

Workplace Accommodations for People with Mental Illness: A Scoping Review

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Abstract *Purpose* Disability discrimination legislation means that employees with a disability or mental illness are legally entitled to reasonable workplace accommodations that enable them to work effectively and safely. This scoping review aims to investigate the types of workplace accommodations provided for people with mental illness, and their costs and benefits. *Methods* A literature search was conducted using five electronic databases. Peer reviewed research articles published between 1993 and June 2013 were included in this scoping review and their quality was assessed. Opinion papers, reports, and case descriptions were excluded. *Results* Nine studies explored workplace accommodations for people with mental illness. The most commonly reported work-related accommodations were flexible scheduling/reduced hours, modified training and supervision, and modified job duties/descriptions. The least common type of accommodation was physical modification to the workplace. For employees with persistent mental illness who were accessing a supported employment agency, the majority of accommodations related to support from the job coach or employment specialist, such as facilitating communication with the employer during hiring or on the job. The quality of the studies varied considerably and the benefits of the accommodations are not yet well documented. There is limited evidence that a larger number of workplace accommodations are associated with longer job tenure. *Conclusions* Workplace accommodations appear to be important to support employees with mental illness, but more accessible information about how disability

discrimination legislation applies to this population is needed. Future research should address the implementation and effectiveness of mental health-related workplace accommodations.

Keywords Workplace accommodations · Work rehabilitation · Mental illness · Scoping review

Introduction

People with mental illness often face significant personal and environmental barriers to employment, including barriers related to stigma, the service system, and financial disincentives to work [1, 2]. As a result, this population experiences an alarmingly high rate of unemployment, and is the largest and fastest growing group to receive Social Security Disability Insurance [3, 4]. Despite this, as Secker and Membrey [5] point out, “there is no shortage of evidence that mental health service users want and are able to work or that employment can benefit mental health” (p. 207). In addition to the challenges of getting a job for people with mental illness, job retention remains low even with evidence-based employment support [6]. In two studies of job terminations among employees with mental illness, more than half were unsatisfactory terminations, defined as the employee getting fired or leaving without having other job plans [7, 8].

Disability discrimination legislation in the United States and elsewhere requires employers to provide reasonable workplace accommodations, also known as workplace modifications or adjustments, to enable persons with disabilities to fulfill the requirements of a job such as changes to scheduling, job tasks, social support, or other workplace conditions [9, 10]. This legislation is applicable to people with psychiatric disabilities and mental illness, however

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Table 1 Search terms

	CINAHL	PsycINFO	MEDLINE	EMBASE
Subject headings	Mental disorders (explode) Job accommodations (explode)	Mental disorders (explode)	Mental disorders (explode)	Mental disease (explode) Job accommodations (explode)
Keywords	Mental illness* or mental disorder* or mental health disorder* or mental health condition* or psychiatric disability* or schizophrenia* or bipolar* or depression* or anxiety* or personality disorder* Job accommodation* or job adjustment* or job modification* or workplace accommodation* or workplace adjustment* or workplace modification*			

employers may be more reluctant to provide workplace accommodations for this population than for people with physical disabilities [11]. Employers' knowledge of the range of possible workplace supports may be limited [12], and accommodations for employees with mental illness can seem less tangible than those sometimes required by employees with physical disabilities, such as a ramp or special equipment [13]. Nevertheless, a more recent study by Mizzoni and Kirsh [14] found that employers were making considerable modifications in the workplace for employees with mental illness, without labeling their actions as workplace accommodations or adjustments.

There is little consensus about how workplace accommodations for people with mental illness are identified, described, and categorized. There is also a lack of understanding about how often workplace accommodations are implemented for this population and their impact on employment-related outcomes [10, 15]. Given the impetus of disability discrimination legislation, along with high rates of unemployment and low job retention among people with mental illness returning to work, there is a need for further understanding the nature of workplace accommodations for people with mental illness and their benefits. Therefore, this scoping review was conducted to investigate the research evidence about the types and frequencies of workplace accommodations provided for employees with mental illness, as well as their associated costs and outcomes.

Methods

A scoping review is a preliminary assessment of the size and scope of published research related to a particular topic [16, 17]. This methodology has been undertaken to determine the evidence that currently exists regarding reasonable workplace accommodations and to recommend areas for further research. Five electronic databases (CINAHL, PsycINFO, MEDLINE, EMBASE and Cochrane Library)

were searched to identify relevant peer-reviewed articles published over 20 years (1993–June 2013). The search strategy used database-specific subject headings including mental disorders or mental disease and job accommodation, and related keywords (Table 1). To ensure relevant published research was not overlooked, citation tracking and reference scanning of eligible articles was conducted.

The first author conducted the literature search and assessed the titles and abstracts of identified articles. If they contained sufficient information to determine that they did not meet inclusion criteria, they were rejected. The full text articles of the remaining studies were then retrieved and independently assessed for eligibility by the two authors. The authors reached consensus by applying explicit inclusion and exclusion criteria described below pertaining to workplace accommodations.

Peer-reviewed articles were included that described the types, frequencies, costs, and/or benefits of workplace accommodations for employees with mental illness or psychiatric disability. In this review, workplace accommodations refer to individualized modifications or adjustments implemented to enable an employee with mental illness to fulfill the requirements of the job. This included adjusting the support from coworkers, the physical environment, or other employment conditions. Articles that examined interventions designed to promote the mental health of all employees in the workplace, such as natural supports, were excluded from this scoping review. Studies that investigated workplace accommodations for employees with physical, developmental or intellectual disabilities were excluded unless the study also separately reported data relating to employees with mental illness. Lastly, studies of quantitative and qualitative design were included, such as cohort, phenomenological and grounded theory studies. Opinion papers, reports, and case descriptions were excluded from this scoping review.

The initial search strategy returned 39 relevant articles. Full text articles were then sourced to select the articles based on the inclusion criteria. Six articles were excluded

based on study design, as they were opinion papers or case descriptions rather than empirical research. Seven articles were excluded where the participant group did not have a diagnosed mental illness. A further sixteen articles were excluded as their focus was on broader employment issues rather than workplace accommodations. The remaining ten articles, consisting of nine studies, met the inclusion criteria for the review.

The methodological quality of eligible articles was assessed using McMaster Critical Review forms [18]. Thomas et al. [19] found that the McMaster Quality Appraisal Tool for Quantitative Studies meets accepted standards for content and initial construct validity as well as inter-rater and test–retest reliability (Kappa 0.74 and Kappa 0.61). Curtin and Fossey [20] suggest the Critical Review Form for Qualitative Studies (Version 2) provides a useful structured format for considering the quality of qualitative research articles. A McMaster Critical Review Form was completed for each eligible article to extract data and assess its quality descriptively. An evidence table was then developed to chronologically present the purpose of each study, its sample size, demographics of participants, setting, study design, findings, and limitations (see Table 2 in Appendix). As shown in the evidence table, the quality of the studies varied considerably.

Findings

This scoping review identified nine studies, the majority of which were conducted in the USA. There were also single studies conducted in the UK [10], Canada [8], Sweden [21], and the Netherlands [22]. Four studies focused on work accommodations for people with mental illness organized through supported employment [9, 10, 23, 24], two through occupational rehabilitation [21, 22], and three through a combination of approaches [8, 25, 26]. Three studies were limited to participants with high prevalence mental disorders [8, 21, 22], whereas others included participants with psychotic disorders or psychiatric disability. The findings of these nine studies have been described below under three subheadings: types and frequencies, need and provision, and outcomes and costs of workplace accommodations.

Types and Frequencies of Workplace Accommodations

The types of workplace accommodations provided for employees with mental illness are uniquely selected to suit each person and their job, but some accommodations were more frequently reported for this population [23]. Three studies were identified that investigated the frequency of workplace accommodations provided for employees with

serious mental illnesses who received support from a supported employment agency [9, 23, 25]. The most common adjustment reported in these studies was assistance from an employment support worker during hiring, or on the job, to facilitate communication or training of staff in how to support the employee with mental illness [9, 23, 25]. The second most common type of workplace adjustment reported was flexible scheduling/reduced hours, followed by modified training and supervision, modified job duties/description, and least frequently, physical accommodations to the workplace [9, 23–25]. While not reporting the frequency of provision, participants in a qualitative study by Secker et al. [11] suggested similar accommodations, but also suggested breaking daunting tasks into smaller ones, and mastering simple tasks before moving onto more challenging tasks [10]. Few participants attributed their problems in the workplace solely to mental illness. From the employment support worker's perspective, the most challenging accommodations to negotiate were changes to work schedule, facilitating communication and changing interview or training procedures [24].

Similar types of accommodations were also identified in two further studies that involved employees who had required time off from work to manage a high prevalence mental illness such as anxiety or depression [21, 22]. However, these employees were more likely to report a reduced pace of work or a transfer to another department, and had not received assistance from a supported employment agency. In Granger's [25] focus group study of employees with and without a job coach, the majority of participants were unfamiliar with the disability discrimination legislation and their rights to reasonable accommodations in the workplace. Further, those employees with a job coach were more likely to disclose their mental illness and identify accommodations during the hiring process or early on in the job [25]. In comparison, employees without the support of a job coach generally did not have anyone to assist with communication with their supervisor, were more hesitant to disclose their mental illness, and therefore were not able to effectively negotiate workplace accommodations such as time off to manage their mental health [25]. Hence, some participants explained that they had sought job opportunities that matched their needs and skills to reduce the necessity for disclosure and workplace accommodations.

Need for and Provision of Workplace Accommodations

There is limited empirical research about the needs for workplace accommodations. In an American study of 4,937 employees with disabilities, only 16 % reported that they needed one or more workplace accommodations [26], but found that most who reported a need for an accommodation

received it. The most likely employees to receive accommodations in this study were women, college graduates, professionals, full-time workers, and the self-employed [26]. Similarly, Wåhlin et al. [21] found that more highly educated and white collar workers were most likely to receive work-related accommodations. However, people with mental illness such as major depression and alcohol abuse were significantly less likely to receive accommodations than employees with physical disabilities after controlling for other demographic variables [26]. This may be attributed to stigma, the intangible nature of accommodations for employees with mental illness, lack of disclosure of mental health issues, or the difficulty accommodating an episodic condition [26]. Alternatively, this finding may be reflective of the survey tool used in this study, which was designed for employees with disabilities [26]. Only three of the seventeen workplace accommodations listed in the survey tool were likely to be needed by an employee with mental illness.

In comparison, a large Canadian study using a survey specifically designed for employees with depression and anxiety found that a much larger proportion (85 %) of participants reported a need for a workplace accommodation [8]. Wang et al. [8] found the most common needs reported by employees with depression or anxiety were weekly meetings, exchanging tasks, individualized courses and a quieter work space. Additional reported needs included extra time to learn, Employee Assistance Program (EAP) services, modified job instruction, extended training on the job, work from home, peer support group, change to a different job, slowed work pace, reduced work hours, modified job duties, job coach, and change from full time to part time position [8]. Wang et al. [8] also reported employees who experienced mental illness in the past 12 months were significantly more likely to need EAP services, change to different job, reduced to allow more breaks or change to part-time hours than employees who had experienced mental illness earlier in their lifetime, but only 30.5 % had all of their needs met. Further, in the only identified study exploring relationships between functional difficulties and job accommodations, MacDonald-Wilson et al. [27] reported that employees with a larger number of functional limitations received a larger number of accommodations and more hours of supports from their supervisor and coworker. Cognitive limitations were the strongest and most consistent predictor of accommodations. Employees with cognitive and social limitations were more likely to receive accommodations involving human assistance [27]. In this same study, employees were more likely to have flexible scheduling, when their employment support workers were more experienced in their jobs and in working with people with mental illness. Additionally Secker et al. [10] identified that it was important that

workplace cultures were naturally supportive, value diversity, show concern for employee wellbeing, facilitate skills development, and supportive relationships with coworkers and managers.

Outcomes and Costs of Workplace Accommodations

To date, little research has investigated the outcomes associated with workplace accommodations. The limited evidence suggests workplace accommodations may improve job tenure for employees with mental illness in that an early study found that workers with 5 or more accommodations had significantly longer job tenure (median 24 months) than those with less than 5 (median 12 months) [23]. In comparison, where the employee with mental illness did not disclose and therefore negotiate accommodations, job tenure was only 3.6 months on average. In another study, employees with high prevalence mental illness reported that workplace accommodations and interventions were significantly more useful and resulted in greater improvements to work ability than medical and rehabilitative interventions alone [21]. Further, in Secker et al.'s [10] qualitative study, the accommodations described by participants were considered valuable in most cases, but occasionally felt overprotective or inappropriate. A few participants reported being insufficiently challenged in their job, and therefore lost motivation to work [10].

Four studies considered the cost of workplace accommodations for people with mental illness and found the vast majority of workplace accommodations for this population have no direct costs associated with them [8, 9, 23, 24]. MacDonald-Wilson et al. [9] found that only 1 of 322 workplace accommodations had any direct cost at all. Indirect costs were not measured in any of the studies reviewed.

Discussion

The included studies varied in their designs, settings and quality, yet some common findings were gleaned regarding the use of workplace accommodations for people with mental illness. Across the identified studies, the most frequently reported accommodations were flexible scheduling/reduced hours, modified training and supervision, and modified job duties/descriptions. Physical modifications of the workplace were rare. Employees with support from a supported employment agency were more likely to receive accommodations than those without. A majority of these accommodations related to support from the job coach during hiring or on the job.

The findings of this scoping review suggest that there is likely to be unmet need for workplace accommodations in this population, particularly among employees and job seekers without the support of a supported employment agency. This may be partially attributed to the reluctance of people with mental illness to disclose their condition to an employer, which restricts the grounds for negotiating workplace accommodations, but also to their lack of knowledge regarding disability discrimination legislation and their entitlement to reasonable workplace accommodations. Limited knowledge among employers and rehabilitation professionals may also be a barrier to these needs being met [12, 28]. Therefore, education is required for employers, rehabilitation professionals, and employees without the support of a supported employment agency to increase understanding of disability discrimination legislation and workplace accommodations. Employers may need to direct further attention and resources to effectively implement disability discrimination legislation, in order to increase tolerance and accessibility of the workplace for individuals with a mental illness or other disability [29]. Occupational rehabilitation specialists or other health professionals may be able to assist employees with mental illness to understand their rights and make educated and supported decisions regarding disclosure and the negotiation of reasonable accommodations.

When disability discrimination legislation was introduced, employers had concerns about the costs of making reasonable accommodations. This scoping review indicates that the direct costs associated with accommodations for people with mental illness are often nil or low, although there may be indirect costs [30], such as the time required for extra supervision or to offer more frequent breaks. In many countries, tax incentives or other financial assistance are available to employers to implement reasonable workplace accommodations for people with disabilities [31, 32]. These funds may be less accessible to support employees with mental illness than to support employees with a physical or sensory disability, due to the lack of direct costs associated with suitable accommodations. The absence of studies investigating the indirect costs associated with the provision of mental health-related workplace accommodations suggests further research in this area is warranted.

As noted in the table, the main limitations of the included studies were small sample sizes, convenience

sampling, and lack of standardized assessment tools. Additional research is urgently required given the limited empirical data regarding workplace accommodations for people with mental illness, the low cost of this intervention, and their potential to create sustainable employment for people with mental illness. Future qualitative studies should address what workplace accommodations are needed by employees with mental illness and how they can best be negotiated and implemented. In addition, outcomes research is much needed to examine the effectiveness of specific accommodations. For this purpose, well-developed tools are required to systematically document the provision of specific workplace accommodations and to measure their effectiveness. Given only one study to date has explored the relationships between functional limitations and workplace accommodations [27], further field research in workplaces is needed to expand current knowledge of which accommodations are most suitable to overcome specific difficulties in fulfilling job requirements.

Conclusion

Workplace accommodations appear to be a promising approach to assisting job seekers and employees with mental illness. Only nine studies have investigated the types and frequencies of accommodations, the needs and provision, and costs and benefits of workplace accommodations for this population over the past 20 years. There is a need for accessible information for employees, employers, and rehabilitation professionals regarding disability discrimination legislation and how to select and implement reasonable accommodations tailored to individuals and their workplaces. Given the high rates of unemployment amongst people with mental illness and the potential of workplace accommodations to create sustainable employment, this is an important area for further research.

Appendix

See Table 2.

Table 2 Evidence table

Author	Purpose of study	Participants/setting	Type of study/methods	Results	Key limitations
Fabian et al. [23]	Investigate type, frequency, and outcomes of workplace accommodations for supported employment participants with serious mental illness	Serious mental illness in supported employment program (N = 30); Maryland, USA	Exploratory; mixed methods; Data sourced from job coach progress notes and follow-up interview with the job coach	Mean number of accommodations per job: 5.1 (SD = 3.6) Frequency of adjustments per job: Orientation and training to supervisors to provide assistance 83 % Modifying work environment by provision of onsite support 74 % Modifying work schedules and time 53 % Modifying work rules or procedures 34 % Modifying performance expectations 32 % Modifying job tasks 28 % Job retention: Median job tenure 24 month for employees with 5 or more accommodations, 12 month for employees with <5 accommodations, 3.6 months for those with no accommodations (D = 4.91, $p < 0.04$)	Published 20 years ago Limited sample size; only one supported employment program
Granger et al. [24]	Investigate type and frequency of workplace accommodations for employees with a psychiatric disability, how they are negotiated, their outcomes and costs	Employment support practitioners (N = 194); 10 states, USA	Quantitative; survey measuring frequency of accommodations used for clients with psychiatric disabilities over past 12 months (1 = never, 2 = sometimes, 3 = often, 4 = always); Survey packs sent to 550 vocational rehabilitation agency directors requesting an experienced staff member to complete	Frequency of accommodations used: 1. Communication facilitation accommodations (2.4) i.e. permitting job coach on site as requested, permitting calls to job coach, 'positive feedback' supervision 2. Flexible scheduling accommodations (2.3) i.e. Option to work part-time, time off for appointments, flexible work schedule 3. Job description modification accommodations (2.3) i.e. gradual task introduction, adapting job description, minimizing changes to job description over time 4. Physical space accommodations (1.8) i.e. access to water in workspace, access to rest area, access to private space Most challenging accommodations to negotiate: changes to work schedule, facilitating communication and changing interview or training procedures 86 % of participants unfamiliar with ADA and rights to reasonable job accommodations Nearly all with job coaches described job accommodations that had been negotiated by job coach or by themselves. Many without job coaches were more hesitant to disclose their mental illness, therefore could not effectively negotiate accommodations Most frequently used job accommodation: flexible scheduling Least frequently used: changed job descriptions and physical adjustments to workstation Some reported purposefully seeking a job that matches their skills and requirements, to lessen the need for accommodations and disclosure Job coach was most valued support in getting job accommodations	Survey responses provided a general summary of the past 12 months rather than data in relation to specific employee/employer workplace accommodations Survey responses were only from the perspective of the employment support practitioners; accommodations that involved their input may have been over-reported
Granger [25]	Investigate employees' experience of arranging job accommodations for psychiatric disability	Employees with mental illness (N = 137); 78 participants used a job coach to get their job; 59 did not; 10 cities, USA;	Qualitative; 20 focus groups held with average of 7 participants		Lacked information about data analysis; Did not report on emerging themes or conceptual frameworks

Table 2 continued

Author	Purpose of study	Participants/setting	Type of study/methods	Results	Key limitations
De Rijk et al. [22]	Describe gender differences in work modifications and changed job characteristics during return-to-work after sickness absence	Employees with >1 month sickness absence due to mental disorder (N = 57) or musculoskeletal disorder (N = 37); Mental disorders primarily burnout, depression or anxiety; Netherlands	Quantitative; 13 month prospective cohort study; Recruited by occupational physician; Face-to-face interviews followed by bi-monthly phone interviews	Modifications were made for 77.4 % of return to work cases; Most commonly: Reduced hours 73 %, different schedules 36 %, reduced pace of work 58.4 %, and modified/reduced tasks 48.3 % For men, reduced hours was more often applied in cases of mental disorders (85.7 %) than in cases of musculoskeletal disorders (30.0 %) Women were provided with different schedules less often for mental disorders (18.2 %) than musculoskeletal disorders (80.0 %) Total of 322 accommodations during data collection 55 % received 1 accommodation, 36 % received 2, and 9 % received 3 or more at first job Majority of accommodations were identified during hiring process (63 %) or once the employee was on the job (47 %) Most frequent accommodations were changes involving people who assist employee with disabilities (62 %) and changes to company procedures (52 %) Changes were made to hiring process 23 % of the time and to on-the-job activities 77 % of the time Most common adjustments: Job coach on the job 118 (37 %), job coach assistance in hiring 74 (23 %), and flexible scheduling 70 (21 %) All but one accommodation had no direct cost. Indirect costs included reduced productivity and supervisor time for extra support/training	Small sample size; May not have determined all types of modifications—nearly ¼ in “other” category; Support from coworkers and vocational training was often mentioned by participants but not included in results
MacDonald-Wilson et al. [9]	Investigate workplace accommodations for people with psychiatric disabilities in supported employment programs	People with psychiatric disabilities (N = 191) from 4 supported employment services (22 sites); Northeast USA	Exploratory, descriptive, longitudinal, multi-site investigation; Surveys/forms were completed by the service provider	Cognitive limitations are the strongest and most consistent predictor of accommodations Individuals with cognitive or social functional limitations were more likely to receive accommodations involving human assistance (62 % and 92 % respectively) Individuals with physical limitations were more likely to receive flexible scheduling (65 %) Neither diagnostic category nor type of functional limitation were significantly related to job or employment tenure Program supervisors with more experience working with people who have a psychiatric disability and more experience working in the program under study tended to have a greater number of clients with flexible scheduling ($r = 0.519$, $p = 0.027$; $r = 0.555$, $p = 0.021$) than those with less experience As the number of functional limitations increased, the number of accommodations increased significantly ($p < 0.001$) and the mean total number of extra co-worker and supervisor hours per month increased ($p < 0.001$)	Instruments developed for this study (not validated)
MacDonald-Wilson et al. [27]	Identify relationships between functional limitations, job accommodations, and demographic characteristics of people with psychiatric disabilities	Same as [9]	Same as [9]	Same as [9]	Same as [9]

Table 2 continued

Author	Purpose of study	Participants/setting	Type of study/methods	Results	Key limitations
Secker et al. [10]	Identify workplace problems for employees with serious mental illness and explore how and why adjustments can be used	Employees with serious mental illness (N = 17) and their managers (N = 17); UK	Qualitative; grounded theory; Interviews with employees with mental illness and their managers	Few problems identified could be attributed solely to illness Common issues were low confidence and psychological barriers to specific types of work or work environments Main adjustments required involved changes to hours of work, work schedules and job tasks Need to achieve balance between enabling people with mental illness to develop skills at their own pace and ensuring they have enough challenges in their work to stay motivated and engaged	Did not report whether sampling was continued until redundancy in data was reached; Lacked member checking
Zwerling et al. [26]	Describe workplace accommodations and associated factors for American employees with a disability	Employees with a disability (N = 4,937); 1,311 with mental illness; USA	Quantitative; National self-report survey 1994–1995	Employees with mental illness were significantly less likely than employees with other disabilities to receive accommodations (OR 0.56; 95 % CI 0.44–0.7) Employees with major depression or substance use reported significantly less provision of accommodations after controlling for other demographic variables (OR 0.58, 95 % CI 0.44–0.78; OR 0.50, 95 % CI 0.28–0.89) Proportion of all employees with mental illness to receive accommodation: 7.6 % By diagnosis: Schizophrenia 17.5 %; severe personality disorder 9.9 %; major depression 8.6 %; bipolar disorder 7.7 %; alcohol abuse 3.7 %	Data is self report and subject to recall bias; There may have been informal adjustments not reported; Lack of data regarding disclosure
Wang et al. [8]	Investigate the need for workplace adjustments, their use, and associated factors for people with mental illness	Employees with a depressive and/or anxiety disorder (N = 784); 42 % had disorder in the past 12 months (n = 294); 58 % had disorder in their lifetime (n = 490); Alberta, Canada	Quantitative; longitudinal cohort study; Recruited participants in 2008 by random digit dialling. Computer assisted telephone interview at baseline and 12 month follow up	Most commonly reported needs: Weekly meetings 40.6 %; Exchanging tasks 38.6 %; Individualized courses 34.9 %; Quieter work place 31.6 %; Extra time to learn 29.4 %; EAP services 27.3 %; Modified job instruction 26.6 %; Extended training on job 23.8 %; and Work at home 23.5 % Employees with a 12 month disorder were significantly more likely to need EAP services, change to different job, reduced to allow more breaks or change to part-time hours than employees with a lifetime disorder 16.8 % of employees had no needs met; 22.9 % had <50 % of needs met; 29.8 % had 50 % - 90 % of needs met; and 30.5 % had all needs met Employees with a 12 month disorder were less likely to have received the accommodations they needed than those with only a lifetime disorder (gender-age adjusted OR 0.63, 95 % CI 0.46–0.85)	Data is self reported and subject to recall bias; Unknown whether participants had requested the accommodations that they reported needing

Table 2 continued

Author	Purpose of study	Participants/setting	Type of study/methods	Results	Key limitations
Wählin et al. [21]	Describe types of interventions provided to sick-listed patients and their self-reported usefulness and effect on work ability	N = 810 newly sick-listed patients (N = 810); 62 % with musculoskeletal disorders (n = 499); 38 % with high prevalence mental disorders (n = 311); Sweden	Quantitative; prospective cohort study; Self report baseline questionnaire followed by 3 month questionnaire	40 % (n = 124) received work-related intervention in addition to medical and rehabilitative interventions: Most commonly: adjustments to work task/work environment 43 %; adaptation of working hours/organizational change 30 %; rehabilitation support 31 % (38); and change of work task/employment 18 % (22). Least frequently: ergonomic intervention 2 % Patients were more likely to receive work-related intervention who were younger ($p < 0.05$), attained higher level of education ($p < 0.000$), and were white collar workers ($p < 0.001$) Work-related intervention reported to be more useful ($p < 0.01$) and more effect on work ability due to health care contacts ($p < 0.001$) than medical intervention and rehabilitative interventions alone	Convenience sampling; Participants were not randomly assigned to intervention type; Several measures only captured at baseline or 3 month follow up; Non-standardized self report measures

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