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Speaking of Research

A narrative literature review regarding job retention strategies for people with chronic illnesses

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Abstract. Job retention is a major concern for individuals with chronic illnesses, who represent a rapidly growing vocational rehabilitation (VR) consumer population. The purpose of this article is to examine selected job retention considerations for consumers with chronic illnesses. The authors (a) describe distinguishing characteristics of chronic illnesses in terms of populations affected and psychosocial implications, (b) discuss the vocational implications of chronic illnesses, (c) provide general considerations for the provision of job retention services, and (d) examine job retention strategies aimed at improving employment outcomes for individuals with chronic illnesses.

Keywords: Chronic illness, job retention, employment, vocational rehabilitation

1. Introduction

Chronic illnesses are the leading cause of disability in the U.S. [8,29]. The Partnership for Solutions [29] defines chronic illnesses as conditions that are (a) expected to last a year or longer; (b) result in functional limitations that restrict a person's ability to perform normal activities such as walking, dressing, bathing, working, or attending school without assistance; and (c) often require ongoing medical care. Almost one out of every two adults in the U.S. has at least one chronic health condition, and about one fourth of individuals with chronic health conditions have one or more daily activity limitations [8,30]. Moreover, almost half of individuals with chronic illnesses have multiple chronic health conditions [30]. A rapid increase in the incidence of chronic illnesses is expected to occur in the coming years. In fact, estimates indicate that as many as 81 million Americans will be living with a chronic illness in 2020 [6]. According to Bodenheimer et al. [6], the number of people with diabetes is expected to double in the next 25 years, and the number of people with chronic mental disorders is expected to increase from 30 million to 47 million by 2023. Similar increases are anticipated for arthritis and cardiovascular disease.

The onset of many chronic illnesses occurs during individuals' prime working years and can result in numerous barriers to job retention. Among these barriers are the unpredictable or progressive course of many chronic illnesses, the wide range of symptoms, and a

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fundamental negative bias on the part of employers toward workers with chronic illnesses [36]. According to a report by the Partnership to Fight Chronic Disease [30], chronic illnesses cost the U.S. economy one trillion dollars in lost worker productivity in 2003. The report further indicates that in 2003, presenteeism (i.e., lost productivity occurring when employees come to work but perform below standards due to illness) accounted for $828 billion in lost productivity, and absenteeism accounted for $127 billion in lost productivity To maintain employment, individuals with chronic illnesses may reduce their work activity by taking such actions as cutting back on the number of hours they work, turning down promotions and extra job duties, changing their jobs to less demanding positions, and using up sick leave and vacation days However, research has documented that taking these actions could result in premature departure from the workforce, which can subsequently speed up disease processes and result in secondary health conditions [3].

Despite the fact that individuals with chronic illnesses could substantially benefit from vocational rehabilitation (VR) services targeted at job retention, they are underrepresented in the state-federal VR system [3]. Access to these services is often hindered by a general lack of awareness of the availability of such programs and services among people with chronic illnesses and their health care providers [19,44]. Programmatic policies that preclude eligibility for such services also create substantial barriers to accessing job retention services. As Vick and Lightman [45] noted, these criteria categorize individuals in an "either/or status [as] able or disabled, employable or unemployable" (p. 76), and the disability and employment statuses of individuals with chronic illnesses fluctuate rather than remain static. In response to these barriers, a substantial literature base has emerged that addresses how VR systems and professionals can better respond to the job retention and career maintenance needs of this growing VR consumer population (e.g. [3,5,31,36]).

The purpose of this article is to highlight selected job retention considerations for people with chronic illnesses. The article begins with a description of distinguishing characteristics of chronic illnesses in terms of populations affected and psychosocial implications, followed by a discussion of the vocational implications of chronic illnesses. The authors provide general considerations for planning and implementing job retention strategies and interventions. These considerations emphasize the provision of services following a least intervention principle that incorporates consumer empowerment, employer support, proactive accommodations planning, anticipatory coping, and illness self-management as important components of job retention. Finally, several examples of promising job retention interventions for individuals with chronic illnesses are described.

2. Demographic characteristics of Americans with chronic illnesses

People with chronic illnesses represent every segment of the U.S. population with respect to race, ethnicity, gender, age, and socioeconomic status [30]. However, demographic differences in the prevalence of chronic illnesses among specific populations are present. Members of racial and ethnic minority groups are particularly vulnerable to chronic illnesses. For example, among Hispanic adults, the risk of diagnosed diabetes is 66% higher than it is for non-Hispanic White adults, and among non-Hispanic Black adults, the risk is 77% higher. Additionally, American Indians and Alaska Native adults are 2.3 times more likely than non-Hispanic White adults to have diagnoses of diabetes [11]. The American Heart Association [4] has reported that among non-Hispanic Blacks (age 20 years and older), 44.8% of men and 47.3% of women have cardiovascular disease. In contrast, 37.4% of White men and 33.8% of White women in the same age group have cardiovascular disease. In comparison to White individuals, racial and ethnic minorities (excluding Asian individuals) are also disproportionately diagnosed with HIV. These disparities in diagnoses continue to widen among Black/African American and American Indian/Alaska Native males [12].

Because women tend to live longer than men, they are more likely to have chronic illnesses [29]. In addition, women are often the caregivers of others (e.g., children, parents) with chronic illnesses, and the stress associated with caregiving can put them at risk of developing chronic illnesses [27]. Also, autoimmune disorders, the third largest category of diseases in the U.S., disproportionately affect females [16]. Researchers have estimated that 1 in 12 women, in comparison to 1 in 20 men, will develop an autoimmune disease in their lifetime [14].

Although the likelihood of chronic illness increases as one ages, with 90% of seniors having at least one chronic illness [3], the majority of Americans with chronic illnesses are under the age of 65 years. In addition, the diagnosis of childhood chronic illnesses

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has almost quadrupled over the past forty years [30]. Among chronic illnesses, heart disease, stroke, cancer, diabetes, and arthritis represent "the most common, costly, and preventable of all health problems in the United States" [8, p. 1]. Arthritis is the most common cause of disability in the United States, with nearly 19 million Americans reporting activity limitations directly resulting from arthritis [9].

A variety of factors have been identified as contributing to the dramatic increase in chronic illnesses in the American population. Advances in medicine and public health (e.g., earlier detection, new and more sophisticated diagnostic procedures, new pharmaceuticals and treatment interventions) have increased life expectancy. As a result, Americans are now living much longer with chronic illnesses than they have in the past [19]. Coupled with this factor, the American population is rapidly aging, with projections estimating that by 2030, the number of adults aged 65 or older will more than double [10]. Another reason cited for increased prevalence is the rise in disease-specific risk factors [6]. In 2009, the CDC estimated that 19.3% of adults smoked cigarettes and more than one-third of adults in the U.S. were obese. Both of these factors increase individuals' risk for chronic illnesses such as heart disease, stroke, type 2 diabetes, and cancer. Poverty has also been linked to chronic illnesses such as asthma, diabetes, mental health disorders, and HIV infection. Factors associated with poverty that have been identified as putting individuals at increased risk of developing chronic illnesses include poor nutrition, underemployment, unemployment, inequities in access to health care, substandard housing, and chronic stress [28]. Finally, disparities in accesses to healthcare services contribute to the disproportionate diagnoses of chronic illnesses among members of racial and ethnic minority groups [43].

3. Psychosocial challenges associated with chronic illnesses

Chronic illnesses are associated with unique psychosocial challenges that can negatively impact the physical and emotional wellbeing of those who have these illnesses. For example, many chronic illnesses (e.g., multiple sclerosis, diabetes, multiple chemical sensitivity) can affect virtually every body system [19, 24]. As such, individuals can experience a wide range of symptoms and functional limitations. Chronic illnesses such as HIV/AIDS, arthritis, mental illness, and fibromyalgia are episodic in nature, meaning that they are "characterized by periods of good health interrupted by periods of illness or disability" [7, p. 7]. Episodes of illness are often unpredictable and accompanied by precarious shifts in an individual's ability to function effectively in life roles (e.g., student, employee, parent). This unpredictability can exact a "profound emotional toll" [45, p. 75] on individuals with these conditions and put people at increased risk for anxiety and depression. If the chronic illness is also progressive or accompanied by periods of exacerbation and remission, concerns about future loss of functioning can result in anxiety. In addition to persistent worries, the symptoms and medical treatments associated with chronic illnesses can substantially interfere with daily activities, and individuals may experience additional stress associated with increased dependency on family members and health care providers [19].

The stigma associated with chronic illnesses that are misunderstood (e.g., mental illness), medically contested (e.g., chemical sensitivities), or believed to have been brought on by the individual's participation in risky or unhealthy behaviors (e.g., heart disease, COPD, diabetes) can further undermine psychological and physical functioning [41]. The consequence of this stigma is the invalidation of symptoms by others and the withdrawal of emotional support. Finally, individuals with chronic illnesses often experience uncoordinated medical care as a commonly shared problem. Individuals with chronic illnesses are frequently seen by a variety of medical specialists, receiving conflicting advice, differing diagnoses for the same set of symptoms, and duplication of tests and procedures [19]. Diagnostic uncertainty coupled with worsening symptoms can cause anxiey and stress that are further exacerbated by escalating medical expenses.

4. Vocational implications

The vast array of symptoms associated with chronic illness (e.g., chronic pain, muscular weakness, cognitive impairment, fatigue, reduced stamina, mobility limitations) can substantially interfere with performing physical, mental, psychosocial, and environmental job requirements without the provision of reasonable accommodations. Employees with chronic illnesses can also experience workplace "spillover," which is defined as the extent to which chronic illness affects one's ability to work coupled with the extent to which working affects one's ability to manage chronic illness [18].

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In a study of 492 employed individuals with arthritis, Gignac et al. [18] examined the reciprocal impact of arthritis on employment and found that workers with arthritis were more likely to report that work interfered with their ability to manage their arthritis moreso than arthritis interfered with their ability to work. Many individuals with chronic illnesses have functional limitations that hinder their ability to carry out their job duties. As previously discussed in this article, premature departure from the workforce is often the unfortunate outcome, particularly when considering the many health-related benefits of continued employment.

In addition to disability-related barriers to job retention, workers with chronic illnesses have identified environmental barriers, such as lack of understanding and support from co-workers and supervisors, workplace mistreatment, and insufficient job accommodations, as equally as or more problematic [44]. McMahon et al. [23], noted that employers often maintain a "presumption of incapacity" (p. 16) toward individuals with chronic illnesses that leads to employment discrimination. For example, employers may assume that individuals with diabetes or epilepsy present safety risks, even though medical advances and self-management of these conditions make these illnesses manageable. Fear of contagion may lead to discrimination against workers with HIV/AIDs. Finally, because many chronic illnesses are invisible with unpredictable fluctuations in functional abilities, employers may presume that workers with these conditions do not have legitimate disabilities, and therefore, may be resistant to providing workplace supports and accommodations [21].

Research investigating the nature of allegations of workplace discrimination filed by individuals with chronic illnesses under Title I of the Americans with Disabilities Act (ADA) has demonstrated that these allegations are predominately associated with job retention as opposed to job acquisition. For example, in comparison to charging parties with other physical, sensory, and neurological impairments, charging parties with multiple sclerosis are more likely to allege discrimination related to reasonable accommodations, terms or conditions of employment, constructive discharge, and demotion [39]. Likewise, individuals with asthma [20], diabetes [23], and cancer [22] are more likely to allege discrimination associated with job retention issues (e.g., discipline, harassment, reasonable accommodations, suspension).

To preserve employment, people with chronic illnesses often take actions to cut down or back on employment activity. These actions include reducing the number of hours they work (i.e., changing from full-time to part-time employment), declining promotions and extra job duties, changing from a higher demand to a lower-demand job, and using their sick days and vacation days [2,17,36]. Unfortunately, research has demonstrated that cutting down or back on employment activity can be associated with "a gradual withdrawal from work that culminate[s] with a premature departure" [2, p. 872]. In these circumstances, a reduction in job satisfaction can lead to lowered productivity and eventual job loss. It has also been found that workers with chronic illnesses who make these cutting down/back changes to preserve employment are at increased risk of developing depression. On the other hand, worksite modifications, such as job sharing, task adaptation, and working from home, can enhance job satisfaction, satisfactoriness, and prolong participation in the workforce [36].

5. Job retention considerations

Although VR systems, service providers, and researchers have historically focused their attention on strategies and interventions to assist individuals with disabilities to enter or reenter the workforce, attention is now being refocused on the implementation and evaluation of job retention services for the increasing numbers of workers in the U.S. living with chronic illnesses. Recent research on employment discrimination against Americans with disabilities has underscored the need for this shift in focus. In summarizing the findings from a national research project on employment discrimination under Title One of the ADA, McMahon et al. [23] observed that whereas training individuals with disabilities about their employment rights has traditionally focused on the interviewing and hiring processes, contemporary employment issues for people with disabilities are often related to job retention and quality of work life.

Over the past 30 years, numerous resources, demonstration projects, research studies, direct services, and advocacy efforts have promoted the job retention and career advancement of people with chronic illnesses. While some of these interventions are designed for specific chronic illness populations, others target people with all types of chronic illnesses. Some of these interventions are delivered by rehabilitation counselors, and others are of the self-help variety. These interventions may be delivered in person, or accessed via telephone or the Internet. As different as these programs and projects

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are in design and implementation, they can all be delivered in a manner that is based on a least intervention principle that facilitates consumer empowerment. The least intervention principle maintains that specific employment assistance at a single point in time is more effective than long-term career counseling, especially if introduced as soon as possible after diagnosis while the person's identity as a worker is still strong [31,36, 37]. These approaches empower workers with chronic illnesses to effectively manage their disabilities and maintain their careers by (a) increasing their knowledge about the chronic illness, self-management of symptoms, legal rights, and workplace accommodations; (b) providing them with an understanding of workplace barriers; (c) increasing their self-efficacy in requesting job accommodations; (c) developing their competencies in accommodation planning, implementation, and evaluation; and (d) increasing their use of accommodations on the actual job site [44]. They also require the coordination of job retention services with illness self-management strategies, anticipatory coping and proactive accommodations planning, and involvement and support from employers.

5.1. *Illness self-management*

Illness self-management is defined as "the skills necessary to carry on an active and emotionally satisfying life in the face of a chronic condition" [5, p. 121]. For workers with chronic illnesses, incorporating illness self-management strategies into the daily work routine is crucial to both health maintenance and job retention. Work-related self-management includes an array of behaviors such as self-monitoring of symptoms, proper use of medication, interacting with health-care providers, managing physical discomfort or pain, monitoring and responding to symptoms, managing fatigue, making self-changes to work (e.g., taking frequent breaks, scheduling flexible work hours), caring for oneself through diet and exercise, maintaining social relationships, maintaining and engaging in normal life activities, and realizing and developing a new sense of future [5,26]. Bishop et al. [5] examined the relationship between employment status and the use of self-management and disease modifying strategies (DMT) in a community sample of 175 individuals with multiple sclerosis and discovered that both self-management and DMT use were significantly related to employment. They concluded that training to promote self-management should be included in the VR process and should consist of (a) an assessment of the client's awareness of and participation in self-management; (b) the identification of barriers to self-management; and (c) the implementation of strategies to help clients overcome these barriers.

5.2. *Proactive accommodations planning and anticipatory coping*

Because many chronic illnesses are episodic and others are both episodic and progressive, unpredictable vacillations in functional capacities can occur. For individuals with vacillating conditions, a key to maintaining employment is proactive planning for the unknown. Although they may not have a need for accommodations at the onset of their chronic illness, anticipating potential future needs as soon as possible can prevent future problems with job satisfaction and satisfactoriness [36]. Proactive planning requires that individuals develop a comprehensive understanding of their medical condition, the anticipated course and progression of their illness, and the potential impact of their illness on future job performance. After examining these factors, they must be able to evaluate their work environment and the demands of their job to determine potential accommodations that may eventually be needed. This process requires a unique set of skills (e.g., communication, problem-solving, negotiation, self-advocacy) that can be developed with the utilization of a variety of accommodations planning tools that have been demonstrated to be effective with chronic illness populations. Several of these tools are described in the next section of this article.

Research has demonstrated that in addition to proactive planning for workplace accommodations, the development of anticipatory coping skills is also necessary to manage one's illness so that employment can be maintained [17]. Like proactive accommodations planning, anticipatory coping involves both problem-solving and behavioral efforts to anticipate health-related challenges before they arise. However, the focus is more specific to illness management as opposed to accommodations planning. Anticipatory coping involves planning and modifying behaviors both at home and on the job to prevent early departure from the work force. For example, individuals living with chronic pain and fatigue may engage in anticipatory coping at home by stretching before getting out of bed in the morning, delegating chores to others, or giving up activities to free up time and energy to devote to work. At work, anticipatory coping may include behaviors such as completing demanding job tasks when feeling the

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most rested and in the least amount of pain, periodically stretching when sitting for prolonged periods of time, taking frequent short breaks, and alternating rest with activity. An added advantage of these coping behaviors is that they do not draw attention to one's disability the way that reasonable accommodations, ergonomic changes to the work environment, or assistive devices tend to do.

5.3. *Workplace support*

Social support is instrumental to managing chronic illness, minimizing the extent to which it interferes with daily activities such as employment. Social support "buffers the stress associated with living with a chronic illness and can promote a sense of emotional well-being" [25, p. 1,398]. For workers with chronic illnesses, both practical support (i.e., giving information and advice) and emotional support (i.e., demonstrating sympathy and understanding) from employers, especially from line supervisors, have been found to be associated with developing self-efficacy in managing symptoms and medication at work [26]. Self-efficacy beliefs, in turn, positively influence illness self-management behaviors.

To create a supportive work environment for employees with chronic illnesses, employers must overcome misunderstandings and stigma about chronic illness. Rehabilitation counselors can play a pivotal role in educating employers about chronic illness, its impact on employment, and workplace accommodations. Wong [46] recently surveyed human resources professionals about the their knowledge and training needs with respect to episodic disabilities, of which most are also classified as chronic illnesses. Among their most pressing training needs, survey respondents identified a desire for (a) targeted training for managers and supervisors to address strategies for accommodating workers with chronic illnesses; (b) training that offered specific examples of workplace accommodations and supports along with information about how to implement and evaluate these strategies; (c) assistance with developing clear policies and processes for implementing return to work after extended absence from illness; and (d) information about specific accommodations for workers such as flex hours, job share programs, and work from home.

6. Innovative job retention strategies

A variety of job retention strategies have been implemented in vocational rehabilitation and workplace settings to address the job retention needs of workers with chronic illnesses. Although it is beyond the scope of this article to review all models, interventions, and programs that are available, we would like to highlight several strategies that incorporate the features (e.g., early and least intervention, consumer empowerment, self-managnement, proactive coping and planning, workplace support) described in the preceding section. Each of these strategies holds promise for broader application with workers with chronic illnesses.

6.1. *Work Experience Survey (WES)*

The WES [32] is a structured interview that identifies career maintenance barriers and potential solutions in the areas of worksite accessibility, job accommodations and modifications, job mastery, and job satisfaction. It has been used to assist individuals with chronic illnesses to evaluate their career maintenance needs in a number of empirical investigations. Research has documented its usefulness as a tool for self-advocacy training [35] and for assessing factors associated with job tenure [34]. It has also been used to examine the career development concerns of people with a variety of chronic illnesses. These include multiple sclerosis [32], various chronic illnesses [33], insulin-dependent diabetes mellitus [40], and breast cancer [37]. In each application, the WES has been demonstrated to be a reliable and valid tool for enhancing the career self-efficacy of employees with disabilities by providing them with a means to identify their specific needs for on-the-job accommodations and to facilitate employer collaboration in the accommodations planning process.

The WES, which can be conducted in person or over the phone and requires 30 to 60 minutes to complete, consists of sections that address workplace accessibility barriers, problems with essential job functions, career mastery issues, job satisfaction concerns, top priority barriers, and feasible solutions. The accessibility barriers section addresses obstacles that the worker may encounter in entering the building, using necessary services and facilities, and exiting the worksite in emergency situations. The essential job functions section requires the worker to identify any essential functions or work conditions that are problematic. Essential functions are divided into the categories of physical abilities, cognitive abilities, task-related abilities, social abilities, working conditions, and company policies. The career mastery section synthesizes items from the Career Mastery Inventory [13] into the domains of getting the job done, fitting into the workforce, learn-

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ing the ropes, getting along with others, getting ahead, and planning the next career step. The job satisfaction section requires respondents to evaluate their job satisfaction in terms of 20 work reinforcers drawn from the Minnesota Theory of Work Adjustment [15]. Each section of the WES concludes with a question asking respondents to identify solutions for their two most important barriers. To conclude the WES interview, respondents review all the sections and select their three highest priority barriers. They then identify reasonable accommodations to ameliorate those barriers and determine who can help and how they can help in the process.

6.2. *Job retention intervention for persons with chronic diseases*

In a randomized clinical trial, Allaire et al. [3] further demonstrated the effectiveness of the WES in a brief job retention intervention for employed individuals with rheumatic diseases who were at risk for job loss. The intervention consisted of three components: (a) identification of work barriers and solutions, (b) vocational counseling and guidance, and (c) education and self-advocacy. The intervention was delivered by one of two rehabilitation counselors employed by the study in two face-to-face sessions (each lasting approximately 1.5 hours) with each research participant.

In the first component, the rehabilitation counselor assisted the participant to identify and prioritize work barriers, determine solutions, and develop a plan of action. Then, the rehabilitation counselor provided counseling and guidance that consisted of positive messages about the participant's ability to work, evaluation of the individual's long-term job retention prospects, and consideration of job alternatives and resources if it was determined that a job or career change may be necessary in the future. The educational and self-advocacy component consisted of information about disability-related employment rights and a training exercise to increase participants' skills at requesting accommodations. At the end of the intervention, rehabilitation counselors provided participants with pamphlets and flyers containing information about how to manage health-related employment problems and available resources. The information provided in the printed materials addressed the ADA, job accommodations, and the public VR program in their state.

The researchers assessed employment status at six month intervals for both experimental ($n = 122$) and control group participants ($n = 120$) who received only the written materials described above. They found that, in comparison to participants in the control group, a greater percentage of participants who received the job retention intervention remained employed with no job loss at 12 months post-intervention, and the percentage increased at 18 months and was sustained over 42 months. The participants who received the intervention also reported higher satisfaction than participants who only received the written materials. The researchers concluded that this cost-effective intervention "has the capacity to substantially reduce the high costs to society associated with the impact of rheumatic diseases on employment and to preserve the economic self-sufficiency of individuals and their families" [3, p. 107].

6.3. *Retaining a valued employee (RAVE) program*

The RAVE program was developed by the Alabama Department of Rehabilitation Services (ADRS) to provide rapid response and early intervention to stabilize employment when a worker experiences disability-related issues that threaten job retention [1]. The program was designed to utilize a dual customer focus that involves comprehensive communication with both the employee and employer from initial referral through job stabilization. RAVE is comprised of disability management teams that consist of a RAVE coordinator, an employment development coordinator, a RAVE specialty counselor, a rehabilitation specialist, and a unit supervisor. RAVE services are tailored to the employee and employer's needs and include on site job assessment, problem solving for return to work and performance of essential job functions, identification of job accommodations, counseling and education regarding disability issues, job site-trainers, and modified or transitional work options. According to the ADRS 2007 *Annual Report*, RAVE teams assisted employers across the state to retain 620 employees with disabilities at an average cost to ADRS of $2,800.00 per case. Although the RAVE program was not designed specifically for individuals with chronic illnesses, it is well-suited to addressing their job retention concerns because of its emphases on early intervention, employer involvement, and proactive problem solving.

6.4. *Multiple sclerosis employment assistance program*

The National Multiple Sclerosis Society has long been involved in job retention research and has taken on

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a leadership role in the development of innovative job retention interventions for individuals with chronic illnesses. Although designed for workers with MS, these interventions also have application to workers with other chronic illnesses. For example, the National MS Society makes available to its members an employment assistance program that responds to workplace barriers before they become crises. All services are provided by certified rehabilitation counselors via telephone or e-mail who help individuals who contact them to develop a customized plan of services and assistance from a pre-established "menu" that includes an assessment of their accommodation needs, self-advocacy training, job analyses, accommodations planning, and employer-employee negotiation. Some participants use the Multiple Sclerosis Employment Assistance Service over an extended time period, whereas others call or e-mail for specific, point-in-time answers to employment-related questions and concerns. The program is supported by subscriptions from individual chapters of the National Multiple Sclerosis Society, and it has served more than 2,700 people with MS during its 13 years of operation. Research on the program has demonstrated that it is effective as an early intervention strategy that resolves disability-related barriers to job retention before they threaten job satisfaction and, subsequently, job mastery [36].

6.5. Project alliance

In 1992, the National Multiple Sclerosis Society introduced Project Alliance, a comprehensive job retention program that combined needs assessment principles and self-advocacy training with employer consultation and community resources (Rumrill, in press). The Project Alliance intervention was made available to employed persons with MS and other adult-onset chronic illnesses at 14 sites nationwide. The three-year initiative served more than 300 employees and their employers. The primary objectives of this innovative program were as follows:

- To engage both the employee (with a chronic illness) and the employer in the process of examining the current issues related to job performance.
- To gather information related to the person's actual position, including the physical and cognitive requirements, the essential and marginal functions, and support systems.
- To identify barriers to successful job performance.
- To provide assistance to the employee and the employer in improving communication and in moving toward satisfactory resolution of work-related issues.
- To assist all parties in understanding the provisions of the ADA and how voluntary compliance can benefit all concerned.
- To help identify needs of the employee and employer in terms of job modifications, adjustments, or accommodations that could assist the employee in achieving and maintaining satisfactory work performance [42, p. 1].

Project Alliance objectives were achieved by conducting an on-site job analysis that utilized input from the rehabilitation professional, the employee, the employer, and coworkers. The job analyst recorded and interpreted information pertaining to the essential and marginal functions of the position, the employee's general and illness-related health status, the impact of the illness on the employee's job performance, the quality and quantity of the employee's work in comparison to coworkers, on-the-job and community resources that could be consulted, and employee and employer appraisals of the presenting problem(s) [42]. The job analyst then synthesized the information into a written report that was presented to both the employee and employer. Finally, follow-along contacts were made to assist in the implementation and monitoring of reasonable accommodations and other job retention strategies.

Because Project Alliance required the employee with a chronic illness and his or her employer to work together in the process of identifying, prioritizing, and implementing reasonable accommodations, it exemplified the ADA's spirit of collaborative decision making and non-adversarial problem-solving [36]. The project also educated employers about the value of retaining experienced and productive employees who may be coping with disabilities but who can still get the job done.

7. Conclusions

Individuals with chronic illnesses represent the fastest growing population of people with disabilities in the United States. They experience an array of psychosocial and vocational barriers to employment that can be ameliorated by responsive and innovative rehabilitation counseling services targeted at job retention. Early intervention, consumer empowerment,

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proactive problem-solving, minimal periodic follow-up, and employer involvement are key principles in preventing these individuals from prematurely exiting the workforce. The authors highlighted several innovative models and strategies that hold promise for more widespread application; however, additional research is needed to more systematically evaluate their effectiveness with different chronic illness populations.

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