

Assessing the consequences of delisting publicly funded community-based physical therapy on self-reported health in Ontario, Canada: a prospective cohort study

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In early 2005, Canada's most populous province (Ontario) partially delisted publicly funded community-based physical therapy services by restricting the eligibility criteria within designated clinics. The aim of this research was to assess the consequences of this policy decision using a prospective cohort design. In this study, we followed clients before and after delisting in order to assess change in access and self-reported health status. The results indicated that 81 of 113 (71.7%) participants who required physical therapy services continued to receive them after delisting because they remained eligible, were privately insured and/or were able to pay out-of-pocket. Twenty (17.7%) required services but did not receive them because they were uninsured or were not able to pay privately. The remaining participants were discharged at follow-up. Controlling for gender, age, employment and condition, clients who maintained access were 10 times more likely to report very good or excellent health status compared to those who did not receive services (odds ratio: 10.72; 95% confidence interval: 2.20–52.25). Given the association between poor self-reported health status and morbidity and mortality, future research needs to examine the long-term impact to determine the extent to which delisting may be associated with increased utilization of hospitals and family physicians.

Anfang des Jahres 2005 nahm die am stärksten bevölkerte Provinz Kanadas (Ontario) die staatlich finanzierten bewegungstherapeutischen Einrichtungen in der Gemeinschaft teilweise aus dem Programm, indem sie die Anspruchskriterien innerhalb bestimmter Kliniken einschränkte. Die vorliegende Studie soll die Folgen dieser Entscheidung anhand eines prospektiven Kohortendesigns beurteilen. Im Rahmen dieser Studie begleiteten wir die Patienten vor und nach dieser eingreifenden Maßnahme, um bewerten zu können, wie sich ihr Zugriff und ihre selbst wahrgenommene Gesundheit verändert haben. Die Ergebnisse zeigten, dass 81 der 113 (71.7%) Teilnehmer, die auf die bewegungstherapeutischen Einrichtungen angewiesen waren, sie auch weiterhin erhielten, weil sie ein Anrecht darauf hatten, privat versichert waren und/oder aus ihrer eigenen Tasche dafür bezahlten. Zwanzig (17.7%) Patienten waren auf den Service angewiesen, erhielten ihn aber nicht, weil sie entweder nicht versichert waren oder privat nicht dafür bezahlen konnten. Die übrigen

Teilnehmer wurden bei der Nachuntersuchung entlassen. Nach Berücksichtigung von Geschlecht, Alter, Beschäftigungsstatus und Gesundheitszustand berichteten die Patienten, die weiterhin bewegungstherapeutisch behandelt wurden, zehnmal häufiger einen sehr guten oder ausgezeichneten Gesundheitszustand als diejenigen, die den Service nicht mehr erhielten (Odds Ratio, 10.72; 95% Konfidenzintervall, 2.20–52.25). Angesichts der Verbindung zwischen einem selbst wahrgenommenen schlechten Gesundheitszustand und Morbidität und Mortalität müssen künftige Forschungsprojekte die langfristigen Auswirkungen untersuchen, um ermitteln zu können, inwieweit eine Einstellung eines Services mit einer verstärkten Inanspruchnahme von Krankenhäusern und Hausärzten verknüpft ist.

A principios de 2005, Ontario, la provincia más populosa del Canadá, limitó parcialmente el acceso a los servicios de fisioterapia en el hogar, financiados con dineros públicos, al restringir los criterios de inclusión en algunas de las clínicas. El objetivo de este estudio fue evaluar mediante un estudio prospectivo de cohorte las consecuencias de esta decisión política. Se trata de un estudio de seguimiento de los pacientes antes y después de establecidas las limitaciones, a fin de evaluar los cambios relacionados con el acceso a estos servicios y la salud percibida informada por los pacientes. Los resultados indicaron que 81 de 113 (71.1%) de los participantes que necesitaban tratamiento fisioterapéutico continuaron recibiendo estos servicios después de establecida la nueva política, porque aún cumplían los criterios de inclusión: tenían seguros privados, o podían pagar el tratamiento. Veinte (17.7%) de los participantes requirieron de los servicios de fisioterapia, pero no los recibieron, porque no tenían seguro o no podían pagar como pacientes privados. Al resto de los participantes les dieron el alta en la consulta de seguimiento. Los resultados relacionados con el sexo, la edad, la ocupación y las condiciones revelaron que los pacientes que siguieron recibiendo fueron 10 veces más propensos a informar un estado de salud muy bueno o excelente, en comparación con aquellos que no recibieron los servicios (oportunidad relativa, 10.72%; intervalo de confianza, 95%, 2.2–52.25). Dada la asociación entre un mal estado de salud informado por el paciente, y la morbilidad y mortalidad, es necesario

que las investigaciones futuras exploren el impacto a largo plazo de esta nueva política, para determinar en qué medida ésta puede asociarse a un aumento en el uso de los servicios hospitalarios y de los médicos de familia.

Au début de l'année 2005, la province la plus peuplée du Canada (l'Ontario) a partiellement déclassé les services de thérapie physique basée dans les collectivités et financées par l'argent public en restreignant les critères d'éligibilité à certaines cliniques désignées. Cette étude avait pour objectif d'évaluer les conséquences de cette décision politique en utilisant une conception de cohorte prospective. Dans cette étude, nous avons suivi les clients avant et après le déclassement en vue d'évaluer les changements dans l'accès aux soins et dans l'état de santé signalé par les individus eux-mêmes. Les résultats indiquent que 81 des 113 participants (71.7%) qui avaient besoin de services de thérapie physique ont continué à les recevoir après déclassement car ils demeuraient «éligibles», bénéficiaient d'une assurance privée et/ou étaient capables d'acquitter le prix des consultations. 20 d'entre eux (17.7%) avaient besoin des services mais ne les recevaient pas car ils n'étaient pas assurés ou n'étaient pas à même de payer les soins privés. Les participants restants ont été jugés non éligibles lors des visites de suivi. À sexe, âge, situation d'emploi et situation générale similaire, les clients dont l'accès aux soins a été maintenu se sont avérés 10 fois plus susceptibles de signaler un état

de santé bon ou excellent que les patients qui n'avaient pas accès aux services (rapport de cotes, 10.72; 95% intervalle de confiance, 2.20–52.25). Compte tenu de l'association entre le mauvais statut de santé signalé, la morbidité et la mortalité, des recherches complémentaires devront examiner l'impact du déclassement sur le long terme afin de déterminer dans quelle mesure il peut favoriser un recours accru aux hôpitaux et aux médecins de famille. *International Journal of Rehabilitation Research* 29:303–307 © 2006 Lippincott Williams & Wilkins.

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Introduction

In Canada, health care services are insured under the Canada Health Act (CHA) if they are deemed medically necessary, and delivered by physicians or provided within hospitals (Taylor, 1987; Angus *et al.*, 1995; Deber, 2000). There are, however, a range of services that are at the margin of this definition. Physical therapy (PT) is an example of a service that is generally publicly funded if delivered within hospitals, but falls outside the definition of insured health services once it is provided in the community (Landry, 2004). Even though they are under no legal obligation, some jurisdictions continue to provide a publicly funded, community-based option for residents. These jurisdictions have, however, rationed and significantly altered the criteria to access these services, to the extent that they are less available. For instance, in British Columbia, the most western province in Canada, a resident is now required to have an annual income less than \$20 000 CDN to access publicly funded community-based PT services through the Premium Assistance Program (Government of British Columbia, 2005), and in Alberta, another western province, the Community Rehabilitation Program only insures PT assessment and up to six visits for residents who qualify (Alberta Government, 2005).

In Ontario, the province where more than a third of Canada's population resides, the provincial government had designated a series of privately owned 'Schedule 5 clinics' which were publicly funded to deliver community-based PT services. Schedule 5 clinics were implemented across the province because it was reasoned that reliance on publicly funded community-based initiatives would be a more efficient use of scarce resources compared to admitting clients for PT services in hospitals or using family physicians to manage acute and chronic conditions (Caldana *et al.*, 2003). The 2004 Ontario provincial budget announced that public funding for PT services delivered through this network of community-based clinics would be fully delisted as an insured service on 1 April 2005. Prior to March 2005, a total of 98 designated Schedule 5 clinics across Ontario could invoice the provincial health insurance plan, also named the Ontario Hospital Insurance Plan, for up to 150 annual visits per resident (Dorrell, 2004; Verrier *et al.*, 2004). The 2004 budget announced that community-based PT, along with chiropractic and optometry, would be delisted in order to generate \$200 million CDN in savings that would be reinvested into other health priorities. Optometry and chiropractic were fully delisted as planned in late 2004. Days prior to the delisting of PT, however, the Ontario

Ministry of Health and Long Term Care (MOHLTC) altered its decision and opted for a partial rather than complete delisting. This maintained access for PT services for the following selected populations: (1) residents aged over 65 or under 20 years, (2) those who qualified for social support through the Ontario Disability Support Program, Family Benefits or Ontario Works, (3) residents of long-term care facilities and (4) those who are returned to the community following hospital discharge (Ministry of Health and Long Term Care, 2005).

Predictions regarding the consequences of this policy decision were varied. The MOHLTC noted that the decision to delist would not affect residents as they would still be able to access publicly funded PT services through hospitals, long-term care facilities and the province's home care program (Sorbara, 2004). In contrast, provider and client groups argued that this decision would remove an entire funding stream for PT services, potentially reducing or eliminating service availability and creating secondary negative health outcomes for particularly vulnerable or marginalized clients (Verrier *et al.*, 2004; Yee Hong, 2005). Still others argued that delisting of PT services could represent false savings, estimating that there would be a 28% decrease in access (Dales, 2005) and that early termination of necessary rehabilitation services could lead to additional strain on the health system (Deloitte, 2004; Manga, 2004a, 2004b). Stabile and Ward (2004) reported that delisting PT services in some Canadian provinces resulted in a decreased number of clients who accessed services, but increased utilization rates among those clients who maintained access to services. They concluded that aggregated utilization rates are not affected by delisting policies. Conversely, the Ontario Chiropractic Association reported, through a commissioned policy report, that delisting of chiropractic services would result in increased utilization of emergency departments by 7–14% and increased reliance on family physicians by 1.3–2.6% to manage back pain and spinal care (Deloitte, 2004).

In order to more fully assess the consequences of partial delisting of PT services in Ontario, a prospective cohort study was conducted that followed clients receiving publicly funded community-based PT through Schedule 5 clinics services before and after partial delisting. The objective was to assess the consequences of this policy decision on access to services and health outcomes, specifically Self-Reported Health Status (SRH).

Methods

Ethics approval for this two-phased prospective cohort study was obtained through the Ethics Review Board at the University Health Network (Toronto Western

Hospital) in Toronto, Ontario, Canada. In the first recruitment phase, a sample of clinics located in areas ranging from large urban centers to small rural towns was chosen from a list generated through the association that represents the majority of 98 Schedule 5 clinics in the province. Then a stratified sample of one clinic within each of the five Ontario Hospital Association regions was contacted to determine their level of interest in participating in this study. In all cases, the clinic that was contacted agreed to participate.

In the second recruitment phase, a systematic sample of clients in each of these clinics was recruited. The research team provided training for each clinic regarding systematic recruitment of eligible clients in the study. Specific inclusion criteria included: (1) clients assessed between 1 and 31 March, 2005, (2) clients who agreed to an interview before and after delisting, and (3) clients with the ability to communicate/respond to interview questions in English. Participants were excluded from the study if they were under age 18 or were being re-assessed for ongoing treatment. Over a 31-day period (1–31 March 2005), participating clinics approached eligible clients to determine their level of interest in being contacted for potential participation in this research study. Each clinic provided the research team with daily lists of clients who were eligible, agreed to be contacted by the research team and provided informed consent. The research team then contacted participants who agreed, and semi-structured telephone interviews were scheduled and conducted.

Data collection

All client interviews were performed through the Arthritis Community Research and Evaluation Unit located within the University Health Network in Toronto, Ontario. A team of five telephone interviewers were trained by the research team (M.D.L. and R.D.) and, to the extent possible, the same interviewer who conducted the 'before' interview also performed the 'after' interview.

Measures

The telephone questionnaire was developed by the investigators and consisted of the following variables: (1) gender (male, female); (2) age (20–40, 41–64, 65 +); (3) employment (employed full or part time, retired, other [e.g. long-term disability, student, homemaker]); (4) affected body segment (back, hip, upper extremity, lower extremity and other [e.g. multiple sites, temporomandibular joint]); (5) access to services after delisting (required and received services, required but did not receive services or discharged from services); and (6) SRH measured along a five-point Likert scale (poor, fair, good, very good, excellent) (Gross *et al.*, 2001). In this study, the operational definition of good health was if the client reported their health as 'good', 'very good' or

'excellent'. SRH was used as a key variable in this research because the literature has established links between SRH and health care utilization rates, morbidity and mortality rates (Lindquist and Lindquist, 1999; Reijneveld, 2000; Nelson *et al.*, 2001; Reijneveld and Stronks, 2001; Alarcon *et al.*, 2004; Frankenberg and Jones, 2004; Borglin *et al.*, 2005; Kind *et al.*, 2005; Nord *et al.*, 2005).

Data analysis

Once the before and after telephone interviews were completed, the data were entered into SAS statistical software version 9.1 (SAS Institute, Cary, North Carolina, USA) and double data entry was performed by independent researchers to ensure accuracy of the data. Frequency tabulations and logistic regression analysis were then performed in order to assess the consequences of delisting on access, and the association between access and SRH.

Results

In total, 209 consecutive clients were approached by clinicians in the sites to participate in this study. Twenty-six clients did not meet the inclusion criteria, leaving 183 potential participants. After eliminating 39 clients who did not wish to be contacted by the research team, a total of 144 participants consented to be contacted. Among the 144 who consented, four refused to participate at the time of first contact and 12 were unable to be contacted. The research team no longer attempted to contact the potential participants after having left five messages at their home or work without response.

The total number of participants who completed the before interview was 128. At follow-up, after delisting, one participant refused to complete the interview and 14 were unable to be contacted after repeated attempts. In total, 113 completed the after interview, yielding an overall study response rate of 61.7%. The response rate for follow-up interviews, however, given the initial response, was 113 out of a possible 128 (88.3%).

Table 1 provides a description of the study sample. The participants who completed the before and after interviews were primarily female (69.4%), between the ages of 20–64 years (70.2%), and mostly employed (42.0%) or retired (34.7%). The most common body segment affects were those affecting the upper (35.7%) and lower (28.2%) extremities.

With respect to access to services, after partial delisting of PT services, 81 of the 113 (71.7%) participants who required services continued to receive them, whereas 20 (17.7%) who required services did not receive them. The remaining 12 (10.6%) had been discharged at follow-up. Among those who required PT services and continued to

Table 1 Description of study sample

Variable	%
Gender	
Female	69.4
Male	30.6
Age (years)	
20–40	21.8
41–64	48.4
65+	29.8
Employment	
Employed (full and part time)	42.0
Retired	34.7
Other (e.g. long-term disability, student, homemaker)	23.3
Clinical condition	
Back	18.5
Hip	3.2
Upper extremity	35.7
Lower extremity	28.2
Other (e.g. multiple sites, trauma)	2.4

Table 2 Factors predicting improvement in self-reported health status

Variable	Odds ratio	95% Confidence interval
Gender	0.39	0.10–1.65
Age (years)		
20–40	3.02	0.26–35.00
41–65	1.09	0.19–6.20
Employed full or part time	1.37	0.28–6.74
Condition		
Back and hip	0.66	0.09–4.87
Upper extremity	0.09	0.02–3.55
Lower extremity	0.22	0.04–13.96
Other	0.06	0.02–1.79
Self-reported health status before partial delisting	62.30	12.34–314.45
Access to services after partial delisting	10.72	2.20–52.25

receive them after delisting, 41 (50.6%) remained eligible for publicly funded services, 27 (33.3%) were able to access private and/or casualty third-party insurances, and 18 (22.2%) accepted some, or all, of the financial burden by paying out-of-pocket costs. All participants who required services but did not receive them noted that they did not have private insurance, or were unable or unwilling to pay out-of-pocket costs for services.

With respect to health outcomes as measured by SRH, the results indicate that access to services after delisting was statistically associated with clients reporting good health at follow-up (Table 2).

After controlling for SRH before delisting, age, gender, employment status and condition, participants who required services and received them after delisting were more than 10 times as likely to report good health (odds ratio = 10.72; 95% confidence interval = 2.20–52.25) compared to those who required but did not receive services. Other variables such as age, gender, or access to private insurance were not significantly associated with differences in SRH status between groups in this study.

Discussion

Among the clinics studied, partial delisting publicly funded community-based PT services resulted in 17.7% of the sample that required services discontinuing treatment because they were ineligible for publicly funded services under the new policy and were unable to access private insurance or pay out-of-pocket. It may also be strongly inferred that a full delisting, as originally planned, may have decreased access by a much greater proportion since almost half (47.7%) of this sample of clients requiring services remained eligible for publicly funded services. Among those who were no longer eligible, but who required and continued to receive services, responsibility for paying for care indeed shifted from public to private sources, either through private insurances and/or through out-of-pocket payments. To the extent that single payers can achieve more efficient cost control, this shift may have increased total cost, although not the cost to government (Kirby, 2002; Romanow, 2002).

Second, the results of this study demonstrate a statistically significant association between access to services and perceived health outcome. Clients who required and were able to access services following delisting were much more likely to report good health status compared to those who did not. This is the first study, to our knowledge, to report this positive association between access and SRH status. Clients who have limited access to PT services could, however, experience worse outcomes and increased utilization of other publicly funded services, such as hospitals and family physicians, in the long-term. Further research is clearly needed to validate whether these changes in short-term SRH translate into longer-term adverse consequences on both individual well-being and on individual or aggregated utilization rates. Nonetheless, these findings suggest that the province of Ontario's decisions to de-emphasize rehabilitation services may be 'penny wise, pound foolish' and reinforce the need to modernize Canada's health system so that shifting necessary care outside of hospitals is not synonymous with shifting it from public to private payments.

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