

## Observational Study

## Attitudes and diagnostic practice in low back pain: A qualitative study amongst Greek and British physiotherapists

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**Author contributions:** Billis E designed the research, conducted the data collection and analysis and wrote the manuscript; McCarthy CJ contributed to the conception of the design and facilitated data collection amongst British physiotherapists; Gliatis J contributed to the data interpretation and analysis of this design; Matzaroglou C assisted in data collection and proof reading of this article; Oldham JA was responsible for making critical revisions to the conceptual content of the manuscript and conducted the final approval of the manuscript.

Supported by The MACP's Elsevier Science and Doctoral Awards for Research in Manipulative Physiotherapy.

**Institutional review board statement:** The study was reviewed and approved by the Ethical Committees of Technological Educational Institute (TEI) of Lamia, Greece and University of Manchester, United Kingdom.

**Informed consent statement:** All study participants, or their legal guardian, provided informed written consent prior to study enrollment.

**Conflict-of-interest statement:** There are no conflicts of interest to report.

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**Manuscript source:** Invited manuscript

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**Received:** February 22, 2016  
**Peer-review started:** February 23, 2016  
**First decision:** March 25, 2016  
**Revised:** April 21, 2016  
**Accepted:** June 27, 2016  
**Article in press:** June 29, 2016  
**Published online:** September 18, 2016

### Abstract

#### AIM

To explore current diagnostic practice and attitudes of Greek and United Kingdom physiotherapists (PTs) on assessing low back pain (LBP) patients.

#### METHODS

Three focus groups were undertaken, followed by a structured questionnaire-type survey comprising 23 health professionals and a random stratified sample of 150 PTs, respectively. Twenty-nine themes relating to LBP diagnostic practice emerged. These were then given to 30 British PTs assessing their level of

agreement with their Greek counterparts. Analysis was performed by percentage agreements and  $\chi^2$  tests.

### RESULTS

The survey was divided into three subsections; PTs' attitudes on LBP assessment, patients' attitudes and diagnostic/healthcare issues, each constituting 14, 7 and 8 statements, respectively. Over half of the statements fell within the 30%-80% agreement between Greece and United Kingdom whereas, 5 statements reported low (< 10%) and 8 statements demonstrated high (> 90%) PT percentage agreement. Similarities across British and Greek PTs were detected in history taking methods and in the way PTs feel patients perceive physiotherapy practice whereas, re-assessment was undertaken less frequently in Greece. Diagnosis according to 91% of the Greek PTs is considered a "privilege" which is exclusive for doctors in Greece (only 17% British PTs agreed) and is accompanied with a great overuse of medical investigations. Forty percent of Greek PTs (compared to 0% of British) consider themselves as "executors", being unable to interfere with treatment plan, possibly implying lack of autonomy.

### CONCLUSION

Although similarities on history taking methods and on patients' attitudes were detected across both groups, gross differences were found in re-assessment procedures and diagnostic issues between Greek and British physiotherapists, highlighting differences in service delivery and professional autonomy.

**Key words:** Diagnostic practice; Low back pain; United Kingdom; Greek; Physiotherapists

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**Core tip:** This small-scale observational study explored commonalities and differences in low back pain (LBP) perspectives and diagnostic practice between Greek and British physiotherapists (PTs). There was agreement on clinical examination features for targeting treatment; indicating that LBP is a clinical entity whose clinical "expressions" amongst PTs and patients are common across different cultural groups. The differences detected particularly referred to diagnostic issues (*i.e.*, overuse of medical investigations/radiography, *etc.*), reflecting differences in medical and physiotherapy services delivery. Such comparisons contribute to the understanding of the course and/or management of LBP across the two countries.

Billis E, McCarthy CJ, Gliatis J, Matzaroglou C, Oldham JA. Attitudes and diagnostic practice in low back pain: A qualitative study amongst Greek and British physiotherapists. *World J Orthop* 2016; 7(9): 561-569 Available from: URL: <http://www.wjgnet.com/2218-5836/full/v7/i9/561.htm> DOI: <http://dx.doi.org/10.5312/wjo.v7.i9.561>

## INTRODUCTION

Low back pain (LBP) is a highly prevalent problem both within the Greek and British cultural settings, notorious for causing debilitating, economic, psychosocial, and behavioural problems. Within Greece, it is considered ninth in the list of the most common reasons requiring hospital admission<sup>[1]</sup>, first in the list of orthopaedic conditions being encountered in an emergency department<sup>[2]</sup>. LBP also seems to be the most common musculoskeletal problem amongst the Greek general<sup>[3-5]</sup> and occupational populations<sup>[6-10]</sup>; with point and annual prevalence rates ranging between 11%-31.7% amongst adults<sup>[3,4]</sup>. High prevalence rates are also seen across the general population within Great Britain; point and one-month prevalence rates are estimated between 19%-21% whereas, annual and lifetime prevalence rates range between 29%-43% and 58%-64%, respectively<sup>[11-15]</sup>. Thus, it is evident that in both countries, LBP is a widespread public health problem, often leading to chronicity as well as disability<sup>[4,5,11,16,17]</sup>.

In terms of the healthcare seeking patterns, one of the first-line health professionals involved in the management of LBP within Greece<sup>[7,8]</sup>, Britain<sup>[11,18]</sup>, as well as internationally<sup>[19,20]</sup> are physiotherapists (PTs)<sup>[2,8,11,13,21,22]</sup>. Subsequently, research has turned towards exploring a number of issues dealing with the assessment and treatment aspects of healthcare practice and practitioners, to improve patient care and outcomes.

Clinicians perform a thorough assessment and develop their clinical hypothesis, in order to formulate an objective clinical diagnosis for their patient and determine their intervention plan<sup>[23]</sup>. However, it has been suggested that their attitudes and beliefs towards assessment issues influence their clinical diagnosis and subsequent treatment decisions. Fullen *et al.*<sup>[24-26]</sup> in a series of studies and systematic reviews explored the factors that impact on doctors' management of LBP patients; they found that, amongst other things, clinicians' attitudes and beliefs influence their management approach. Perreault and Dionne have found discrepancies between PTs' and patients' perceptions of LBP experience, which have been partly attributed to the PTs' attitudes and beliefs regarding pain-related issues<sup>[27]</sup>. Similar findings were reported in other studies too, relating attitudes and beliefs of a range of health professionals (including PT), to their assessment and treatment strategies for LBP patients<sup>[28,29]</sup>. Therefore, it appears that, health professionals' attitudes and beliefs are associated to their diagnostic and management practice.

It has been suggested that cultural differences amongst healthcare professionals tend to "shape" particular attitudes, beliefs and perspectives, which subsequently affect the patients' overall management approach. For example, whilst in some European countries such as Great Britain<sup>[30]</sup> and the Netherlands<sup>[31]</sup>, radiography (X-ray) utilisation was found to be in accordance with current guideline practice, diagnostic

imaging has been reported to be overprescribed across a number of other countries such as Italy<sup>[32]</sup>, Belgium<sup>[33]</sup>, Norway<sup>[34]</sup>, Canada<sup>[35]</sup>, Brazil<sup>[36]</sup> and the United States<sup>[37]</sup>, thus, highlighting cross-cultural health professionals' differences in LBP diagnostic practice regarding X-ray utilisation.

Skelton *et al.*<sup>[38]</sup> investigated the perceptions of British general practitioners (GPs) regarding their LBP patients, and found that the GPs perception of their patient's psychological constitution, occupation and social class were found to be important factors in determining their clinical approach and behaviour. In another British survey, the attitudes and beliefs of GPs and PTs regarding LBP were explored<sup>[30]</sup>. A considerable proportion of the health professionals adopted a biomedical (rather than biopsychosocial) approach in their diagnostic practice, thus, taking into account only the pathologic and physical processes of the LBP problem but not the social or psychological influences. Similar conclusions were yielded by a French study exploring the fear-avoidance beliefs of a large GP sample<sup>[39]</sup>. Fear-avoidance beliefs, which are believed to play a role in chronic disability, are related to pain-related interpretations that activity will cause injury and eventually exacerbate pain. In this study<sup>[39]</sup>, high levels of fear-avoidance beliefs were reported amongst French GPs, which impacted in the recommendations given to patients regarding physical activity and work. Thus, based on the above, there is evidence that health professionals' diagnostic behaviours and management approaches are not exclusively attributed to medical factors but are also influenced by cultural factors and individual perspectives<sup>[40]</sup>.

There is limited research investigating PTs' attitudes and beliefs on LBP assessment and "diagnostic" issues within a number of cultural settings, including the Greek and British ones. Thus, issues linking PTs' perspectives, attitudes, and behaviours to diagnostic practice across the two settings merited further investigation. The aim of this study was to compare current diagnostic practice and attitudes of Greek and British physiotherapists when assessing and treating LBP patients.

## MATERIALS AND METHODS

The study was divided into three parts. In the first component, as part of an study described elsewhere<sup>[41]</sup>, a list of issues relating to current diagnostic practice and attitudes of clinicians on LBP assessment within Greece were developed following three focus groups involving 23 health professionals (18 PTs and 5 doctors). In the second component, the issues raised by the PTs (from the focus groups) were given to a wider PT sample in a questionnaire format (Delphi-type survey), to assess their level of agreement with each statement. In the last part, these items were also given to a British PT sample, to assess their level of agreement. Ethical approval was obtained from the Ethical Committees of Technological Educational Institute of Lamia, Greece and University of Manchester, United Kingdom.

## Sample

Greek participants, consisted of Greek PTs, randomly selected from data obtained by the Panhellenic Physiotherapy Association (PPA), the official body representing chartered PTs in Greece. Out of the approximately 1500 registered members at the time of the study, 10% (150 PTs) was invited to participate. The sample was further stratified according to geographical location and work status, to obtain greater representation. For geographical location, Greece was divided into 7 areas; 2 urban, representing the 2 biggest cities (Athens and Thessaloniki), and 5 rural ones (North, South, Central, East and West of Greece). For work status, PTs were stratified according to private or public sector, as PPA data revealed a disproportionately high percentage of PTs working in the private compared to the public sector.

The British sample was a convenience sample consisting of 30 Chartered PTs working in the private or public sector, who were at the time involved in another study<sup>[42]</sup>.

## Procedure

Overall, 29 statements were collected from the PTs' focus groups, divided into three sections; PTs' attitudes, patients' attitudes and health/diagnostic issues. Generating data by other qualitative means for developing a structured questionnaire is an acceptable, recommended and commonly used method<sup>[43-45]</sup>. The items were collated into a single list and transformed into a structured questionnaire with 5-point Likert scale answers ("Strongly Agree", "Agree", "Neither Agree or Disagree", "Disagree", "Strongly Disagree"), where PTs were requested to vote on their agreement. For the Greek questionnaire, all questions/statements were reviewed by 2 native (Greek) researchers for clarity and objectivity. Overall, 150 questionnaires were posted to all PTs including the informed consent and a demographic information sheet. For the British questionnaire, each statement was transcribed into the English language by the principal investigator and two native (English) speakers reviewed the questionnaire for grammar, syntax, clarity and comprehensibility. Questionnaires were administered electronically, as electronic surveying is an acceptable and popular method of collecting data across the musculoskeletal field<sup>[46-48]</sup>. A consent form and a demographic information sheet were also provided.

Additional space was also allocated for further comments in both questionnaires; however, no additional comments were made. Three to five weeks were given for the PTs' replies prior to sending a reminder.

## Data analysis

The questionnaires were analysed utilizing percentage agreements for each scored item, utilising SPSS (Version 11.5). Percentage agreement was calculated by utilising the two agreement options ("Strongly Agree" and "Agree") from the Likert scale. The  $\chi^2$  test was used to determine associations between Greek and British PTs' as well as differences between survey's responses.

**Table 1** Physiotherapists' profile

Characteristics	Greek PTs ( <i>n</i> = 125) [% ( <i>n</i> )]	British PTs ( <i>n</i> = 29) [% ( <i>n</i> )]	<i>P</i> value ( $\chi^2$ test)
Sex			
Male	57.6 (72)	24.1 (7)	0.053
Female	39.2 (49)	51.7 (15)	
Missing data/not reported	3.2 (4)	24.1 (7)	
LBP clinical experience (yr)			
< 1	3.2 (4)	3.4 (1)	0.002 <sup>1</sup>
1-5	28 (35)	3.4 (1)	
6-10	28 (35)	24.1 (7)	
> 11	40.8 (51)	65.2 (19)	
Type of work			
NHS based	35.2 (44)	75.8 (22)	0.671
Private practitioner	49.6 (62)	6.8 (2)	
Community work (private)	10.4 (13)	3.4 (1)	
Other (educational, <i>etc.</i> )	4.8 (6)	6.8 (2)	

<sup>1</sup> $\chi^2$  test is statistically significant at the 0.05 level. PTs: Physiotherapists; LBP: Low back pain; NHS: National Health Service.

## RESULTS

Overall, 125 Greek and 29 British questionnaires were returned (response rates of 83.3% and 96.6%, respectively). For the Greek PTs, all geographical areas were represented entailing the following number of PTs: For Athens 55 (44%), Thessaloniki 15 (12%), South 10 (8%), North 8 (6.4%), Central 15 (12%), East 11 (8.8%) and West of Greece 10 (8%). Over half of the sample (60%) was working in the private sector compared to 35.2% who were based within a NHS establishment. Over half of the sample (57.6%) was males, and the majority had more than 6 years of clinical experience with LBP patients (68.8%). Most of the convenience British sample had more than 6 years of LBP clinical experience (89.3%) and were NHS-based PTs (75.8%).  $\chi^2$  tests across the two PT groups on sex and type of work yielded non-statistically significant results ( $P > 0.05$ ), indicating similarities (on these variables) across the samples between the two groups, whereas statistically significant differences ( $P = 0.002$ ) were yielded for clinical experience. The sample's profile is illustrated in Table 1.

The questionnaire consisted of 29 statements which were divided into three subsections (PTs' attitudes, patients' attitudes and diagnostic/healthcare issues), each constituting 14, 7 and 8 statements, respectively. Over half of the statements fell within the 30% to 80% range. Five statements (all from the British PTs) reported low (below 10%) percentage agreement (small history taking, not taking into account psychosocial factors, lack of emphasis in undergraduate assessment, overuse of medical investigations, PTs are "executers", *etc.*).

Whereas, eight statements (5 from Greek and 3 from British PTs) demonstrated agreement for over 90% of the PTs; history guides assessment and paying attention to the medical diagnosis (British PTs), detailed history taking (both groups), alteration of examination for acute/chronic patients, diagnosis as a medical privilege, diagnosing as part of physiotherapy practice and lack of emphasis in undergraduate assessment.

Fifteen out of the 29 statements yielded statistically significant differences across the two PT groups. These, were 7 statements from PTs Attitudes subsection (letting patient talk during assessment, history guides assessment, paying attention to the medical diagnosis and referral card and sequence of re-assessment), two statements from patients' attitudes subsection (sick leave in relation to working on public or private sector and understand patient's psychosocial problems following several treatment sessions) and 6 statements from Diagnostic Issues subsection (diagnosis as a medical privilege, diagnosing as part of physiotherapy practice, lack of emphasis in undergraduate assessment, PTs are executers, overuse of medical investigations and more emphasis on laboratory investigations). Table 2 illustrates percentage agreements and statistical results for each statement amongst the cultural groups.

In summary the data shows that both countries PTs agreed on the need for a thorough clinical examination, including assessment for serious pathology. There was disagreement from the United Kingdom physiotherapists regarding the frequency of reassessment, the right to diagnose, the over-investigation of LBP and the need for more undergraduate training in low back pain.

## DISCUSSION

This study explored diagnostic practice and attitudes between Greek and British PTs in assessing LBP patients, utilising a questionnaire-based comparison, the content of which was developed by Greek PTs' focus groups<sup>[41]</sup>.

### PTs' attitudes towards assessment

A large number of similarities amongst the two cultural groups were reported in the PTs' assessment section. Both PT groups agreed on taking notes with a detailed history of the patient during the first visit, including the examination of non-musculoskeletal causes (red flags) and including reassessment following every PT session. There was also low agreement that their examina-

**Table 2** Percentage agreements amongst the Greek and British physiotherapists

Opinions/statements	Greek PTs (%)	British PTs (%)	P value ( $\chi^2$ test)
<b>PTs' attitudes towards assessment</b>			
I take a small history the first time (within the first assessment), so as to proceed to the therapy straightaway	15.8	0	0.325
I take a very detailed history the first time trying to locate the patient's problem	91	96.6	0.998
Throughout my formal assessment, I don't take into account the patient's psychosocial status because I believe that the biomedical dimension is the patient's main problem	17.1	3.6	0.476
I let the patient talk (without interruptions) about his problem. This helps the impression I gain about his psychosocial status	72.2	44.8	0.039 <sup>1</sup>
I use notes/assessment forms	61.8	79	0.084
The patient's symptoms are what guides history taking and clinical assessment <i>i.e.</i> , if symptoms look like a nerve root problem, then the clinical examination will focus more on neurological/neurodynamic examination	53.7	96.6	0.001 <sup>2</sup>
Once doctors have excluded any red flags/serious pathology from their patient, they then are not interested in further distinguishing, diagnosing or sub-classifying the patient's back pain	77.3	58.6	0.562
I believe that physiotherapy assessment should include the assessment of non-musculoskeletal nature of back pain ( <i>i.e.</i> , red flag type questions and clinical tests)	77	100	0.128
I pay attention to the doctor's medical diagnosis	42.6	96.6	< 0.001 <sup>2</sup>
I pay attention to the doctor's referral card	13.8	62.1	< 0.001 <sup>2</sup>
I alter my examination based on whether my patient is acute or chronic	97.3	69	< 0.001 <sup>2</sup>
I reassess each patient (looking for exacerbation or improvement) before and/or following every treatment procedure (thus, within each treatment session)	44.9	89.7	0.004 <sup>1</sup>
I reassess each patient (looking for exacerbation or improvement) following every treatment session only	70	86.2	0.745
I reassess each patient (looking for exacerbation or improvement) following 4-5 treatment sessions only	72	41.4	0.011 <sup>1</sup>
<b>Patients' attitudes towards assessment</b>			
You start getting a feel of the patient's psychosocial problems, after you start develop a relationship with the patient (that is, following several treatment sessions)	58.1	13.8	0.002 <sup>1</sup>
All patients' have the attitude that the PT should follow exactly what is written on the referral card	21	20.7	0.867
A large proportion of our patients from Mediterranean cultures "hurt everywhere" (and nowhere very specifically), compared to other cultures who are much more precise with the site of their pain	39.5	10.3	0.092
The type of job the patient has (whether he works in the private or public sector) seems to be important in terms of the amount of "sick leave" taken for episodes of LBP	81.5	34.5	< 0.001 <sup>2</sup>
I feel patients have a very "passive" attitude regarding physiotherapy treatment	37.8	44.8	0.407
There is a poor understanding among patients about what physiotherapy is and what it entails	57.7	34.5	0.066
There a difference in concordance between rural and urban LBP patients	50.5	65.5	0.476
<b>Diagnostic issues</b>			
Diagnosis in a medical privilege exclusively and doesn't form part of physiotherapy at all	90.9	17.2	< 0.001 <sup>2</sup>
I believe diagnosing a condition should be part of physiotherapy practice	90.9	10.3	< 0.001 <sup>2</sup>
Formal assessment of the patient prior to commencement of treatment is not performed by a large number of PTs	75.6	89.7	0.441
I believe more emphasis should be given in assessment at undergraduate level than in treatment techniques	92.7	6.9	< 0.001 <sup>2</sup>
Performing an X-ray on a patient with LBP is obligatory	57	72.4	0.291
Legally, physiotherapists are "executors" and they cannot interfere greatly in treatment planning (alter it)	40.3	0	0.002 <sup>1</sup>
In general there is an overuse of medical investigations	60.9	3.4	< 0.001 <sup>2</sup>
In general there is more emphasis on laboratory investigations at the expense of the clinical investigations	77.4	58.6	0.024 <sup>1</sup>

<sup>1</sup> $\chi^2$  test is statistically significant at the 0.05 level; <sup>2</sup> $\chi^2$  test is statistically significant at the 0.001 level. PT: Physiotherapist; LBP: Low back pain; X-ray: Radiograph.

tion focussed only on the biomedical dimension of the patient's problem, indicating that both countries take into consideration the patient's psychosocial status in their assessment. Despite evidence that biomedically orientated diagnostic practice<sup>[49-51]</sup> is still the dominant paradigm<sup>[30,52]</sup>, it is worth noting the adherence that most of these statements (relating to history taking) have with current guideline practice for LBP<sup>[53,54]</sup>. It is also interesting to note that psychosocial features were considered important prognostic indicators in LBP recovery and management by both groups<sup>[55-57]</sup>.

Two statements from the assessment section

highlighted significant differences between populations. Whilst the majority of the British PTs stated that they pay attention to the doctor's medical diagnosis and referral card, most Greek PTs did not seem to agree. This low agreement in the Greek cohort conforms with what was noted during the focus group discussions, in that little credence is afforded to the doctors' medical diagnosis and subsequent referral card<sup>[41]</sup>.

In terms of re-assessment procedures the majority of the British PTs re-assess within each treatment session (*i.e.*, test-retest following an interventional procedure) as well as following each treatment session whereas, Greek

PTs re-assess following 4-5 treatment sessions. This could reflect the lack of autonomy in decision-making that has been prevalent in Greece for many years.

### **Patients' attitudes towards assessment**

Interestingly, over half of the Greek PTs agreed that following several treatment sessions they start to acknowledge the patients' psychosocial problems. However their British counterparts did not agree with that. This Greek "perspective" is in agreement with the longer gap between re-evaluations (4-5 treatment sessions, as previously indicated) compared to only one for the British PTs, and could possibly imply a longer term management plan and a slower recovery expectation rate compared to the British ones.

Both PT groups disagreed that patients have a passive attitude towards physiotherapy, thus agreeing with a recent British study exploring patients' attitudes and beliefs following physiotherapy, which reported that active patient involvement with their LBP problem was considered essential<sup>[58]</sup>. It is interesting to note that over half of the Greek PTs believe that patients have a poor understanding of the role of physiotherapy, compared to only a third of the British PTs, which could reflect the more medically-orientated status existing within Greece. There was also significant disagreement between the PT groups about the association of the working sector with sick leave; Greek PTs agreed that the amount of sick leave a patient takes is associated with his working sector (public or private) compared to a lower agreement range by the British PTs. This could reflect differences in security of employment for the different sectors; *i.e.*, as the Greek public sector entails mostly permanent contracting employees, it could be the case that sick leave can more easily be asked for. However, this is conjecture.

### **Diagnostic issues**

This final section demonstrated with the largest differences between the PT groups (6 out of 8 statements yielded statistically significant results). Most British PTs did not agree with the "Greek notion" that diagnosis is considered a medical privilege and does not form part of physiotherapy. This is to be expected considering that the healthcare infrastructure in Great Britain has moved away from a medically-centred model of care and has adopted a more multidisciplinary approach<sup>[11,18]</sup>. Something similar however, has not been detected within Greece yet<sup>[4,8,41]</sup>; in Greece medical referrals, dictating (by the doctor) which particular method should the PT follow, are obligatory prior to seeing a physiotherapist and it is anticipated that the PT will follow the exact referral (treatment instructions). Furthermore, 40.3% of the Greek PTs as opposed to none of the British PTs still consider themselves as "executers", not being able to interfere with treatment planning. This barrier to autonomous practice and diagnosis has not been reported in other cultural settings<sup>[23,59,60]</sup>, probably because autonomy within physiotherapy is not an issue in other developed countries.

Over 90% of the Greek PTs (compared to less than 11% of United Kingdom ones) felt strongly that physiotherapy assessment should be more actively included in undergraduate physiotherapy programmes and diagnosis should also form an official part of physiotherapy practice. The British sample did not agree that there is an overuse of medical investigations in clinical practice in their country. This again, reflects their current guideline practice<sup>[30,61]</sup>. Based on the focus group data<sup>[41]</sup>, X-rays in Greece are used as a means of reassuring and helping patients to recover as well as building upon the doctor-patient relationship. Interestingly, patient reassurance<sup>[62,63]</sup>, perceived recovery<sup>[34]</sup> and enhancement of doctor-patient relationships<sup>[63]</sup> were reasons for ordering an X-ray in other cultural settings.

In terms of this study's clinical implications, this cross-cultural report appeared to be beneficial in clarifying commonalities and differences in perspectives and diagnostic practice in LBP between Greek and British PTs. Of particular interest is the fact that both cultural groups appeared to agree on the importance of clinical and psychosocial features during the examination (for targeting treatment), thus, indicating that LBP is a clinical entity whose "somatic expressions" amongst health professionals and patients are common even across different cultural groups. Similarities across the methods utilised in history taking and in the way PTs feel patients perceive physiotherapy practice, also indicate that LBP clinical diagnosis is similar in approach, beyond each country's borders.

However, a number of differences were detected particularly in diagnostic issues raised, such as the utilisation of radiology. Additionally, of the items identified that were culturally distinct these related more to re-assessment procedures and diagnostic practice issues, possibly highlighting the multi-disciplinary approach of the British healthcare system compared to a more unimodal and medically-centred one of the Greek system (*i.e.*, over utilisation of medical investigations, PTs seen as "executers", *etc.*).

However, in view of the qualitative nature of this study and the relatively smaller British sample, these findings cannot be generalised beyond the samples and cultural groups utilised until further work is undertaken. To the authors' knowledge, this is the only study exploring such perspectives and issues relating to LBP practice in two different cultural contexts, and it is believed that these findings in their wider sense reflect cultural variables which may contribute to the understanding of the course and/or management of a given clinical entity in these two countries.

In conclusion, this study aimed to explore current diagnostic practice and attitudes of Greek and United Kingdom physiotherapists on assessing LBP patients *via* a structured questionnaire-type survey. A number of similarities were detected predominantly in history taking methods and in the way patients seem to perceive physiotherapy practice thus, indicating that LBP is similar in approach across different cultural groups. However,

several differences were apparent, particularly in re-assessment procedures as well as in general diagnostic issues regarding the value of the medical diagnosis, overuse of medical investigations, autonomy within physiotherapists, *etc.* These differences may reflect the different evolutionary stages in the healthcare delivery service provided across the two cultural settings; from the more unimodal and medically-centred Greek healthcare system to a more holistic and multi-modal British one.

## COMMENTS

### Background

It is suggested that cultural differences amongst healthcare professionals: (1) in diagnostic practice of low back pain (LBP); and (2) in terms of attitudes towards their patients care and clinical decision-making tend to "shape" particular attitudes, beliefs and perspectives, which subsequently, have an effect on their overall LBP management approach.

### Research frontiers

This study's research hotspots are to compare the current diagnostic practice and the associated attitudes of Greek and United Kingdom physiotherapists on assessing LBP patients.

### Innovations and breakthroughs

In terms of conducting the LBP assessment (history taking procedures, *etc.*) both cultural groups presented with similarities, indicating that LBP is similar in approach across the two physiotherapy (PT) cultural groups. It was interesting to note that general diagnostic issues regarding the value of the medical diagnosis, overuse of medical investigations as well as autonomy within physiotherapists, *etc.*, were different, possibly reflecting different evolutionary stages in the healthcare delivery service provided across the two cultural settings (from the more unimodal and medically-centred Greek healthcare system to a more holistic and multi-modal British one).

### Applications

This cross-cultural report appeared to be beneficial in clarifying commonalities and differences in perspectives and diagnostic practice in LBP between Greek and British PTs. Similarities indicate that LBP clinical diagnosis is similar in approach, beyond each country's borders. Culturally distinct themes (which related more to re-diagnostic practice issues), possibly highlight the multi-disciplinary approach of the British healthcare system compared to a more unimodal and medically-centred Greek one.

### Terminology

LBP refers to any pain in the back region, between the lower rib and the gluteal folds. It is one of the most highly prevalent musculoskeletal disorders with extremely high recurrent rates. In most LBP episodes, a specific underlying cause is not accurately identified and quite often the impact of psychosocial factors (instead of mechanical ones) is believed to be of great importance. As a result, the health professionals' perspectives are important in enhancing or contributing to the management of the patients' psychosocial profile.

### Peer-review

In this manuscript, the authors conducted a cross-cultural survey to observe current diagnostic practice and attitudes of Greek and United Kingdom physiotherapists (PTs) on assessing low back pain (LBP) patients. Author's conclusions were that although similarities on history taking methods were detected across both Greek and United Kingdom groups, gross differences were found in re-assessment procedures and diagnostic issues between Greek and British physiotherapists. This topic is small, but informative one for those who are involved in this area.

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**P- Reviewer:** Lykissas MG, Peng BG, Sakkas LI, Shin BC, Whiteside D

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