Addressing Occupational Factors in the Management of Low Back Pain: Implications for Physical Therapist Practice

William S. Shaw, Chris J. Main, Venerina Johnston

There is mounting evidence that occupational factors influence the extent of sickness absence following an episode of low back pain, but there have been limited efforts to integrate the identification and management of occupational factors into the routine practice of physical therapists. Systematic reviews suggest that a client’s report of heavy physical demands, inability to modify job tasks, work stress, lack of organizational support, job dissatisfaction, poor expectations for resuming usual work, and fear of reinjury are indications of significant barriers to returning to work. Recommended strategies for evaluating and addressing occupational factors are explored with respect to the physical therapist’s role in client assessment, development of activity and lifestyle recommendations, therapeutic exercise, communication with other providers, and summary reports. Primary recommendations include: (1) administration of self-report questionnaires to assess a client’s perspective of physical job demands, (2) client-centered interviewing to highlight individual return-to-work concerns, (3) early discussions with clients about possible job modifications, and (4) incorporation of clients’ workplace concerns in progress reports and summaries. These strategies may improve low back pain outcomes by encouraging effective communication with key stakeholders and by developing clients’ ability to resolve obstacles to returning to work.

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Low back pain (LBP) is a common health complaint and one of the most frequent reasons to be seen by a physical therapist. For working-age adults with LBP, one of the most important goals of physical therapy intervention is to help these clients feel able to continue or resume usual job-related activities. With the help of exercise and education, most clients are able to achieve a safe and sustainable return to work (RTW), but for others RTW can become a multifactorial problem requiring extensive communication and cooperation among the worker, the employer, the insurer, and the health care provider. In the early stages of LBP, clients may express a variety of occupational concerns and challenges about returning to work that go beyond the scope of a written job description, and these psychosocial factors have been shown to be significant predictors of disability outcomes. Averting disability for these clients may require that early patient concerns about the workplace be addressed, perhaps by adopting more patient-centered approaches to assessment, goal setting, advice, exercise, and motivational strategies. In this article, we consider the feasibility of identifying and addressing these occupational factors in physical therapist practice.

### Observable Versus Self-Report Measures of Occupational Factors

To interpret the role of occupational factors in the scientific literature on LBP prognosis, it is necessary to first make a distinction between directly observable or measurable assessments of the workplace and client self-report assessments of the workplace. Observable measures of job demands (eg, occupation, industry, employer size, observed or measured physical demands) have been the primary means of studying causal links between physical job demands and LBP. Such studies have led to the conclusion that LBP is related to manual materials handling, load moment, frequent bending and twisting, heavy physical work, and whole-body vibration, although not all systematic reviews have agreed. In terms of LBP recovery and RTW, however, the most important prognostic data are reflected in individual-level perceptions and attitudes about the workplace. Regardless of whether client perceptions can be confirmed by observable data, these appraisals provide a very important indication of expected RTW barriers and difficulties. Attitudes and expectations about the workplace no doubt reflect a complex interaction between worker and employer attributes, but understanding occupational factors from the client’s perspective may be necessary to prevent a long-term sickness absence.

### Self-Report Occupational Factors in Back Disability

A growing body of prospective evidence from patient cohort studies suggests that among working-age adults, self-reported job factors are consistent predictors of LBP outcomes, especially with regard to a safe and sustainable RTW. Job factors include not only the perceived demands of physical work, but also variables related to organizational support and psychosocial work environment, and their associations with disability outcomes persist even after controlling for a host of other psychosocial, demographic, and health variables. Five systematic reviews have been conducted in recent years to summarize the growing number of prospective cohort studies exploring occupational factors in back disability. Although the conclusions of the 5 systematic reviews are somewhat different (due to differences in methods and quality inclusion criteria), the reviews point to a core set of 7 workplace variables that have been associated with back disability: heavy physical demands, ability to modify work, job stress, social support, job satisfaction, RTW expectation, and fear of reinjury. A series of open-ended questions about the workplace (eg, “Can you tell me about your workplace?”) might be the first step to determine whether any of these concerns represent significant barriers for RTW. Each of these variables is described in more detail below.

### Perceptions That Work Involves Heavy Physical Demands

These perceptions include any indications from the worker that his or her work is strenuous or involves heavy physical tasks like lifting and carrying heavy loads, even if this report seems inconsistent with their actual occupational category or formal job description. As an example of research evidence, a study of 433 workers’ compensation claimants showed a longer duration of back disability was associated with self-reported time spent bending and lifting or pushing or pulling heavy objects at work. Interestingly, a worker's own rating of job physical
demands is a better predictor of long-term disability than are actual instrumented measurements of physical forces and weights involved in specific job tasks. However, measurements of heavy job requirements are still valuable, as such data do correlate with rates of injury and delayed RTW. It may be that self-report ratings are taking into account other workplace factors such as time demands, heavy but infrequent lifts, equipment problems, and differences in work style and pacing.

**Inability to Modify Work**

Despite strong evidence that offers of modified work reduce employer disability costs, employers vary in their disability management practices and in the feasibility of modifying work assignments, and this variation is reflected in the perceptions of workers about organizational support following onset of LBP. If a client feels that job modification is impossible, an RTW seems unlikely until all symptoms have resolved and the worker feels certain of performing 100% of his or her preinjury physical work demands. The perception that work cannot be modified may be based on actual job conditions, current employer practices, second-hand knowledge, past experience, or experience in prior jobs. Even if assured of modified duty, some workers may feel that this arrangement is stigmatizing, unfair to their coworkers, or simply not desirable.

**Stressful Work Demands**

Self-reported job stress has been associated with longer duration of back disability after pain onset. Early RTW may be more difficult when a worker describes his or her job as stressful, particularly with regard to time pressures, productivity demands, the inability to control the speed of work, and the organization and monotony of work. Job stress or a high level of constant work demands may interfere with an early RTW by limiting options for job modification or by reducing opportunities for coworkers to provide temporary assistance. However, as many workers have stressful jobs they find rewarding and fulfilling, job stress may not otherwise have been a problem for a worker before the onset of LBP.

**Lack of Workplace Social Support**

Workers who report less workplace social support, on the average, experience longer work absences due to LBP. Poor social support may be the product of an isolated work environment, unusual working hours, a new place of employment, a recent departmental transfer, past conflicts with coworkers or with supervisors or managers, or difficulty developing social ties in the workplace. In the absence of supportive words and actions from coworkers or supervisors, a worker with LBP may feel that an employer is unsympathetic about LBP, especially if the pain is work related. A lack of workplace social support may not be perceived by the worker as a problem until a period of pain-related work absence develops. Workers who feel unsupported at work may be advised by coworkers to seek legal advice or to avoid certain physicians who might favor early RTW.

**Job Dissatisfaction**

Not every job is intrinsically rewarding, enjoyable, and stress-free. Although most workers report relative satisfaction with their work (at least 6 on a 1-10 scale), not all workers are content with their current employment, and most jobs have both positive and negative aspects. If a worker describes work that is tremendously dissatisfying and unrewarding and with few prospects for transfer or advancement, coaxing this worker to return to unsatisfying work is, not surprisingly, a bit more challenging. Indeed, job dissatisfaction has been a predictor of longer work absences due to LBP. At the same time, many workers who are not satisfied with their jobs are eager to return to work as soon as possible after injury or illness.

**Poor Expectation of Recovery and Return to Work**

Some workers form an opinion very early (perhaps even before the injury has occurred) that injury rehabilitation and RTW will be difficult in the current work environment, and this factor has been associated with poorer RTW outcomes among workers with work-related LBP. It is not clear whether this expectation is based on past experience with musculoskeletal conditions, a rational assessment of barriers that may impede recovery, or simply a self-fulfilling prophecy.

**Fear of Reinjury**

Although most cases of acute LBP improve rapidly and resolve completely within a few weeks, even a brief episode can involve severe levels of pain and functional impairment that are not easily forgotten. Although most recovered workers hope never to experience severe LBP again, approximately half will have a recurrent episode of significant exacerbation within 1 year, and lingering pain and functional impairment beyond 1 month occurs in approximately one third of all acute cases of work-related LBP. Thus, a worker may spend a great deal of time contemplating workplace activities that contribute to LBP and how best to avoid these exposures in the future. If symptoms persist, these efforts, unfortunately, can lead to unnecessary self-limitations of activity, and it is possible that global activity avoidance (not just reluctance to resume job tasks) contributes to further deconditioning from disuse and awkward postures.
Occupational Factors in Low Back Pain

Once these problems are discovered, how can they be overcome? Workplace-focused intervention strategies for LBP recovery and RTW have emerged from a number of scientific perspectives and clinical orientations, but best practices generally involve a blend of reducing heavy physical demands while improving organizational support, coordinating modified duty requirements, and improving RTW readiness through education and counseling. Patient education and advice may pertain to safe lifting techniques, advice that an early RTW may be therapeutic, or reassurance that LBP is not a serious medical condition. An employer’s offer to provide modified or alternate duty to a worker recovering from LBP is a well-proven method for facilitating an early RTW as it provides workers an opportunity to gradually resume and upgrade job tasks as function improves over time. Improved communication (among worker, employer, and provider) has been shown to reduce the duration of sickness absence. In contrast, when employers fail to follow up with injured workers, this failure increases the length of time off work. Another workplace-focused strategy is to designate a worksite (or insurer-based) RTW coordinator responsible for handling all aspects of job modification between workers and supervisors while still adhering to medical restrictions. These efforts usually involve a collaborative problem-solving approach with workers, usually in conjunction with supervisor or employer involvement.

The “Flags” Concept: Framework for Addressing Nonmedical Factors in Treatment of Low Back Pain
One challenge has been to translate the complex evidence of multiple psychosocial factors into useful clinical recommendations. Occupational factors represent one of several domains included in the “flags” concept for addressing nonmedical factors associated with LBP outcomes. Creators of the flags concept intended to draw more clinical attention to the psychosocial and workplace factors contributing to sickness absence after LBP onset. Although medical “red flags” were already familiar to clinicians as possible signs of more serious pathology, “yellow flags” were conceived as an additional group of psychosocial factors that increase the risk of delayed recovery and long-term sickness absence from work. Although the original list of yellow flags encompassed a number of different domains, most of the individual-level factors encompass either concerns about symptoms (still referred to as “yellow flags”) or workplace concerns (now referred to as “blue flags”). Fortunately, many such yellow and blue flags are potentially modifiable if they are identified and addressed in a timely fashion. The goal of the flags concept was to suggest that providers routinely screen for such nonmedical, psychosocial, and workplace concerns in an effort to provide more-tailored counseling and advice.

Should the Role of the Physical Therapist Be Expanded to Address Occupational Concerns (“Blue Flags”)?
Because successful treatment often requires incorporation of a range of psychological and lifestyle issues in the design and implementation of physical therapy treatment (eg, goal setting, adherence to home exercise, encouraging maximal effort, motivating clients to achieve specific goals), the incorporation of psychosocial factors within clinical management is nothing new. However, occupational factors may be difficult to address if the physical therapist has no experience making contact with the workplace or has been involved in communicating with employers, conducting worksite assessments, setting functional restrictions, or coordinating job modifications. Nevertheless, workplace involvement has been shown to improve the effectiveness of physical conditioning programs, and there may be a missed opportunity for physical therapists to identify occupational factors as potential obstacles and improve the confidence and ability of clients to deal with them. Using a systematic, client-centered, problem-solving approach to address these factors may improve physical therapy outcomes, even in the absence of a workplace visit.

Although biopsychosocial approaches to pain treatment are supported by the World Confederation for Physical Therapy and by the framework of the International Classification of Functioning, Disability and Health (ICF), not all physical therapy assessment protocols for pain include explicit assessment of psychosocial factors. In terms of occupational factors, a traditional physical therapy assessment might include attention to working conditions, tools, devices, equipment, and body mechanics, but a broader understanding of the workplace (from the client’s perspective) may help to identify other circumstances and barriers hindering RTW efforts. This approach is consistent with the recommendation that health care professionals screen for psychological barriers to pain recovery and the recommendation that physical therapists focus assessments on disability and social participation, rather than on impairment (eg, muscle strength [force-generating capacity], mobility, range of motion), especially for clients with prolonged symptoms. These guidelines further suggest that treatment for
patients who do not recover within the expected time frame should aim to increase knowledge and understanding, improve function, alter pain behaviors, and attempt to influence the physical and psychosocial factors associated with chronic LBP.55

The expertise of physical therapists is highly regarded by clients with LBP,56 and physical therapists are particularly helpful in developing a client’s sense of self-reliance in managing problems associated with LBP.57 Interactions between physical therapist and client build mutual trust and can facilitate individual goal setting and adherence to home exercises. Within the rehabilitation context, the role of the physical therapist is to maximize function in activities of daily living. The physical therapist also observes how the client moves and performs specific tasks, many of which are similar to those performed in the workplace. This observation may allow the physical therapist to provide appropriate advice and target the rehabilitation needs of the client to meet occupational requirements. In comparison with physician consultations, there is typically more time available to establish rapport and to set clients at ease, thus facilitating self-disclosure and encouraging discussion of personal circumstances and beliefs about work. This discussion might include identifying job tasks that are viewed as problematic, exploring options for job modification, and assessing expectations for workplace support and assistance.

In these ways, physical therapists can play an integral role in shaping clients’ views about pain severity, interpretation of symptoms, the role of therapeutic exercise (including activities at work) during the recovery process, opportunities for job modification, and the ability to work during the treatment and recovery process. This advice, support, and feedback provided by the physical therapist can help to prevent the development of long-term disability. It should be recognized, however, that not all job factors are modifiable, and it is unrealistic to expect a clinical consultation per se to resolve all workplace concerns and problems. We appreciate that sometimes occupational factors are addressed en passant within clinical consultations, and perhaps some recommendations may not seem entirely new. Also, the exigencies of physical therapist practice, both in fee-for-service consultations and in managed care settings, may have concomitant restrictions on the content and duration of physical therapy services. Meeting client expectations also is a crucial element of care, and addressing occupational concerns with a physical therapist may not seem relevant or appropriate to some clients. Nevertheless, identifying and addressing key occupational concerns may reduce the risk of long-term work disability.

### Integrating Assessment and Management of Occupational Issues Into Physical Therapist Practice

Opportunities for physical therapists to incorporate occupational concerns into clinical management of clients with LBP will vary depending upon the clinical setting, reasons for referral, intended scope of services, and provider specialty training (eg, certifications in ergonomics or RTW coordination). Also, the feasibility of communicating directly with employers, visiting the worksite, and influencing the RTW process may depend on insurance reimbursements, openness of employers, and the level of decision-making autonomy for a physical therapist to recommend specific job modifications. Not all physical therapists are in a position to communicate directly with employers, as this responsibility often is delegated (by regulations or by standards of practice) to primary care providers, occupational physicians, or insurance case managers. Nevertheless, there may be several ways in which occupational factors might be more systematically identified and addressed in the context of physical therapy consultations. In the following sections, we provide suggestions for incorporating occupational factors into patient assessment, lifestyle advice, therapeutic exercise, functional capacity evaluations, and other written reports and communications.

### Assessment

In addition to the usual history taking and assessment of physical signs and symptoms, routine assessment of working clients with LBP might be expanded to include individual workplace circumstances and concerns. Both self-report questionnaires and client interview questions might be helpful to describe the extent of physical work demands, the nature of work organization and environment, and the feasibility of providing temporary alternate or modified duty assignments. A number of self-report questionnaires and interview questions have been developed to assess physical demands and work environment factors. Examples include the Obstacles to Return-to-work Questionnaire58 and the Job Requirements and Physical Demands Scale.20 In addition to questionnaires and interviews, possible modes of assessment include worksite meetings, measurements of physical job demands, collection of administrative data, and formation of clinical judgments and impressions. In addition to self-report measures of job demands, physical therapists may use clinical judgment informed by experience, clinical measures of functional capacity, and discussions with the client about barriers to RTW.
Table 1.
A Strategy for Incorporating Workplace Concerns Into Physical Therapy Treatment Sessions

<table>
<thead>
<tr>
<th>Session</th>
<th>Goal</th>
<th>Method</th>
<th>Sample Questions/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (intake)</td>
<td>Assess client’s general orientation to working life</td>
<td>Incorporate as part of intake interview</td>
<td>“Tell me about your work.” “How long have you been there?” “What’s it like to work there?” “How did they react to your injury?”</td>
</tr>
<tr>
<td>2</td>
<td>Assess physical job demands from the client’s perspective</td>
<td>Administer self-report questionnaire</td>
<td>“Do you perform repetitive tasks?” “Do you perform heavy, physically demanding work?” “Does your job require sustained postures?”</td>
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<tr>
<td>3</td>
<td>Identify most significant work-related challenges and functional concerns</td>
<td>Incorporate into discussion during supervised training session</td>
<td>“What tasks will be most difficult to resume?” “Are you concerned about reinjury?” “What activities and postures are most painful?” “What job tasks would need to be changed?”</td>
</tr>
<tr>
<td>4</td>
<td>Assess perceived organizational support and leeway</td>
<td>Incorporate into discussion during supervised training session</td>
<td>“How much flexibility do you have at work?” “Can you modify the way you work?” “Will you get any help from others?”</td>
</tr>
<tr>
<td>5</td>
<td>Brainstorm possible job modifications</td>
<td>Incorporate into discussion while simulating job tasks</td>
<td>“Can you change your working hours or shifts?” “Can your productivity/work expectations be changed?” “Can you arrange for occasional assistance?”</td>
</tr>
<tr>
<td>6 (discharge)</td>
<td>Improve client self-efficacy to manage residual symptoms at work. Transition return-to-work planning efforts.</td>
<td>Incorporate into exit interview and discharge notes</td>
<td>Job setting is . . . (describe). Primary job concerns are . . . (list). Job modification might focus on . . . (list). Level of workplace support is . . . (high/moderate/low). Return-to-work coordination may be necessary . . . (yes/no).</td>
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</tbody>
</table>

**Lifestyle Advice**

One expectation of clients with LBP is that physical therapists will not only provide pain relief, but also customize rehabilitation programs to meet individual needs. Physical therapists may be expected to provide lifestyle and ergonomic advice regarding activities that need to be limited or altered, details of home exercise, strategies for self-managing pain, and ways to maintain roles and responsibilities during the recovery process. Continuing to meet job demands while coping with LBP is a significant challenge for many clients, and physical therapists are ideally situated to offer advice, encouragement, and information that may help to sort out looming problems with employers or insurers. Recent evidence suggests that client discussions, while providing supervised exercise and follow-up advice, are underutilized by physical therapists in comparison with the recommendations of clinical guidelines. As a minimum, research evidence suggests that advice should include recommendations to stay as active as possible, acknowledge that pain recurrences or flare-ups are possible, and reinforce self-care and self-management strategies.

**Recommendations for Therapeutic Exercise**

In contrast to other health care providers, physical therapists are able to directly observe the level of effort and behavioral response of clients with LBP to physical challenges during functional training. These observations can be helpful in drawing conclusions about pain beliefs, attitudes, and behaviors that may be impeding efforts to resume or continue working. Evidence of pain behavior, catastrophic thinking, or poor motivation or adherence should be interpreted carefully to avoid any hasty conclusions that the client is simply lazy or malingeri ng. Like other signs and symptoms, these factors provide important information that can be useful to meet specific client needs. Exercises can be prescribed to positively stress the affected body part in a healthy way to normalize neuromuscular control of movement. Performing work-related, functional activities and exercise under the supervision and guidance of the physical therapist can give the client the required confidence to safely return to preinjury duties. Functional tasks at home that simulate work demands can be prescribed, thus providing opportunities for practice that extend beyond the clinical environment and that reinforce healthy patterns of movement. To address occupational factors, physical therapists may need to adapt training regimens to address specific workplace functional concerns, investigate attitudes regarding activity avoidance, challenge negative thoughts, and discuss strategies for activity pacing while at work.
**Provision of Reports and Summaries**

Therapists sometimes are requested to quantify functional limitations of clients with LBP using systems that allow integration of measurements and clients' interpretations. Such functional capacity evaluations (FCEs) might be requested in order to assess RTW readiness, resolve disagreements between providers and insurers, or make decisions about further treatment. Clients' assessments of job performance capabilities are commonly included in FCE reports, but FCE consultations often are a stand-alone request with minimal opportunities to establish rapport, generate possible solutions, and engage in effective problem solving. In evaluating a client's response to physical challenges, FCE evaluations essentially use behavioral performance as a proxy for work capability. However, we must guard against the "illusion of objectivity" that functional measurements are somehow unaffected by the client's interpretations of pain and disability. Any interpretation of such behavior must be integrated with an appraisal of the person's clinical history, beliefs, and emotional responses.

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**Figure 1.**

Sample items from the Job Requirements and Physical Demands Scale.

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Never</th>
<th>Less than 5 hours per week</th>
<th>Less than 2 hours per day</th>
<th>2-4 hours per day</th>
<th>More than 4 hours per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I work with my hands at or above chest level</td>
<td></td>
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<td>2. To get to or do my work, I must lie on my back or side and work with my arms up.</td>
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<tr>
<td>3. I must hold or carry materials (or large stacks of files) during the course of my work.</td>
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<td>4. I reach/hold my arms in front or behind my body (eg, using keyboard, filing, handling parts, perform inspection tasks, pushing/pulling carts)</td>
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<td>5. My neck is tipped forward or backward when I work.</td>
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<td>6. I work at a fast pace to keep up with the machine production quota or performance incentive.</td>
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<td>7. My work requires that I repeatedly throw or toss items.</td>
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<td>8. When I lift, move components, or do other aspects of my work, my hands are lower than my knees.</td>
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<tr>
<td>9. I repeatedly bend my back (eg, forward, backward, to the side, or twist) in the course of my work.</td>
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<tr>
<td>10. When I lift, my body is twisted and/or I lift quickly.</td>
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<tr>
<td>11. I lift or handle bulky items.</td>
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<tr>
<td>12. I lift materials that weigh more than 25 pounds.</td>
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<tr>
<td>13. My work requires that I kneel or squat.</td>
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</tbody>
</table>

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**Figure A**

![Image](image.png)

**Figure B**

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**Figure C**

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**Figure D**

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**Figure E**

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**Figure F**

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Other types of reports such as progress reports and discharge summaries may provide an opportunity to maintain continuity in the RTW planning process and convey critical workplace information to the attending physician or insurer, who may be in a better position to communicate with the employer. Providing written discharge summaries already is viewed as “best practice,” but we suggest that primary workplace concerns be included, thereby alerting referring providers and insurers to potential problems and providing more-detailed options for job modification to assist in the RTW planning efforts.

Putting It All Together: Summary of Practical Strategies
For physical therapists who treat working adults with LBP in outpatient clinics and are likely to work one-on-one with clients over several visits, there are a number of routine practices that might be adopted to incorporate workplace concerns more fully into usual physical therapist management of LBP (Tab. 1). First, the initial assessment and intake interview should include some assessment of the client’s general orientation to working life (eg, “Tell me about your work.”). This assessment may help to provide a general notion of workplace barriers, identify specific functional goals of treatment, and identify clients for whom workplace communication may be necessary. Such a discussion also may help to build rapport by demonstrating an interest in contextualizing the client’s LBP problem within the backdrop of his or her usual lifestyle and habits.

At the second visit, a self-report checklist of physical job demands might be routinely administered and discussed. A measure that is freely available is the Job Requirements and Physical Demands Scale. Sample items from the scale are shown in Figure 1. Such a questionnaire can help the physical therapist understand client perceptions of the physical demands of work, identify the most problematic job tasks or activities, and provide a starting point for discussing possible job modifications.

**Figure 2.**
Sample worksheets to facilitate discussion of problematic job tasks.
later. At the third visit, specific job tasks that the client views as problematic for returning to work might be entered into the chart (Fig. 2). Longitudinal assessments of client self-efficacy with regard to these activities over the course of physical therapy services might document gains in activity tolerance.

At the fourth visit, a client might be asked to consider the amount of leeway and flexibility he or she has at work and what options might exist for modified or alternate duty. Figure 3 shows some of the most common examples of job leeway and employer methods of job modification that can help to gradually increase tolerance for normal work activities for people with musculoskeletal conditions. Clients should be reminded that working comfortably may require some adjustments in work method as well as work restrictions, and not all adjustments require written or even tacit approval of the employer. Any early ideas regarding job modification can be conveyed to the treating physician (or by direct communication between the client and the supervisor) to begin the process of obtaining any feasible job modifications. By empowering clients to think about job solutions early, the physical therapist may help them feel more involved in decision making and less dependent upon the care and recommendations of treating providers to facilitate a temporary change at work.

At the fifth visit, time could be allocated to brainstorm possible job modifications and discuss their relative pros and cons. Clients should be encouraged to collect as much information as possible about the feasibility of various options (eg, based on communication with coworkers, treating physician, labor representative, or employer representative) and to consider both the personal and organizational costs and benefits of various alternatives. Realistic expectations for employer cooperation and support should be maintained. Discussions about the workplace should center on the 7 domains presented earlier in this article: physical demands, ability to modify work, stressful work demands, social support, job satisfaction, poor expectations for recovery and RTW, and fear of reinjury.

For clients who express vague yet overwhelming concerns about returning to work, a collaborative problem-solving process (Fig. 4) might be helpful to specify and analyze work-
place problems in more detail and to generate a longer list of possible solutions. The goal of the problem-solving approach is to provide clients a more central role in the decision-making process while taking into account their unique perspectives of workplace factors. Such a process can be applied to generate a tentative list of job modifications, identify needed resources and coordination, or address job tasks that are most problematic. Step 1 (identifying and selecting a problem) involves describing the problem as clearly as possible by reducing its scope, incorporating details, and understanding its full implications in the workplace context. Step 2 (analyzing the problem) involves listing factors related to the problem and labeling them as causes, helping forces, hindering forces, or constraints. Step 3 (generating potential solutions) involves brainstorming to prepare a list of as many alternative solutions as possible (no potential solutions should be ignored or discounted at this step). Step 4 (selecting and planning a solution) involves comparison of alternatives based on feasibility, risks, and optimal benefits. Step 5 (implementing a solution) involves carrying out the plan as specified in step 4 while trying to anticipate obstacles and develop contingency plans. Step 6 (evaluating a solution) involves evaluating the effectiveness of the chosen solution (or returning to step 1 to try another solution). Use of such problem-solving processes has been shown to increase satisfaction with care among workers’ compensation claimants and the quality and quantity of recommended job modifications.

At the time of discharge, the most important workplace issues raised by the client and any possible job modification opportunities should be pointed out to continue RTW planning efforts. Table 2 provides examples of the different levels of concern about workplace issues that might be communicated in a discharge summary. These examples are adapted from nurse case manager notes taken from a randomized trial of RTW facilitation strategies.

Overall, the in-visit time to address occupational factors should be...
apportioned according to their relative importance in the individual case, with the overall objective of enhancing the person’s confidence and skills in managing occupational concerns and difficulties. Discharge notes also should convey the relative importance of various workplace factors as potential barriers to RTW.

Although these practical suggestions are intended to foster attention to psychosocial factors in the management of LBP, we recognize that altering routine clinical practices on a widespread basis is not easily accomplished. Prior studies have shown that knowledge transfer and exchange activities to facilitate physical therapists’ adherence to evidence-based practices have shown little impact on clinical practices or outcomes, and there is a need to better understand the organizational culture in various physical therapy clinical settings that have an impact on training and practice. Using opinion leaders may be one way to disseminate new clinical practices, but physical therapists report difficulties identifying opinion leaders in their field in many key areas. Also, educational programs conducted by opinion leaders have been shown to have little influence on physical therapists’ attitudes about psychosocial factors and their importance in clinical practice. In addition to dissemination of new practices through peer networks, changes in reimbursement patterns by insurers and payers might be used to reinforce the use of psychosocial models of care. Such “top-down” approaches will require that insurance and disability policy-makers recognize the importance of workplace psychosocial factors in RTW and institute policies that facilitate exchange between providers and employers. If occupational factors are given a larger role in clinical management of LBP, this increased role will require a greater focus on workplace integration in formal physical therapy training and mentoring programs, a better understanding of peer influences on individual physical therapist practice, and outreach to insurers and payers.

**Conclusions**

We provide our clinical perspective on best practices for the identification and management of occupational factors in LBP that can be applied to physical therapist practice. We have provided a summary of the most important occupational factors to consider in the management of LBP, made specific recommendations for incorporating occupational factors into various elements of physical therapy services, and provided the perspective that occupational factors should be given more emphasis in the routine clinical management of LBP. Although future research may be helpful in developing and evaluating additional tools and methods for physical therapists to address occupational concerns related to LBP, this article provides a conceptual and practical framework for investigating new clinical approaches and strategies and for supporting the clinical efforts of physical therapists to overcome the occupational concerns of their clients that may have serious, disabling consequences.

### Table 2.

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Level of Concern</th>
<th>Brief Summary of Workplace Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low</td>
<td>“Client has 10 years’ experience in current job as a building superintendent, and he reports substantial support from his employer and current supervisor for returning to work. No specific job tasks are a barrier for RTW at this time, but the client is concerned about keeping up with work demands while still experiencing symptoms. There may be some need to clarify employer expectations and timelines for resuming normal job responsibilities.”</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>“Client is an experienced bus driver with lots of ideas about how best to modify his job tasks so he can return to work (eg, changes in working hours, changes in assigned bus routes, instruct new drivers). He has concerns about long periods of sitting and driving; also difficulties if passengers should require special assistance. He is hoping to meet with his supervisor to discuss options before his scheduled RTW date. Not sure what the “standard” job modification practices are in this work setting, but client seems hopeful that this can be accomplished.”</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td>“Client is a new worker (3 weeks) in a physically demanding job; he has concerns about being fired if he returns to work. He has shown progress in physical therapy sessions, but he is unsure whether his new employer will be willing to provide temporary job modifications. He believes some occasional help with more strenuous job tasks would be helpful, but he’s not sure how to arrange this. Will need to confirm that employer has modified duty program and that they’re willing to discuss RTW options.”</td>
</tr>
<tr>
<td>4</td>
<td>Very high</td>
<td>“Client feels that his workplace has been unresponsive since the injury and that he is being blamed for the accident. He’s reluctant to resume any work activities because ‘the work is dangerous.’ His calls to his supervisor and fellow workers have not been returned. Communication between the client and his employer will need to be re-established before the client will be willing to consider any specific job modifications to enable RTW.”</td>
</tr>
</tbody>
</table>

*Case notes adapted from nurse case manager notes in a randomized trial of return-to-work (RTW) facilitation strategies.*

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### Occupational Factors in Low Back Pain

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Dr Shaw and Professor Main provided concept/idea/project design. All authors provided writing. Ms Johnston provided data collection and analysis. Professor Main provided project management. Professor Main and Ms Johnston provided consultation (including review of manuscript before submission).

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References


