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MENTAL HEALTH AND MENTAL ILLNESS IN THE WORKPLACE: DIAGNOSTIC AND TREATMENT ISSUES



DISCUSSION PAPER

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ABSTRACT

Mental health, mental illness and stress-related disability are especially ill-defined, complex and controversial issues when considered in the context of the workplace. A multi-determined disorder such as major depressive disorder (MDD) does not fit a simple cause and effect model, but is similar to other complex occupational illnesses such as low back pain. Currently, a knowledge gap exists between mental health professionals and employers regarding symptom-based models of illness and function-based models of work performance. As a result, psychiatric disorders affecting workers are under-identified and under-treated and likely result in unmitigated impairment and disability. The authors examine several conceptual models for workplace mental illness across medical and psychological disciplines and propose a unifying construct. The utility of the existing screening methods for common workplace illnesses and their potential application are reviewed. The challenges of diagnosis and effective treatment of workplace mental illness are highlighted within an "occupational mental health system" with suggestions for future research directions.

Introduction

In the last decade the economic impact of mental illness in the workplace has been the subject of a growing number of publications in the psychiatric literature (Greenberg et al. 1999; Dewa and Lin 2000; Simon 2003). Mental illness has also captured the attention of employers, insurers and healthcare providers and remains a substantial burden (Dewa et al. 2002). Results from the recently completed Canadian Community Health Survey (Statistics Canada 2003) are expected to provide unique Canadian data in this area. Previously, the Ontario Mental Health Survey provided informative data on both under-detection and under-treatment of major mental illnesses in the community and also highlighted the impact of these disorders in the workplace (Dewa and Lin 2000). With respect to depression, there have been several reports on the importance of treatment until remission of all symptoms is achieved, both in preventing relapses and in increasing the likelihood of successful reintegration into the workplace (Paykel et al. 1995; Druss et al. 2000; Simon et al. 2000).

Differences in professional and theoretical backgrounds have contributed to the gap between traditional mental health workers, who treat individuals with diagnosed mental illness, and those in the employment sector, who have tended to consider occupational health in terms of stress and burnout. It is our contention that there is much greater overlap between stress disorders and psychiatric disorders than is generally recognized and that the first level of intervention would be to confirm this hypothesis.

For the purpose of this paper, we have chosen to focus on entities affecting

employed and employable adults, recognizing that occupational difficulties are also faced by other populations with severe and persistent mental illness. From the occupational perspective, the emphasis has largely been on stress and stress-related syndromes, including burnout, while those allied to mental health and mental illness have focused on mood disorders and anxiety disorders, as well as substance-related and adjustment disorders. The degree of overlap between these two frames of reference remains to be clarified.

These entities have been consistently linked to impaired work capacity in the form of decreased productivity, absenteeism and disability, which may include increased frequency of accidents. Reduced occupational attainment and increased turnover in the workforce are also sequelae. While robust and standardized data are not available across work environments, there is evidence to suggest that mental illness influences the bottom line in at least five distinct ways: (1) performance levels are sub optimal (presenteeism); (2) repeated short-term absences (< five days) that do not trigger disability claims; (3) short-term disability claims based on absence for 5-90 days; (4) long-term disability claims (> 90 days off work) and (5) failure of retention in the workplace.

Stress-related Syndromes and Burnout

According to Cherniss (1980), psychological stress may be related to individual and organizational factors, and it is best defined as "a state of being, resulting from the tension experienced by the imbalance between what is demanded and what is offered to meet that demand." Work-related stress appears to be unique in that it is not easily modified and requires the

cooperation of several systems, notably management and employers in order to adapt to increased demands.

Conceptual Frameworks

Health psychologists, as well as industrial and organizational psychologists, have studied constructs of stress-related syndromes and burnout for several decades. Stress-related syndromes, such as "sick building syndrome," are generally not well delineated and researched. They are characterized by non-specific respiratory, gastrointestinal, dermatological, musculoskeletal and neurological symptoms associated with changes of mood, memory disturbances and difficulty concentrating (Arnetz and Wiholm 1997). Burnout is a stress-related construct that is conceptualized in the context of specific and persistent workplace stressors. It has been widely recognized and studied, primarily in occupational settings within the human service sectors, and it initially involved mental health professionals (Freudenberger 1974). Over the past three decades, burnout has become an accepted disability from an employee perspective, but it is not accepted as a "medical disability."

Maslach and Jackson (1981) proposed three dimensions of burnout; emotional exhaustion (EE), depersonalization (D) and reduced personal achievements (PA), as measured by the Maslach Burnout Inventory (MBI). Emotional exhaustion, which is generally regarded as the initial and defining feature of burnout, results in attitudinal and behavioural changes that impair work performance.

Symptom Severity and Functional Impairment

There is robust evidence that burnout, as measured by the MBI, influences work

performance, absenteeism and disability. Situational factors, such as high effort and demand with low job satisfaction, are believed to be more important than personal factors as antecedents of burnout (Iacovides et al. 2003; Karasek and Theorell 1990). In general, the more severe and pervasive the manifestations of burnout become, such as affecting family and social relationships, the more likely it is to overlap with clinical disorders such as MDD and anxiety disorders.

Current understandings of stressrelated syndromes and burnout have shifted away from the typical cause-effect relationship, which was grounded in traditional occupational medicine models. Subsequently, the interpretation has shifted toward the biopsychosocial, recognizing the mediating effect of personality and coping mechanisms in their response to a stressor and the context in which they interact. Within medicine, the biopsychosocial model has been widely utilized to explain disorders such as depression, anxiety and low back pain; this suggests a merging conceptual model for occupational mental illness (Spurgeon 2002).

Depression, Anxiety and Substance Use

That stress may trigger or exacerbate mental and physical illnesses is well accepted. Biological manifestations of stress result from maladaptive responses by the body's internal regulating systems, including the hypothalamic-pituitary-adrenal axis. Failure to regulate stress-related hormones, including corticotrophin releasing factor and other neurosteroids, may promote a chronic state of stress in the brain, which can result in atrophy or shrinkage of certain brain areas – particularly the hippocampi

- that are associated with memory and mood regulation (McEwen 1999). A similar model of understanding exists in research regarding occupational stress.

Diagnostic Frameworks

Major depressive disorder (MDD), dysthymic disorder and bipolar disorder are among the most prevalent psychiatric disorders in the workplace. Anxiety disorders, including panic disorder, generalized anxiety disorder (GAD), social phobia (social anxiety disorder), post-traumatic stress disorder (PTSD) and obsessive-compulsive disorder (OCD), are also highly prevalent and are frequently comorbid with mood disorders. Over time many individuals who suffer from anxiety disorders are likely to develop co-morbid depression (Angst et al. 1990).

Substance abuse and physical illness are also co-morbid with both anxiety and depressive disorders. In general, comorbidity adversely affects outcome. One-third of mood disorder patients have a lifetime history of substance use, and 20% of individuals with alcohol problems have a lifetime history of a mood disorder (Merikangas et al. 1998). Among the medically ill, risk of death following a heart attack is significantly increased by the presence of co-morbid depression (Frasure-Smith and Lesperance 2003). There are also many examples where co-morbid depression is associated with increased utilization of medical services for non-psychiatric conditions, likely due to worsening substance use, psychiatric illness and physical illness (e.g., pain or cardiac disease) (Osby et al. 2001). All these influence the subjective experience of health or "wellness," but the effect on job satisfaction, organizational commitment and retention rates is less clear.

Increasingly evident is a reduction in performance and productivity, which is likely mediated through cognitive impairment, physical symptoms and interpersonal conflict (Stewart et al. 2003).

A more unifying construct for defining depressive and anxiety spectrum disorders would include etiologic and functional dimensions, such as mood (irritability and emotional exhaustion), cognitive functions (concentration and memory), interpersonal relations (conflict and sociality), behaviour (reduced occupational achievement, absenteeism or reduced performance) and physical symptoms (pain, weakness, fatigue, neurological symptoms, gastrointestinal problems). Physical symptoms are an integral component of both depressive and anxiety disorders and may be especially relevant in justifying the "sick role" in the workplace (Stewart et al. 2003).

Symptom Severity and Functional Impairment

Evaluating response to treatment, whether counselling and psychotherapy or medication and pharmacotherapy, is generally an informal judgment that is reached by the individual and the clinician together. However, both qualitative and quantitative measures of severity are available. The Hamilton Rating Scale for Depression (HRSD) (Hamilton 1960) and the Hospital Anxiety Depression Scale (HAD) (Zigmond and Snaith 1983) are examples of observer-rated and self-report scales. Abbreviated versions of the HRSD, such as the seven-item version (McIntyre et al. 2002) take less time to administer and have been used in family practice and psychiatric clinics to evaluate treatment outcome. Their utility as screening instruments has yet to be established.

Functional outcome is a neglected but equally important measure during treatment of these disorders. Quality-of-life assessments, such as the Medical Outcomes Short Form – 36 item scale (SF-36), have been used to evaluate functional impairment across numerous physical and psychiatric disorders, but they have limited utility in the workplace (McHorney et al. 1992). The Endicott Work Productivity Scale (Endicott and Nee 1997) and the Life Functioning Questionnaire (LFQ) (Altshuler et al. 2002) are relatively brief validated measures of workplace performance.

Screening Strategies

In general, screening is indicated when a condition is highly prevalent, underdetected and undertreated; when available and reliable screening methods are available; and when effective treatments exist (Greenfield et al. 1997). Workplace screening has been recommended for hypertension, diabetes, cancer, TB, musculoskeletal disorders, chemical exposure and countless other ailments, and more recent findings suggest erring the same need for screening for mental illness.

Screening for Stress-related Syndromes and Burnout

The Job Content Questionnaire (JCQ), based on the Demand-Control Model (see Vézina's paper), has been successfully administered in the Canadian National Population Health Survey (NPHS) and the French GAZEL cohort, which both include large samples of working individuals (Karasek 1985; Ibrahim et al. 2001; Niedhammer and Chea 2003). Burnout has been measured in a large sample of Finnish physicians with the Maslach Burnout Inventory (MBI) (Korkeila

et al. 2003). More longitudinal studies are needed to adequately evaluate these self-report instruments and the health outcomes which they intend to link (e.g., self-reported health). Both may be helpful in identifying those at increased risk for developing sequelae from stress, such as depression and anxiety disorders (Niedhammer and Chea 2003).

Screening for Depression, Anxiety Disorders and Substance Abuse

General screening instruments evaluated for depression include the Center for Epidemiologic Study Depression (CES-D) scale (Roberts and Vernon 1983) and the General Health Questionnaire (GHQ) (Goldberg 1972). In 2002, the US Preventative Services Task Force found sufficient evidence to recommend routine screening for depression in clinic populations. Overall, routine screening for depression followed by feedback to the provider increased disease recognition by 10% to 47%. It is of note that improvements in treatment rates and outcomes were associated with superior outcomes only when integrated with a depression management program (Pignone et al. 2002).

Anxiety disorders are also highly prevalent and, with the exception of simple phobia, are associated with impairment in workplace performance (Greenberg et al. 1999). To date, there is less research into screening methods for anxiety disorders than for depression. The utility of common anxiety disorder assessment instruments for screening has been evaluated in a German female population with the Symptom Checklist Revised (SCLR-90), the Beck Anxiety Inventory (BAI) and the Anxiety Sensitivity Index (ASI) (Hoyer et al. 2002). More research

and development is needed in global anxiety screening tools that would accurately identify workers in need of clinical attention.

Substance abuse screening in the form of drug testing has been widely adopted, particularly in the United States. The effect of drug testing is substantial as a deterrent, but it is still unclear whether it alone has been responsible for reduced substance use in populations or whether it persuades individuals to seek treatment (Cook and Sclenger 2002). The use of widespread drug testing may not be applicable to Canada, and it can be criticized as being insensitive to on-the-job impairment, adversarial and an overly invasive screening method (Raskin 1993). Non-invasive methods evaluated in a workplace setting include the Brief Michigan Alcoholism Screening Test (BMAST) (Pokorny et al. 1972) and the CAGE (Ewing 1984). These instruments were also limited by their ability to differentiate present from past drinking and lack of agreement about cut-off scores (Watkins et al. 2000).

Screening for Musculoskeletal Disorders

In 1986, the National Institute for Occupational Safety and Health (NIOSH) in the United States proposed a strategy to decrease cumulative trauma disorders (CTDs), such as carpal tunnel syndrome. This involved a comprehensive questionnaire and physical screening over four weeks. The effectiveness of workplace screening programs is supported by the decrease in incidence rates of CTDs (Melhorn 1999). One concern, however, which has been expressed by employers, is that if an individual is evaluated, educated or informed about CTD musculoskeletal

disorders related to the workplace, the reported rate of occurrence would increase. Prospective studies have shown this did not happen (Melhorn 1999).

Evidence from studies screening for common stress-related entities and psychiatric disorders suggests that several valid instruments are available that can be administered broadly on a self-report basis. The optimal screening instruments and procedures have not been explicitly determined for many mental illnesses and may include novel strategies such as Internet-based methods (Houston et al. 2001). To date, screening strategies have relied primarily on self-identification and self-referral, with findings for depression and CTD's indicating that more structured protocols yield improved outcomes. While indications for workplace mental illness screening, particularly depressive and anxiety disorders, do meet sufficient criteria, there are as yet no protocols for the workplace.

Treatment Treating Stress-related Syndromes and Burnout

Strategies for limiting stress-related illnesses have been used and evaluated at several levels. The promotion and prevention strategies are reviewed in Michel Vézina's paper. Treatment interventions typically involve workplace counselling through employee assistance programs (EAPs). EAPs are designed to provide counselling, information and/or referrals. These were originally developed in the United States for alcohol-related problems and have been extended to other stress and mental illness problems (Cooper and Cartwright 1997). These confidential services, which employees can obtain voluntarily, typically offer four to eight

sessions per year per employee. Marked benefits can occur in symptom reduction, but it is unclear if these interventions have any impact on work performance. It is of interest that evidence from counselling programs indicates that one-quarter of all presenting problems were related to problems outside of work (Reynolds 1997).

The impact of EAP interventions on employees with depressive or anxiety disorders has not been established. A scientific review of critical incident stress debriefing (CISD) performed by the Cochrane group did not support CISD as an effective intervention to prevent PTSD (Suzanna et al. 2002). This is an example of a widely adopted EAP practice and intervention that appears to have no clinical benefit but is considered of value to employers and management. There is a need to evaluate the effectiveness of existing interventions more stringently and to define treatment plan thresholds for referral to additional psychiatric services (McLeod and Henderson 2003).

Treating Depression, Anxiety and Substance-related Disorders

The course of mood and anxiety disorders is episodic, the peak ages of onset being in late adolescence and early adulthood for most disorders. Despite the burgeoning mental health and socio-economic impact of depression, two large studies, the Depression Research in European Society (DEPRES) study and the Ontario Health Study (OHS), conclude that only about half the individuals with major depression seek help, and among those who do, only about one-third receive any pharmacotherapy (Lépine et al. 1997; Parikh et al. 1997). In a longitudinal evaluation, patients with depression spent about 20% of their lives depressed and frequently

experienced residual symptoms between episodes. Also in about 20% of patients, depression followed a chronic course with no remission. The recurrence rate for those who recover from the first episode is around 35% within two years and 60% in 12 years, it is also higher in individuals who are 45 years of age or older (Keller and Boland 1998). Given the course of these disorders, it seems imperative to limit their impact on occupational attainment and sustainability with effective treatments.

Despite the availability of numerous guidelines for the treatment of mood and anxiety disorders (Kennedy et al. 2001; Segal et al. 2001a; Segal et al. 2001b; Stein 2003), recent evidence confirms the suspicion that the actual prescription of antidepressant medication for disability claimants does not meet dose and duration recommendations. In a sample of Canadian insurance and financial sector employees, individuals who went on to long-term disability were significantly less likely to have received first-line antidepressants at guideline recommended doses. Conversely, those who were treated in adherence with guidelines were significantly more likely to return to work after a short-term disability claim. More than half of the claimants had received antidepressants (56%), but it was impossible to evaluate the frequency or effectiveness of evidence-based psychotherapy (Dewa et al. 2003).

The decision to recommend psychotherapy or pharmacotherapy depends on several issues, including patient preference, symptom severity, treatment availability and prior treatment experiences. In general, for mild to moderate depression, evidence-based short-term psychotherapies (e.g., cogni-

tive-behaviour therapy and interpersonal psychotherapy) are as effective as medication treatments (Kennedy et al. 2001). There are numerous other pharmacological techniques for promoting remission (e.g., augmentation and combination therapies), and in chronic depression, often lasting several years, combined psychotherapy and medication are superior. The benefits of treating to remission include reduced relapse rates, improved psychosocial function and reduced work-related costs (Simon et al. 2000).

Both psychological and pharmacological treatments have been employed effectively across the spectrum of anxiety disorders. In fact, many of the same medications (e.g., SSRIs) and psychotherapies (e.g., CBT) are used to treat these disorders. The importance of early detection and treatment has been emphasized as a means of preventing future co-morbid anxiety and depression. Typically, treatment for co-morbid mood and anxiety disorders as well as co-morbid substancerelated disorder is more complex, requires more than one intervention and may yield lower rates of response and remission. Motivational interviewing techniques have provided successful outcomes in some substance-abuse populations. Adjustment disorders are at the interface between stress-related disorder and mood and anxiety disorders. They may be well suited to brief focused counselling interventions as offered by EAPs.

In the case of depressive disorders, there is now convincing evidence that treatment is cost-effective, even when the employers bear the full cost of treatment (Druss et al. 2000; Goldberg and Steury 2001). In Canada, employers could further limit organizational costs by effectively utilizing a public health care system and

reducing insurance costs through the prevention of disability. Considering that the great majority of Canadians are employed, society would also benefit from using the workplace as a conduit for treatment. To date, few treatment studies have identified the economic impact of early and sustained evidence-based interventions through improved occupational attainment and function. Currently, identification and treatment delivery strategies appear to be greater barriers than the effectiveness of treatment.

Healthcare Delivery

We understand the system in which employee mental health is addressed as the "occupational mental health system" (see Figure 1). Within this fragmented system, there are several barriers related to timely identification, correct diagnosis, shared treatment strategies, and prevention of relapse and disability (Goldberg and Steury 2001). The occupational mental health system includes representatives from the healthcare providers (physicians, psychologists, EAPs and researchers), the workplace (employers, human resources, managers and co-workers) and insurance providers (public and private), as well as the home and community (family and advocacy groups). In general, this system is poorly integrated and is characterized by barriers caused by lack of education, illdefined roles, inadequate resources, delayed and unsuitable treatment and socio-economic factors, all of which discourage resource utilization and investment. Ideally, interventions should be initiated by gains-driven positive motives rather than problem-driven negative motives such as cost containment (Cooper and Cartwright 1997).

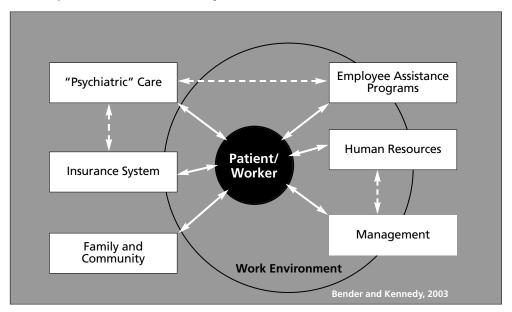


Figure 1. Occupational Mental Health System

Healthcare Providers

Employee Assistance Programs are often the first point of contact for employees with mental health concerns. The rates of EAP coverage appear to be related to the size of the organization and industry group. Smaller organizations (those with fewer than 100 employees) are much less likely to offer EAPs than large organizations (those with over 1,000 employees), particularly those with educated and unionized workforces (Hartwell et al. 1996). Great variability also exists in the coverage and services provided by EAPS in different organizations and in their utilization; and interventions often occur independently of those provided by the primary care physician (Reynolds 1997).

In Canada, public health physicians still remain the primary providers of mental health services to working individuals. There is now evidence that mental disorders, such as depression, are associated with higher utilization of general health resources rather than specific

resources directed towards mental disorders. That is of concern in a constrained public health system (Simon 2003). Interventions within physician health practices have achieved modestly better outcomes in the diagnosis and treatment rates of depression by using organizational and individual strategies. Effective professional interventions include distribution of educational materials, educational meetings, clinical management consensus processes, educational visits and feedback to practitioners, the use of local opinion leaders, patient feedback through selfrated screening, audit and feedback of clinical performance, and reminders and review of treatment barriers. Effective organizational interventions include revision of professional roles, clinical multidisciplinary teams, formal integration of services and continuity of care (Gilbody et al. 2003). It is of interest that those receiving enhanced-practice management of depression had lower rates of unemployment and work conflict at

one year than those who received usual care (Smith et al. 2002). In the primary care setting, novel practice strategies will continue to be a focus of future research with potential application to a workplace setting. These may include shared-care models with primary care physicians, occupational medicine specialists and clinical psychologists in collaboration with psychiatrists.

The Workplace

Evaluating the utility of individual and organizational strategies for improving treatment outcomes in occupational mental illness will require the collaboration and co-operation of several organizations. Potential interventions, which have not been adequately evaluated include delivering confidential self-rating scales to the work site; promotion of greater awareness by EAPs; recognition training for supervisors; and more education for labour boards and the judicial system (Goldberg and Steury 2001). Because of the stigma of mental illness and fear of discrimination, targeted mental health interventions, such as health counselling for substance abuse, may be more effective if imbedded in socially acceptable programs for smoking or cardiovascular disease (Cook and Sclenger 2002). Since a significant proportion of the Canadian workforce is employed in small and medium-sized organizations, findings in large organizations may not be generalizable and there may therefore be a need for independent study of these variables (Statistics Canada 2003). Despite this, most organizations do have government-mandated occupational health and safety policies and programs that may accommodate and guide potential workplace mental health strategies.

Home and Community

Results from the National Comorbidity Study highlighted the significant relationships between conflicts at home and in the workplace. Those reporting increased workplace conflict due to family stressors were 10 to 30 times more likely to be experiencing psychiatric disorder than those who did not report such conflict. Family and community supports have the potential for reducing work-life imbalances and preserving sustainable employment by reducing caregiver burden, improving identification, and advocating for treatment seeking and better adherence to treatment plans. These findings emphasize the need to examine optimal home interventions, including workplace family-supportive programs (Frone 2000).

Insurance Providers

The insurance industry has worked closely with employers and labour unions, acting in good faith when handling occupational health claims by (1) commissioning specialists to examine the claimant; (2) providing vocational support services; (3) negotiating on behalf of the claimant for modified duties or modified environment; and (4) offering a financial safety net during rehabilitation (Lloyd 1997). Unfortunately, there are frequent delays – in communication, compensation and treatment – which lead to further morbidity related to psychiatric disorders.

Challenges in disseminating existing knowledge

Despite the availability of evidence-based treatment guidelines, investment in the dissemination of this information has been minimal. There is a gathering momentum in research as it applies to occupational factors and a growing inter-

est of organizations in implementing these findings. To achieve this, Rosenheck (2001) suggested four strategies: (1) leadership coalitions to promote implementation; (2) research initiatives linked to organizational goals and values; (3) continuous monitoring of implementation process and program performance; and (4) development of subcultures that reinforce evaluation and learning.

Outcomes

Identifying outcome measures that are meaningful to researchers, healthcare providers, employers and employees is an important first step. In clinical settings, there is a gradual paradigm shift from symptom reduction to successful functional outcomes. In workplaces, maintaining competitiveness through enhanced productivity and cost-control has been an emerging business driver, although the long-term effects on employee mental health have not been firmly established. Most research has relied on crosssectional design or retrospective analysis, neither of which is able to establish a causal link between mental disorders and work dysfunction (Simon 2003).

We propose that there is a need for longitudinal controlled prospective studies that thoughtfully combine clinical and economic outcomes. These outcome measures have not been uniformly defined, but they are taking shape. In our opinion, the economic consequences of mental illness are related to absenteeism, productivity (presenteeism), disability rates (short- and long-term), retention rates, job satisfaction and insurance costs. The clinical outcome measures most relevant to the workplace are diagnostic and comorbidity rates; referral rates; response, remission and relapse rates;

quality of life and functioning; healthcare services utilization; and program cost-effectiveness.

Conclusion

We are faced with the challenge of greatly improving the detection and treatment of mental illnesses in the workplace. There is a growing determination among various stakeholders to identify occupational factors that contribute to mental health and mental illness and to develop appropriate treatment interventions. The model adopted by several countries, including Canada, for addressing occupational low back pain serves as a useful example. Guidelines contain recommendations for diagnostic triage, screening for specific symptoms, and the identification of workplace barriers and psychosocial issues. All of these guidelines have been criticized for lack of attention to organizational barriers, implementation strategies and costs (Staal et al. 2003). There is a great opportunity in the field of mental health to learn from this and other occupational models.

We propose the following research agenda:

- (1) Clarify diagnostic entities and associated co-morbidities with validated research instruments for occupational mental illnesses.
- (2) Understand the factors that contribute to workplace stress to be risk factors for psychiatric disorders, and for the populations they affect.
- (3) Develop and evaluate screening tools for mental illness and functional impairment in the workplace.
- (4) Evaluate EAP interventions and their impact on stress and burnout and psychiatric disorders.
- (5) Develop and evaluate shared-care

- strategies that can be adapted to different sizes and types of organizations.
- (6) Develop guidelines for the management of mental illness in the context of the "occupational mental health system."

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