Medical rehabilitation in rural Canada

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Abstract

The present paper describes how different service delivery models have evolved in Canada to meet the medical rehabilitation needs of individuals with disabilities living in rural communities. This paper describes advantages and limitations of three approaches to providing rehabilitation services to rural communities: (1) referral to an urban rehabilitation institution; (2) developing community-based rehabilitation resources; and (3) establishing out-reach rehabilitation programs. The paper also addresses the need for more coordinated efforts in the development of effective strategies for rural rehabilitation service delivery. Current obstacles and future challenges are discussed within the context of rehabilitation service delivery in Canada.

Keywords: Disability; Rehabilitation; Rural; Out-reach; Canada

1. Introduction

In 1981, the World Health Organization drew attention to issues concerning the delivery of rehabilitation services to rural communities. It was noted that in many countries, there were no rehabilitation resources available to individuals with disabilities living in rural communities. Even in more industrialized countries, with access to high technology rehabilitation resources, most resources were available only in urban centres and institutions (WHO, 1981). The present paper describes how community-based and out-reach programs have evolved in Canada to meet the rehabilitation needs of individuals with disabilities living in rural communities.

2. The Canadian challenge

With a geographical area spanning 10 million square kilometres, and a population of 26 million people, Canada ranks as one of the least densely populated of the industrialized nations. Population distribution maps indicate that approximately 75% of the Canadian population resides in large urban centres, with the remaining 25% residing in rural and remote communities. The Canadian challenge has been to develop cost-effective means of providing rehabilitation services to individuals scattered across the second largest country in the world.

Current statistics indicate that the prevalence of disability is higher in rural than in urban
communities (Statistics Canada, 1988, 1992). In Canada, prevalence rates of disability in the general population are approximately 15%, but may be as high as 17–20% in some rural communities. Employment settings in rural industries such as farming, fishing, or mining are frequently associated with long working hours, participation in hazardous activities, and inadequate safety measures, resulting in greater risk of disabling injury. The relative proportion of aging-related disabilities is also higher in rural communities, partly due to employment shortages causing youth to move from rural to urban centres. Other factors that have been discussed as contributing to the high prevalence of disability in rural communities include the lack of adequate primary health care services, poor health education, and the lack of health promotion and illness prevention services (Burns et al., 1990; Warren et al., 1986).

In Canada, rehabilitation services are provided within the framework of a socialized health care system. Hospitals and rehabilitation centres are operated by provincial governments, and services provided by the health care system are funded by taxes collected by provincial and federal governments (Vayda and Deber, 1992). By subsuming rehabilitation services within the framework of the health care system, Canadians with disabilities have been guaranteed access to the medical management of disability-related health problems (Francis et al., 1993). A significant drawback to the inclusion of rehabilitation services within the framework of the health care system is the exclusive focus on medical rehabilitation. Access to education and employment services are central to increasing the functional abilities and social integration of individuals with disabilities, yet these services are not considered within the mandate of the Canadian health care system.

3. Models of rural rehabilitation service delivery

Medical rehabilitation services can be made available to rural communities in one of three ways:

1. individuals with disabilities can travel to urban institutions to obtain required services;
2. rehabilitation resources can be developed at the rural community level; and
3. rehabilitation services can be ‘imported’ from urban centres to rural communities. Each option is associated with a distinct array of advantages and limitations.

3.1. Urban rehabilitation institutions

In the past, the first option was the only option for Canadians with disabilities living in rural communities. Individuals from rural communities who were in need of rehabilitation services were frequently required to travel long distances to urban rehabilitation institutions. The process of accessing rehabilitation services was fraught with obstacles and inconvenience including long distance travel, extended periods away from home, and time loss from work. The individual seeking rehabilitation services could choose to tolerate these inconveniences or do without services; for many, the latter was the most probable choice.

Aside from the issue of inconvenience, treating individuals from rural communities in urban rehabilitation institutions has been discussed as inadequate as a method of rural rehabilitation service delivery (Peat, 1989; Sullivan et al., 1990; WHO, 1981). By definition, disability refers to the interaction between a physical impairment and an environmental demand. Providing rehabilitation services outside the environment that defines the disability places undue emphasis on the physical impairment component of the disability. The emphasis on physical impairment in the management of disability-related difficulties also reflects a strictly bio-medical view of disability that is no longer considered viable (WHO, 1981).

There are, nevertheless, advantages to providing rehabilitation services within urban rehabilitation institutions. Rehabilitation institutions permit access to a wide range of rehabilitation services. Large rehabilitation institutions are typically staffed by medical specialists, rehabilitation nurses, physiotherapists, occupational therapists, speech therapists, prosthetists, orthotists, rehabilitation engineers, psychologists, and social workers. Rehabilitation institutions allow for comprehensive, multidisciplinary approaches to rehabilitation intervention and, in some cases, referral to
a rehabilitation institution may be the treatment of choice, regardless of whether the individual with a disability comes to the institution from a rural or urban community.

3.2. Community-based rehabilitation

One alternative to providing medical rehabilitation services within urban institutions is to develop rehabilitation resources within rural communities. The term community-based rehabilitation has been used to describe efforts to develop the resources necessary to provide rehabilitation services within the individual’s own community (Peat and Boyce, 1993). In Canada, community-based medical rehabilitation in rural communities has been provided primarily through organizations such as Home Care, Public Health Nursing, or the Victorian Order of Nurses. Community-based organizations are typically provincially sponsored and they provide rehabilitation services in the homes of individuals with disabilities. Through organizations such as Home Care, individuals with disabilities have access to attendant services, nursing services, meal preparation, physiotherapy, and occupational therapy.

Elaborate networks of community-based services have been developed in a number of Canadian provinces. For example, the Extra-Mural Hospital was established in 1983, with the goal of providing home-based rehabilitation services to the entire province of New Brunswick. Rehabilitation services of the Extra-Mural Hospital are coordinated through 16 Service Delivery Units dispersed across the province, servicing a population base of approximately 720,000 people. The field staff of the Service Delivery Units includes occupational therapists, physiotherapists, respiratory therapists, nurses, nutritionists, and social workers. The Extra-Mural Hospital strives to provide long-term continuous health care and rehabilitation to individuals with disabilities, and to provide an alternative to hospital admission. The reader is referred to Ferguson (1993) for a more detailed description of the development and operation of the Extra-Mural Hospital.

One program has recently been initiated in Ontario that illustrates how the services of multiple agencies and government bodies can be successfully coordinated to meet the needs of children with disabilities living in rural communities. The Integrated Services for Northern Children (ISNC) was established in 1989 with the goal of providing rehabilitation services to children with multiple disabilities living in rural and remote areas of northern Ontario (Shea et al., 1993). In the early development of the ISCN, it was noted that rehabilitation services in northern Ontario were being provided in a fragmented and uncoordinated fashion. Part of the fragmentation was due to the division of children’s services among different government ministries responsible for mental health, health, and education, and the multitude of transfer payment agencies responsible for service funding.

With recognition that rehabilitation needs frequently cut across many domains of functioning, the first step of the ISCN was to establish a central organizational structure that was designed specifically to fit the rehabilitation needs of their consumers. The approach contrasted sharply with the more traditional view that the rehabilitation needs of consumers should conform with the existing structure of service agencies. The ISNC employs a wide range of rehabilitation specialists including psychologists, psychiatrists, physiotherapists, occupational therapists, speech/language therapists, special education teachers, and other support staff, and serves a population base of approximately 100,000 people. Community-based Satellite Workers provide single-entry points for clients, and function as case managers in coordinating the delivery of ISNC services. Specialists are based primarily in urban centers and respond to service needs by travelling to the rural communities.

The advantages of community-based rehabilitation over institution-based rehabilitation are apparent. Rehabilitation professionals within rural communities have a greater understanding of the physical and psychosocial demands of the rural environment than rehabilitation professionals within urban institutions. The development of rehabilitation resources at the community level also reduces the difficulties associated with efforts to access rehabilitation resources in an urban institution. Opportunities for ongoing treatment and continuity of care are maximized, and
inconveniences associated with long distance travel are minimized.

The development of community-based services also reduces the demand for urban rehabilitation institutions. Rehabilitation institutions are the most expensive part of rehabilitation services provided by the health care system, and yet they only address the rehabilitation needs of a small proportion of the disabled population. Thus, concerns over the effectiveness of rehabilitation services, and cost containment efforts have combined to make the development of community-based services an attractive alternative to institutional treatment (Peat and Boyce, 1993).

The primary disadvantage of community-based rehabilitation concerns the limited range of rehabilitation resources that can be made available at the community level. As illustrated by the composition of the Extra-Mural Hospital, efforts are made to develop teams of rehabilitation professionals that can address a variety of common rehabilitation needs. A major obstacle to these efforts has been the reluctance of rehabilitation professionals to establish themselves in rural communities. In several Canadian provinces, it has been necessary to initiate financial incentive programs to increase the attractiveness of rural living to the rehabilitation professional.

The issue of cost-efficacy also limits the range of rehabilitation resources that can be developed at the community level. While the skills of physiotherapists and occupational therapists are applicable to a wide range of disability-related problems, the skills of specialists such as neurologists or psychiatrists are more narrowly defined. Rehabilitation professionals with narrowly defined skill areas cannot be used in a cost-effective manner in communities with a modest or small population base.

3.3. Out-reach rehabilitation

Over the past decade, several out-reach rehabilitation programs have been established in Canada to provide rehabilitation services to rural communities (Sullivan et al., 1993). Out-reach rehabilitation programs typically consist of teams of rehabilitation specialists, who are based in urban rehabilitation institutions, and travel to rural communities to provide services. The goal of out-reach programs is to provide rural communities with rehabilitation services that would otherwise only be available in urban institutions. In other words, out-reach programs draw on the specialized rehabilitation resources of urban institutions, and deliver these services or resources to rural communities.

The results of a recent national survey indicated that out-reach rehabilitation programs were similar to urban rehabilitation institutions in the range of disciplines represented, but differed from rehabilitation institutions with respect to the nature of services offered (Sullivan et al., 1993). While treatment provision is a central component of services offered by urban rehabilitation institutions, out-reach programs focus primarily on assessment and consultation. Issues related to the infrequency of clinic visits, and time lost in travel, have been discussed as major obstacles to the provision of treatment services by out-reach programs (Sullivan et al., 1993).

There are several advantages to out-reach models of rural rehabilitation service delivery. Certain rehabilitation problems are sufficiently complex that they cannot be effectively managed by community-based treatment services. The ready access to institutional admission is an important option for individuals requiring intensive rehabilitation treatment or high technology services. One study showed the out-reach services rated as most useful by community-based professionals included assessments of ambulation and assistance with problems requiring bracing, and assistive devices (Sullivan et al., 1990). Assessments of communication problems and pain-related problems were considered least useful, partly as a function of the lack of local resources necessary to treat these problems. The high value placed on access to assistive technology was not surprising. Mobility aids and assistive devices can have a major impact on functional abilities, and the effective management of ambulation problems can be a significant determinant of the need for institutional placement. In addition, the resources necessary to develop and distribute aids and devices are not available in most rural and remote communities.
Some of the disadvantages of out-reach programs include "cultural" differences between urban professionals and rural consumers that can impact negatively on the professional-consumer relationship. The negative impact of cultural differences has also been addressed in the context of interactions between urban and rural professionals (Sullivan et al., 1993). It has been noted that negative attitudes toward city professionals can place significant barriers to effective out-reach service delivery. The efficacy of out-reach programs may also be compromised when treatment recommendations are made without an in-depth understanding of the limited rehabilitation resources available at the rural level (Sullivan et al., 1990).

4. Future challenges

A major obstacle to providing comprehensive and cost effective rehabilitation services to rural communities in Canada is that the development of rehabilitation resources for rural communities has not proceeded according to a national strategic plan. Rather, most community-based and out-reach programs have developed primarily in response to informal needs assessments and local initiatives. Consequently, there are currently wide disparities in the range of rehabilitation services available. Some provinces have devoted considerable effort in developing out-reach and community-based services, while other provinces continue to offer rehabilitation services only within urban centres. There are also considerable redundancies in the nature of services provided in Canada’s rural communities. For example, many out-reach programs offer services that are already available at the community level.

Peat and Boyce (1993) have cogently argued that rural rehabilitation resources need be developed according to an overall national strategy within the broader context of the Canadian health care system. However, the health reform proposals of several Canadian provinces indicate that the development of a national strategy for rural rehabilitation service delivery is unlikely. Decentralization and devolution of budgetary and administrative power to regional health boards have been central themes in the health reform efforts of several provinces including Alberta, Nova Scotia, Ontario, Quebec and Saskatchewan (Government of Quebec, 1990; Nova Scotia Provincial Health Council, 1991; Premier's Commission on the Future of Health Care for Albertans, 1989; Report of the Ontario Health Review Panel, 1987; Saskatchewan Commission on Directions in Health Care, 1990). It has been argued that regionalized health systems can be more responsive than centralized systems to the changing health care needs of communities.

However, the trend toward regionalization of health services has also been the target of pointed criticism (O’Neill, 1992). Criticism has focused on how regionalization has typically served to create only the illusion of local control over health resources. It has been argued that, within regionalized systems, economic restraints leave little leeway for innovation or change, and that existing structures typically absorb the bulk of regional budget allocations (Mhatre and Deber, 1992). When existing structures and programs absorb the bulk of budget allocations, regionalization places provincial governments in a position to maintain central control over resource allocation, while denying responsibility for the status of the health care system.

Regionalization may have a particularly negative impact on rural rehabilitation services. In Canada, significant changes to provincial health systems have occurred as a function of the lobby efforts of various disability organizations. The lobby power of disability organizations is markedly reduced when decision making authority is spread across numerous regional health boards. The receptivity of regional health boards to the lobby efforts of disability organizations is likely to vary considerably as a function of board members' awareness of the rehabilitation needs of individuals within their constituency, the number of individuals within the constituency that require rehabilitation services, and the perceived importance of rehabilitation services. Research suggests that the decisions of regional health boards tend to reflect an emphasis on funding curative medical procedures and a relative lack of appreciation of
the importance of health maintenance or rehabilitation services (O’Neill, 1992).

An additional problem with the Canadian approach to rural rehabilitation, has been the excessive medicalization of disability. While disability and chronic illness frequently co-occur, health problems are not necessarily a central feature of disability, and the rehabilitation needs of individuals with disabilities often go beyond the medical realm. Indeed, maximal functioning and social integration of individuals with disabilities depends to a large extent on their ability to be active participants in educational and vocational pursuits. In rural rehabilitation programs currently available for adults with disabilities, the focus on non-medical aspects of rehabilitation has been conspicuously absent even though statistics indicate that, in certain regions of Canada, less than 30% of individuals with disabilities are active within the labour force (Statistics Canada, 1992). The apparent neglect of employment issues in rural rehabilitation in Canada is striking given that employment is inextricably connected to the defining characteristics of functional living including independence, autonomy, social integration and quality of life.

Thus, there are grounds for concern about the future of rehabilitation services that will be available to individuals with disabilities living in Canadian rural communities. First, the control of rehabilitation by government bodies responsible for health services has resulted in the excessive medicalization of disability, and a lack of attention to the development of programs addressing non-medical rehabilitation needs. In addition, the programs that are currently available for rural rehabilitation service delivery in Canada have been described as fragmented both in relation to administrative structure and service provision. The trend toward regionalization of health administration may ensure that fragmentation of service delivery will continue to characterise the rehabilitation services available to individuals with disabilities living in rural Canada.

It is clear that greater coordination of service delivery must be achieved in order to ensure that rural rehabilitation services are indeed effective in meeting the rehabilitation needs of disabled individuals living in rural communities in Canada. This may only be possible through the development of a centrally integrated planning and management system, perhaps similar to the approach used by the ISCN in northern Ontario, recognizing that rehabilitation needs cut across several domains of functioning. In order to meet the future challenges of rural rehabilitation in Canada, and to maximize the social integration of disabled consumers, it will be necessary to design a rehabilitation system that fits the needs of disabled consumers, rather than persisting with the current patchwork of administrative systems that likely hinders more than promotes the rehabilitation process.

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