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Chapter 3

Reasons for drop-out in rehabilitation treatment
of native patients and non-native patients with
chronic low back pain in The Netherlands:
a medical file study

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Abstract

Aim

Drop-out of rehabilitation treatment in non-native patients with chronic low back pain has been reported to be higher than in native Dutch patients. It was expected that drop-out in non-native patients would be due to different expectations on the content of rehabilitation treatment and due to language or communication problems. Aim of this study was to determine differences in reasons for drop-out between native patients and non-native patients with chronic non-specific low back pain participating in a rehabilitation programme.

Methods

A retrospective study in medical files (N=99) of patients who dropped out of treatment was performed in two rehabilitation centres and two rehabilitation departments of general hospitals. Patient files were checked for diagnosis, status of origin, gender, age and reason for drop-out. The differences in frequency in reasons for drop-out between native and non-native patients were tested by Chi-square tests.

Results

Withdrawal due to *different expectations on the content of rehabilitation treatment* occurred significantly more frequently in non-native patients (P=0.035). Withdrawal due to *refusal to participate (no further reason given)* occurred more often (P=0.008) in native Dutch patients than in non-native patients. No significant differences between non-native patients and native Dutch patients were reported regarding withdrawal due to *language or communication problems, and no show (patient did not show up at consultations, without informing about the reason and without making an appointment for a new consultation)*.

Conclusion

The present study provided evidence that drop-out in non-native patients is often related to different expectations regarding the content of rehabilitation treatment.

Introduction

Drop-out of patients taking part in rehabilitation programmes has often been reported (1-8). Previous studies in patients with chronic (low back) pain who participated in a rehabilitation programme found drop-out rates ranging from 10% to 42% (1;3;8). Drop-out in low back pain rehabilitation of non-native patients (28.1%) in The Netherlands has been reported to be twice as high as in native Dutch patients (13.7%) (9). There is limited knowledge of the causes of this higher drop-out.

More sick leave days (1;10;11), higher pain severity (11;12), being less active in sports (1), a lower age (11), and the idea that exercise does not help or aggravates pain (13) have been identified as predictors for drop-out in low back pain rehabilitation programmes. A systematic review of qualitative and quantitative studies in patients with low back pain regarding their expectations and satisfaction with treatment, shows that patients are dissatisfied with low back pain treatment due to a number of reasons: not obtaining a specific diagnosis of the pain; limited information and instructions by the health workers; pain relief not being the main aim of treatment; lack of physical examination and diagnostic tests; lack of referrals to other therapy or specialists for further treatment; no possibility for sickness certification; and care providers lacking the ability to listen, show respect and include the patient in decision making (14). These sources of dissatisfaction potentially are reasons for refusal of or withdrawal from the prescribed rehabilitation treatment.

In a qualitative study, sources of tension in the interaction between non-native patients and native Dutch physicians in low back pain rehabilitation treatment have been identified (15). These sources of tension, found directly after the first consultation with the rehabilitation physician, were: patients expecting a specific diagnosis and pain relief as primary aim of treatment; more explicit symptom presentation of patients; different views on responsibilities with regard to the rehabilitation treatment (physicians implied patients expected more responsibility of the physician); lack of trust in the rehabilitation physician; contradicting views of physicians from the patients' country of origin with regard to the cause and treatment of pain; and communication problems partly due to shame and embarrassment for patients' limited language proficiency in Dutch. These sources of tension potentially lead to future drop-out. Most of these sources of tension (except contradicting views of physicians from the patients' country of origin and communication problems due to a lack of language proficiency in Dutch) occur also in native Dutch patients. However, we have hypothesized that these sources of tension

cause drop-out more frequently in non-native than in native patients (15). Due to a different process or stage of proto-professionalism (i.e., the process whereby patients gain more information on causes and treatment of diseases and develop a view on cause and treatment of symptoms (16)), non-native patients potentially have different expectations regarding the content of the rehabilitation treatment than health workers do (17). The process of proto-professionalism (18) has taken place through education and easily accessible popular medical information by television and internet. By this process the patient's view on treatment matches more with the view, which health providers have. This process of proto-professionalism, which took years for native Dutch patients to develop, appears to be developing differently in patients of non-Dutch origin, which is potentially influenced by a lack of proficiency in the Dutch language and have been brought up in a different (cultural) context.

The present study aimed to determine differences in reasons for drop-out between native and non-native patients participating in a rehabilitation programme for their chronic non-specific low back pain in The Netherlands. It was expected that non-native patients who participated in the rehabilitation programme would withdraw more often than native patients due to different expectations on the content of rehabilitation treatment and due to language or communication problems.

Methods

Design

A retrospective file study was conducted in 99 patients who dropped out of the rehabilitation treatment between 2001 and 2004 in four participating institutions: two rehabilitation centres and two rehabilitation departments of general hospitals. These four institutes were selected because they all were situated in (the surroundings of) one city. This offered the opportunity to compose a group of institutes that was as similar as possible regarding the composition of the patient population. The treatment in the four institutes is based on physical training and cognitive behavioural training, and aims to improve the health-related quality of life of patients by coaching them to cope with their pain and its consequences (19). The present study is part of a patient file study (N=529) that aimed to determine the drop-out rate in native and non-native patients with chronic non-specific low back pain participating in a rehabilitation programme (9). All patients who dropped out in this former study were included in the present study.

Ethics

The study was approved by the Medical Ethics Committee of the Slotervaart hospital, the Jan van Breemen Institute and the Boven-IJ hospital.

Patients

Patients were recruited from the four participating outpatient rehabilitation departments. Patients were identified by their medical file. The files were checked for diagnosis, status of origin, gender, age and reason for drop-out. The following inclusion criteria were applied: (a) Chronic low back pain that existed for longer than 12 weeks and could not be ascribed to a specific pathology (20). The low back is the body region between the lower ribs and the lower buttock fold. (b) Patients did not complete the rehabilitation programme due to a premature drop-out due to non-medical reasons (e.g. patients withdrew from rehabilitation, before the aims of rehabilitation treatment were accomplished). Finishing treatment due to medical reasons (e.g. aims of rehabilitation accomplished or a referral to another medical specialist) was not coded as drop-out.

The status of non-native origin was defined as: (a) born outside The Netherlands and at least one parent born in the same country; or (b) born in The Netherlands and both parents born outside The Netherlands. Non-native origin was coded as: (1) Surinam or Antillean origin, (2) Turkish origin, (3) Moroccan origin, and (4) other non-Dutch origins.

Reasons for drop-out

The reasons for drop-out were derived from the patients' treatment progress reports in the medical file. Two executive researchers assessed the reasons for drop-out and the results were discussed with the senior researcher. The reasons for drop-out were filled out by the executive researcher on a standardized case-record form. Reasons for drop-out were coded as: patient withdrew from the prescribed treatment due to (a) *different expectations on the content of the rehabilitation programme (aim for pain relief or a specific diagnosis of the pain and other different expectations)*, (b) *language or communication problems*, (c) *refusal to participate (no further reason given)*, or (d) *no show (patient did not show up at consultation sessions without informing about the reason and without making an appointment for a new consultation)*. These categories have been chosen because these were reported in the medical files. In some cases, refusal or no show was due to different expectations: these cases were assigned to the latter category.

During the first consultation with the physician the content and aim of the rehabilitation treatment was explained to patients. Before the first consultation with the rehabilitation physician, the patients filled out a questionnaire regarding their complaints and their expectations regarding rehabilitation treatment. We used these questionnaires to verify whether patients indeed had different expectations regarding the content at the start of treatment.

Statistical analysis

The differences in frequency of the reasons for drop-out between native Dutch patients and non-native patients were analysed using the χ^2 tests for dichotomous variables or Fischer's Exact Tests. Significance was set at $P < 0.05$. The Statistical Package for Social Sciences (SPSS, Chicago, IL, USA) version 15.0 was used to perform statistical analyses.

Results

Participants

Ninety-nine patients met the inclusion criteria. Patients' characteristics are given in Table 1. The sample in this study contained 47.5% native Dutch patients and 52.5% non-native patients. Non-native patients were of Surinam and Antillean origin (7.7%), of Turkish origin (26.9%), of Moroccan origin (32.7%), and of other non-Dutch origins (32.7%). The category 'other non-Dutch origins' contained patients of non-native origin from 13 different countries in Europe, The Middle East, Asia, Africa and South America, with a maximum of 2 patients (3.9%) from one country. About half of the patients who dropped out was female (57.6%). The group native patients who dropped out contained more women 72.3% (out of 47) than the non-native group 44.2% (out of 52). The patients had a mean age of 45 years ranging from 16-80 (SD 12.9). In the non-native group more patients 65.4% (out of 52) were ≤ 44 years old (i.e. the median) than in the native group 38.3% (out of 47). Most patients received treatment in a rehabilitation centre (88.9%).

Reasons for drop-out

The frequencies of the reasons for drop-out are shown in Table 2. Most patients (71.7%) withdrew from the prescribed treatment due to *different expectations on the content of the rehabilitation programme (aim for pain relief or a specific diagnosis of the pain and other different expectations)* followed by *no show (no further reason given)* (14.1%), *refusal to participate (no further reason given)* (12.1%), and *language or communication problems* (2%).

	Native N=47	Non-native N=52	Total group N=99	Pearson χ^2		
				Value B	Df	P-Value
Gender: Female	34 (72.3%)	23 (44.2%)	57 (57.6%)	7.986	1	0.005
Male	13 (27.7%)	29 (55.8%)	42 (42.4%)			
Age: ≤ 44	18 (38.3%)	34 (65.4%)	52 (52.5%)	7.264	1	0.007
≥ 45	29 (61.7%)	18 (34.6%)	47 (47.5%)			
Institute: RC	40 (85.1%)	48 (92.3%)	88 (88.9%)	1.296	1	0.255
Hospital	7 (14.9%)	4 (7.7%)	11 (11.1%)			

RC=Rehabilitation centre

	Native N=47	Non-native N=52	Total N=99	Pearson χ^2			Fischer's Exact (2-sided)
				Value B	Df	P-Value	
(a) Different expectations on content treatment	29 (61.7%)	42 (80.9%)	71 (71.7%)	4.425	1	0.035	0.50
(b) Language or communication problems	0 (0%)	2 (3.8%)	2 (2.0%)		1		
(c) Refusal to participate (no further reason given)	10 (21.3%)	2 (3.8%)	12 (12.1%)	7.041	1	0.008	
(d) No show (no further reason given)	8 (17%)	6 (11.5%)	14 (14.2%)	0.611	1	0.434	
Total	47 (100%)	52 (100%)	99 (100%)				

Reasons for drop-out in native vs. non-native patients

Drop-out due to *different expectations on the content of rehabilitation treatment* occurred significantly more frequently in non-native patients ($P=0.035$). Withdrawal due to *refusal to participate (no further reason given)* occurred more often ($P=0.008$) in native Dutch patients than in non-native patients. No significant differences between non-native patients and native Dutch patients were reported regarding withdrawal due to *language or communication problems*, and *no show (at consultations without informing about the reason)*.

Discussion

The results of the present study show that withdrawal from the prescribed treatment due to different expectations regarding the content of the rehabilitation programme occurred more often in non-native patients than in native Dutch patients. Based on a previous qualitative study, it was expected that non-native patients would drop out of treatment more often than native patients due to different expectations regarding the content of the rehabilitation programme (15). Because of a different stage of proto-professionalism the explanatory model regarding the treatment of pain of non-native patients does not match with the model of the care providers. Non-native patients might expect pain relief and a specific diagnosis of the pain from rehabilitation programmes, whereas the aim of these programmes, which are based on physical training and behavioural cognitive training, is to improve the health-related quality of life of patients by coaching them to cope with their pain and its consequences (19). This hypothesis was confirmed by the analysis of the data in the present study. Non-native Dutch patients may have different expectations due to another educational background or language problems. This problem therefore is not a specific cultural issue, but potentially a result of being immigrant with a different experience and view on health issues (21;22).

Withdrawal from rehabilitation treatment due to differences in expectations between patients and therapists regarding the content of treatment was the most often mentioned reason for drop-out in native and non-native patients. These findings are consistent with the previously mentioned systematic review concerning rehabilitation treatment of low back pain (14). Diverging expectations of patients and physicians regarding the content of rehabilitation have been reported more often (17;23). Dropping out from treatment is a complicated process and differing expectations between patients and healthcare providers does not automatically lead to drop-out. However, when healthcare providers do not try to thoroughly explain their view, do not take time to help

patients to change their view or do not enough acknowledge the patient' view on treatment, dissatisfaction of patients and drop-out is more likely to take place. It has been found that when patients are satisfied with the care received, they are more likely to comply to treatment (24). Managing treatment and outcome expectations between patients and healthcare providers should have priority in clinical practice in all patients. Furthermore patient education regarding the aim and content of rehabilitation treatment is needed.

Language or communication problems as reason for drop-out unexpectedly did not differ significantly between native and non-native patients. The frequency of communication problems as a reason for drop-out was nonexistent in native Dutch patients, but also very low in non-native patients. It was expected that non-native patients would drop-out more often than native Dutch patients due to language or communication problems. A limited proficiency of the Dutch language in non-native patients might lead to misunderstandings between patients and therapists (15). Communication problems potentially lead to an indirect drop-out. Due to misunderstanding regarding e.g. the content of treatment patients might decide to withdraw.

Refusal to participate, without informing about the reason, occurred significantly more frequently in native patients. Because the majority of the patients did not report the reason why they refused to participate in the rehabilitation programme, no suggestions with regard to this difference can be made. Apparently more native Dutch patients than non-native patients refused treatment and did not discuss their reasons of dissatisfaction with the treatment team.

Although native and non-native patients did not differ in the frequency of not showing up for treatment consultations, this occurred in about 14% of treatment drop-outs overall. This points towards a relatively large problem in rehabilitation programmes that deserves further attention. Not showing up for consultations has previously been found as a manifestation of drop-out in patients who participated in multidisciplinary rehabilitation programmes for chronic low back pain (11). Patients apparently do not discuss the reason why they want to discontinue their attendance of the rehabilitation programme with the physicians or therapists involved. As a result the reasons behind a drop-out due to not showing up have not been identified yet. Potential reasons for drop-out are inconvenience concerning the course and contents of the rehabilitation programme, such as found in the above mentioned systematic review (14).

A strength of this study is that patient recruitment was spread over four different rehabilitation institutions. This contributed to the generalizability of the findings. A limitation of this study is that our results regarding the reasons for drop-out in patients enrolled in low back pain rehabilitation programmes cannot be generalized to reasons for drop-out from rehabilitation programmes for other diagnoses. Another limitation is that due to the retrospective set up of the study the reasons behind a drop-out due to not showing up and refusal to participate could not be retrieved. Finally, as a result of the indirect data collection method (i.e. the use of medical files as a source for registration of reasons for drop-out) some bias is possible due to the interpretation process of the physician or the therapist with regard to the reasons for drop-out. In a future study a questionnaire should be administrated after the end of treatment, both to those patients who dropped out and those who completed the treatment in order to determine the reasons for drop-out.

Conclusion

The present study provided evidence that drop-out in non-native patients is often related to different expectations regarding the content of rehabilitation treatment, potentially influenced by a different process of proto-professionalism.

Acknowledgements

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