



Published in final edited form as:

Adm Policy Ment Health. 2012 September ; 39(5): 341–352. doi:10.1007/s10488-011-0352-1.

Burnout in Mental Health Services: A Review of the Problem and Its Remediation

Gary Morse, Ph.D. [Associate Executive Director],

Places for People: Community Alternatives for Hope, Health and Recovery

Michelle P. Salyers, Ph.D. [Research Scientist],

Center of Excellence on Implementing Evidence-Based Practice, Department of Veterans Affairs, Veterans Health Administration, Health Services Research and Development Service (VA HSR&D); Associate Professor, Department of Psychology, IUPUI; Co-Director, ACT Center of Indiana

Angela L. Rollins, Ph.D. [Research Scientist],

Center of Excellence on Implementing Evidence-Based Practice, VA HSR&D; Assistant Research Professor, Department of Psychology, IUPUI; Research Director, ACT Center of Indiana

Maria Monroe-DeVita, Ph.D. [Assistant Professor], and

Psychiatry and Behavioral Sciences, University of Washington

Corey Pfahler, MSW [Doctoral Student]

Social Work, IUPUI

Abstract

Staff burnout is increasingly viewed as a concern in the mental health field. In this article we first examine the extent to which burnout is a problem for mental health services in terms of two critical issues: its prevalence and its association with a range of undesirable outcomes for staff, organizations, and consumers. We subsequently provide a comprehensive review of the limited research attempting to remediate burnout among mental health staff. We conclude with recommendations for the development and rigorous testing of intervention approaches to address this critical area. Keywords: burnout, burnout prevention, mental health staff

Introduction

Burnout has been defined a number of ways (Burke & Richardsen, 1993; Chemiss, 1980; Pines & Aronson, 1988; Stalker & Harvey, 2002), but most researchers favor a multifaceted definition developed by Maslach and colleagues (1993; 1996) that encompasses three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. The dimension of emotional exhaustion refers to feelings of being depleted, overextended, and fatigued. Depersonalization (also called cynicism) refers to negative and cynical attitudes toward one's consumers or work in general. A reduced sense of personal accomplishment (or efficacy) involves negative self-evaluation of one's work with consumers or overall job effectiveness (Stalker & Harvey, 2002). Many researchers consider burnout to be a job-related stress condition or even a "work-related mental health impairment" ((Awa, Plaumann, & Walter, 2010), p. 184); in fact, burnout closely resembles the ICD-10 diagnosis of job-related neurasthenia (Maslach, Schaufeli, & Leiter, 2001; Organization, 1992). Although burnout is correlated with other mental health conditions,

such as anxiety and depression, research also supports that burnout is a construct distinct from these other mental health disorders, from a general stress reaction, and from other work phenomena such as job dissatisfaction (Awa, et al., 2010; Maslach, et al., 2001). Burnout is also distinct from secondary traumatization, vicarious traumatization, and compassion fatigue (Canfield, 2005; Dunkley & Whelan, 2006; Figley, 1995).

Since burnout was first described in the early 1970s, thousands of conceptual papers and empirical studies have focused on this complex phenomenon. As research has burgeoned over the past three decades, it has become clear that burnout, which occurs cross culturally, is prevalent across a variety of occupations, including teachers, managers and clerical workers, and in a variety of fields, including education, business, criminal justice, and computer technology (Leiter & Schaufeli, 1996; Stalker & Harvey, 2002). Not surprisingly, burnout is also thought to be common among mental health service providers and administrators, and to be increasing for employees in public service systems (Awa, et al., 2010). In public mental health, burnout is considered to be costly and “economically wasteful”, especially given the expense of recruiting and training staff (p. 7, (Gilbody et al., 2006). Recently, the United States federal government also identified burnout as one key factor driving the “major problem” of retaining competent staff in “treatment organizations and state behavioral health systems” (p. 16, (Hoge et al., 2007)). Some studies have examined limited aspects of burnout among mental health providers, but there have been relatively few systematic attempts to better understand or ameliorate burnout in mental health; this is both surprising and ironic, given the goals of mental health organizations for improving the behavioral health of individuals and the fact that burnout is a stress-related psychological condition that arises within the workplace.

Given the complexity of the topic and the vast prior work on burnout, this review is not meant to be exhaustive; instead, we focus on two key questions: 1) To what extent is burnout a problem for mental health staff and the service delivery system? 2) What can — and should — be done to address burnout among mental health providers? We build upon a prior review of burnout and mental health (Leiter & Harvie, 1996) while also incorporating key issues and findings from other reviews and empirical studies in the general field of burnout. Throughout the paper, we seek to identify areas important for further research and intervention, before making final conclusions and recommendations for research and practice. While another useful review of mental health and burnout was recently published (Paris & Hoge, 2010), our review is different in that it emphasizes the full range of problems associated with burnout, a comprehensive review of the intervention literature, and new research and development strategies for remediating burnout.

Burnout: The Scope of the Problem for the Mental Health Field

We will examine the extent to which burnout is a problem in the mental health field in terms of two key areas: 1) the prevalence of burnout among mental health providers, and 2) the association of burnout with other problems for mental health staff and service delivery. Prevalence

Across several studies, it appears that 21-67% of mental health workers may be experiencing high levels of burnout. In a study of 151 community mental health workers in Northern California, Webster and Hackett (1999) found that 54% had high emotional exhaustion and 38% reported high depersonalization rates, but most reported high levels of personal accomplishment as well. In Rohland’s (2000) sample of 29 directors of community mental health centers in Iowa, over two-thirds reported high emotional exhaustion and low personal accomplishment. Further, almost half reported high levels of depersonalization. Siebert (2005) surveyed a state chapter of social workers, and of the 751 respondents, 36%

scored in the high range of emotional exhaustion. The investigators also used a single item burnout measure and 18% of the sample endorsed the statement: "I currently have problems with burnout." Oddie and colleagues (2007) examined 71 forensic mental health workers in the UK, and 54% reported high rates of emotional exhaustion. Prior United Kingdom studies reviewed by Oddie and colleagues (2007) also reported a range of 21% to 48% of general mental health workers as having high emotional exhaustion.

Differences in burnout between various mental health occupational types have yielded some evidence for higher burnout among community social workers compared to nurses and psychiatrists in one study in two European cities (Priebe, Fakhoury, Hoffmann, & Powell, 2005), with an exception noted in an older study in Great Britain (Onyett, Pillinger, & Muijen, 1997) where emotional exhaustion on the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996)—the most frequently used measure of burnout—was relatively high across the entire sample. Some research has noted lower job satisfaction for social workers compared to psychiatrists (Prosser et al., 1997), but most mental health burnout studies have not compared rates of burnout across professions or disciplines. For instance, many studies either focus on burnout rates for single professional groups of interest (e.g., nurses, psychologists, social workers) or aggregate burnout findings across a wider swath of disciplines working within a single service type (e.g. psychosocial rehabilitation workers or staff of an intensive case management team; see studies in (Leiter & Harvie, 1996; Taris, 2006)). Prosser et al. (1997) found some differences in burnout and related factors between inpatient and community-based work settings, with inpatient staff experiencing lower levels of burnout and work stress compared to community-based staff. Rupert and Kent (2007) found higher levels of personal accomplishment for psychologists working independently or in group practices compared to psychologists working in "agency" settings, such as hospitals or community-based programs. Comparative rates of problematic burnout could give helpful clues on whether and/or how to target and package burnout interventions for various disciplines or program types.

Even though burnout is frequently mentioned as a problem in the mental health field (e.g., (Edwards, Burnard, Coyle, Fothergill, & Hannigan, 2000)), the construct is typically measured as a continuous variable so that the actual prevalence of "burnout" is difficult to quantify. In order to help address this issue, Maslach, Jackson, and Leiter (1996) presented score ranges on the MBI to conceptualize low, average, and high levels of burnout based on large normative samples for various occupations. For mental health workers, high levels of burnout included emotional exhaustion scores of at least 21, depersonalization scores of at least 8, and personal accomplishment scores of 28 or below; note, however, that these cut-off scores for "high" burnout in mental health workers are relatively low compared to other occupational groups. Research shows that continuous data scores on the MBI are predictive of other problems (see Maslach et al., 2001), but empirical validation of the cut-points for "high" burnout on the MBI is lacking. Therefore, literature using these cut-offs should be evaluated with some skepticism, namely that the low cut-off scores for "high" burnout in mental health may inflate the prevalence of burnout in some studies. On the other hand, one could argue that lower rates of burnout still deserve attention, since even "mild" burnout has been associated with increased risk for mental health problems (Ahola et al., 2005). Either way, external validation studies with strong methodologies (e.g. representative sampling, higher response rates, longitudinal designs) are sorely needed for determining problematic levels of burnout. For instance, validation studies might determine what levels of burnout are associated with poor staff performance measures, staff intentions to leave the organization, staff health problems, or poor consumer outcomes.

Stability of the burnout construct is another area of need in future research. Burke and Richardsen (1993) reviewed several studies in the general literature which suggest that the

level of burnout remains fairly stable across time if untreated. Of particular interest is Burke and Richardsen's conclusion that burnout often becomes a chronic condition, and that after one year, about 40% of workers remain in the same stage of burnout, about 30% become more burned out, and about another 30% become less burned out. The lack of longitudinal research in the mental health field makes this topic another important area for further study.

Although methodological problems are common in many prevalence studies, the rates across studies indicate that burnout may indeed be widespread among mental health workers, and there is reason to believe that rates will continue to increase. As public sector funding for mental health is either constant or reduced (see California's recent state budget cuts to social services, e.g., (Goldmacher, 2009) and the costs for employee healthcare benefits and other expenses continue to rise, some mental health agencies are increasing staff "productivity" standards for billable services. In an already stressful work domain, the added pressures and responsibilities are likely to be triggers for greater levels of burnout.

Associated Problems for the Mental Health Field

Burnout has been associated with a large number of negative conditions affecting different types of employees, their organizations, and the consumers they serve. These undesirable situations are briefly highlighted below. We refer the reader to reviews in the general literature and larger population-based studies, and highlight studies specifically addressing mental health workers where data are available. One important caveat – we refer to consequences or outcomes of burnout, although many of these findings are derived from cross-sectional studies, making it difficult to firmly conclude whether the conditions are the outcomes of burnout rather than noncausal correlates or even antecedents.

The empirical and theoretical literature suggests that the consequences of burnout can be severe and far-reaching. Employees who experience burnout often experience impaired emotional and physical health and a diminished sense of well-being (Stalker & Harvey, 2002). Some population-based studies, not specifically focused on mental health workers, have shown correlations between burnout and aspects of physical and mental health. For example, Peterson and colleagues (2008) studied a sample of service workers in a Swedish city (N = 1252) including nurses, physicians, social workers, occupational therapists, physiotherapists, dentists, dental hygienists, administrators, teachers, and technicians. Burnout was associated with increased depression, anxiety, sleep problems, impaired memory, neck and back pain, and alcohol consumption. Ahola and colleagues (2005) investigated the relationship between job-related burnout and depressive disorders in 3,276 workers in Finland. Based on a standardized clinical interview, individuals with mild burnout were at 3.3 times more risk of having major depressive disorder, and those with severe burnout were 15 times more likely to have major depressive disorder. The risk of having a major depressive disorder with severe burnout was greater for men than for women, with the risk of a major depressive disorder 10.2 fold for women and 29.5 fold for men.

Health issues have also been linked to mental health provider burnout. In a study of 591 social workers in NY, Acker (2010) found that high levels of burnout, particularly emotional exhaustion and depersonalization, were related to greater reports of flu-like symptoms and symptoms of gastroenteritis. Notably, social workers with greater levels of involvement with consumers with severe mental illness reported higher levels of burnout. Burnout has also been correlated with increased substance use in directors of mental health agencies (Rohland, 2000).

Employee burnout has been correlated with a number of negative organizational measures, including reduced commitment to the organization (Burke & Richardsen, 1993), negative

attitudes (Chemiss, 1980), and often absenteeism and turnover (Schwab, Jackson, & Schuler, 1986; Smoot & Gonzolas, 1995; Stalker & Harvey, 2002). Not surprising, burnout is related to job dissatisfaction (Maslach, et al., 2001; Prosser, et al., 1997; Schulz, Greenley, & Brown, 1995) and burnout may also damage the morale of other employees and lead to staff turnover (Stalker & Harvey, 2002). In a longitudinal study of 3,895 employees (non mental health workers) who worked in a large industry corporation, Toppinen-Tanner and colleagues (2005) found that burnout predicted future sick leave, even after controlling for the effects of age, gender, occupation, and previous absence. High levels of burnout increased the risk of absence related to mental and behavioral disorders, as well as diseases of the circulatory, respiratory, and musculoskeletal systems. In mental health, staff absences and turnover are correlated with reduced fidelity to evidence-based practices (Mancini et al., 2009; Rollins, Salyers, Tsai, & Lydick, 2010) and increase the costs of recruiting and training new staff.

Over time, the cumulative effects of managing a consumer caseload can lead to fatigue, exhaustion and burnout (Ducharme, Knudsen, & Roman, 2008). In turn, burnout may also impact care provided to mental health service consumers. Although few studies have actually examined the relationship of burnout to quality of care, burnout and staff turnover are believed to disrupt the continuity of mental health care (Boyer & Bond, 1999) and to undermine the quality of services provided (Carney, Donovan, Yurdin, & Starr, 1993; Hoge, et al., 2007; Maslach & Pines, 1979). High levels of burnout signify that workers possess insufficient resources to deal with the demands of their jobs, leading to impaired job performance. Employees with high levels of burnout may not be willing to expend effort, leading to suboptimal functioning at work (Taris, 2006). In addition, burned out workers may be less able to be empathic, collaborative, and attentive -- characteristics that have been associated with higher consumer satisfaction (Corrigan, 1990). In the general burnout literature, Taris (2006) performed a systematic literature review on burnout and objective performance, subsequently reviewing 16 articles. In 5 articles, high levels of exhaustion were associated with low levels of role performance, and in three articles examining consumer satisfaction, higher levels of exhaustion resulted in lower customer service ratings. Indeed, burnout among nurses and general medicine physicians has been found to be related to decreased patient satisfaction (Halbesleben & Rathert, 2008; Leiter, Harvie, & Frizzell, 1998).

Burnout has also been empirically associated with negative feelings about mental health consumers. A study of 510 psychiatric workers in 28 different units (Holmqvist & Jeanneau, 2006) found that high levels of emotional exhaustion and depersonalization were correlated with negative attitudes (e.g., distant, rejecting) toward consumers on their ward. Negative staff attitudes, in turn, have been linked with poorer outcomes among consumers with severe mental illness (Gowdy, Carlson, & Rapp, 2003). In a study empirically linking burnout to poor consumer satisfaction, Garman and colleagues (2002) surveyed 333 mental health staff on 31 different teams serving people with severe mental illness. Team level emotional exhaustion, but not depersonalization, was significantly related to average consumer satisfaction scores for those teams.

Overall, burnout has been associated with a variety of other negative conditions at the level of the individual, organization, and to some extent, quality of services provided. The vast majority of these studies, however, have been cross-sectional and correlational. So, the idea of "burnout consequences" may not accurately capture the direction of relationships. For example, staff who are already experiencing high levels of physical health problems may feel added work pressure and report high levels of emotional exhaustion as a result of their pre-existing health problem. Conversely, a third variable, for example, underlying depression or anxiety, could manifest in both high levels of burnout and greater

preoccupation with physical health concerns. As well, associated problems may moderate burnout through complex, multivariate pathways. For example, in research on 43 mental health organizations in Wisconsin, Schulz, Greenley, and Brown (1995) found that a number of organizational, management, and job variables predicted job satisfaction, not burnout directly, but job satisfaction moderated employees' levels of burnout. In addition to the lack of clear directionality, we found only a handful of studies specifically assessing potential consequences of burnout in mental health workers. However, there is little reason to believe that burnout would affect mental health workers differently than nurses, teachers, or other professional groups where additional research describes strong relationships between burnout and a range of associated problems. Nonetheless, future research should include mental health workers and use larger samples, longitudinal designs, and multivariate models to better examine the relationship between burnout and associated problems.

Reducing Burnout

Mental Health Staff

Despite its prevalence and association with a number of negative outcomes, little attention has been directed toward reducing or preventing burnout among mental health professionals. The need for burnout prevention and interventions for mental health providers has been highlighted by researchers for decades (Pines & Maslach, 1978), but few such programs have actually been implemented and evaluated. At the time of their review, Leiter and Harvie (1996) reported only one intervention study specific to mental health workers. We conducted an updated review of this literature for this paper. Specifically, we ran computerized literature searches using the terms burnout, mental health professionals and personnel using the PsychInfo database from 1987 through 2010. In addition, we manually examined citations and reference lists in original articles on burnout and in reviews in overlapping areas (e.g., (Awa, et al., 2010; Gilbody, et al., 2006; Paris & Hoge, 2010)) to identify other studies of burnout interventions for mental health staff. To be included in the present paper, the intervention study must have included (a) a planned method or strategy designed to reduce or prevent burnout, (b) sample participants who met the inclusion criteria as mental health staff (related disciplines, such as substance abuse counselors, were excluded) and who served persons with mental health disorders (one study with staff serving primary dementia, was excluded); (c) an outcome variable specifically measuring burnout; and (d) a quasi-experimental or experimental research design. Prior to summarizing these approaches, it is important to note that most studies in any occupational field have not differentiated between programs designed to *prevent* burnout from those developed to help employees *recover* from burnout. To some extent, this tendency may arise from theorists conceptualizing burnout along a continuum. It remains to be seen, however, whether the same strategies are effective for both reducing as well as preventing burnout. Regardless, intervention programming and research could benefit from further specification and clarity on this issue.

Our search identified eight studies, which are described in detail in Table 1. Perhaps the most striking observations concerned the settings of the studies. As shown, six (75%) of the eight studies were conducted in European countries, while only two were conducted in the United States. Further, at least five (62.5%) of the eight studies involved staff working in psychiatric inpatient settings, and only one study clearly evaluated burnout prevention in a community mental health setting. Four (50%) of the studies were conducted with psychiatric nurses exclusively.

In terms of research design, two studies conducted randomized controlled trials (RCTs) while the remainder employed quasi-experimental designs, such as nonequivalent control groups or simple pre-post designs (sometimes using multiple pretests or multiple posttests).

Follow-up periods ranged from a simple post-test at the completion of the intervention to one-year follow-ups. Three of the studies experienced high rates of research attrition and four studies used small samples. The types of interventions also ranged widely. Most of the intervention programs involved multiple training and/or supervision sessions spread over a period of weeks or months, although one program involved a single day workshop.

In terms of results, five (62.5%) programs resulted in significant reductions in mental health staff burnout. Corrigan and colleagues (1997) used a staff needs assessment and program development committee to identify training needs, which were then addressed by behavioral rehabilitation training. After eight months of meetings and trainings, the program reduced emotional exhaustion at the post-test among “direct care staff” but not for “clinical staff” working in psychiatric rehabilitation programs. Ewers and colleagues (2002) also provided training in psychosocial interventions to improve nurses’ coping skills and attitudes and found significant reductions in all three components of burnout at post-test for inpatient forensic psychiatric nurses. Their training program included educational information about severe mental health disorders and intervention strategies (e.g., engagement skills, interventions for hallucinations). Meanwhile, van Dierendonck and colleagues (1998) sought to reduce staff burnout by reducing feelings of inequity in workers via improving the congruence between workers’ “motives, needs, and capacities and the organizational demands and provisions” (p. 395). The program incorporated cognitive behavioral interventions (cognitive restructuring, relaxation training) for individual staff, and supervisors were also trained in communication and social skills. The investigators reported reduced burnout, absenteeism, and feelings of being deprived over one year among the intervention group in a quasi-experimental design; however, research attrition was very high (58 percent). Scarnera, Bosco, Soleti, and Lacioni (2009) provided assertiveness training to mental health staff in Italy. In addition, they provided direct care staff with additional cognitive restructuring training for managing emotions while working with consumers with severe mental illness; managers, meanwhile, received additional training on task planning, leadership styles, and supporting staff. This study reported decreased depersonalization at post-test and 18 months after baseline (interestingly, personal accomplishment worsened at post-test but was not significant at 18 months). A recent program for community mental health staff combined cognitive-behavioral coping skills with other strategies, including mindfulness, meditation, the identification of personal meaning, and the development of practices of gratitude in a one-day training intervention (Salyers et al., 2011). Results showed a reduction in emotional exhaustion and depersonalization, as well as an increase in positive perceptions of consumers six weeks later. Both of these recent intervention studies (Salyers, et al., 2011; Scarnera, et al., 2009) also included participant time to develop personal strategies for coping with their own individual stressors.

The small number of intervention studies and the methodological problems present in the prior studies make conclusions difficult, but the literature does suggest that interventions can reduce burnout among mental health staff. The limited existing literature also clearly suggests the need for developing additional interventions and using more controlled research to evaluate these programs. Before discussing recommendations and future directions for burnout prevention programming and research, however, it is useful, given the small number of mental health studies, to consider findings from the broader literature on burnout reduction across other fields and disciplines than mental health.

Burnout Reduction Studies in Other Fields

Several earlier reviews within the general field of burnout reached a similarly disturbing conclusion as we have for mental health: despite the high prevalence of burnout, relatively few intervention or prevention programs have been implemented, and very few of these have been adequately evaluated (Burke & Richardsen, 1993; Halbesleben & Buckley, 2004;

Stalker & Harvey, 2002). Over the past decade, however, there has been an increasing number of burnout reduction programs more rigorously evaluated. For example, in their recent review, Awa, Plaumann & Walter (2010) identified 25 controlled (quasi-experimental or randomized control trial) studies of burnout reduction programs across various fields and occupations. An inspection of the studies in their review indicates that 21 (84%) of these studies were published in or after 2000 (and 12 or 48% were published after 2004). Although the occupations varied widely in these studies, a cross-cultural trend was also evident: specifically, only four (16%) of these studies were conducted in the United States while 72% of the studies were in Europe (including 48% of the total in the Netherlands).

An important conceptual issue in the burnout prevention literature concerns the target of the intervention. Earlier reviewers (Burke & Richardson, 1993; Halbesleben & Buckley 2004; Maslach et al., 2001) conceptualized intervention strategies within two broad categories: programs designed to improve burnout by targeting change strategies at individual workers, and those that are designed to change the work environment. We prefer a three-component categorization, also used by Awa and colleagues (2010), which also includes programs that combine individual and environmental interventions.

Programs for Individuals—As others have noted (Awa, et al., 2010; Halbesleben & Buckley, 2004; Maslach, et al., 2001; van Dierendonck, et al., 1998), most burnout programs have focused on changing the individual to improve burnout, typically with the goal of reducing work stress by improving the person's coping skills or social support. A variety of different techniques have been tried, ranging from making recreational music (Bittman, Bruhn, Stevens, Westengard, & Umbach, 2003), to psychosynthesis, a humanistic therapy with spiritual emphasis (van Dierendonck, Garssen, & Visser, 2005). Most of the interventions, however, fall within the broad category of cognitive-behavioral interventions, including providing educational information, cognitive restructuring, progressive muscle relaxation, social skills training, communication skills training, and skills to enhance social support (Murphy, 1996; van Dierendonck, et al., 1998). Evaluations of individual-level interventions suggest that coping skills programs are often effective for reducing burnout, especially emotional exhaustion, and some of these programs also have led to positive physiological results (e.g., lower blood pressure) for employees (see (Awa, et al., 2010; Halbesleben & Buckley, 2004; van Dierendonck, et al., 1998). Awa and colleagues also concluded, however, that the significant improvements in burnout that accrued from individual-focused interventions often disappeared six to 12 months after the completion of the intervention, unless booster sessions were included in the program.

In addition to general coping skills, an interesting and emerging set of strategies falls within the broad rubric of "third generation cognitive behavioral" interventions (Hayes, Follette, & Linehan, 2004), which often incorporate methods derived in part from spiritual practices or Eastern religions, such as meditation and mindfulness. In a review of work-based stress management programs, Murphy (1996) found that meditation programs (and programs that offered a combination of intervention strategies) tended to be the most effective. Two intervention studies are of particular interest. Using a randomized controlled trial, Hayes, Bisset, Padilla et al., (2004) found that a one-day workshop of acceptance and commitment therapy reduced burnout for substance abuse counselors at post-training and after a three month follow-up. Most recently, Krasner and colleagues (Krasner et al., 2009) developed a continuing medical education program for primary care physicians that used mindfulness practices, appreciative inquiry, and narrative exercises to help physicians increase awareness and communication skills. Using a pre- and post-test design with multiple follow-up assessments over 15 months, Krasner et al. (2009) reported significant reductions in all facets of burnout as well as improvements in mood. This study also illustrates another important issue: that while improving coping skills for stress is an important element for

reducing burnout, very few studies attempt to prevent burnout by increasing other positive human qualities and abilities, such as increasing a sense of meaning and purpose, which were critical elements in the Krasner program (see also (Salyers, et al., 2011)). Similarly, developing a sense of personal (and organizational) meaning was the focus of the program by Robey, Ramsland, and Castelbaum (1991) which improved the related outcome of job satisfaction.

Organizational Strategies—Despite a number of studies finding positive results for interventions targeting individual staff, some researchers have criticized or minimized individual-based interventions in favor of environmental or organizational-level changes (Burke & Richardsen, 1993; Halbesleben & Buckley, 2004; Maslach, et al., 2001; Stalker & Harvey, 2002). Researchers advocating this approach argue that organizational-environmental factors are antecedents to individual burnout and should therefore be the appropriate targets for intervention rather than individuals. Indeed, research on the correlates and antecedents of burnout suggest that a number of organizational-environmental variables are related to burnout, including an excessive workload, time pressure, role conflict, role ambiguity, an absence of job resources (especially supervisory and coworker social support), limited job feedback, limited participation in decision-making in matters affecting the employee, a lack of autonomy, unfairness or inequity in the workplace, and insufficient rewards (including social recognition) (Maslach, et al., 2001; Paris & Hoge, 2010; van Dierendonck, Schaufeli, & Buunk, 2001). Moreover, organizational-environmental variables tend to be more potent predictors of burnout than individual characteristics.

Prior researchers have suggested a number of possible changes in organizational practices that may help decrease or prevent burnout, including increasing social support for employees, especially by teaching communication and social skills to supervisors (Burke & Richardsen, 1993; Halbesleben & Buckley, 2004); increasing individual employee autonomy and involvement in decision-making (see (Burke & Richardsen, 1993); reducing role ambiguity and conflicts for employees (Stalker & Harvey, 2002); providing regular supervision, including peer supervision (Feingold, 2005); and decreasing workloads and promoting self-care as a value within the organizational culture (Feingold, 2008). Not all of these recommendations, however, have been implemented and evaluated.

Despite strong recommendations from past researchers for organizational interventions, there have been very few studies of organizational-level intervention programs to reduce burnout, and those that have been implemented tend to be limited by major methodological weaknesses. Awa and colleagues (2010) identified only two controlled studies of organizational interventions for burnout, one of which reported significant findings for reducing the emotional exhaustion and depersonalization of fire department workers (Halbesleben, Osburn, & Mumford, 2006). Three other studies (not included in Awa and colleagues' review) also show positive support for organizational interventions for reducing burnout. The program by Corrigan and colleagues (1997), described earlier in the section on mental health interventions, represents an organizational development strategy. More recently, Glisson, Dukes, and Green (2006) tested the Availability, Responsiveness, and Continuity (ARC) organizational intervention model in an RCT study of child welfare and juvenile justice system case management programs. Results showed a number of positive outcomes for ARC, including improvements in the burnout components of emotional exhaustion and depersonalization (as well as for staff turnover, role conflict, and role overload). Leiter, Laschinger, Day and Oore (in press) tested the Civility, Respect, and Engagement at Work (CREW) social relationship intervention in a quasi-experimental study involving 41 hospital units. Outcomes included significant improvements for depersonalization, but not emotional exhaustion or personal achievement; positive improvements also occurred for job satisfaction, absences, civility, respect and trust of

management. In summary, organizational interventions appear to show considerable promise for reducing burnout, but the field lacks a breadth of intervention models and sufficient controlled research. Unfortunately, however, some factors in burnout (e.g., workload) may be more influenced by environmental factors out of the organization's immediate control that stem from larger systems (e.g., paperwork requirements for Medicaid reimbursement). In such cases, compensatory interventions may need to be directed at the individual or organization, unless system-level interventions are developed. Given the nature of environmental interventions, researchers will also need to overcome greater logistic problems in conducting intervention research, as the unit for experimental manipulation (and potentially for data analysis) may involve teams, units, departments or organizations rather than individuals.

Combined Person and Organizational Interventions—A small number of studies have examined interventions that either used multiple or complex interventions targeted at both the individual and the organizational levels. Awa and colleagues (2010) categorized six controlled burnout studies in this area and reported positive effects for reducing burnout in all six studies. However, our examination of one of these studies (Melchior et al., 1996) revealed that the intervention was not successful for reducing burnout after the intervention; a reduction in burnout occurred for the intervention group between the first and second pretest, *prior* to the implementation of the burnout reduction program. Still, the overall rate of effectiveness of these combined interventions reported by Awa and colleagues remains high, with five of six (83%) programs showing positive outcomes. In addition, two mental health interventions, van Dierendonck and colleagues' (1998) and Scarnera and colleagues (2009), both showed positive effects for reducing burnout. Both programs can be considered combined interventions, because supervisors also received training to improve their ability to communicate and provide support to staff, in addition to direct care staff receiving cognitive behavioral interventions.

Conclusions and Future Directions

Ironically, the mental health field has paid relatively little attention to the health and well-being of its own workers. Relatively few well-designed, empirical studies have examined burnout in mental health. Many prior studies are plagued by significant methodological weaknesses, including small samples, samples of convenience, high attrition rates, cross-sectional rather than longitudinal designs, and bivariate rather than multivariate models. Despite these frequent methodological limitations, it is clear that burnout is a significant problem in mental health, both in its prevalence and its association with a wide range of other problems for individual staff persons, for the organizations that employ them, and likely for the people with mental health disorders whom they serve.

There is a pressing need for additional, basic research on mental health and burnout. As Paris and Hoge (2010) put it, "a primary challenge for the mental health field is to . . . build a more robust knowledge base about the prevalence, causes, and effects of burnout in this field" (p. 526). In particular, our ability to understand burnout will improve as researchers use representative samples and multivariate and longitudinal designs in future studies. Problematic levels of burnout should also be defined and validated to determine whether interventions can reduce burnout to sub-threshold levels. Important and under-studied topics include the consequences of burnout on consumers of mental health services, the role of organizational and other environmental factors in causing burnout, and models and theories of burnout. Further, additional attention should focus on the positive aspects of working, such as the process by which mental health workers experience compassion, joy, meaning, and fulfillment in their jobs.

The existing research does currently provide some support for the notion that burnout among mental health workers can be significantly improved. However, the number of controlled studies is very limited, especially in mental health, and particularly for community mental health workers in the United States. Further, conclusions about the effectiveness of burnout interventions are weakened by a number of methodological problems, including the paucity of experimental designs, limited follow-up periods, high research attrition rates, and a lack of replication studies for well-specified intervention models. Given the prevalence and consequences of burnout among mental health workers, there is a great need for additional, future development and research of burnout prevention and intervention programs.

Researchers and administrators can draw upon findings and strategies from the existing literature in mental health and other fields while developing and testing new burnout reduction programs. In particular, for individual-level interventions, various cognitive-behavioral strategies appear useful for improving coping skills and reducing burnout. Rather than relying on a single technique, however, the use of multiple intervention strategies is often helpful (Murphy, 1996) —see Table 2 for a listing of possible intervention target areas and strategies. In order to develop potentially more effective burnout prevention programs, however, it is important that researchers and program developers experiment with new and more innovative methods. Third-generation cognitive-behavioral methods, especially meditation and mindfulness practices, also appear promising. Burnout prevention programs that help individuals to not only cope with stress but to develop more positive qualities — such as a sense of meaning, gratitude, and fulfillment in work — are especially important areas for further research. Regardless of the type of intervention strategy, given the complexity of burnout, it is likely that the most effective programs for sustaining long-term results will need to be delivered over time rather than in a single day and to incorporate booster sessions (Awa, et al., 2010). The use of technology to supplement the delivery of burnout reduction methods may be one innovative means of supplementing interventions and providing follow-up boosters —just as technology is being developed to improve care between mental health providers and the people they serve. For example, Common Ground is a shared decision-making tool that collects information about the consumer's goals, current condition, and care, and reports progress over time for the treating provider and consumer (Deegan, Rapp, Holter, & Riefer, 2008). We envision similar tools, whereby mental health providers could track their own level of burnout and the interventions they have used while also being able to electronically access additional strategies to remediate burnout.

Organizational-level interventions also appear promising for reducing staff burnout, though the paucity of existing controlled studies in this area is problematic. The shortage of organizational interventions may stem in part from research challenges (gaining the cooperation of a number of organizations or units that is necessary for controlled study), in part from biases in the human service and mental health fields to focus change on the individual rather than systems, and also from uncertainty about possible intervention targets and strategies. Table 2 also highlights possible organizational-level targets and change strategies, drawing from the literature that has identified organizational antecedents of burnout, from selected intervention studies, and from our own recommendations. As shown, some organizational interventions such as ARC (Glisson, et al., 2006) are multifaceted and address multiple organizational factors that correlate with staff burnout. Other promising strategies include the development of a sense of shared meaning between the organization and employees through interlocking mission statements (Robey, et al., 1991), working with administrators to develop organizational policies and practices that promote staff wellness (Fallot & Harris, 2008), and training managers to regularly express gratitude at work (Kerns, 2006).

It is likely that the most effective programs for reducing burnout in the future will be those that combine individual and organizational interventions. This does not mean that researchers and administrators should necessarily attempt to design and test comprehensive interventions that incorporate all possible strategies. However, the use of individual intervention strategies, in combination with some type of organization intervention, appears feasible, promising, and worthy of further experimentation and study.

Future intervention studies should be improved by stronger research designs, especially the use of RCTs, longer follow-up periods, and assertive methods to improve participant retention over time. While burnout should remain a central outcome variable, future knowledge will also be enhanced as researchers include an expanded set of outcome variables. Core outcome variables should include measures of interest to employers (e.g., employee turnover, absences, and positive work engagement—see (Maslach, et al., 2001)), employee work variables (e.g., job satisfaction), employee health and stress outcomes (e.g., depression), and, ultimately, measures of positive employee states (e.g., growth in personal meaning, compassion, fulfillment). Most importantly, research on reducing staff burnout should also examine the effects on consumers, with the hope that burnout reduction programs will improve the quality, quantity, and outcomes of services to people with mental health disorders.

References

- Acker G. The challenges in providing services to clients with mental illness: Managed care, burnout and somatic symptoms among social workers. *Community Mental Health Journal*. 2010; 46(6):591–600. [PubMed: 19946797]
- Ahola K, Honkonen T, Isometsä E, Kalimo R, Nykyri E, Aromaa A, Lönnqvist J. The relationship between job-related burnout and depressive disorders--results from the Finnish Health 2000 Study. *Journal of Affective Disorders*. 2005; 88(1):55–62. [PubMed: 16038984]
- Awa WL, Plaumann M, Walter U. Burnout prevention: a review of intervention programs. *Patient Educ Couns*. 2010; 78(2):184–190. [PubMed: 19467822]
- Bittman B, Bruhn KT, Stevens C, Westengard J, Umbach PO. Recreational music-making: a cost-effective group interdisciplinary strategy for reducing burnout and improving mood states in long-term care workers. *Adv Mind Body Med*. 2003; 19(3–4):4–15. [PubMed: 14686266]
- Boyer SL, Bond GR. Does assertive community treatment reduce burnout? A comparison with traditional case management. *Mental Health Services Research*. 1999; 1(1):31–45.
- Burke, RJ.; Richardsen, AM. Psychological burnout in organizations. In: Golembiewski, RT., editor. *Handbook of organizational behavior*. New York: Marcel Dekker; 1993.
- Canfield J. Secondary Traumatization, Burnout, and Vicarious Traumatization: A Review of the Literature as It Relates to Therapists Who Treat Trauma. *Smith College Studies in Social Work*. 2005; 75(2):81–101.
- Carney J, Donovan R, Yuridin M, Starr R. Incidence of burnout among New York City intensive case managers: Summary of findings. *Psychosocial Rehabilitation Journal*. 1993; 16(4):25–38.
- Chemiss, C. *Staff burnout: Job stress in the human services*. Beverly Hills, CA: Sage; 1980.
- Corrigan PW. Consumer satisfaction with institutional and community care. *Community Mental Health Journal*. 1990; 26(2):151–165. [PubMed: 2191833]
- Corrigan PW, McCracken SG, Edwards M, Kommana S, Simpatico T. Staff training to improve implementation and impact of behavioral rehabilitation programs. *Psychiatr Serv*. 1997; 48(10):1336–1338. [PubMed: 9323757]
- Deegan PE, Rapp C, Holter M, Riefer M. Best practices: a program to support shared decision making in an outpatient psychiatric medication clinic. *Psychiatr Serv*. 2008; 59(6):603–605. [PubMed: 18511580]
- Ducharme LJ, Knudsen HK, Roman PM. Emotional exhaustion and turnover intention in human service occupations: the protective role of coworker support. *Sociological Spectrum*. 2008; 28(1):81–104.

- Dunkley J, Whelan TA. Vicarious traumatization: Current status and future directions. *British Journal of Guidance & Counselling*. 2006; 34(1):107–116.
- Edwards D, Burnard P, Coyle D, Fothergill A, Hannigan B. Stress and burnout in community mental health nursing: A review of the literature. *Journal of Psychiatric and Mental Health Nursing*. 2000; 7:7–14. [PubMed: 11022506]
- Emmons, RA.; Shelton, CM. Gratitude and the science of positive psychology. In: Snyder, C.; Lopez, S., editors. *Handbook of positive psychology*. New York: Oxford University Press; 2001. p. 459-471.
- Ewers P, Bradshaw T, McGovern J, Ewers B. Does training in psychosocial interventions reduce burnout rates in forensic nurses? *J Adv Nurs*. 2002; 37(5):470–476. [PubMed: 11843986]
- Fallot RD, Harris M. Trauma informed approaches to systems of care. *Trauma Psychology Newsletter*. 2008; 3(1):6–7.
- Feingold A. Sustaining stamina at the interface of HIV and mental health practice. *Mental Health AIDS*. 2005; 6(2)
- Feingold A. Kicking it upstairs. *Mental Health AIDS*. 2008; 9(2)
- Figley, CR. Compassion fatigue as secondary traumatic stress disorder: An overview. In: Figley, CR., editor. *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. Philadelphia, PA US: Brunner/Mazel; 1995. p. 1-20.
- Garman AN, Corrigan PW, Morris S. Staff burnout and patient satisfaction: evidence of relationships at the care unit level. *J Occup Health Psychol*. 2002; 7(3):235–241. [PubMed: 12148955]
- Gilbody S, Cahill J, Barkham M, Richards D, Bee P, Glanville J. Can we improve the morale of staff working in psychiatric units? A systematic review. *Journal of Mental Health*. 2006; 15(1):7–17.
- Glisson C, Dukes D, Green P. The effects of the ARC organizational intervention on caseworker turnover, climate, and culture in children's service systems. *Child Abuse Negl*. 2006; 30(8):855–880. discussion 849–854. [PubMed: 16930699]
- Goldmacher, S. California's budget woes will continue for years, report says. *The Los Angeles Times*; 2009 Nov 19. Retrieved from www.latimes.com/news/local/la-me-budget-deficit19-2009nov19,0,433593.story
- Gowdy EA, Carlson LS, Rapp CA. Practices differentiating high-performing from low-performing supported employment programs. *Psychiatric Rehabilitation Journal*. 2003; 26:232–239. [PubMed: 12653445]
- Halbesleben JR, Rathert C. Linking physician burnout and patient outcomes: exploring the dyadic relationship between physicians and patients. *Health Care Management Review*. 2008; 33(1):29–39. [PubMed: 18091442]
- Halbesleben JRB, Buckley MR. Burnout in organizational life. *Journal of Management*. 2004; 30(6): 859–879.
- Halbesleben JRB, Osburn HK, Mumford MD. Action Research as a Burnout Intervention: Reducing Burnout in the Federal Fire Service. *Journal of Applied Behavioral Science*. 2006; 42(2):244–266.
- Hayes SC, Bissett R, Roget N, Padilla M, Kohlenberg BS, Fisher G, Niccolls R. The Impact of Acceptance and Commitment Training and Multicultural Training on the Stigmatizing Attitudes and Professional Burnout of Substance Abuse Counselors. *Behavior Therapy*. 2004; 35(4):821–835.
- Hayes, SC.; Follette, VM.; Linehan, MM. *Mindfulness and acceptance: expanding the cognitive-behavioral tradition*. New York, New York: Guilford Publications Guilford Press; 2004.
- Hoge, MA.; Morris, JA.; Daniels, AS.; Stuart, GW.; Huey, LY.; Adams, N. *An Action Plan for Behavioral Health Workforce Development: A Framework for Discussion*. Rockville, MD: 2007.
- Holmqvist R, Jeanneau M. Burnout and psychiatric staff's feelings towards patients. *Psychiatry Res*. 2006; 145(2–3):207–213. [PubMed: 17070932]
- Kerns CD. Gratitude at work: Counting your blessings will benefit yourself and your organization. *Graziado Business Review*. 2006; 9(4) Retrieved from <http://gbr.pepperdine.edu/2010/08/gratitude-at-work/>.
- Krasner MS, Epstein RM, Beckman H, Suchman AL, Chapman B, Mooney CJ, Quill TE. Association of an Educational Program in Mindful Communication With Burnout, Empathy, and Attitudes

- Among Primary Care Physicians. *JAMA: Journal of the American Medical Association*. 2009; 302(12):1284–1293.
- Leiter MP, Harvie P, Frizzell C. The correspondence of patient satisfaction and nurse burnout. *Social Science & Medicine*. 1998; 47(10):1611–1617. [PubMed: 9823056]
- Leiter MP, Harvie PL. Burnout among mental health workers: A review and research agenda. *International Journal of Social Psychology*. 1996; 42:90–101.
- Leiter MP, Laschinger HKS, Day A, Oore DG. The impact of civility interventions on employee social behavior, distress, and attitudes. *Journal of Applied Psychology*. (in press).
- Leiter MP, Schaufeli WB. Consistency of the burnout construct across occupations. *Anxiety, Stress & Coping: An International Journal*. 1996; 9(3):229–243.
- Mancini AD, Moser LL, Whitley R, McHugo GJ, Bond GR, Finnerty MT, Burns BJ. Assertive community treatment: Facilitators and barriers to implementation in routine mental health settings. *Psychiatric Services*. 2009; 60(2):189–195. [PubMed: 19176412]
- Maslach, C. Burnout: A multidimensional perspective. In: Schaufeli, WB.; Maslach, C.; Marek, T., editors. *Professional burnout: Recent developments in theory and research*. Washington, DC: Taylor & Francis; 1993. p. 19-32.
- Maslach, C.; Jackson, SE.; Leiter, MP. *Maslach burnout inventory manual*. 3. Palo Alto, California: Consulting Psychologists Press; 1996.
- Maslach, C.; Pines, A. Burnout, the loss of human caring. In: Pines, A.; Maslach, C., editors. *Experiencing social psychology*. New York: Random House; 1979.
- Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol*. 2001; 52:397–422. [PubMed: 11148311]
- Melchior ME, Philipsen H, Abu-Saad HH, Halfens RJ, van de Berg AA, Gassman P. The effectiveness of primary nursing on burnout among psychiatric nurses in long-stay settings. *J Adv Nurs*. 1996; 24(4):694–702. [PubMed: 8894886]
- Murphy LR. Stress management in work settings: a critical review of the health effects. *American Journal Of Health Promotion: AJHP*. 1996; 11(2):112–135. [PubMed: 10163598]
- Oddie S, Ousley L. Assessing burn-out and occupational stressors in a medium secure service. *The British Journal of Forensic Practice*. 2007; 9(2):32–48.
- Onyett S, Pillingier T, Muijen M. Job satisfaction and burnout among members of community mental health teams. *Journal of Mental Health*. 1997; 6(1):55–66.
- Organization, WH. *The ICD-10 Classification of Mental and Behavioral Disorders*. Geneva: World Health Organization; 1992.
- Paris M Jr, Hoge MA. Burnout in the mental health workforce: a review. *J Behav Health Serv Res*. 2010; 37(4):519–528. [PubMed: 20013066]
- Peterson U, Demerouti E, Bergström G, Samuelsson M, Åsberg M, Nygren Å. Burnout and physical and mental health among Swedish healthcare workers. *Journal of Advanced Nursing*. 2008; 62(1): 84–95. [PubMed: 18352967]
- Pines, A.; Aronson, E. *Career burnout: Causes and cures*. New York, NY US: Free Press; 1988.
- Pines A, Maslach C. Characteristics of staff burnout in mental health settings. *Hospital & Community Psychiatry*. 1978; 29(4):233–237. [PubMed: 631745]
- Priebe S, Fakhoury WKH, Hoffmann K, Powell RA. Morale and job perception of community mental health professionals in Berlin and London. *Social Psychiatry and Psychiatric Epidemiology*. 2005; 40(3):223. [PubMed: 15742228]
- Prosser D, Johnson S, Kuipers E, Szmukler G, Bebbington P, Thornicroft G. Perceived sources of work stress and satisfaction among hospital and community mental health staff, and their relation to mental health, burnout and job satisfaction. *Journal of Psychosomatic Research*. 1997; 43(1): 51–59. [PubMed: 9263931]
- Robey K, Ramsland SE, Castelbaum K. Alignment of agency and personal missions: An evaluation. *Administration and Policy in Mental Health*. 1991; 19(1):39–45.
- Rohland BM. A survey of burnout among mental health center directors in a rural state. *Administration & Policy in Mental Health*. 2000; 27(4):221–237. [PubMed: 10911671]

- Rollins A, Salyers M, Tsai J, Lydick J. Staff Turnover in Statewide Implementation of ACT: Relationship with ACT Fidelity and Other Team Characteristics. *Administration and Policy in Mental Health and Mental Health Services Research*. 2010; 37(5):417–426. [PubMed: 20012481]
- Rupert PA, Kent JS. Gender and work setting differences in career-sustaining behaviors and burnout among professional psychologists. *Professional Psychology: Research and Practice*. 2007; 38(1): 88–96.
- Salyers MP, Hudson C, Morse G, Rollins AL, Monroe-DeVita M, Wilson C, Freeland L. BREATHE: A pilot study of a one-day retreat to reduce burnout among mental health professionals. *Psychiatr Serv*. 2011; 62(2):214–217. [PubMed: 21285102]
- Scarnera P, Bosco A, Soleti E, Lancioni GE. Preventing burnout in mental health workers at interpersonal level: an Italian pilot study. *Community Ment Health J*. 2009; 45(3):222–227. [PubMed: 19116785]
- Schulz R, Greenley JR, Brown R. Organization, management, and client effects on staff burnout. *Journal of Health & Social Behavior*. 1995; 36(4):333–345. [PubMed: 8719052]
- Schwab RL, Jackson SE, Schuler RS. Educator burnout: Sources and consequences. *Educational Research Quarterly*. 1986; 10:15–30.
- Siebert DC. Personal and occupational factors in burnout among practicing social workers: Implications for research, practitioners, and managers. *Journal of Social Service Research*. 2005; 32(2):25–44.
- Smoot SL, Gonzolas JL. Cost-effective communication skills training for state hospital employees. *Psychiatric Services*. 1995; 46:819–822. [PubMed: 7583484]
- Stalker, C.; Harvey, C. Partnerships for Children and Families Project. Wilfrid Laurier University; 2002. Professional burnout: A review of theory, research, and prevention.
- Taris TW. Is there a relationship between burnout and objective performance? A critical review of 16 studies. *Work & Stress*. 2006; 20(4):316 – 334.
- Toppinen-Tanner S, Ojajärvi A, Väänänen A, Kalimo R, Jäppinen P. Burnout as a predictor of medically certified sick-leave absences and their diagnosed causes. *Behavioral Medicine*. 2005; 31(1):18–27. [PubMed: 16078523]
- van Dierendonck D, Garssen B, Visser A. Burnout Prevention Through Personal Growth. *International Journal of Stress Management*. 2005; 12(1):62–77.
- van Dierendonck D, Schaufeli WB, Buunk BP. The evaluation of an individual burnout intervention program: The role of inequity and social support. *Journal of Applied Psychology*. 1998; 83(3): 392–407.
- van Dierendonck D, Schaufeli WB, Buunk BP. Burnout and inequity among human service professionals: A longitudinal study. *Journal of Occupational Health Psychology*. 2001; 6(1):43–52. [PubMed: 11199256]
- Webster L, Hackett RK. Burnout and leadership in community mental health systems. *Adm Policy Ment Health*. 1999; 26(6):387–399. [PubMed: 10615741]

Table 1
Controlled Intervention Studies to Improve Burnout Among Mental Health Staff

Study	Participants	Setting	Design	Intervention	Results
Halberg 1994	11 nurses (Sweden)	Psychiatric inpatient (child/adolescent)	Quasi-exp Pre-Post: Baseline, 6 and 12 month	Group psycho-dynamic clinical supervision for emotional reactions (14 2-hour sessions over 1 year)	NS changes for burnout; Significant decrease for tedium
Melchoir et al., 1996	326 nurses (Netherlands)	Psychiatric inpatient	Quasi-exp 2 Pretest, 1 Post, nonequivalent groups	Primary nursing model plus special supervisor feedback vs usual treatment	NS changes for burnout; Trend toward less turnover; However, attrition >50%, problems with treatment diffusion.
Corrigan et al., 1997	35 direct care and clinical staff	Psychiatric residential program	Pre-Post	Staff training needs assessment, planning and training on psychiatric rehabilitation. 90 minute trainings for 8 months	Significant reduction on EE for direct care but not clinical staff; NS on DP and PA; Significant improved attitudes about behavioral interventions, satisfaction with staff support
Van Dierendonk et al., 1998	352 "direct care professionals" (Netherlands)	Not specified	Quasi exp Pre-Post for Exp and 2 nonequivalent comparisons	Cognitive behavioral training (1/2 day per week for 5 weeks to improve equity; 3 sessions for supervisors, to improve communication & social skills	EE reduced at 6 months, but NS at 12 months; NS change in DP; PA significant at 6 mos vs. external comparison group but NS at 12 mos, and NS vs. internal comparison group; Absences
Carson et al., 1999	53 nurses (UK)	Psychiatric inpatient	RCT	Social support group vs feedback-only on stress level plus stress management handout; 2 hours x 5 weeks	NS change for EE and DP PA, Control improved at post-test, NS at 6 months; 36% attrition at 6 months
Ewers et al., 2002	20 forensic nurses (UK)	Psychiatric inpatient	RCT	Psychosocial intervention training (6 weeks) vs waiting list control	Significant decrease in EE and DP, and increased PA; significantly improved knowledge, attitudes re: SMI
Scamerra et al., 2009	25 mental health staff (14 direct care, 11 managers)	Psychiatric inpatient, residential, day programs, (Italy)	Quasi-exp (pretest, post-test, follow-up)	Assertiveness training (3 hr workshops monthly for 5 mos) plus one additional workshop: CBT for handling emotions while serving consumers (direct care) or task planning, leadership style, supporting staff (managers)	NS change in EE; DP decreased at post-test and 18 mos; PA worse at post-test; NS at 18 mos
Salyers et al., 2011	84 mental health staff	Community mental health	Quasi-exp 2 pre-test, post test (6 weeks)	Day workshop to improve awareness and skills (contemplative, cognitive, social, etc.)	EE reduced; DP reduced; NS change in PA Improved optimism re: consumers

NS = Not significant; EE= Emotional Exhaustion; DP = Depersonalization; PA=Personal Accomplishment

Table 2

Targets and Strategies for Future Intervention Studies on Burnout

INDIVIDUAL LEVEL	
Target	Strategy
Increase Positive Stress Coping Skills (e.g., van Dierendonck et al., 1998)	Various Cognitive Behavioral Stress Reduction and Coping Skills (See Awa et al.)
Increase Social Support (Burke & Richardsen, 1993; Halbesleben & Buckley, 2004)	Teach Social Support Enhancement Skills, Especially Toward Co-Workers and Supervisors
Increase Internal Sense of Reward and Satisfaction (Maslach et al., 2001)	Training to Recognize and Celebrate Recovery, Consumer Strengths, Small Steps in Progress
Increase a Sense of Gratitude in Work and Life (Geller et al., 2008)	Teach Gratitude Perspective and Skills (Emmons & Shelton, 2001)
Increase Sense of Meaning and Purpose in Work (Geller et al., 2008)	Appreciate Inquiry, Narrative Exercises (Krasner et al., 2009)
Increase Awareness/Reduce Numbing	Teach Mindfulness Skills (Salyers et al., 2011)
ORGANIZATIONAL LEVEL	
Reduce Employee Work Overload (Feingold, 2008; Maslach et al., 2001)	Create Organizational/Unit Goals, Priorities. ARC (Glisson, et al. 2006) Collaborative and Supervisor-Employee Goal and Priority Setting
Reduce Role Ambiguity (Maslach et al., 2001; Stalker & Harvey, 2002)	Develop Clear, Accurate Job Descriptions and Provide Necessary Training (Paris & Hoge, 2010)
Reduce Role Conflict (Maslach et al., 2001; Stalker & Harvey, 2002)	ARC (Glisson et al., 2006); CREW (Leiter et al., in press)
Increase Job Resources/ Increase Positive Feedback/External Rewards (Maslach et al., 2001)	Provide Regular, Collaborative, Quality Supervision (Feingold, 2005; Knudsen et al., 2008); Train Supervisors to Provide Positive Social Support (van Dierendonck et al., 1998) and Express Gratitude (Kerns, 2006) Provide Competitive Compensation (Paris & Hoge, 2010)
Increase Employee Involvement in Relevant Decision Making and Problem Solving (Burke & Richardsen, 1993)	Collaborative Team Meetings Use of Problem Solving and Continuous Quality Improvement, e.g., - ARC (Glisson et al., 2006)
Increase Employee Autonomy (Malach et al, 2001)	Decentralize Decision Making
Create Shared Values (Schulz et al., 1995)/Positive Work Culture/ Sense of Community (Maslach, et al., 2001) that Support Employee Wellness	Develop Interlocking Individual/Team/Agency Mission and Value Statements (Robey et al., 1991) ARC (Glisson et al., 2006), Administrative Policies (Fallot & Harris, 2008)