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Stress and burnout in psychiatric professionals when starting to use dialectical behavioural therapy in the work with young self-harming women showing borderline personality symptoms

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Stress and burnout in psychiatric professionals starting to use dialectical behavioural therapy on young self-harming women showing borderline personality symptoms

The aim of the study was to investigate how starting to use dialectical behavioural therapy (DBT) in the work with young self-harming women showing symptoms of borderline personality disorder affected the psychiatric professionals ($n = 22$) experience of occupational stress and levels of professional burnout. The study was carried out in relation to an 18-month clinical psychiatric development project, and used a mix of quantitative and qualitative research methods [a burnout inventory, the Maslach burnout inventory-General Survey (MBI-GS), free format questionnaires and group interviews]. The result confirms previous reports that psychiatric health professionals experience treatment of self-harming patients as very stressful. DBT was seen as stressful in terms of learning demands, but decreased the experience of stress in the actual treatment of the patients. The teamwork and supervision were felt to be supportive, as was one particular facet of DBT, namely mindfulness training which some therapists felt also improved their handling of other work stressors not related to DBT. The inventory for professional burnout, the MBI-GS, showed no significant changes over the 18-month period, although there was a tendency for increased burnout levels at the 6-month assessment, which had returned to baseline levels at 18 months.

Keywords: borderline personality disorder, cognitive behavioural therapy, professional burnout, psychological stress, psychotherapy

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Introduction

Borderline personality disorder – staff stress and burnout

Borderline personality disorder (BPD) is a serious psychiatric disorder and is characterized by patterns of instability in affect regulation, impulse control, interpersonal relationships and self-image (APA 1994). BPD is also strongly associated with suicidal and deliberate self-harm behaviour (APA 1994, Lieb *et al*. 2004). Recent reviews suggest that between 70% and 75% of treated BPD patients have made at least one life-threatening act of self-harm (Black *et al*. 2004, Lieb *et al*. 2004). Long-term follow-up studies suggest that about 10% actually die from suicide (McGlashan 1986, Stone 1993, Paris 2002). BPD patients are known to be difficult to retain in therapy, they frequently fail to respond to therapeutic efforts and make considerable demands on the emotional resources of psychiatric professionals (Kelly *et al*. 1992, Linehan 1993, Bergman & Eckerdal 2000, Bland & Rossen 2005). Working with patients who are suicidal and self-harming appears to increase the risk of experiencing high level stress among psychiatric health professionals (Loughrey *et al*. 1997, Melchior *et al*. 1997, Burnard *et al*. 2000). Experiencing high levels of occupational stress is associated with high risk for professional burnout (Arnetz *et al*. 1994, Samuelsson *et al*. 1997, Thomsen *et al*. 1999, Edwards *et al*. 2000, 2003, Jenkins & Elliott 2004). The present study investigates psychiatric health professionals' experience of stress and levels of professional burnout when working with young self-harming patients showing BPD symptoms and starting to use a (for them) new outpatient psychosocial intervention [dialectical behavioural therapy (DBT)].

Dialectical behavioural therapy

Dialectical behavioural therapy is originally developed to treat suicidal and self-harming patients. It is a cognitive behavioural therapy (CBT) with the focus on and techniques for behavioural change, but DBT expands the CBT-rationale with the inclusion of acceptance of issues which cannot be changed, and mindfulness as a condition to act and react in a particular way towards the inner and outer world (Linehan 1993, Robins *et al*. 2004). The focus in DBT is also slightly different from ordinary CBT. In DBT, focus is on validation of the patient, on treating self-harm and increasing therapy compliance, on the therapeutic alliance and on the dialectical process between acceptance and change (Linehan 1993). The central modes of DBT are individual outpatient psychotherapy, skills training in group, telephone consultation and case consultation meetings for therapists. Running throughout the treatment is specific core strategy of validation and problem solving whose aims are to increase the overall quality of life for the patient (Linehan 1993). In several independent randomized controlled studies, DBT-treated patients have shown significantly fewer suicide attempts, acts of self-harm and lower treatment dropout rate compared with control groups (Linehan *et al*. 1991, 1999, 2002, Koons *et al*. 2001, Verheul *et al*. 2003). It has also been associated with reduction of treatment costs (Perseius *et al*. 2004) and appears well accepted by the patients (Perseius *et al*. 2003).

In the treatment manual DBT is described as particularly alert to risks of burnout in therapists. Teamwork, structured peer support, supervision and mindfulness training for the therapists are seen as an essential and burnout preventive part of the treatment (Linehan 1993). We wanted to empirically investigate if starting to use DBT may have impact on the experience of stress and levels of burnout among psychiatric health professionals working with self-harming patients.

Professional burnout and the Maslach burnout inventory

In literature there are several definitions of professional burnout, partly contradictive, but its core features are prolonged stress related to the work-situation, associated with an unfavourable work environment, in initially strongly motivated individuals who respond to the prolonged stress with physical, cognitive and affective dysfunction (Shaufeli & Enzmann 1998). The most influential definition of burnout has been offered by the American social psychologist Christina Maslach, who characterized burnout as a syndrome of emotional exhaustion, depersonalization/cynicism and reduced personal accomplishment/efficacy. Emotional exhaustion refers to feelings of being overextended and exhausted by the emotional demands of one's work. Depersonalization/cynicism is characterized by a detached and cynical approach to other people in the context of work. Personal accomplishment/efficacy is the self-evaluated feeling that one is no longer effective in one's work (Maslach & Jackson 1981, Maslach *et al*. 1996, Maslach & Leiter 1997). Maslach & Jacksson (1981) constructed an inventory (the Maslach burnout inventory, MBI) to measure these three dimensions of burnout in three different sub-scales. The original MBI instrument (Maslach & Jacksson 1981) was developed primarily in social service contexts. In order to facilitate comparison across occupational groups, MBI was developed further in a version called MBI-General Survey (MBI-GS, Maslach *et al*. 1996), which we used in the present study.

In 2003, a clinical psychiatric development project started in Uppsala County, Sweden, with the aim of implementing DBT as standard treatment for deliberate self-harming young women (15–25 years) with BPD symptoms. The project (which was managed by the second author, A.K.) included a 6-month (without treating patients) plus 18-month (treating patients) education and training phase for the psychiatric professionals involved (in the following text referred to as 'therapists'). The present study took advantage of the training phase to investigate how starting to work with DBT affected the therapists' experience of occupational stress and levels of professional burnout.

Participants and methods

Participants

All therapists in the DBT-project in Uppsala County ($N = 22$, 19 women and 3 men) were asked to participate after having the aims and procedures of the study explained to them. All accepted participation. They had different professions and educational backgrounds; two physicians, three psychologists, eight registered nurses, eight mental care assistants and one occupational therapist, and had been working in psychiatric care between 6 and 32 years (median 20 years). Three of the respondents were already registered psychotherapists and another five had some previous cognitive behavioural psychotherapy training. They all had extensive experience in working with BPD and self-harming patients, which was a requirement for inclusion of a therapist in the project.

The DBT training programme and the therapists' work situation

DBT is a CBT with the focus on and techniques for behavioural change, but it expand the CBT-rationale combining intervention strategies from behavioural, cognitive and supportive psychotherapies as well as mindfulness training (meditation, relaxation and acceptance techniques). The central modes of DBT are individual outpatient psychotherapy, skills training in group, telephone consultation and case consultation meetings for therapists. The therapy applies a mixture of supportive techniques, directive problem-oriented techniques (behaviour skills training, exposure, contingency management and cognitive modification) and mindfulness techniques. The therapy targets three phases of general treatment goals organized in the following hierarchy: (1) stability and security, aiming towards decreased suicidal behaviour and acts of self-harm, better therapy compliance and improved quality of life; (2) reduction of post-traumatic stress by focusing on traumatic life events; and (3) increased self-respect and achievement of individual life goals. Both during and between sessions the therapist actively teaches and reinforces adaptive behaviours. Therapists, between sessions, ideally have a 24-h readiness to intervene in their patients' self-harming behaviour by telephone (Linehan 1993).

The therapists were recruited from the clinics of adult psychiatry and child psychiatry respectively, and were organized in DBT teams of three to five persons. For the first 6 months of the programme, the therapists were educated in the theory and practice of DBT without treating patients. The baseline assessment in the study was carried out during this period. The education contained lectures and workshops on DBT theory and method as well as mindfulness training. The next phase was an 18-month period of supervised treatment of patients, both individual and in group alongside continued education. All guided by experienced DBT-therapists. All therapists treated at least one individual patient and lead at least one skills training group. The therapists received supervision in group, 3 h a week. All therapy sessions were videotaped and treatment discussions were based on the DBT adherence scale and carried out in the team setting (Linehan 1993). The supervisors were well-trained DBT and CBT therapists/supervisors. All in all the therapists received 110 h of theory, 51 h of method and mindfulness training in workshops, and 153 h of supervision in the teams or individually. All therapists worked part time with DBT, between 25% and 50% of their total time at work. The DBT was combined with other types of clinical work and in some cases administrative work.

Patient inclusion

The patient inclusion criteria were; women with BPD or BPD symptoms, those between the age of 15 and 25 years were prioritized. Women older than 18 years were included if they filled five or more criteria (out of nine) for BPD according to a structured clinical interview for DSM disorders – (SCID) II interview (First *et al*. 1996). If the women were younger than 18 years, they were included if filling five or more criteria for BPD according to SCID II, but without using the DSM IV general criteria for personality disorders (APA 1994). Further, women with physical self-harm behaviour were prioritized. The patient exclusion criteria during the training phase were: psychotic disorders, severe anorexia and severe alcohol or drug abuse. Actually included were 27 women, 15–40 years (M = 20.2, standard deviation = 5.6), three of them dropped out during the first 12 months of the treatment phase.

Data collection

Data were collected by (1) an inventory focusing the phenomena of professional burnout; the MBI (see further under *Instrument*); (2) an individual open question, free text answer questionnaire; and (3) a group interview. The free text questionnaires and group interview both addressing feelings about work and experiences of occupational stress. The MBI were administered for self-assessment at the start of the education before the treatment phase (baseline) and after 6, 12 and 18 months in the treatment phase. The free text questionnaires were administered by mail at the end of the project (18 months) and the group interviews took place 2 months later. The therapists had 3 weeks to fill in the free format questionnaires. The questionnaires were then sent by mail to the first author, who performed a preliminary content analysis. The result of the preliminary analysis was used as a basis for an interview guide in the group interviews. The group interviews (four groups with three to five persons each) took place in the premises of the DBT-project and lasted 70–90 min. In relation to the aim of the present study, the questions in the free format questionnaires and the interview guide focused on the following two areas: (1) feelings towards the work situation before and after starting working with DBT; and (2) experiences of occupational stress before and after starting with DBT. The interview guide was used freely, allowing the respondents to narrate experiences in their own words. Questions were asked using a funnel approach starting with quite wide, open-ended questions like: 'How come you started to work with DBT?', 'What was your work situation like before starting with DBT?', 'What is your work situation like today?', followed by more specific questions, like: 'Have your experiences of occupational stress changed in any way?' and 'How come?'. All interviews were audiotaped. The first and third author conducted all data collection (K.-I.P. and S.E.). The data collectors had no part in the training programme, merely the evaluation.

Instrument

The MBI-GS measure burnout in three dimensions on separate sub-scales: exhaustion, cynicism and personal efficacy. It contains 16 items with a response format ranging from zero (never) to six (every day), with five items concerning exhaustion (negatively worded), five concerning cynicism (negatively worded) and six items for personal efficacy (positively worded). The score on each sub-scale is the mean score of the items in the sub-scale with higher degree of burnout the higher the score (Maslach *et al.* 1996, Shutte *et al.* 2000). The MBI-GS translation we used has shown satisfactory reliability in a Swedish sample (U. Peterson, K.I. Perseius & M. Samuelsson pers. comm.); with Cronbachs alpha values of 0.89 (exhaustion), 0.78 (cynicism) and 0.78 (personal efficacy), as well as criterion and factorial validity in another Swedish sample (Shutte *et al.* 2000).

Data analysis

The data from the inventory were analysed by descriptive statistics and *t*-tests for dependent groups, in which the baseline scores of the instrument's sub-scales were compared with the scores after 6, 12 and 18 months respectively. Chi-square tests were used to analyse if the number of persons scoring above the cut-off for high degree of burnout were significantly different at any measuring point. Statistical significance was set to $P = 0.05$ or lower. The data in free format questionnaires and the group interviews were analysed by qualitative content analysis influenced by Burnard (1991). The analysis was performed according to the following eight steps: (1) The free format questionnaires were preliminary analysed by the first author; (2) The result of the preliminary analysis was used as a basis for an interview guide for the group interview; (3) All group interviews were transcribed verbatim; (4) The entire text was read as open-mindedly as possible, in order to gain an overall impression of the text and the respondents' work situation and frame of reference; (5) The text was reread several times. By open coding, phrases, sentences or parts of sentences bearing meaning (meaning units) were underlined; (6) The meaning units were organized into categories and subcategories in interplay with the text as a whole. The categories and subcategories found were then connected to the area of research questions that they answered; (7) To enhance credibility the first and the third author independently analysed the interview texts in step four, five and six; and (8) The first and the third author together reflected on and discussed the independently found codes, categories and subcategories into agreement. Transcribed, the interviews in all comprised 72 pages of text (covering also topics beyond the aim of the present study). Related to the aim of the present study, 74 meaning units and seven categories were agreed upon. A preliminary content analysis was performed prior to the analysis of the quantitative data.

Ethical considerations

All therapists gave their informed consent to participate in the study. Information about the study was given in writing as well as orally. The information especially underlined that the choice to participate or not was voluntary and that they could abort their participation at any time. They were also informed that presentations of

the material would be anonymous in a way that statements could not be traced to any single participant. The study was approved by the Research Ethics Committee at Uppsala University.

Results

Four therapists dropped out of the DBT project and the study between month 12 and 18. Two of them dropped out because of altered circumstances in their work situation beside DBT, one moved to another city and one dropped out as she experienced DBT as 'too complicated'.

Results – the burnout inventory (Table 1)

In the MBI the exhaustion and cynicism sub-scales showed a slight trend towards increasing mean scores (indicating higher degree of burnout) between baseline and 6 months in the project and then decreasing again at 12 months and even more at 18 months (back to baseline level for exhaustion and below baseline level for cynicism). In the personal efficacy sub-scale, there was a slight trend that burnout was increasing at 6 months and even more at 12 and then decreasing at 18 months. None of these trends reached statistical significance. According to Maslach *et al*. (1996), cut-off scores for high degree of burnout in the sub-scales are: 3.2 for exhaustion, 2.2 for cynicism and 5.0 for personal efficacy. In the exhaustion sub-scale at baseline three persons (14%) scored above the cut-off level for high degree of burnout, at 6 months seven persons (32%) scored above, and at 12 and 18 months, respectively, three persons (14%) scored above. In the cynicism scale at baseline four persons (18%) scored above the cut-off, at 6 months three persons (14%), at 12 months two persons (9%) and at 18 months three persons (14%) scored above the cut-off for high degree of burnout. No person scored near the cut-off for high degree of burnout in the personal efficacy scale. None of these differences reached statistical significance according to the Chi-square test. Cronbachs alpha values for the subscales were 0.89 (exhaustion), 0.68 (cynicism) and 0.77 (personal efficacy).

Table 1
MBI-GS mean scores, standard deviations, range, *t*- and *P*-values in the scales three dimensions (exhaustion, cynicism and personal efficacy) at baseline, 6, 12 and 18 months in the project

Dimension	Baseline	6 months	12 months	18 months
Exhaustion				
n	22	22	22	18
M	1.94	2.25	2.20	1.96
sd	1.06	1.15	1.17	1.03
Range	0.2–4.2	0.6–4.0	0.7–3.8	0.4–3.8
t	–	–1.25	–0.87	–0.06
P	–	0.25	0.39	0.95
Cynicism				
n	22	22	22	18
M	1.32	1.43	1.28	1.23
sd	0.87	1.05	0.98	1.09
Range	0.2–3.2	0–3.2	0–4.0	0–4.0
t	–	–0.46	0.11	0.16
P	–	0.65	0.91	0.88
Personal efficacy				
n	22	22	22	18
M	1.52	1.72	1.85	1.65
sd	0.82	1.02	1.02	0.90
Range	0.5–3.7	0.3–3.8	0.5–3.7	0.2–3.8
t	–	–0.78	–1.12	–0.43
P	–	0.45	0.28	0.67

Higher degree of burnout is indicated by higher scores.
MBI-GS, Maslach burnout inventory-General Survey; sd, standard deviation.

Results – the content analysis (Table 2)

(Quotations are marked with quotation marks. As the data were collected in Swedish, the quotations have been translated by the authors.) In the question area focusing 'feelings towards work and experiences of occupational stress', four categories were found and in the question area of 'what components in DBT increases/decreases stress', three categories were found (see Table 2).

Feelings towards work and experiences of occupational stress

Working with self destructive patients is a demanding and very stressful task

In the first category the respondents underlined that 'working with self destructive patients is a demanding and very stressful task', not least the stress that emerges from the fear that one is not able to help and that the patients might commit suicide. '. . . then just think if they should succeed in killing themselves . . . that is a situation when you are accusing yourself very much and dwell on what you did wrong, what you have missed and so on . . .'.

DBT decreases stress in direct work with patients

The second category contained three subcategories relating to how working with DBT had decreased the respondents' occupational stress: (1) more methodical, secure and self-confident in occupational role; (2) more hopeful and satisfied over being able to help; and (3) The work is more fun and inspiring. The respondents meant that the structure and techniques in DBT made them more methodical, secure and self-confident in their occupational role; '. . . It feels good to have better tools, to experience that one functions

Table 2
The found categories and subcategories in the therapist's narratives related to the area of research questions

Question area	Categories	Subcategories
Feelings towards work and perceptions of occupational stress	1. Working with self destructive patients is very stressful	
	2. DBT decreases stress in direct work with patients	2.1 More methodical, secure and self-confident in occupational role 2.2 More hopeful and satisfied over being able to help 2.3 The work is more fun and inspiring
	3. DBT increases stress in the beginning	3.1 Many new things and techniques to learn 3.2 The video feed back and the treatment evaluation package is demanding
	4. Stress in the other parts of work is the same or has increased	4.1 The organization brings stress and frustration 4.2 Lack of understanding in leaders 4.3 Having different types of occupational tasks makes you divided
What components in DBT increase/decrease stress	1. The mindfulness training makes you cope with stress better	
	2. The team and supervision brings support	
	3. A complex method that it takes time to learn	

DBT, dialectical behavioural therapy.

better in the contact with patients . . .'. They also reported being more hopeful and satisfied over being able to help as they were experiencing that their patients were getting better; '. . . Maybe it is in the group therapy I've experienced the most of positive development, we had five patients in the group. It has been incredibly uplifting and fun to follow these girls and see how they have developed. Both the companionship they developed and that they got many new tools that makes their daily life better'. Overall, the respondents experienced their work as more fun and inspiring; '. . . I'm very happy about having had the opportunity to work with DBT, it is uplifting for my feelings about work, it really is . . . '/'. . . we have so different parts in our work, and DBT feels like some kind of golden lining . . . it's great fun and then the overall feeling about work gets different'.

DBT increases stress in the beginning

Relating to this category, two subcategories were found (1) Many new things and techniques to learn; and (2) The video feed back and the treatment evaluation package is demanding. Several of the respondents stated that starting to work with DBT increased their occupational stress in the beginning of the project, especially those who had no previous cognitive behavioural psychotherapy training; '. . . I got stressed in the beginning, because of everything new, all assessments and techniques you have to learn and the video recordings, cameras that didn't work or the microphones and the tapes . . . Anyway, it was very much to keep in mind . . . '/'I've been toiling, toiling, toiling to keep up, it's been very intensive . . .

Stress in the other parts of work is the same or has increased

The fourth category and its three subcategories relate to the respondents' experiencing that stress in the other fields of work was the same or had increased: (1) The organization brings stress and frustration; (2) Lack of understanding in leaders; and (3) Having different types of occupational tasks makes you divided. The stress was especially related to the work organization, lack of understanding in leaders and having different types of occupational tasks; 'On that side it is my role in the organization . . . we have changed leader and are moving, we just don't know when. It has been a very distressing situation there.'/'I was very stressed a while . . . typical stress symptoms, I woke up at four in the morning . . . and it was not these patients but the organization in the other part.'

What components in DBT increase/decrease stress

In this question area, three categories were found. The mindfulness training, the support in the team and the supervision were seen as especially helpful in coping with stress. The complexity of the method made it hard to learn which in turn increased the stress in the beginning, especially for those having no earlier cognitive or cognitive behavioural psychotherapy training.

The mindfulness training makes you cope better with stress

'The mindfulness training makes you accept your feelings of frustration better'/'You are more acceptant and less irritated towards things . . . it's the mindfulness that gives you

new coping strategies.'/'The mindfulness training makes me more patient and relaxed'.

The team and supervision bring support
'The team is important, I feel, I couldn't have managed as well without it . . . '/'It has been a very positive climate in the supervision groups. I'm very impressed with their intimacy and how they genuinely and wholeheartedly shared their experiences.'/'The supervisors have also been somewhat of role models . . . to help us assess stress and asking, like – is there anything I or the team can do to make things easier for you now?'

A complex method that takes time to learn
'DBT makes you stressed because it's so much to keep track of.'/'I felt stressed for a period . . . yes, in the beginning when many things were new and that was strenuous . . .'/'I get stressed over DBT when I don't know what to do next . . . just that it's so much to keep in mind and that you have to learn new things all the time.'

Discussion

This mixed quantitative and qualitative study of 22 psychiatric professionals who learned and started to use DBT for young self-harming women with BPD symptoms confirms previous reports (Loughrey *et al*. 1997, Melchior *et al*. 1997, Burnard *et al*. 2000) that psychiatric health professionals experience treatment of such patients as very stressful. DBT was also seen as stressful in terms of learning demands, but decreased the experience of stress in the actual treatment of the patients. The teamwork and supervision were felt to be supportive, as was one particular facet of DBT, namely mindfulness training which some therapists felt also improved their handling of other work stressors not related to DBT. The inventory for professional burnout, the MBI-GS, showed no significant changes over the 18-month period, although there was a tendency for increased burnout levels, and increased number of therapists passing the cut-off level for professional burnout at the 6-month assessment, which had returned to baseline levels at 18 months.

In a systematic review of stress, burnout and stress-management interventions for mental health professionals Edwards *et al*. (2003) showed that the most frequently reported coping strategies were: social support, recognizing limitations, dealing with problems when they occur, improving skills level, peer support and supervision. Most of these strategies are described as systematically integrated in DBT (Linehan 1993), and according to the therapists' narratives, they were turned into practice in the present project. According to Edwards *et al*. (2003), the three most frequently reported sources of stress were: organizational concerns including reorganizations, client-related issues, and heavy workload. These sources of stress are largely the same as in the therapists' narratives in the present study, but the DBT programme could only deal with them if they occurred in the DBT line of work, as the teamwork and supervision was DBT exclusive. The mindfulness training was, however, an exception. It was described as making the therapists accept feelings of frustration better, being more patient and relaxed and coping with stress better more generally. These findings also correspond to BPD patients' experiences of the mindfulness component in DBT, which they have reported as very helpful (Perseius *et al*. 2003). DBT is (to our knowledge) the first psychotherapeutic intervention providing therapists as well as patients with mindfulness skills such as meditation, relaxation and acceptance techniques, but recently it appears to have spread into cognitive and behavioural psychotherapies more generally. The therapeutic potential of mindfulness meditation is currently being recognized and researched in a range of healthcare settings, and the findings of the present study agree well with the growing scientific support for its benefits (Grossman *et al*. 2004, Cohen-Katz *et al*. 2005).

The qualitative results are reflected in the quantitative part of the study as many of the respondents stated that starting to work with DBT increased their occupational stress in the beginning of the project (related to learning demands). This was reported as especially true for the therapists who had no previous cognitive behavioural psychotherapy training. In the burnout inventory the exhaustion sub-scale showed most fluctuations over time, both in terms of mean scores and persons scoring above the cut-off for high degree of burnout. At 6 months the highest number of participants scoring above the cut-off was reached with seven persons, 32%.

A confounding variable is that the study was conducted during a period of extensive reorganizations, leading to uncertainty, high work load and increased stress in the therapists' line of work beside DBT. In the content analysis, the therapists described DBT as representing a 'golden lining' in their work situation that, to some extent, managed to compensate for problems in their other lines of work. This might be one explanation for the non-significant over time differences in burnout levels. Under these circumstances, it would have been of extra interest if we had had an age- and gender-matched control group of personnel working with similar patients without the use of DBT, for comparison. Because of practical circumstances, this was, however, not possible. It would also be interesting to follow the development of stress and burnout in the therapists over a longer time, as DBT becomes routine treatment.

Levels of burnout seem to vary a great deal across cultures, work settings and occupational groups, but it has been shown that employees involved in nursing activities (North American and European samples) score higher on exhaustion (measured by the MBI-GS) than all other occupational groups (Maslach *et al*. 1996). In a systematic review of 70 European studies on stress, burnout and stress management in mental health nurses (mainly assessing burnout with the original MBI Human Services Survey (MBI-HSS), which has a exhaustion sub-scale very similar to MBI-GS), Edwards *et al*. (2003) found that 21–51% (mean deviaton 38%) had high level burnout in the exhaustion sub-scale. In a recent study of burnout (using MBI-HSS) in Finnish psychiatric nurses ($n = 569$) Hyrkäs (2005) found that 29.1% had high level burnout in the exhaustion sub-scale. Regarding mean scores on the MBI-GS, a sample of 415 North American psychiatric workers as well as a North American and European sample of 1257 nursing personnel (Maslach *et al*. 1996), showed higher degree of burnout than the DBT therapists in the present study on all three sub-scales over all measuring points. This might suggest that the DBT therapists' level of burnout was quite low at baseline and ended up equally low after 18 months, but in absence of a Swedish control group, this conclusion must remain tentative.

The MBI-GS were both developed in the mid 1990s, trying to overcome some of the proposed weaknesses of the original MBI instrument, MBI-HSS (Maslach & Jackson 1981), not least that narrow focus on human services employees restrained use and comparison across occupational groups (Maslach *et al*. 1996, Shutte *et al*. 2000). Using more general or more specific assessment instruments in an area of research has both advantages and disadvantages, the advantages in this case being that the MBI-GS measures burnout more generally which facilitates comparison across professional groups. The greatest disadvantage is, however, that the instrument is quite recently developed with a lack of studies to compare results with, as well as lack of evidence supporting its reliability and validity. However, the MBI-GS translation we used has shown satisfactory reliability (Shutte *et al*. 2000, U. Peterson, K.I. Perseius & M. Samuelsson, pers. comm.) as well as criterion and factorial validity in Swedish samples (Shutte *et al*. 2000).

The lack of statistical significant findings may partly be owing to that the used inventory is not sensitive enough and originally not designed to be used on small numbers of subjects. Similarly, Hallberg (1994) found no significant differences in a small-scale study comparing nurses ($n = 11$) before and after clinical supervision using the MBI-HSS, while another burnout instrument, the so-called Tedium Measure (Pines *et al*. 1981), did show a significant effect in its mental exhaustion sub-scale.

In conclusion, DBT emerges as a treatment that may be stressful to learn, but seem to improve the psychiatric professionals' capacity to deal with a difficult patient group, because of its structured nature. The integrated therapist support in form of teamwork, frequent supervision and mindfulness training appeared as particularly helpful in dealing with occupational stress.

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