RESEARCH PAPER

Rheumatologists' Acceptance of Patient Referrals from Physical Therapists

Acceptation par les rhumatologues des recommandations de patients faites par des physiothérapeutes

DEBBIE EHRMANN FELDMAN, BSCPT, MSc, PhD, PHT
Professor, School of Rehabilitation
Physiotherapy Program and School of Public Health
Department of Social and Preventive Medicine
University of Montreal
Researcher, Centre for Interdisciplinary
Research in Rehabilitation
Centre for Public Health Research
University of Montreal, Montreal, QC

MICHEL ZUMMER, MD, FRCPC
Associate Clinical Professor, University of Montreal
Department of Rheumatology
Maisonneuve-Rosemont Hospital
Montreal, QC

TATIANA OROZCO, BSCPT, MSc
School of Rehabilitation
Faculty of Medicine, University of Montreal
Montreal, QC

JONATHAN EL-KHOURY, MD (C)
Faculty of Medicine and Health Sciences
University of Sherbrooke, Sherbrooke, QC

FRANÇOIS DESMEULES, PT, PhD
Associate Professor, School of Rehabilitation
Faculty of Medicine
University of Montreal
Orthopaedic Clinical Research Unit
Maisonneuve-Rosemont Hospital Research Center
Montreal, QC

MAUDE LALIBERTÉ, PT, PhD
Assistant Clinical Professor, School of Rehabilitation
University of Montreal, Montreal, QC

KADIJA PERREAULT, PT, PhD
Associate Professor, Department of Rehabilitation
Centre for Interdisciplinary Research in Rehabilitation
and Social Integration
Laval University, Quebec, QC

ROLAND GRAD, MD, MSc
Associate Professor, Department of Family Medicine
McGill University
Herzl Family Practice Centre
Jewish General Hospital
Montreal, QC

LINDA WOODHOUSE, PT, PhD
Professor and Head of School
School of Physiotherapy and Exercise Science
Faculty of Health Sciences, Curtin University
Perth, Australia
Adjunct Professor, Department of Physical Therapy
Faculty of Rehabilitation Medicine
University of Alberta, Edmonton, AB

SASHA BERNATSKY, MD, PhD
Professor, Department of Medicine
Faculty of Medicine, McGill University
Department of Medicine
Division of Rheumatology
McGill University Health Centre
Montreal, QC

Abstract

We surveyed Canadian rheumatologists regarding beliefs about physical therapists' (PTs) ability to refer patients appropriately to rheumatologists and whether they would accept such referrals. Most (86.9%) believed that PTs can appropriately refer to rheumatologists. However, only 48.2% of rheumatologists would be very or extremely likely to accept a referral from a PT they knew, and 23.5% would accept a referral from a PT they did not know. Conversely, 90.5% would accept a referral from a PT if they could bill it as a full consult. We conclude that being able to bill PT referrals as full consults may potentially enhance the acceptance of PT referrals.

Résumé

Nous avons sondé les rhumatologues canadiens au sujet de leur confiance en la capacité des physiothérapeutes à aiguiller les patients de manière appropriée vers des rhumatologues et au sujet de leur acceptabilité de tels aiguillages. La plupart des répondants (86,9 %) estiment que les physiothérapeutes sont en mesure de faire des aiguillages appropriés vers les rhumatologues. Cependant, seulement 48,2 % des rhumatologues seraient très ou extrêmement susceptibles d'accepter l'aiguillage proposé par un physiothérapeute qu'ils connaissent, et 23,5 % accepteraient l'aiguillage d'un physiothérapeute qui leur est inconnu. À l'inverse, 90,5 % accepteraient l'aiguillage d'un physiothérapeute s'ils pouvaient le facturer comme une consultation complète. Nous concluons que le fait de pouvoir facturer les aiguillages provenant de physiothérapeutes comme des consultations complètes pourrait potentiellement améliorer l'acceptation de tels aiguillages.

Introduction

Optimal care for patients with inflammatory arthritis requires rapid access to a rheumatologist (Raza 2010; van der Linden et al. 2010). In Canada, rheumatologists represent a limited resource (Brophy et al. 2016), and inappropriate referrals could actually impair rheumatology access for those who need it the most. Therefore, it is important that referrals are appropriate and correctly prioritized. Typically, persons with joint problems consult a family doctor, who then refers them to a rheumatologist if they suspect inflammatory arthritis. Canadian residents may also consult a physical therapist (PT) as their first contact, an important option for individuals with joint problems, given that approximately 15% of Canadians do not have a regular family physician (CIHI 2016).

A recent study indicated that PTs in the provinces of Quebec and Alberta, where PTs are permitted to refer cases to rheumatologists (Ordre professionnel de la physiothérapie du Québec 2015; Physiotherapy Alberta College and Association 2009), were able to distinguish between inflammatory and non-inflammatory cases and were aware that new-onset inflammatory arthritis cases should be referred to rheumatologists (Feldman et al. 2019). With the currently evolving roles of allied healthcare practitioners, such as the successful model of primary care PT in the US military and health maintenance organizations

(McGill 2013; Murphy et al. 2005) and the agreement by some Canadian provinces (Ordre professionnel de la physiothérapie du Québec 2015; Physiotherapy Alberta College and Association 2009), rheumatologists are faced with the new possibility of accepting referrals from nonphysicians. Potential barriers to the success of this new referral model may relate to rheumatologists' concerns regarding communication, consultation fees and other factors. These have never been investigated.

Our objectives were to (1) determine whether rheumatologists believe that PTs are able to refer patients appropriately to rheumatology; (2) explore whether rheumatologists would be willing to accept referrals made by PTs; and (3) investigate factors associated with rheumatologists' willingness to accept PT referrals.

Method

The study design was a cross-sectional survey of Canadian rheumatologists – members of the Canadian Rheumatology Association (CRA) – and was conducted in June 2018. We designed a questionnaire with 17 questions, 10 related to demographics and practice characteristics and seven regarding the acceptability of PTs referring patients directly to rheumatologists. The latter group of questions included items regarding the rheumatologists' past experiences with referrals from PTs and beliefs in PTs' abilities to refer appropriately: Would they accept a referral from a PT whom they knew or one whom they did not know? Would they accept a referral from a PT if they could bill it as a regular consult? The questionnaire was translated into French by a bilingual member of our research team and back-translated by another bilingual member. It was then pretested on two rheumatologists (in each language), and minor adjustments were done. The survey was distributed by the CRA and sent to all their rheumatologist members using the platform Survey Gizmo. Two reminders were sent regarding the survey. The study was approved by the ethics committees of the University of Montreal and the University of Alberta and also by the subcommittee of the CRA.

Analysis consisted of a description of the sample, comparison with national statistics of Canadian rheumatologists using 95% confidence intervals (CI) (CMA 2018), and logistic regression to explore factors associated with rheumatologists' willingness to accept PT referrals. Factors included in the regression model were other provinces versus Alberta and Quebec, sex, experience (>10 years versus ≤10 years), type of practice (group versus solo), practice setting (hospital versus nonhospital) and target population (adult versus pediatric). Age was excluded from the regression because it was highly correlated with experience (Spearman $r = 0.8$). We used SPSS statistical software Version 25 (IBM) to analyze the data.

Results

In all, 90 out of 471 rheumatologist members of the CRA responded to the survey, for a 19.1% response rate. The majority ($n = 50$) of respondents worked at university-affiliated

TABLE 1. Description of sample of rheumatologists

Characteristic	Characteristic levels	Sample		National statistics
		N	Percentage [95% CI]	Percentage [95% CI]
Province	British Columbia	17	21.8 [12.6–31.0]	14.2 [11.0–17.4]
	Prairie provinces*	17	21.8 [12.6–31.0]	16.3 [13.0–19.6]
	Ontario	25	32.1 [21.7–42.5]	39.3 [34.9–43.7]
	Quebec	15	19.2 [10.5–27.9]	24.4 [20.5–28.3]
	Nova Scotia and Newfoundland	2	2.6 [0–6.1]	4.7 [2.8–6.6]
	Other§	2	2.6 [0–6.1]	5 [3.0–7.0]
Age	<45	34	38.2 [28.1–48.3]	36.0 [31.7–40.3]
	≥45	55	61.8 [51.7–71.9]	64.0 [59.7–68.3]
Sex	Male	37	41.6 [31.4–51.8]	46.0 [41.5–50.5]
	Female	52	58.4 [48.2–68.6]	54.0 [49.5–58.5]
Experience	≤10 years	33	37.1 [27.1–47.1]	N/A
	>10 years	56	62.9 [52.9–72.9]	
Clientele age	Pediatric	12	14.1 [6.9–21.3]	N/A
	Adult	73	85.9 [78.7–93.1]	
Practice setting	Private clinic	30	35.3 [25.1–45.5]	45.0 [40.5–49.5]
	University hospital	50	58.8 [48.3–69.3]	46.0 [41.5–50.5]
	Other	5	5.9 [0.9–10.9]	9.0 [6.4–11.6]
Practice type	Solo	31	36.5 [26.3–46.3]	41.0 [36.6–45.4]
	Group	52	61.2 [50.8–71.6]	57.0 [52.5–61.5]
	Other	2	2.4 [0–5.6]	2.0 [0.70–3.3]
Clinical or research	Clinical	58	66.7 [56.8–76.6]	N/A
	Research	1	1.1 [0–3.3]	
	Mixed	25	28.7 [19.2–38.2]	
	Other (administrative, teaching)	3	3.4 [0–7.2]	
Number of patients per week	0–30	27	31.0 [21.2–40.6]	N/A
	≥31	60	69.0 [59.2–78.6]	

Note: CI = confidence interval.
* Alberta, Saskatchewan, Manitoba
§ New Brunswick, Prince Edward Island, Territories

hospitals, and 35% of the respondents (n = 31) had more than 25 years of experience. Table 1 contains a description of the sample and comparisons with Canadian rheumatologists (CMA 2018). There were more rheumatologists working in academic hospital settings in our sample than the sample defined by the national descriptors. We also saw trends for more respondents who were female, <45 years of age and from Western Canada (British Columbia and the Prairie Provinces), although the 95% CIs overlapped for these categories.

Among the respondents, only 11 (13%) had received referrals from a PT in the past six months, of which nine accepted these referrals. Most respondents (n = 73; 86.9%) believed that PTs can appropriately refer patients to rheumatology. Nonetheless, only 41 respondents (48.2%) said that they would be very or extremely likely to accept a referral from a PT they knew, and this proportion went down by more than half (n = 20, 23.5%) for a PT they did

not know. However, 76 respondents (90.5%) would accept a referral from a PT if they could bill it as a regular consult from a physician, i.e., receive the same remuneration as a referral from a physician (which includes an additional premium versus a standard patient visit).

Results of logistic regression analyses are presented in Table 2. Male rheumatologists and rheumatologists with ≤10 years of experience were more likely to accept referrals from PTs, especially if the PT was known to the rheumatologist. Pediatric rheumatologists (versus adult rheumatologists) appeared more likely to accept a PT referral, particularly when the PT was not known to the rheumatologist.

TABLE 2. Factors associated with referral acceptance from a PT: Odds ratio (95% CI)

Factor	Accepting referral from a known PT (as opposed to not accepting)	Accepting referral from an unknown PT (as opposed to not accepting)
Province other than Quebec and Alberta	0.34 [0.08–1.38]	1.57 [0.34–7.20]
Male rheumatologist	6.45 [1.85–22.50]	3.50 [0.95–12.86]
Experience >10 years	0.10 [0.02–0.42]	0.28 [0.07–1.13]
Group practice vs. solo	0.90 [0.17–4.74]	1.31 [0.17–10.16]
Hospital setting vs. outside clinic/office	0.71 [0.12–4.09]	0.77 [0.10–6.15]
Adult vs. pediatric clientele	0.17 [0.03–1.05]	0.15 [0.03–0.89]

CI: confidence interval

Discussion

Our results demonstrate that although rheumatologists believe that PTs can appropriately refer patients, only between a quarter (PT not known) and a half (PT known to rheumatologist) of the rheumatologists who responded would accept referrals from PTs under present conditions (i.e., they cannot bill the visit as a full consult). Rheumatologists with less experience, those who were males and those working with a pediatric clientele were more likely to accept a PT referral.

It is not surprising that billing is a factor in physician specialists accepting referrals. Most rheumatologists in Canada are paid fee-for-service, also work outside an academic teaching centre (CMA 2018) and are responsible for paying their own overhead costs. Specialists in Ontario can bill a consultation visit for patients who are referred by a nurse practitioner, but PT referral is not reimbursed in this province (INFOBulletin 2016). Although there is a code for specialists to bill for consults of patients referred by PTs in Alberta, many rheumatologists may not be aware that this is allowed.

The fact that rheumatologists would be more open to accepting referrals from a PT who they know likely reflects confidence in that PT's judgment. Rheumatologists with less experience are younger and were more willing to accept PT referrals; this may be because they have smaller patient rosters than older, more experienced rheumatologists or because they have received more interprofessional training. Many medical schools have recently instituted

interdisciplinary courses where there is exposure to other health professionals, which can foster better communication and respect among the different professions (Apramian et al. 2015). Also, pediatric rheumatologists were more receptive to PT referrals: the multidisciplinary team model is favoured in pediatric rheumatology. There are fewer pediatric rheumatologists overall; however, patient rosters in the pediatric clinic are smaller and more fluid (i.e., patients move out to the adult rheumatology world, eventually making way for other patients), which may also be a factor (Davies et al. 2010).

Male rheumatologists were also more likely to accept referrals than female rheumatologists. This disparity may be related to financial loss of the consultation premium, which may be more of a concern for a female rheumatologist because, according to an American study, male rheumatologists already earn 16% more than female rheumatologists (Quinn 2017), although we do not know if this is the case in Canada as well.

Referral from a PT directly to a rheumatologist can speed up the consultation process instead of having to advise the patient – after seeing the patient – to go to a family physician in order to be referred to a rheumatologist. An Australian study (Byrnes and Comans 2015) suggested that direct referral to medical specialists by PTs could reduce initial costs.

Limitations include the small sample and issues related to representativeness. Our 19% response rate is higher than the 16% response rate of the National Physician Survey (2014) in Canada. Further, we do not have data from rheumatologists who are not members of CRA. With the small number of pediatric rheumatologists, it is unknown whether respondents in that group specifically are representative of pediatric rheumatologists, which may be important, given how differently this group responded to the survey (versus rheumatologists who treat adults). Also, our sample showed more rheumatologists working in university-affiliated hospitals, where they may work more closely with PTs. This may have resulted in an overestimation in our study regarding acceptance of PT referrals. We also did not ask about methods of remuneration; salaried rheumatologists may be more likely to accept PT referrals than those paid on a fee-for-service basis. However, the majority of Canadian rheumatologists are paid fee-for-service, with only 9% reportedly paid a salary (CMA 2018).

Referral to a rheumatologist may emanate from a PT working in either the public or the private sector. However, more PTs with outpatient musculoskeletal clienteles work in the private sector today (The Conference Board of Canada 2017). Because many Canadians do not have insurance that would pay for physical therapy, the proposed pathway may exclude persons who are unemployed or in the lower socio-economic levels. An earlier Canadian study indicated that persons with higher socio-economic status were more likely to bypass primary care with regard to specialist contact (Glazier et al. 2009).

Policy Implications

To optimize the pathway of referrals from PTs to specialists, provincial health ministries (health insurance boards) in Quebec and Alberta (where PTs are already permitted to refer directly to specialists) could enact a policy regarding equal remuneration for consultations

when referrals originate from PTs, similar to those originating from family physicians. In other provinces, agreements to enable PT referrals will need to be negotiated between physician organizations (college of physicians and surgeons and/or specialists associations) and provincial physiotherapy associations (responsible for licensing, public protection, ensuring that quality services are dispensed by PTs and professional development of its members). Subsequently, provincial physiotherapy associations will need to negotiate agreements with the provincial health ministries regarding remuneration for consultations originating from PTs, in order to enable this pathway of direct referral by PTs. Finally, once these new policies are established, there will be a need for knowledge translation among practising physicians and PTs on the part of their professional associations. Although newer PT graduates may be more aware of new policies, many practising PTs and physicians may not be. In order for this new policy to be successful, the knowledge translation aimed at both rheumatologists and PTs will need to include the following: (1) the advantages of enabling the pathway of PT referral to rheumatologists, which includes rapidity of access and cost-saving since patients who opt to go to a PT do not need to subsequently go to a family physician just to get the referral; (2) the high ability of PTs to distinguish between inflammatory and non-inflammatory cases; and (3) the ability to bill these consultations the same way as physician referrals.

There are several potential barriers to adopting this new policy. For example, there can be resistance from physicians (both specialists and family physicians), since traditionally, specialists only accept referrals from other physicians, and the proposed pathway would represent an expansion of nonphysician roles and changes in their scope of practice. This may be especially problematic to accept for family physicians and rheumatologists who are more "traditionalistic" in their approaches – that is, those who prefer the gate-keeping role of family physicians making decisions about referring patients. Furthermore, family physicians' roles include coordination of care for their patients, while rheumatologists deal with symptoms of the rheumatic disease. For persons with a chronic disease such as rheumatic disease, the family physician's role is vital to ensure that the patient's health needs are looked after (Goldenberg 2017). Thus, for patients who see a PT first, it is imperative that the patient has (or finds) a regular source of primary healthcare. There have been problems in Canada regarding finding a family physician (CIHI 2016), and this is a barrier to optimal care, especially for persons with chronic disease conditions. Another barrier may be the lack of confidence in PTs' abilities in discerning cases that are important to be referred. The fact that rheumatologists were much more likely to accept referrals from PTs who they know may support this contention. There is a need for knowledge translation with respect to PTs' abilities to refer appropriately. Hence, negotiations between regulatory bodies of physicians and physiotherapists (professional orders/associations/colleges) should include a presentation of evidence affirming that PTs are experts in musculoskeletal evaluation and management, and are capable of distinguishing between cases that require a referral (inflammatory disease) and those that do not (e.g., osteoarthritis, mechanical lower back pain or neck pain).

From the ministry's perspective, lobbying by professional bodies can influence policy.

However, policies are frequently influenced by economic/funding considerations, and not only potential, to improve health outcomes (Hutchison et al. 2011). This new pathway can serve as a cost-cutting measure, as patients who are seen by a PT can be referred directly without having to visit a family physician to be referred (Byrnes and Comans 2015). Physicians who doubt PTs' abilities may contend that they will be receiving unnecessary referrals (that would inflate costs); however, there are doubts about appropriateness of family physicians' referring practices as well (Mehrotra et al. 2011; Wong et al. 2019). Moreover, family physicians' training in musculoskeletal evaluation and management is often lacking (Akesson et al. 2003), and as shown by our previous work, PTs who are well-trained in care of musculoskeletal conditions are quite adept in discerning inflammatory and non-inflammatory conditions (Feldman et al. 2019), potentially performing better than family physicians in providing appropriate referrals to rheumatologists.

Finally, patients who consult a PT usually have private insurance that covers (in part or all of) their visit to the PT. Some patients who do not have private insurance must pay for their PT sessions themselves. This may pose a barrier to those who do not have private insurance or who cannot afford PT. Nonetheless, they are covered by their provincial insurance plan to access a physician who would then refer them if need be.

Conclusion

Rheumatologists appear to have confidence in PTs' abilities to refer appropriately. However, acceptance of referrals from a PT in the present scenario is low. Being able to bill PT referrals as full consultations (i.e., at the same rate as they would bill consultations from family physicians) may enhance the acceptance of PT referrals. Enabling the pathway of an appropriate referral by a PT to a rheumatologist can potentially enhance the rapidity of rheumatology consultation for some patients with inflammatory rheumatic disease and ultimately improve health outcomes for these patients.

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Correspondence may be directed to: Debbie Ehrmann Feldman, École de réadaptation, Université de Montréal, Pavillon 7077 du Parc, C.P. 6128, Succ. Centre-ville, Montréal, QC H3C 3J7. She can be reached by phone at 514-343-6111 x 1252 or by e-mail at debbie.feldman@umontreal.ca.

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