

Direct Access to Physiotherapy in Primary Care: Now? - *and* into the future?

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Direct Access to Physiotherapy in Primary Care: Now? - *and* into the future?

Key words: direct access, primary care, physiotherapy, out-patients

Summary

Background: Patient direct access to physiotherapy (self-referral), is not the routine mechanism in use within the NHS although more recently it has become a topic of considerable UK and international interest.

Aim: To develop, implement, investigate and report on a direct access primary care based physiotherapy service

Design of Study: Experimental and qualitative

Setting: A general practice in a health district of Scotland.

Method: The service was introduced and compared to the existing system of open access over a twelve-month period. Demographic and clinical data were collected relating to two samples: **Control Year Group:** All general practitioner referrals in the year prior to the study year. **Study Year Group:** general practitioner and direct access referrals. All patients were followed up one-month after discharge, and the number of associated general practitioner consultations collated together with clinician views of physiotherapy generally and direct access specifically.

Results: The Control and Study Year Groups were homogenous with regard to number of referrals (339 vs. 340), patient age, gender, condition category and its severity. There were however significant differences between direct access and general practitioner referrals (22.4% n=76; vs. 77.6% n=264). Direct access patients were more likely to have been: male, younger, suffering from conditions of a shorter duration, in paid employment with less work absence, more compliant with attendance, had fewer physiotherapy contacts, lower reporting of symptom severity at discharge and were more highly satisfied with their physiotherapy care and experienced less general practitioner consultations ($p < 0.001$). Support for direct access was strongly expressed by service users and clinicians.

Conclusions: Direct access to physiotherapy is an example of innovative primary care service provision that is feasible, acceptable to both users and providers and has major implications for general practitioner workload. Its efficacy however, should be evaluated in a range of settings **before** being universally introduced.

Key Messages

- ◆ Current healthcare policy supports the principle of direct access to services
- ◆ Physiotherapists have had the ability to practice autonomously since 1978
Despite this, although commonly encountered within the private and sports sectors, direct access is not the mechanism commonly in use within the NHS
- ◆ Preliminary findings indicate that direct access to physiotherapy in a primary care setting is both feasible and acceptable
- ◆ It provides a mode of access that encourages men in particular to seek advice/treatment for their musculoskeletal symptoms sooner than when referred by their general practitioner
- ◆ There are considerable implications for both physiotherapy and general practitioner workload associated with direct access
- ◆ Full evaluation in a range of socio-economic and geographical settings is required *before* direct access is adopted as national policy

Background and Purpose

More recently, direct access to physiotherapy has become an issue of growing interest voiced by physiotherapists, physiotherapy managers, general practitioners, politicians and even patients and the wider public (Chadda, 2003a; Chadda, 2003b; Scottish Executive, 2002; Clemance, 2001; Wigmore-Welsh, 2001). Patients can easily access physiotherapy directly within the private and sports sectors however, in all but a minority of locations, it is not the mechanism adopted by the National Health Service (NHS). Current healthcare policy strives for innovation and improved access in primary care (DOH, 2002; Scottish Executive, 2002; DOH, 2000; Scottish Executive, 2000; Scottish Executive, 1998).

Despite these aspirations, only one previous study has attempted to investigate the efficacy of this mode of access which reported it to be feasible (Ferguson et al, 1999).

General Practitioner open access to physiotherapy was introduced as national policy in 1981 (DHSS, 1981). The intervening period has seen the significant development of physiotherapy services in primary care settings with considerable increases in the number of referrals to and benefits associated with these services being reported (Fordham and Hodgkinson, 1998; Minns and Bithell, 1998; Robert and Stevens, 1997; O'Caithain et al, 1995; Hackett et al, 1993; West, 1993). The benefits attributed to open access have included a reduction in: patient waiting time, the costs associated with drug prescribing, tertiary referral rates, patient non-attendance and costs to patients. Fewer physiotherapy contacts, patient preference and convenience have also been associated with open access. During the 1990s, physiotherapy was reported to have been chosen by general practitioners as a priority more than any other clinical service (McCoy, 1993). The growing interest in the concept of patient direct access (self referral) to services in primary care, introduced during the 1990s can be demonstrated by the proliferation of nurse led initiatives, primary care clinics, walk-in centres and NHS Direct. Initiatives introduced in an attempt to improve patient access and to assume some of the workload of general practitioners (O'Caithain et al, 2000; Munro et al, 2000; Kinnersley et al, 2000; Lattimer et al, 2000; Munro et al, 2000; Shum et al, 2000; Venning et al, 2000). This level of interest however, has not extended to physiotherapy services. This is despite the fact that the profession was recognised as being fully autonomous in 1978 with the associated right to accept referrals from all sources, including patients themselves and to determine the content and duration of treatment and when discharge is appropriate (DHSS, 1977).

A review of world-wide direct access physiotherapy practice revealed that only in the United States of America (USA) had direct access to physiotherapy been debated and implemented in over half of the individual states (Snow et al, 2001; Crout et al, 1998; Mitchell and deLissovoy, 1997; Dumholdt and Durchholz, 1992; Durant et al, 1989). Experience from the USA, although interesting in terms of the drivers for its introduction and how it was perceived by clinicians, service users and the public, is not fully generalisable to the United Kingdom (UK) due to the differences in the funding and delivery of healthcare systems in both countries.

Primary health care is seen by present UK government health policies as central and indeed pivotal to the development of its health services (DOH, 2002; DOH, 2000; Scottish Executive, 2000; Scottish Executive, 1999). The most recent guidance outlines the intention to achieve better, fairer access with increased flexibility, reduced waiting times and improved communication, encouraging leadership, innovation and creativity in primary care. A quarter of general practitioner consultations are said to be musculoskeletal in origin with physiotherapy frequently the treatment of choice for these conditions (Robert and Stevens, 1997; West, 1993). In light of these issues therefore, it would appear more than timely that direct access to physiotherapy services in primary care is evaluated and considered as an appropriate mode of access.

At the time of initiating this study (1998), there was no evidence of direct access to physiotherapy in the UK. Subsequently, a pilot study identified that direct access was feasible, not oversubscribed and well accepted (Ferguson et al, 1999). The impact on general practitioner workload or the views of users, providers and other stakeholders however had not been considered by the authors.

Aims

The aims of the present study were to:

Develop and introduce a direct access physiotherapy service in a primary care setting.

Compare direct and open access physiotherapy referrals.

Investigate the impact of open and direct access referrals on general practitioner workload.

Ascertain the views of clinicians, service users and non-users.

The purpose of this paper is to report the major findings of a primary care based direct access service and also to consider the future for direct access.

Method

Ethical approval for the study was granted by Tayside Research of Ethics Committee and Glasgow Caledonian University.

Setting: The study was conducted within a semi-urban general practice in Dundee, Scotland whose overall profile is described in Box 1. The practice had had an established and consistent on-site open access physiotherapy service since 1994 (40 referrals per 1000 practice population). Full support for the study was provided by all general practitioners, practice manager, clinical and managerial physiotherapists who were keen to investigate whether direct access should be considered as an additional mode of access to physiotherapy in this setting.

Participants: All patients referred to or referring themselves to physiotherapy were included and there were no exclusion criteria. A Control Year Group (1998-99) included all 339 general practitioner referrals for the year prior to the introduction of direct access. The Study Year Group (340) consisted of all general practitioner and direct access referrals during the study year (1999-2000).

Study Design: The study design involved introducing direct access in parallel to the established system of open access. This was to ensure that patients or general practitioners acting on their behalf, were not compromised in their ability to access physiotherapy and a comparison of the two modes of access feasible. The inclusion of a Control Year Group was felt necessary in order to investigate the homogeneity of the referrals received during the study period.

Publicity and Administrative Arrangements: The new service was publicised to the practice population over a three-month period prior to being introduced using patient newsletters, posters in the practice and by the primary care team verbally informing patients. Initial appointments were allocated by clerical staff on receipt of either a general practitioner written referral or in response to being approached directly by patients. No advantage in terms of waiting time to physiotherapy was afforded to either group by using this method of appointment allocation. Follow-up appointments were determined by the physiotherapist and based on clinical need. The first five months following introduction of the direct access facility were used as a pilot period to test the reliability of the proposed data collection tools and patient questionnaires. It also sufficed to provide an additional period in which to publicise the change in accessing arrangements.

Data Collection: Following the pilot period, the year-long data collection period began. Data relating to each general practitioner and direct access referral was collated (Box 2). Well-accepted and commonly used diagnostic categories were used which were also classified by their presenting severity (mild, moderate or severe). Although the severity definitions are a subjective measure, inter-rater reliability testing within the physiotherapy service had identified the reliability of this approach. Duration of symptoms were also recorded.

Outcome Measures: Measures of outcome were determined by both patient and physiotherapist. Patients were asked to record how severe their problem was affecting them by completing a 10 cm Visual Analogue Scale (VAS) at their initial and final contact. The choice of outcome tool used by the physiotherapists was made after consideration of the available options. The tool had to be reliable, valid and sensitive enough to reflect the impact of physiotherapy intervention. Patients in these settings are commonly discharged from care before their condition has fully resolved if it is felt that they can fully manage the final stage themselves. Patients also seek advice from physiotherapists in relation to self-management strategies particularly for chronic or recurring problems. It was therefore felt inappropriate to use a measure that focused primarily on the physical status of patients. The tool used had been developed and validated during a national initiative in 1995 and used successfully within the physiotherapy service since that time (HSD, 1995). It is particularly pertinent to physiotherapy in these settings as it focuses on the extent to which patients achieve the goals set for treatment in the timescale predicted, an approach advocated by other authors (Cott and Finch, 1991; Wade, 1992). The approach involves documenting the goals for treatment and the timescale anticipated at initial assessment. On patient discharge, the extent to which these goals have been achieved are determined and categorised as described in Box 3.

Patient employment status and level of related work absence in addition to the reason for discharge, attendance rates and physiotherapy contact numbers were also recorded.

GP Workload: The general practitioner workload associated with both general practitioner and direct access referrals during the study year was ascertained. This involved examining the medical notes and recording the number of general practitioner consultations directly related to the physiotherapy condition for a period that encompassed three months prior to and three months post physiotherapy intervention, a timescale identified during piloting as capturing the required data in 98% of cases.

Patient and Clinician Follow-up: The Study Year Group were followed up one-month post discharge from physiotherapy by means of a postal questionnaire and asked about their physical status, views regarding physiotherapy and attitudes to direct access. The views of the physiotherapists and general practitioners involved were also ascertained. The full results of these aspects of the study will not be reported at this time as they are being considered in a further paper.

Statistical Analyses: A statistician was consulted at all stages throughout the project. Data relating to the physiotherapy intervention was collated throughout the study year using the Peak Continuum Physiotherapy System (Peak Systems, Kilwinning, Ayrshire). The full dataset was analysed using StatsDirect statistical analysis software using non-parametric tests with the level of significance set at 5% and confidence levels at 95%. In addition logistic regression testing was also carried out in order to examine whether any of the patient characteristics were predictive of mode of access. Similar testing and levels of significance were used for the analysis in the investigation of the GP workload. Questionnaires were analysed using Pinpoint (Logotron, 1997) software. Frequency distributions were reported in percentages with differences between the groups studied by non-parametric means.

Results

An examination of the referral rates, demographic characteristics and presenting conditions associated with the Control and Study Year Groups established that both groups were homogenous. The referral rate to physiotherapy was similar during each year (339 vs. 340). There were no significant differences between the groups in their gender distribution 41:59 (M:F) ($p = 0.963$) age group ($p = 0.900$) or condition category ($p = 0.109$) with the majority of presenting conditions being musculoskeletal in origin (92%).

General Practitioner and Direct Access Referrals: Having established that the study year group were representative of the 'normal' physiotherapy population in this setting, the general practitioner and direct access referral groups within the study year were compared. The demographic and clinical data are presented in Table 1. Less than a quarter of all referrals 22.5% (76) were made by patients referring themselves directly ($p < 0.001$). There were significant differences in the gender ($p = 0.007$), age groups ($p = 0.027$), overall waiting time for physiotherapy ($p < 0.001$) and the duration of presenting symptoms ($p < 0.001$) reported by the referral groups.

Analysis of the employment status ($p = 0.019$) and associated absence from work ($p < 0.001$) revealed significant differences between the groups. Proportionally more direct access patients reported being in paid employment (57%, $n = 43$) in comparison to 40.5% ($n = 107$) of general practitioner referrals. Of those in paid employment, very few direct access referrals reported being absent from work (7% $n = 3$) compared to 42% (44) of general practitioner referrals. An examination of the actual number of days absent also differed between the groups ($p = 0.018$).

Discharge information and patient status data are presented in Table 2. Greater proportions of direct access patients completed their course of physiotherapy than

general practitioner referrals (79%, n= 60 vs. 58%, n=152) ($p = 0.004$). They also completed their course of treatment with fewer physiotherapy contacts ($p = 0.038$) (Figure 1).

Although a greater proportion of direct access patients (78%) compared to general practitioner referrals (63%) achieved the goals set for their intervention, the difference was not statistically significant ($p = 0.079$). Analysis of the initial and final VAS scores revealed that perceived symptom severity of both groups had 'improved'. A greater proportion of direct access patients however reported 'improving' to a greater degree ($p < 0.001$).

Results of the Logistic Regression Testing

The characteristics investigated related to the patients' age band, gender, condition category, severity of presenting condition, duration of symptoms and their employment status. It would appear from the results for both patient condition category ($p = 0.235$) and the severity of the presenting condition ($p = 0.077$), the association with mode of access was not statistically significant. Patient gender ($p = 0.007$), age band ($p = 0.021$), employment status ($p = 0.015$) and duration of symptoms ($p < 0.001$) all had statistically significant associations however, and would therefore seem to be prognostic when considered singly. When the effect of age band and gender were examined jointly, the similarity between the adjusted and unadjusted odds ratios confirmed the lack of association between these explanatory variables. Further analysis revealed that the effects of age band and gender remained statistically significant when adjusted for one another (gender, $p = 0.025$; age band, $p = 0.048$). Examination of the factors which were significant in the one-at-a-time analyses, adjusted for the effects of age band and gender revealed significant associations. Duration of symptoms ($p < 0.001$) and paid employment status ($p = 0.002$) were each found to have statistically significant associations with mode of access. When adjusted for age band, gender and duration of

symptoms however, the effect of employment status failed to reach significance ($p = 0.059$).

General Practitioner Workload

There were considerable differences between the referral groups in terms of the associated numbers of general practitioner consultations both in the period prior to and also post physiotherapy intervention (Table 2) ($p < 0.001$).

Discussion

The findings of the present study have demonstrated that direct access to physiotherapy was feasible and acceptable at the study location. Findings that support the only other published investigation into this mode of access to date within the UK (Ferguson et al, 1999). The present study identified that, contrary to popular belief, introducing a system of direct access did not result in an overall increased rate of referral to physiotherapy. The rate experienced however (10 referrals per 1000 practice population) was half that previously reported by Ferguson and colleagues. Although the basis for this difference cannot be categorically stated, it is known that the provision of both open and direct access physiotherapy services had only been introduced the previous year. It is well documented that the number of referrals to physiotherapy increases significantly when open access services are introduced in primary care settings (Fordham and Hodkinson, 1998; Robert and Stevens, 1997; O'Caithain et al, 1995; Hackett et al, 1993; West, 1993). It could be speculated therefore that the increased numbers of overall referrals reported by Ferguson and colleagues represents this phenomena which was not experienced within the present study due to the established nature of the physiotherapy service.

Although the overall waiting time for physiotherapy at this location could not be described as excessive, direct access patients waited a mean number 5 days, 4 days

less than general practitioner referrals from date of their referral to first physiotherapy contact ($p = 0.001$). A possible explanation for this difference could have been the decreased administrative time associated with registering and issuing a direct access appointment. The experience at this location was for direct access patients to either present in person or telephone which offered the opportunity to arrange a mutually acceptable appointment time. Whereas, in all but the most urgent of cases, a general practitioner would have initiated a request for physiotherapy by completing a written form. This form could have taken a day or two until it reached the attention of the person in charge of appointment allocation and then would have required for the appointment to be posted out to the patient. The design of the study dictated that direct access patients should not be advantaged over general practitioner referrals with regard to their waiting time to physiotherapy. On reflection, it may have been more equitable to encourage all patients to arrange their own appointments in person or via the telephone which could have avoided the administrative delay.

The present study established that there were differences in the profile of direct access patients. A significant association between age, gender, duration of symptoms and mode of access was demonstrated. Direct access patients were more likely to be younger men, findings that are similar to a recently published observational study of users of NHS walk-in centres (Salisbury et al, 2002). Although presenting with musculoskeletal conditions of an equal severity and in similar proportions as general practitioner referrals, they were of a lesser duration. Due to the homogeneity of the study year group with the 'normal' physiotherapy population in this setting, it must be considered that direct access patients were not a 'new' group and that they would have been eventually referred by their general practitioner had they not accessed physiotherapy directly. It could be argued that introducing direct access encouraged men to seek advice sooner than they would have if they had to visit their general practitioner first. Direct access patients were

also more likely to be in paid employment with less work-related absence. A greater proportion attended more regularly and completed their course of treatment in fewer physiotherapy contacts which has implications for the efficiency of physiotherapy service delivery. Interestingly however, the outcome of intervention in relation to goal achievement and timescales was similar between the two groups. Less severe symptoms however were reported using the VAS by direct access patients on discharge. The reason for this is not known, but it could be hypothesised that there may be an association between the profile of patients who choose to self refer and the extent of their awareness of their symptoms. It has been suggested by the findings of this study that direct access patients are more proactive, autonomous and compliant. It should also be considered that they may also have a greater belief in their own ability to influence their course of recovery and therefore the perceived severity of their symptoms.

Impact on General Practitioner Workload

The impact of direct access to physiotherapy on general practitioner workload demonstrated within the study has major implications for service delivery within primary care. An indication of the actual size can be estimated if an average time of ten minutes per general practitioner consultation is multiplied by the mean number of general practitioner consultations experienced by each group. This calculation identified that the time associated with each open access patient was considerably longer than that for direct access patients (11 minutes versus 3 minutes). Even with the relatively low direct access referral rate (22.5%), over the study year, a saving of 10.13 hours of general practitioner time was achieved. To further emphasise this point, if all the referrals to physiotherapy, (340) during the study year had been via the direct access facility solely, a saving of 45.33 hours of general practitioner time could have been achieved.

Limitations

Although this study involved 679 patients, only one general practice was involved. It must also be considered that the patient profile of the participating practice, although similar to many other practices locally and throughout the UK, cannot be considered as universally representative. In addition, the waiting time for physiotherapy was not unduly long for either group due to an adequate staffing / patient ratio. The direct applicability of the findings of the present study to all practices would therefore be inappropriate.

Conclusions

The concerns that have hindered the progression to a system of true autonomy within physiotherapy to date have primarily focused on the fear that the profession would not be able to cope with the resultant demand for their services. Based on the limited evidence provided within the present work, that previously reported and from experience in the USA, these concerns appear to be unfounded. The results suggest that direct access could improve patient access, which is in keeping with the aspirations of current primary care development. The evidence to date suggests that direct access may be a feasible and acceptable means of delivering physiotherapy services in primary care settings, and that there may be major positive implications for physiotherapy and general practitioner workload.

Back to the Future

Presentations at conferences and the resultant publicity has generated considerable interest from physiotherapists, general practitioners and politicians. It should be noted however, that these results represent the findings in only one location whose profile cannot be described as representative of, and therefore relevant to, all primary care settings (Box 1). It is therefore recommended that before further direct access physiotherapy services are introduced, the efficacy of this mode of access should be

established across the range of geographical and socio-economic settings encountered in primary care. This is seen as essential in order to ensure that the universal appropriateness of this mode of access is fully evaluated and assure the credibility of the profession. To this end, the present authors have gained approval from the Multi-centred Ethics Committee in Scotland to conduct a national trial. This 18-month study is currently being undertaken in 34 different locations throughout Scotland and involves 13,000 episodes of physiotherapy care, the results of which will be fully reported at the end of 2004. The authors are also keen to establish links with other UK sites who have introduced or are considering introducing direct access to their services and invite approaches. International links have been established, particularly with Holland, who are also embarking on a multi-centred trial of direct access; with Finland and Portugal who wish to initiate dialogue and with the USA to explore in greater depth their more long standing experiences. The initiative has recently been awarded runner-up in the Scottish Executives' Innovation in Allied Health Professions' Practice Award, 2003, which will provide funding to pursue these international links.

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	Study Practice Data	Scottish National Data
Sex Ratio (Male: Female)	47%:53%	48%:52%
Number of Patients in each Age Range (%):		
Under 15 years of age (%)	1164 (15.7%)	946010 (18.5%)
Between 15 – 44 years of age (%)	3269 (44.3%)	2187464 (42.7%)
Between 45 – 64 years of age (%)	1751 (23.8%)	1200941 (23.5%)
Between 65-74 years of age (%)	653 (8.9%)	440018 (8.6%)
Over 75 years of age (%)	540 (7.3%)	344767 (6.7%)
Total Population (%)	7377 (100%)	5119200 (100%)
Carstairs Deprivation Score (Population weighted average)		
Overall DEPCAT Score	0.52	0.22
	4	
Musculo-skeletal Drug Prescribing		
No. of items prescribed per 100 practice population per year	41.99	57.03

Box 1: Study Practice and National Demographic, Deprivation And Musculoskeletal Drug Prescribing Profiles

At Initial Contact:	At Final Contact
Referral Date	Discharge Date
Assessment Date	Reason for Discharge
Patient Unique Identifier (Number)	Outcome of Physiotherapy
Date of Birth	Final Patient Perception of Severity
Sex	Total Number of Contacts
Condition Category	
Severity of Presenting Condition	
Duration of Presenting Symptoms	
Initial Patient Perception of Condition Severity	
Employment Status, Absence and No. of Days Absent from Paid Employment	

Box 2: Information Collected relating to the Physiotherapy Episode of Care

Box 3

Rating	Definition
1	Goals Not Achieved
2	Goals Partially Achieved
3	Goals Achieved, Longer than Anticipated
4	Goals Achieved in Time Anticipated
5	Goals Achieved, Quicker than Anticipated

Physiotherapy Outcome Scale by Definition

Table 1. Demographic, Employment & Clinical Data relating to Direct and General Practitioner Referrals

		Direct Access Group 22.4% (n=76)	GP Referral Group 77.6% (n=264)	P value
Gender	Male : Female %	56 (42) : 44 (34)	37(98) : 63 (166)	P < 0.007
Age Group (years)	<16	1.5% (1)	1% (2)	P = 0.027
	16-20	2.5% (2)	1.5% (4)	
	21-30	12% (9)	11% (29)	
	31-40	22.5% (17)	16% (42)	
	41-50	17% (13)	18% (48)	
	51-64	23.5% (18)	24.5% (65)	
	65-74	13% (10)	17.5% (46)	
	>75	8% (6)	10.5% (28)	
	Mean	50.8	Mean 52.3	
	SD ±	18	SD ± 17.7	
	Range	13-90	Range 14-99	
Waiting Time (days)	Median	5	9	P < 0.001
	SD	3.45	3.8	
	Range	1-21	1-31	
Condition Category	Low Back	46% (35)	33% (86)	P = 0.287
	Neck	14.5% (11)	22% (57)	
	Lower limb	10% (8)	10% (26)	
	Shoulder	6.5% (5)	10% (26)	
	Knee	9% (7)	9% (25)	
	Multiple	6.5% (5)	4% (12)	
	Other	6.5% (7)	12% (32)	
<i>(Neurological, Urological & Up. limb)</i>				
Condition Severity (physiotherapist Determined)	No symptoms	0% (0)	3% (9)	p = 0.833
	Mild	39% (30)	36% (94)	
	Moderate	58% (44)	54% (144)	
	Severe	3% (2)	7% (17)	

Duration of Symptoms	< 10 days	12% (9)	1% (2)	p < 0.001
	11-28 days	20% (15)	2% (6)	
	1-3 months	34% (26)	6% (15)	
	>3 months	34% (26)	91% (241)	
Employment Status	In Paid employment	57% (43)	40.5% (107)	p < 0.019
	Retired	30% (23)	33.5% (88)	
Work Absence	Other (<i>homemaker, unemployed, student</i>)	13% (10)	26% (69)	p < 0.001
	overall rate in those employed	7%	42%	
	Mean no. of days absent	7.9	22.5	
	Range (days)	5-14	3-90	

Actual numbers of subjects contained within the brackets

Table 2: Discharge Data relating to Direct and General Practitioner Referrals

		Direct Access Group 22.4% (n=76)	GP Referral Group 77.6% (264)	p value
Reason for Discharge	Treatment Completed	79% (60)	58% (152)	p = 0.004
	Failed to Complete	6.5% (5)	17% (46)	
	Initial Non-Attendance	1.5% (1)	5% (13)	
	Referred to GP	13% (10)	13% (34)	
	Other (condition resolved at initial contact)	0% (0)	7% (19)	
Total No. of Physiotherapy Contacts	< 2 contacts	30% (18)	24.5% (37)	p = 0.038
	3-4 contacts	41.5% (25)	35% (53)	
	5-8 contacts	28.5 (17)	31% (47)	
	>8 contacts	0% (0)	10% (15)	
	% patients completing full course	79% (60)	57.5% (152)	
Outcome	Goals not Achieved	0% (0)	2% (6)	p = 0.079
	Goals Partially Achieved	22% (17)	34% (89)	
	Goals Achieved (in longer time)	12% (9)	9% (24)	
	Goals Achieved (in time)	59% (45)	43% (116)	
	Goals Achieved (in shorter time)	7% (5)	11% (29)	
VAS	Initial Mean	5.7	5.7	p= 0.011
	Initial SD and range	± 2.3, r =1-10	± 2.2, r =0-10	
	Final Mean	2.7	3.2	
	Final SD and range	± 1.7 r =0-9	± 1.6, r =0-9	
Total Number of General Practitioner Contacts	<i>3 months prior to physiotherapy</i>			p< 0.001
	0	85.5% (65)	0% (0)	
	1	13% (10)	62% (164)	
	2	1.5% (1)	25% (66)	
	3	0% (0)	8.5% (22)	
	4-6	0% (0)	4.5% (12)	
	<i>3 months post physiotherapy</i>			p = 0.0113
	0	71% (54)	54% (142)	
	1	17% (13)	28.5% (75)	
	2	8% (6)	12.5% (33)	
	3	4% (3)	3.5% (9)	
	4-6	0% (0)	2% (5)	

Actual numbers of subjects contained within the brackets

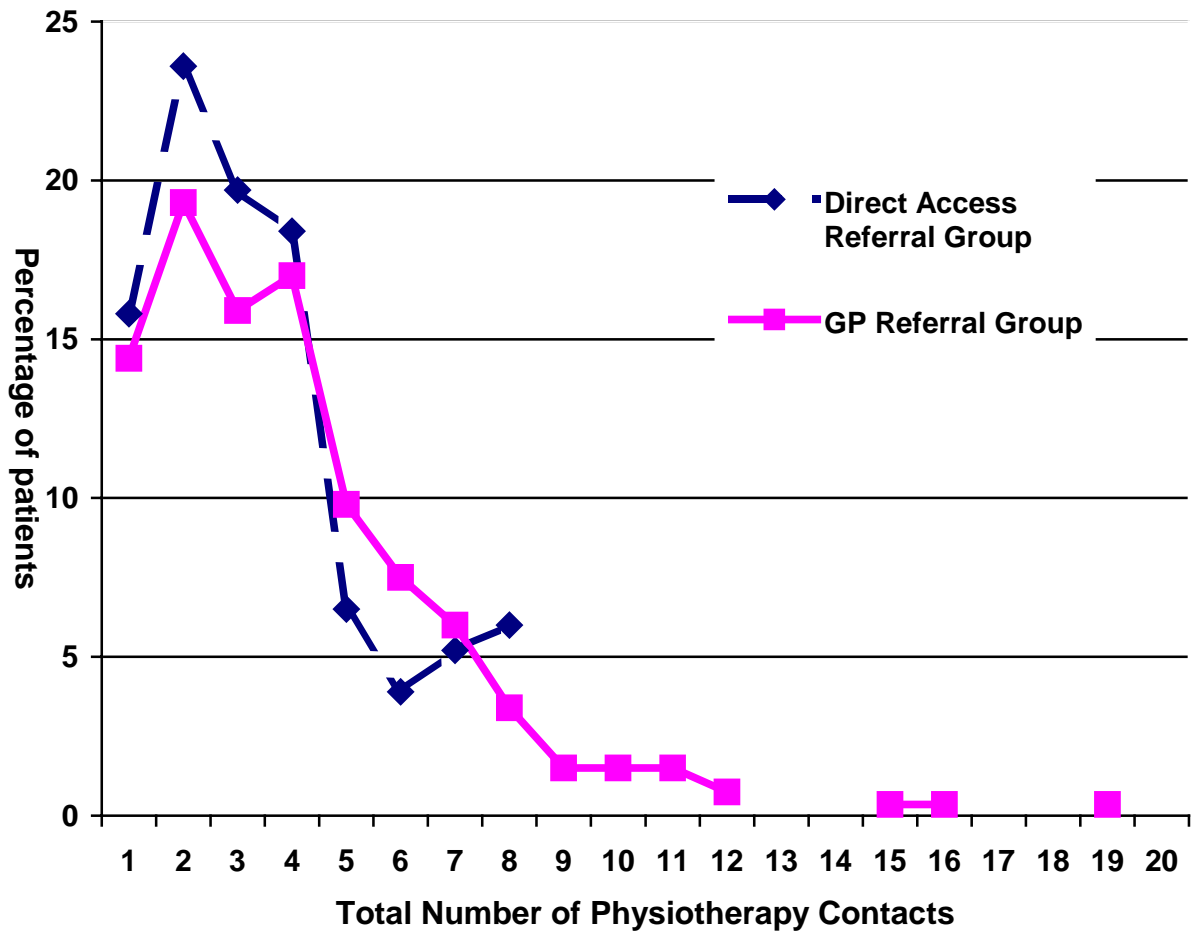


Figure 1 Direct and GP Referrals: Total Physiotherapy Contact Numbers