 29.6 ($SD = 8.4$) days for the clinical population. As could be expected in the general population, there were no differences between T0 and T1 measurements for demoralization.

The clinical cohort had demoralization scores that were notably higher on all (sub)scales (Table 3). Differences between both cohorts were statistically significant throughout. Cutoffs for clinical significance were computed for all subscales. Individuals with scores below these cutoffs were considered "functional." Based on T0 measurements, between 70% and 80% of the community cohort belonged to the "functional population." In the clinical population, 14% could be considered "functional" when looking at the Demoralization Scale total. Based on paired *t*-test analysis, patients in the clinical population all showed significant change from T0 to T1: All scores were significantly lower at T1, indicating that patients experienced less demoralization after the first month of inpatient treatment. However, although statistically significant, overall differences appeared small. Next, reliable change indices were computed for all (sub) scales. The results, presented in Table 3, show that mean reliable change indexes were low, indicating that no clinically significant change had occurred. Of importance, a negligible proportion deteriorated. For the Demoralization Scale total, 7% of patients showed clinically relevant improvement and 1% clinically relevant deterioration.

In addition, changes in mean demoralization scores were analyzed for subcategories of patients by comorbidity pattern (Table 4). For comorbidity of substance use disorder with anxiety or mood disorders, differences between T0 and T1 were significant in patients with alcohol and cocaine dependence, but not in those with cannabis and opioid dependence. These changes were not significant in the presence of psychotic disorders for either of the substance dependence categories.

Table 2. Co-occurrence of subcategories of substance dependence and other Axis I psychopathology in patients with co-occurring disorders ($n = 217$).

	Alcohol dependence $N = 97$ %	Cannabis dependence $N =$ 71 %	Cocaine dependence $N = 56$ %	Opioid dependence $N = 28$ %
Anxiety disorder	29	16	18	21
Mood disorder	24	13	13	14
Psychotic disorder	24	45	29	18

Discussion

To the best of our knowledge, this is the first longitudinal study of demoralization in patients with co-occurring psychiatric disorders. We have shown that these patients carry high levels of demoralization, which reduces during

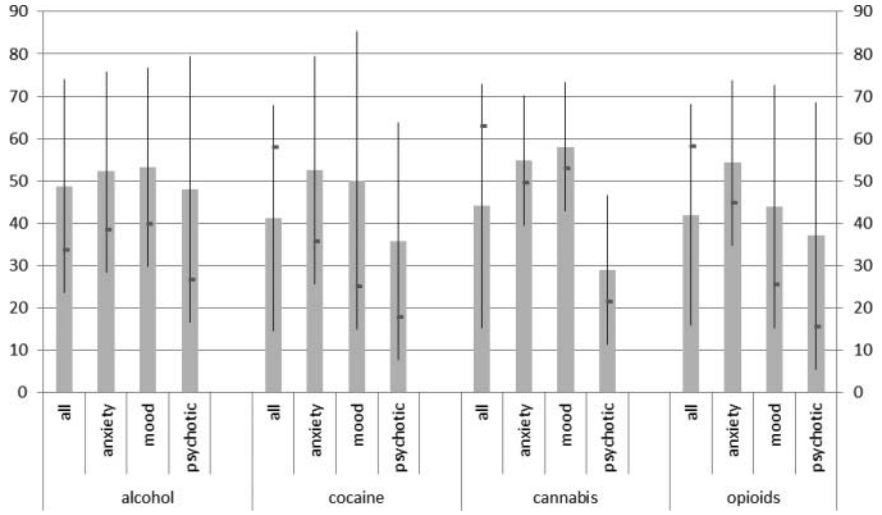

Figure 2. Mean demoralization scores (and standard deviations) at the beginning of treatment among patients with dual diagnosis by substance use disorder and comorbid psychiatric disorder.

their inpatient treatment, but not to a clinically meaningful degree that might be expected from a recovery program. Demoralization is a worthy focus for psychotherapeutic efforts to both remotivate and promote new sources of meaning and purpose in these patients' lives. Our data reveal that clinically meaningful remoralization does not occur naturally within the first phase of treatment. However, our follow-up period was limited to one month. It is possible that demoralization scores would have continued to improve over a longer period of time and with a longer duration of treatment. On the other hand, remoralization is the first step in the recovery process and is supposed to occur predominantly during the first phase of treatment. We therefore argue for the development of meaning-centered therapies appropriate to these patients so that clinicians can better address their needs.

There were some limitations to this study. The community sample was not closely matched, but did serve adequately as a non–substance-dependent sample. Our exploration of demoralization in patients with co-occurring disorders took place in a naturalistic setting, with a heterogeneous population of patients with mixed DSM-IV diagnoses, with respect to both substance use and other disorders. This is a strength as well as a limitation, because the diverse sample benefits external validity, but varied baseline characteristics may have confounded the findings. Previous studies (De Figueiredo, 1983; Mangelli et al., 2005) have shown an overlap between demoralization and states of distress, which have been experienced more frequently in mood and anxiety disorders. It would be interesting to aim future research at the question of whether reducing a patient's distress levels may also positively influence levels of demoralization. Furthermore, including measures of depression in future studies may shed more light on the association between demoralization and mood disorders.

The level of demoralization differs according to gender and age, although the associations among age and ethnicity and demoralization are rather weak. The latter may be the result of cultural differences in expressing one's feelings. The correlation between gender and demoralization is the strongest, possibly explained by the higher prevalence of mood disorders in women. In other studies, women have likewise shown higher demoralization than men (Mehnert, Vehling, Hocker, Lehmann, & Koch, 2011; Robinson, Kissane, Brooker, & Burney, 2015).

The correlations found in our study population between age and demoralization are consistent with studies on the relation between age and depression (Stordal et al., 2003; Luppa et al., 2012), but they differ from other studies about demoralization (Mehnert et al., 2011; Clarke, Kissane, Trauer, & Smith, 2005). In their sample of patients with advanced cancer, Mehnert et al. (2011) found an association between younger age and demoralization. Clarke et al. (2005) found the same association in their sample of patients with severe physical illness. The reason for this difference could be found in the discrepancy that younger patients with cancer and physical illnesses experience between their expectations of life at this age on the one hand and their impaired functioning on the other hand.

To confirm the results of this longitudinal study in a naturalistic setting of patients with co-occurring disorders, further research is required preferably in more homogeneous samples of patients. It would also be of interest to investigate the effects of targeted interventions

Table 3. Mean demoralization scores at T0 and T1 for clinical and community cohorts; statistical and clinical change parameters.

		Community cohort ($n = 179$)				Clinical cohort ($n = 217$)							
	Cutoffses	T0 *M* (*SD*)	T1 *M* (*SD*)	< Cutoff score T0 %	Paired *t*-test for change (*p*)[1]	T0 *M* (*SD*)	T1 *M* (SD)	< Cutoff score T0 %	Paired *t*-test for change (*p*)[1]	Reliable change *M* (*SD*)	Clinically improved[2] %	Clinically deteriorated[2] %	Improved and recovered[3] %
Demoralization	25.78	17.44 (11.7)	17.28 (11.8)	76.4	0.24 (.81)	44.17 (16.4)	39.41 (15.6)	14.3	5.95 (< .001)	0.40 (1.0)	7.4	0.9	3.2
Dysphoria	7.65	5.21 (3.3)	5.03 (3.2)	73.6	0.96 (.34)	10.66 (4.1)	10.10 (4.0)	21.7	2.84 (.005)	0.18 (0.9)	3.2	0.9	1.8
Disheartenment	7.62	4.14 (3.7)	4.03 (3.7)	79.5	0.50 (.62)	12.15 (4.9)	10.54 (4.7)	20.3	5.50 (< .001)	0.44 (1.2)	10.1	1.4	6
Helplessness	3.63	2.27 (2.6)	2.28 (2.5)	70	−0.07 (.95)	6.84 (3.9)	5.72 (3.7)	21.7	5.24 (< .001)	0.33 (0.9)	4.6	0.9	3.2
Sense of failure	5.4	4.09 (1.9)	4.24 (2.0)	76.4	−1.18 (.24)	7.67 (3.3)	7.43 (3.4)	29	1.04 (.29)	0.08 (1.1)	5.1	3.7	5.1
Loss of meaning	2.51	1.73 (2.5)	1.71 (2.5)	70	0.12 (.91)	7.12 (4.8)	5.79 (4.4)	22.1	5.02 (< .001)	0.38 (1.1)	8.3	2.8	4.1

Note. [1]Based on paired samples *t*-test. [2]Based on Reliable Change Index. [3]Based on Reliable Change Index and below (improved) or above (deteriorated) cutoff. *M* = mean; *SD* = standard deviation.

Table 4. Changes in mean demoralization scores (Demoralization Scale Total) T0–T1 per comorbidity subcategory of patients: Results of paired-samples *t*-tests.

	T0 score *M* (*SD*)	T1 score *M* (*SD*)	Paired *t*-test (*p*)
Alcohol all comorbidities	48.70 (15.2)	43.24 (13.9)	$t = 4.48$ (< .001)**
Alcohol dependence + anxiety disorder	55.50 (13.5)	45.18 (15.6)	$t = 4.14$ (< .001)**
Alcohol dependence + mood disorder	50.13 (14.5)	45.30 (15.9)	$t = 3.79$ (.01)*
Alcohol dependence + psychotic disorder	47.39 (19.6)	44.61 (15.9)	$t = 1.20$ (.24)
Cannabis all comorbidities	44.11 (18.8)	40.20 (18.2)	$t = .97$ (.004)*
Cannabis dependence + anxiety disorder	52.45 (16.9)	45.09 (18.5)	$t = 1.77$ (.11)
Cannabis dependence + mood disorder	50.00 (22.7)	46.44 (22.1)	$t = 1.43$ (.19)
Cannabis dependence + psychotic disorder	41.25 (21.2)	39.03 (20.2)	$t = 1.28$ (.21)
Cocaine all comorbidities	41.18 (16.6)	37.29 (14.5)	$t = 2.81$ (.007)*
Cocaine dependence + anxiety disorder	50.50 (10.9)	45.00 (12.3)	$t = 1.59$ (.15)
Cocaine dependence + mood disorder	50.57 (13.7)	39.43 (8.8)	$t = 2.84$ (.03)*
Cocaine dependence + psychotic disorder	32.81 (17.2)	30.50 (13.7)	$t = 1.38$ (.19)
Opioid all comorbidities	41.89 (17.1)	39.61 (14.9)	$t = 0.86$ (.40)
Opioid dependence + anxiety disorder	54.33 (9.5)	48.00 (16.4)	$t = 1.00$ (.36)
Opioid dependence + mood disorder	50.50 (20.0)	44.75 (13.7)	$t = 0.65$ (.56)
Opioid dependence + psychotic disorder	42.40 (22.2)	42.40 (15.7)	$t = 0.00$ (1.00)

Note. *M* = mean; *SD* = standard deviation.
*$p < .05$; **$p < .01$.

aimed at remoralization as a first step in the process of recovery. Such interventions have been set up, for instance, by Vissers et al. (2010), with promising results. These interventions should be part of the treatment program for patients, especially during the first phases of recovery. In addition, the interrelation between other relevant concepts such as quality of life, physical and psychological symptoms, and motivation for treatment warrants further investigation.

Acknowledgments

The authors wish to express their gratitude to all who have contributed in one way or another to this work, especially for the support of the patients themselves and from our colleagues of the dual diagnosis treatment clinics: De Loodds (Delta Psychiatric Center, Poortugaal), De Woenselse Poort (Mental Health Care, Eindhoven), IrisZorg (Centre for Addiction Treatment and Rehabilitation, Wolfheze), Novadic-Kentron (Network for Addiction Treatment Services, Vught), Tactus (Center for Addiction Treatment, Deventer), Breburg Group (Mental Health Care, Tilburg and Breda), and Mental Health Care WNB (Halsteren). Furthermore, we thank Merel Ooms and Noortje van den Nieuwenhuizen for their contributions to previous drafts of this paper.

Disclosures

None of the authors has any additional income to report.

Funding

The study was performed based on data that were obtained from the centers that participated in the Dual Diagnosis Monitoring Project. No additional funding was received.

ORCID

Cornelis A. J. De Jong http://orcid.org/0000-0003-1824-7303

References

Clarke, D. M., & Kissane, D. W. (2002). Demoralization: Its phenomenology and importance. *The Australian and New Zealand Journal of Psychiatry*, *36*(6), 733–742. doi:10.1046/j.1440-1614.2002.01086.x

Clarke, D. M., Kissane, D. W., Trauer, T., & Smith, G. C. (2005). Demoralization, anhedonia and grief in patients with severe physical illness. *World Psychiatry*, *4*, 96–105.

De Jong, C. A. J. (2006). *Chronically addicted: The therapist, the patient and the illness.* (*Chronisch verslaafd: De therapeut, de patiënt en de ziekte.)*, Nijmegen: Inauguration speech. September 14.

De Jong, C. A. J., Kissane, D. W., Geessink, R. J., & Van der Velden, D. (2008). Demoralization in opioid-dependent patients: A comparative study with cancer patients and community subjects. *The Open Addiction Journal*, *1*, 7–9.

De Figueiredo, J. M. (1983). Some issues in research on the epidemiology of demoralization. *Comprehensive Psychiatry*, *24* (2), 154–157.

De Figueiredo, J. M., & Frank, J. D. (1982). Subjective incompetence, the clinical hallmark of demoralization. *Comprehensive Psychiatry*, *23*, 353–363.

Dennis, M. L., Scott, C. K., Funk, R., & Foss, M. A. (2005). The duration and correlates of addiction and treatment careers. *Journal of Substance Abuse Treatment*, *1*, S51–S52. doi:10.1016/j.jsat.2004.10.013

Frank, J. D. (1974). Psychotherapy, the restoration of morale. *American Journal of Psychiatry*, *131*(3), 271–274.

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, *59*(1), 12–19.

Kissane, D. W., Wein, S., Love, A., Lee, X. Q., Kee, P. L., & Clarke, D. M. (2004). The demoralization scale: A report of

its development and preliminary validation. *Journal of Palliative Care*, *20*(4), 269–276.

Luppa, M., Sikorski, C., Luck, T., Ehreke, L., Konnopka, A., … Riedel-Heller, S. G. (2012). Age- and gender-specific prevalence of depression in latest-life–systematic review and meta-analysis. *Journal of Affective Disorders, 136*(3), 2012–2021.

Mangelli, L., Fava, G. A., Grandi, S., Grassi, L., Ottolini, F., … Sonino, N. (2005). Assessing demoralization and depression in the setting of medical disease. *The Journal of Clinical Psychiatry*, *66*(3), 391–394. doi:10.4088/JCP.v66n0317

McLellan, A. T., Lewis, D., O'Brien, C., & Kleber, M. (2000). Drug dependence, a chronic medical illness: Implications for treatment, insurance and outcome evaluation. *JAMA*, *284*, 1689–1695. doi:10.1001/jama.284.13.1689

Mehnert, A., Vehling, S., Hocker, A., Lehmann, C., & Koch, U. (2011). Demoralization and depression in patients with advanced cancer: Validation of the German version of the Demoralization Scale. *Journal of Pain & Symptom Management*, *42*(5), 768–776. doi:10.1016/j.jpainsymman.2011.02.013

Minkoff, K., & Cline, C. A. (2004). Changing the world: The design and implementation of comprehensive continuous integrated systems of care for individuals with co-occurring disorders. *The Psychiatric Clinics of North America*, *27*(4), 727–743. doi:10.1016/j.psc.2004.07.003

Parabiaghi, A. B., D'Avanzo, B., Erlicher, A., & Lora, A. (2005). Assessing reliable and clinically significant change on Health of the Nation Outcome Scales: Method for displaying longitudinal data. *Australian and New Zealand Journal of Psychiatry*, *39*, 719–725. doi:10.1080/j.1440-1614.2005.01656.x

Restifo, K., Harkavy-Friedman, J. M., & Shrout, P. E. (2009). Suicidal behavior in schizophrenia. A test of the demoralization hypothesis. *The Journal of Nervous and Mental Disease*, *197* (3), 147–153. doi:10.1097/NMD.0b013e318199f452

Robinson, S., Kissane, D. W., Brooker, J., & Burney, S. (2015). A systematic review of the demoralization syndrome in individuals with progressive disease and cancer: A decade of research. *Journal of Pain Symptom Management*, *49*(3), 595–610. doi:10.1016/j.jpainsymman.2014.07.008

Stordal, E., Bjartveit Krüger, M., Dahl, N. H., Krüger, Ø., Mykletun, A., & Dahl, A. A. (2003). Depression in relation to age and gender in the general population: The Nord-Trøndelag Health Study (HUNT). *Acta Psychiatrica Scandinavica*, *107*(2), 132–141. doi:10.1034/j.1600-0447.2003.02056.x

Tecuta, L., Tomba, E., Grandi, S., & Fava, G. A. (2015). Demoralization: A systematic review on its clinical characterization. *Psychological Medicine*, *45*, 673–691. doi:10.1017/S0033291714001597

Tossani, E., Garotti, M. G. R., & Cosci, F. (2013). The use of diagnostic criteria for psychosomatic research in substance use disorder patients. *Psychotherapy & Psychosomatics*, *82*, 195–196. doi:10.1159/000345170

Vissers, W., Keijsers, G. P. J., Van der Veld, W. M., Hendriks, G. J., & Hutschemaekers, G. J. M. (2010). Utility of measuring remoralization in addition to symptoms in efficacy research: A preliminary study. *Psychotherapy Research*, *20*(5), 611–618. doi:10.1080/10503307.2010.496469

Appendix: Demoralization Scale

For each statement below, please indicate how strongly you have felt this way over the last two weeks, by circling the corresponding number	Never	Seldom	Sometimes	Often	All the time
1. There is a lot of value in what I can offer others.	0	1	2	3	4
2. My life seems to be pointless.	0	1	2	3	4
3. There is no purpose to the activities in my life.	0	1	2	3	4
4. My role in life has been lost.	0	1	2	3	4
5. I no longer feel emotionally in control.	0	1	2	3	4
6. I am in good spirits.	0	1	2	3	4
7. No one can help me.	0	1	2	3	4
8. I feel that I cannot help myself.	0	1	2	3	4
9. I feel hopeless.	0	1	2	3	4
10. I feel guilty.	0	1	2	3	4
11. I feel irritable.	0	1	2	3	4
12. I cope fairly well with life.	0	1	2	3	4
13. I have a lot of regret about my life.	0	1	2	3	4
14. Life is no longer worth living.	0	1	2	3	4
15. I tend to feel hurt easily.	0	1	2	3	4
16. I am angry about a lot of things.	0	1	2	3	4
17. I am proud of my accomplishments.	0	1	2	3	4
18. I feel distressed about what is happening to me.	0	1	2	3	4
19. I am a worthwhile person.	0	1	2	3	4
20. I would rather not be alive.	0	1	2	3	4
21. I feel sad and miserable.	0	1	2	3	4
22. I feel discouraged about life.	0	1	2	3	4
23. I feel quite isolated or alone.	0	1	2	3	4
24. I feel trapped by what is happening to me.	0	1	2	3	4