

ULRR

A survey of current clinical practice in the Physiotherapy management of “Rotator Cuff Tendinopathy” in Ireland

Item Type	Other
Authors	Cagney, Gordon
Download date	2026-05-17 00:24:31
Item License	https://creativecommons.org/licenses/by-nc-sa/1.0/
Link to Item	https://hdl.handle.net/10344/1514



UNIVERSITY *of* LIMERICK

OLLSCOIL LUIMNIGH

Gordon Cagney

0764205

BSc (Physiotherapy)

2011

A Survey of Current Clinical Practice in the Physiotherapy
Management of “Rotator Cuff Tendinopathy” in Ireland

Gordon Cagney

0764205

Supervisor: Karen McCreesh

PY4007 and PY4008 Final Year Project

Word Count: 4,691/5,000



AUTHORS DECLARATION

I, the undersigned declare that this project which I am submitting is all my own work and that the data presented is authentic.

_____ (Printed Name)

_____ (Signature)

Date / /

Table of Contents

Acknowledgements	4
Abstract	5
Introduction	6
Methods	9
Study Design	9
Survey Instrument	9
Study Population	9
Questionnaire Development.....	10
Questionnaire Distribution.....	11
Data Collection.....	11
Data Analysis	11
Ethical Approval.....	12
Results	13
Therapists Details/Demographics.....	13
Discussion.....	23
Questionnaire development:	23
Questionnaire Distribution and Response.....	23
Analysing Results	23
Limitations of study.....	25
Implications of this study.....	26
Future research recommendations	26
Conclusion	27
References:	28
Appendices	31



Acknowledgements

“To accomplish great things, we must not only act, but also dream; not only plan, but also believe.” Anatole France

The author would like to acknowledge the contribution of the following people:

- ❖ My supervisor Karen McCreesh for all the help that she enthusiastically and patiently provided. Her “open door” policy throughout the research process was much appreciated.
- ❖ Module leader Dr. Susan Coote for guiding us through the FYP process.
- ❖ My advisor, Dr. Amanda Clifford, for all her help and guidance over the last 4 years forever grateful.
- ❖ CEO of the ISCP Ruaidhri O’Connor and also Mary Doran of CPPP and Louise Clarke of CPMT, whose cooperation and practical support greatly facilitated the carrying out of this study and aided the distribution of this questionnaire.
- ❖ All the members of CPMT and CPPP who took the time to complete the questionnaire and without them there would be nothing to report.
- ❖ Each member of graduating class of 2011 for an unforgettable 4 years.
- ❖ Finally a very special thanks to my family in particular my mother who has been an ever-present support, source of wisdom and advice.

“Success is the ability to go from one failure to another with no loss of enthusiasm.”
Winston Churchill

Abstract

A Survey of Current Clinical Practice in the Physiotherapy Management of “Rotator Cuff Tendinopathy” in Ireland

Authors: Gordon Cagney, Karen McCreesh

Background: Rotator cuff disease is the most common cause of shoulder pain seen by physicians (Ostor et al. 2005) accounting for 44% to 60% of all complaints of shoulder pain (Michener et al. 2004). This type of study examining what physiotherapists do in managing patient with Rotator Cuff Tendinopathy (RCT) has not yet been carried out in Ireland.

Objectives: Determine the current management strategies adopted by chartered physiotherapists in Ireland for RCT patients and to establish if evidence based practice is being exercised amongst Chartered Physiotherapists in Ireland in the management of RCT patients.

Methods: Self-administered 16-item questionnaire was developed and piloted. It was distributed and collected via (www.surveymonkey.com). The Study population included 2 clinical interest groups of ISCP including Chartered Physiotherapists in Private Practice (CPPP 300+ members) and Chartered Physiotherapists in Musculoskeletal Therapy (CPMT 362 members). Data was analyzed using descriptive statistics.

Results: The estimated minimum response rate for both clinical interest groups was 16.98% (n=107). Exercise and Education are always used both greater than 85% (n=96), Thermal and Electrical Modalities used sometimes to never 77.09% (n=96), Joint Mobilisations and Soft tissue techniques usually used both greater than 50% (n=96).

Conclusions: This study established what chartered physiotherapists used in the management of RCT and also found that this current management of RCT broadly was in line with current evidence based practice however awareness of guidelines was limited.

References: Michener, L.A., Walsworth, M.K. and Burnet, E.N. (2004) 'Effectiveness of rehabilitation for patients with subacromial impingement syndrome: a systematic review', *Journal of hand therapy*, 17(2), 152-164.

Ostor AJK, Richards CA, Prevost AT, Speed CA, Hazelman BL. Diagnosis and relation to general health of shoulder disorders presenting to primary care. *Rheumatology* 2005; **44:800–5**.

Keywords: Questionnaire, Rotator Cuff Tendinopathy, Physiotherapy Management

Introduction

Shoulder pain and dysfunction are common in the general population. A recent systematic review reports, prevalence for shoulder pain of 7% to 26% with some indication that prevalence increases with age (Luime et al 2004). Shoulder disorders account for 1.2% of all general practice encounters in Australia, being third only to back and neck complaints as musculoskeletal reasons for primary care consultation (Bridges-Webb et al. 1992). In Dutch general practice the incidence of shoulder disorders has been estimated to be 11.2 per 1000 registered patients per year (van der Windt et al. 1995).

Shoulder pain is an important medical and socioeconomic problem in western society. Pain and stiffness in the shoulder may lead to an inability to work and/or to carry out household and leisure-time activities burdening both patient and society (Luime et al. 2004). For this reason it is important to use most recent up to date evidence based practice (EBP) for both individual and society in the treatment of such a condition.

A wide range of pathophysiological conditions are included under this umbrella term of Rotator Cuff Tendinopathy, including rotator cuff tendonitis or tendinopathy, supraspinatus, infraspinatus or subscapularis tendonitis, subacromial bursitis, and partial and complete rotator cuff tears (Cumpston et al. 2009). The aim of treatment is to relieve pain, promote healing, reduce muscle spasms, increase joint range and strengthen weakened muscles and ultimately to prevent and treat functional impairment (Lee et al. 1973).

The four rotator cuff muscles (supraspinatus, infraspinatus, teres minor and subscapularis) fuse to form a tendon that encompasses the humeral head. The rotator cuff contributes to glenohumeral movement and functions as a dynamic stabilizer of the joint, supporting the capsule and preventing excessive anterior and posterior shearing (Ainsworth & Lewis, 2007).

Rotator cuff disease is the most common cause of shoulder pain seen by physicians (Ostor et al. 2005) accounting for 44% to 60% of all complaints of shoulder pain (Michener

et al. 2004) and its incidence is expected to grow as the population ages but is increasingly active and less willing to accept functional limitations (Gomoll et al. 2004).

The physiotherapy management of rotator cuff tendinopathy from the literature suggests good evidence for mobilizations and exercise in restoring range, strength and stability. There is also moderate evidence for stretching exercises and improvements in posture for rotator cuff tendinopathy. In relation to calcific tendinitis there is good evidence that ultrasound is effective but not for non-specific shoulder pain (Hachard et al 2004 CSP Guidelines).

Physiotherapy has been subject to decades of criticism for the lack of research utilization, and is often perceived as a profession whose treatment techniques lack scientific support (Turner 2001). Despite this view physiotherapists typically have a positive attitude toward evidence based practice. This is illustrated through an interest in increasing their skills and the amount of evidence used in their practice (Jette et al 2003).

Evidence based practice is defined as the integration of individual clinical expertise with the explicit and judicious use of current best external evidence when making decisions concerning patient care (Sackett et al 1996). The use of treatment interventions should be founded on knowledge that is research based. These research results are required to be included in clinical decisions when choosing competent evidence-based treatments (Turner and Whitfield 1999). This is reaffirmed by a professional responsibility to offer an optimum evidence-based treatment to patients (Iles and Davidson 2006; Turner and Whitfield 1999).

The aim of this study is to determine current clinical practice of Irish Physiotherapists in the management of patients with rotator cuff Tendinopathy and compare to recommended best practice. The benefit will be that we will be able to describe therapist's management of Rotator Cuff (RC) disorders and compare it to best practice. Once disseminated this may help therapists to choose more evidence based management approaches which will be in line with current literature recommendations. Information gained from study could also form the basis of a clinical trial examining differing care approaches identified for RC disorders.

This type of study has not yet been carried out in Ireland but something similar has been investigated in Sweden (Johansson et al. 2002). So we know that the evidence is out there but as of yet we don't know if chartered physiotherapists in Ireland are using it and therefore don't know what treatment they are carrying out on this patient group. Hence finding out this information will in turn help the patients to receive EBP if therapists are not adhering to literature and also will help redirect research if therapists are using different forms of treatment not stated in the literature but which therapists find effective.

The aim of this study is to investigate if there is an evidence based approach adopted by physiotherapists in Ireland with regards to Rotator Cuff Tendinopathy management and treatment. This was achieved by firstly establishing within the literature, what is current recommended practice, which was established through a literature review. The following objectives were used to realize this aim:

- ❖ Determine the current management strategies adopted by Chartered Physiotherapists in Ireland for Rotator Cuff Tendinopathy patients.

AND

- ❖ Also establish if evidence based practice is being exercised amongst Chartered Physiotherapists in Ireland in the management of Rotator Cuff Tendinopathy patients.

Methods

Study Design

This was a questionnaire-based study to identify chartered physiotherapists current clinical practice within the Irish Society of Chartered Physiotherapists (ISCP) in the management, treatment, diagnosis and availability of evidence for Rotator Cuff Tendinopathy.

Survey Instrument

No existing standard validated survey instrument adequately reflected the aims of the study. It was therefore necessary to compile an appropriate questionnaire for this research. The compiled questionnaire was piloted of 5 chartered physiotherapists. Based on their recommendations, minor amendments to sequencing were made. Piloting also confirmed expected completion times of 8-10 minutes. This was done in order for clear content readability and layout along with increasing content validity (Hicks 2004).

The final 16item questionnaire contained predominantly closed questions that were divided into four sections with brief layout below in Table 1.

Table 1: Layout of Questionnaire	
Section 1: (2 Questions)	Consent
Section 2: (7 Questions)	Therapists Details/Demographics
Section 3: (3 Questions)	RCT Assessment
Section 4: (4 Questions)	RCT Treatment/Management

Study Population

The two main clinical interest groups within the ISCP that mostly treated this condition were the Chartered Physiotherapists in Private Practice (CPPP) and the Chartered

Physiotherapists in Musculoskeletal Therapy (CPMT). Also Chartered Physiotherapists in Sport and Exercise Medicine (CPSEM) clinical interest group treats this condition but it was decided that this group wouldn't be targeted due to a fellow student targeting them for another questionnaire, therefore didn't want to overburden this clinical interest group which could have affected both of our response rate. Therefore this is a limitation of this study.

At the time of the survey (November 2010) CPPP had 300+ members and CPMT had 362 members so therefore a cumulative of 662+ members were going to be targeted however many chartered physiotherapists were members of both therefore this number could have been far less. Inclusion criteria were registered members of CPPP and CPMT and the ability to comprehend English, while the exclusion criteria was non registered members of already outlined groups with the Irish Society of Chartered Physiotherapists.

Questionnaire Development

Questionnaires are the most useful way for collecting information that is quantifiable, such as factual knowledge (Ewles and Simnett 2003). The self-administered questionnaire approach was chosen in the present study as it ensures a high response rate, accurate sampling, a minimum of interviewer bias, the ability to provide necessary explanations but not interpreting of questions (Oppenheim 1996). In order to aid the development of appropriate questions a literature review was undertaken around RCT treatment and management in order that all appropriate options for management were included. To ensure clarity and flow of the current questionnaire, it was piloted on 5 chartered physiotherapists. Modifications, based on this feedback, were incorporated to eliminate ambiguities before arriving at the final revision of the questionnaire. Piloting also confirmed expected completion times of between 5-10 minutes. The revision included formatting of questionnaire and also the way some questions were phrased. The new questions were devised to gather information in the following areas:

- Understanding of Rotator Cuff Tendinopathy
- Diagnosis
- Treatment/Management
- Awareness of current available evidence

The developed research tool consisted of four sections;

- i. Consent
- ii. Therapist Details/ Demographics
- iii. Assessment
- iv. Treatment

Questionnaire Distribution

Invitations (Appendix 1) to participate in the survey were, with the cooperation of CEO ISCP, emailed to all members of CPPP and CPMT on that organization's email database. The questionnaire and a subject information leaflet (Appendix 4) were included as attachments. The subject information leaflet stressed the voluntary and confidential nature of the study and stated that completion of a questionnaire implied consent. Questionnaires were returned automatically to an electronic database for synthesis of results. Researchers were blinded to any identifying information of participants.

The risks of this study have been removed by the use of an online survey distribution method (www.surveymonkey.com) which makes sure that confidentiality is maintained and by only using a limited amount of questions this also reduces the risk of consuming up too much of the therapist's time from clinical hours in whatever setting.

Data Collection

Before the final questionnaire was sent out it was decided that the distribution would take place via an online tool called survey monkey (SurveyMonkey 2010). This was decided as it is quicker to fill out, less costly, more efficient when analysing results and would improve the response rate. Through the use of Survey Monkey data was collected online via my survey monkey account and once completed by chartered physiotherapists was stored online therefore no complicated method of return was needed on the part of the chartered physiotherapists participating in this survey. In addition a general (non-targeted) reminder email was sent out again on my behalf once a period of a week had passed without a returned survey on my Survey Monkey account.

Data Analysis

Data was collated and analysed using appropriate descriptive statistics and presented in the form of percentages and tables. Microsoft Office Excel (2007) was also employed to

graphically display some data. As some questions are expected to be skipped responses are expressed as percentages of the number of respondents to that question.

Ethical Approval

Ethical Approval for this study was obtained from the University of Limerick Research Ethics Committee (ULREC). Informed consent was gained from each subject prior to receipt of the questionnaire for completion. (See Appendix 3 for Consent Form and Appendix 2 for Subject Information Leaflet)

Results

Total numbers of surveys collected were 130 however I am unable to accurately calculate the response rate as both clinical interest groups had some crossover. (662+ being the maximum number in the sample without crossover, 32 out of 130 respondents were in both therefore maximum number from these figures and able to calculate was 630+, therefore working on this maximum figure the minimum response rate was 16.98% (107/630+) however it is postulated that this figure however was significantly higher. Calculating response rate individually for both groups where n=107 instead of 130 it would suggest a response rate of 15%+ from CPPP and a response rate of 25.97% from CPMT.

Not all respondents answered every item of each question. As a result, certain results are reported as a percentage of respondents of each particular item.

Therapists Details/Demographics

*Workplace Setting (Table 2)

	No. Respondents (n)	Total Respondents (%)
<u>Total</u>	<u>130</u>	<u>100.00%</u>
<u>Do you treat RCT?</u>	<u>130</u>	<u>100.00%</u>
Yes	128	98.46%
No	2	1.54%
<u>Are you a member of?</u>	<u>107</u>	<u>100.00%</u>
CPMT	62	57.94%
CPPP	13	12.15%
Both	32	29.91%
<u>Workplace Setting</u>	<u>107</u>	<u>100.00%</u>
Hospital Outpatients	23	21.49%
Private Practice	63	58.88%
Primary Care	15	14.02%
Other*	6	5.61%
<u>Therapist Grade</u>	<u>107</u>	<u>100.00%</u>
Junior	10	9.35%
Senior	32	29.91%
Clinical Specialist	9	8.41%
Manager	5	4.67%
Not Relevant (Private Practice)	47	43.92%
Other*	4	3.74%

With regards to “Other” category these included a mixture between private practice and outpatients (n=3), private practice and primary care (n=1) and also education/university (n=2).

*Therapist Grade

With regards to the “Other” category these included lecturers (n=2), Clinical Director of personal Private Practice (n=1) and Masters Qualified (n=1).

Therapist Demographics on Qualification (Table 3)

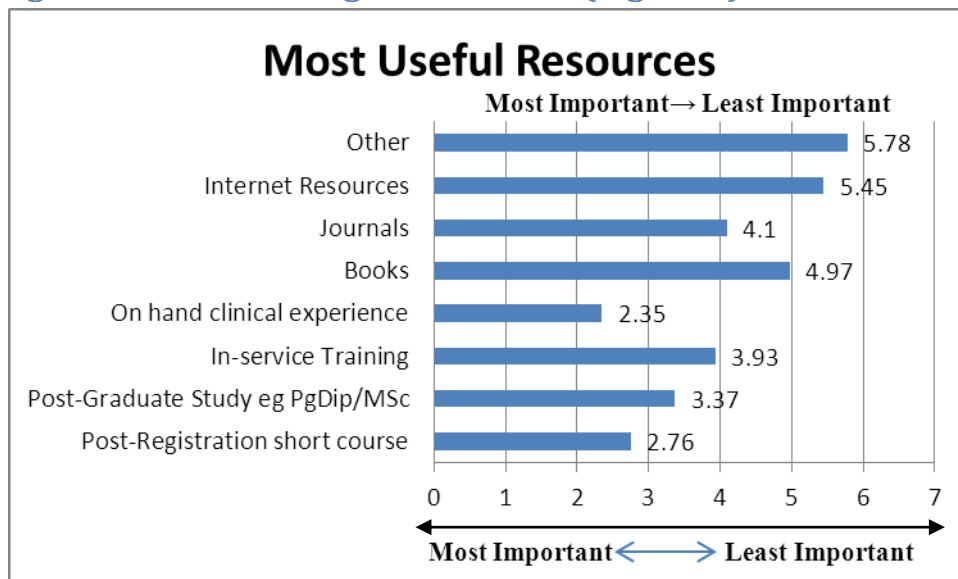
	No. Respondents (n)	Total Respondents (%)
Total	107	100.00%
University of Qualification**	107	100.00%
UCD	24	22.43%
UL	6	5.61%
RCSI	5	4.67%
Trinity	28	26.17%
UK	37	34.58%
Other*	7	6.54%
Years Qualified	107	100.00%
0-2 years	3	2.80%
2-5 years	17	15.89%
5-10 years	25	23.37%
10-15 years	20	18.69%
15-25 years	24	22.43%
25+years	18	16.82%
Highest Qualification Achieved	107	100.00%
Diploma	9	8.41%
BSc/BA/BPhysio	43	40.19%
PgDip	11	10.28%
MSc	40	37.38%
PhD	4	3.74%

*University of Qualification

With regards to the “Other” category these included Qualification in USA (n=1), Belgium (n=1), Australia (n=1), South Africa (n=1), Poland (n=1) and Spain (n=1).

** (If two colleges were mentioned the undergraduate degree college was taken as primary degree which was always mentioned 1st)

Most Useful Resources outside undergraduate education in developing knowledge around the management of RCT (Figure 1):



The 4 most useful resources in developing your knowledge around the management of RCT were:

- On hand Clinical Experience (2.35)
- Post-Registration short course (2.76)
- Post-Graduate Study eg PgDip/MSc (3.37)
- In-service training (3.93)

The 4 least useful resources in developing your knowledge around the management of RCT were:

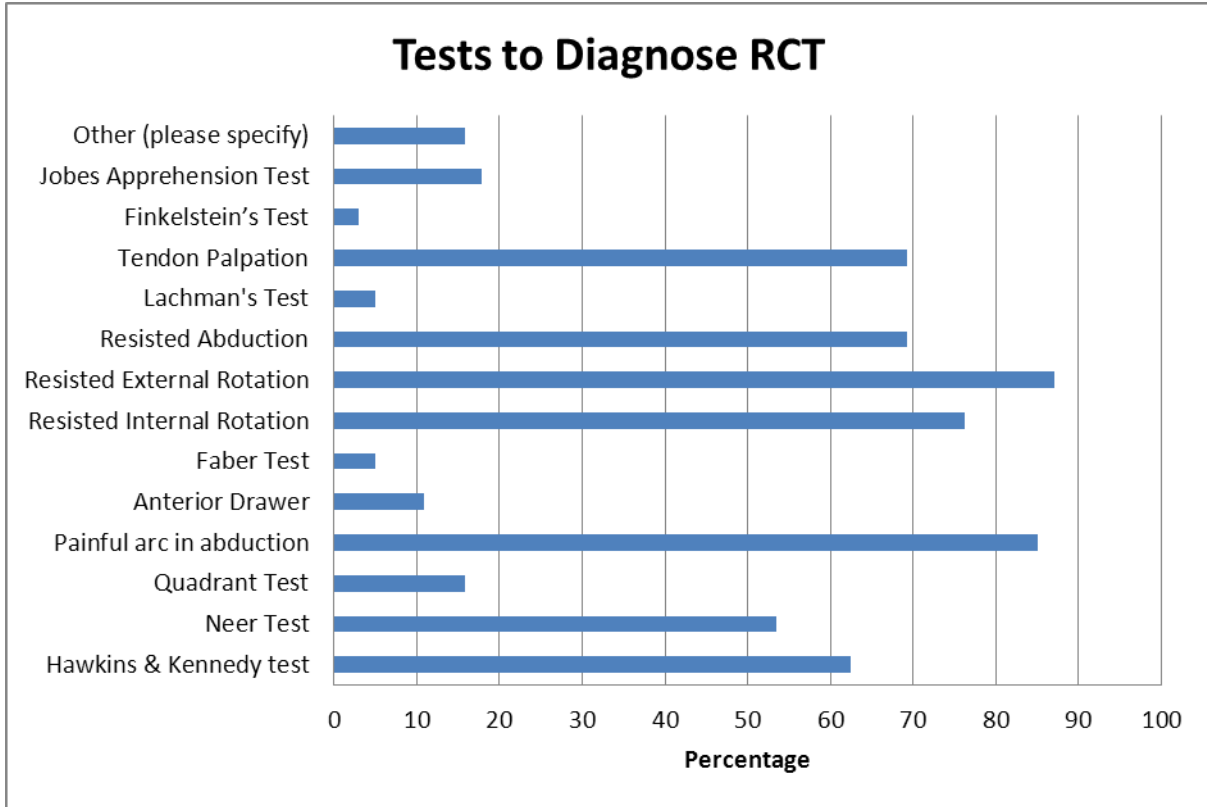
- Other* (5.78)
- Internet Resources (5.45)
- Books (4.97)
- Journals (4.1)

*“Other” category included the following:

- Teaching undergraduate students (n=1)
- Manual technique course over the last 7 years
- Direct Communication/consultation with consultants (orthopaedic) and other disciplines including specialists and seniors (n=10)
- Conferences (n=2)
- Rheumatology clinical interest group evening lecture (n=1)

Section 3 Assessment (n=101)

Tests to Diagnose RCT (Figure 2)



The 6 tests used over 62% of the time to diagnose RCT include; Resisted External Rotation (87.13%), Painful arc in abduction (85.15%), Resisted Internal Rotation (76.24%), Tendon Palpation (69.31%), Resisted Abduction (69.31%) and Hawkins and Kennedy Test (62.38%).

The 6 tests used under 16% of the time to diagnose RCT include; Finkelstein's Test (2.97%), Faber Test (4.95%), Lachman's Test (4.95%), Anterior Drawer (10.89%), Quadrant Test (15.84%) and "Other" (15.84%).

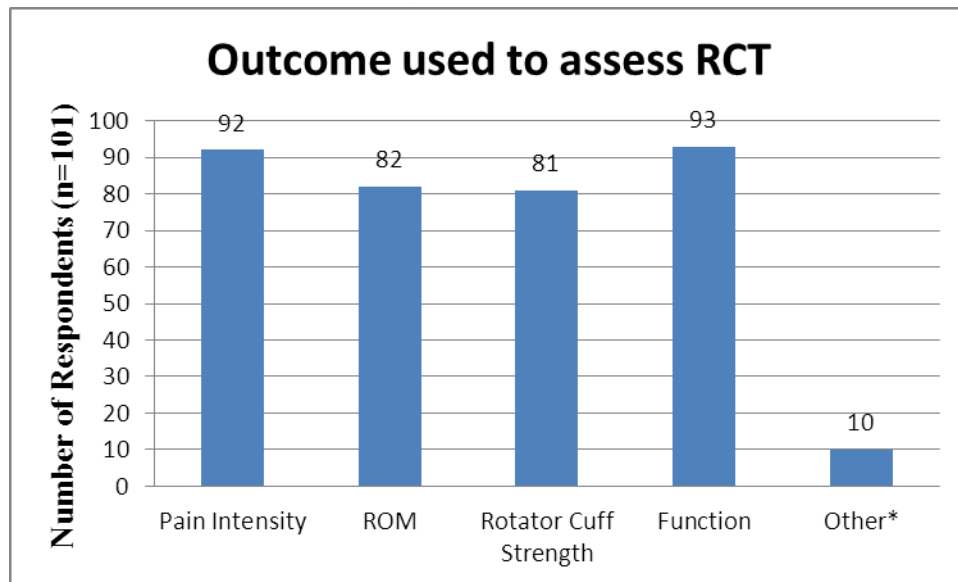
The "Other" category (n=18) included tests such as; Speed test, Biceps load test, SLAPrehension test, Empty / full can test (variation of Jobses), Lift off test: subscapularis, Yocum test : impingement, Scapular positioning, Drop Arm test, Resisted RC isolation tests, Allinghams test and clinical picture. Some of the other replies included:

- ❖ Functional aggravating posture, clinically reason based, would use a battery of tests as have highest validity but very dependent on the patients presentation and subjective history

❖ I would also use Hawkins and Kennedy test, Neer test for assessment of impingement which is often closely related to tendonopathy. In addition, instability tests and articular assessments are important in differential diagnosis

❖ Combination of history, ROM quality and impingement tests Neers, Hawkins/ Kennedy

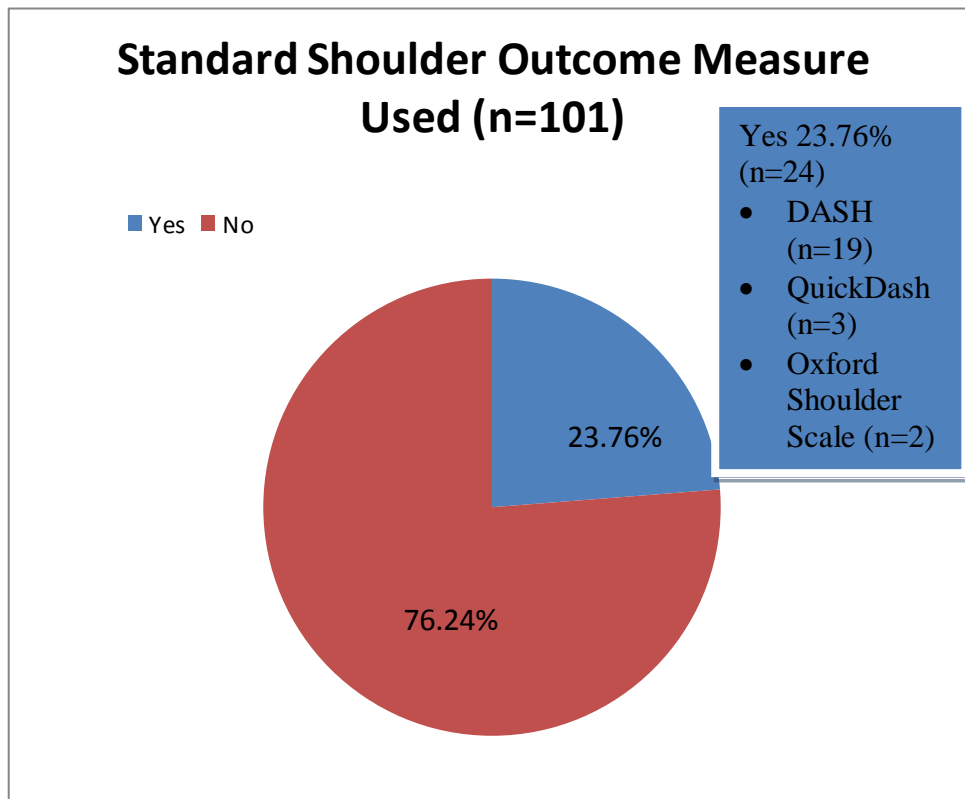
Outcomes used to assess RCT (Figure 3)



The most important outcomes used in descending order were

1. Function at 92.08% (n=93)
2. Pain Intensity at 91.09% (n=92)
3. ROM at 81.19% (n=82)
4. Rotator Cuff Strength at 80.20% (n=81)
5. “Other*” at 9.90% (n=10). The other category included the following responses Scapular/Shoulder Stability, Isokinetic strength/MRI, Area of Pain, Sleeping Pattern and most negative provocative test e.g. HK test

Use of Standard Shoulder Outcome Measure (Figure4)



Out of the 23.76% (n=24) of therapists that said “Yes”, they were aware of 3 standard shoulder outcome measures these included Disability of Arm, Shoulder and Hand (DASH) 79.17%, QuickDASH 12.50% and Oxford Shoulder Scale 8.33%.

Section 4 Treatment (n=96)

Table 4	No. Respondents (n)	Total Respondents (%)
Total	96	100.00%
<u>Average amount of RCT patients seen per month</u>	96	100.00%
1-4	40	41.67%
5-10	43	44.79%
>10	13	13.54%
<u>No. of Treatment Sessions on Average given to RCT patients</u>	96	100.00%
1-3	1	1.04%
4-6	69	71.88%
7-10	25	26.04%
>10	1	1.04%
<u>Awareness of RCT Guidelines</u>	96	100.00%
Yes	10	10.42%
No	86	89.58%

Average amount of RCT patients treated per month

From the above data on average the most common number of RCT patients seen by this studies participants was 5-10 patients per month accounting for 44.79% (n=43), this is closely followed by on average 1-4 patients per month at 41.67% (n=40) and finally 13.54% (n=13) therapists also treated on average greater than 10 RCT patients per month.

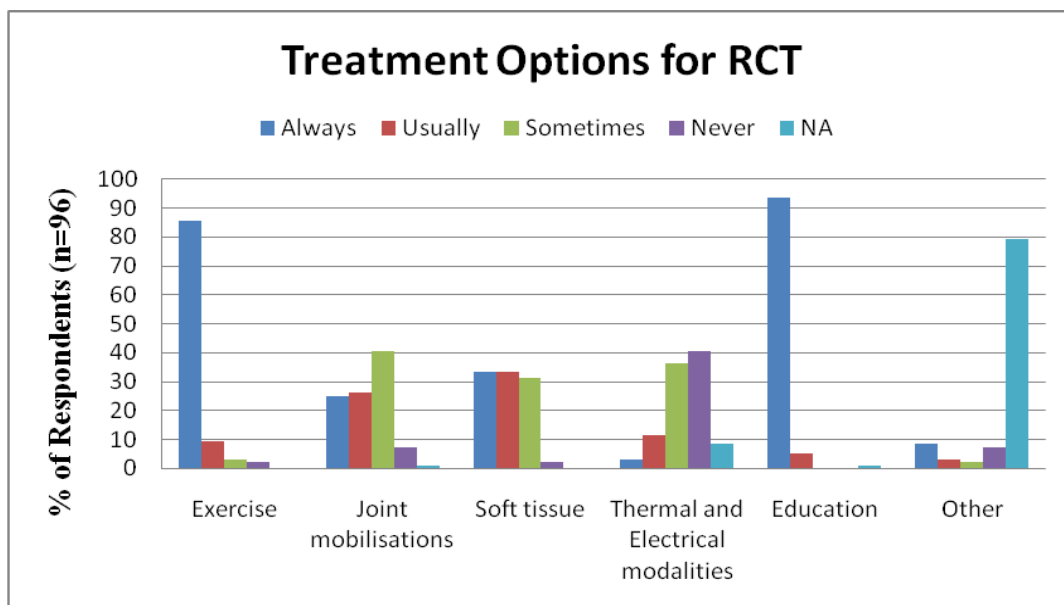
Number of treatment Sessions on average given to patients with RCT

On average the most common number of sessions administered to RCT patients was between 4-6 sessions which accounted for 71.88% (n=69) followed by 7-10 sessions at 26.04% (n=25) and finally both 1-3 sessions and greater than 10 treatment sessions were only administered on average 1.04% for both (n=1 each)

Awareness of any clinical guidelines

Only 10.42% (n=10) of therapists were aware of any RCT Guidelines these included New Zealand Guidelines (n=1) and Chartered Society of Physiotherapists (CSP) Guidelines (n=9) however 89.58% weren't aware of any such guidelines (n=86) within the literature.

Treatments used on average to treat RCT (Figure 5)

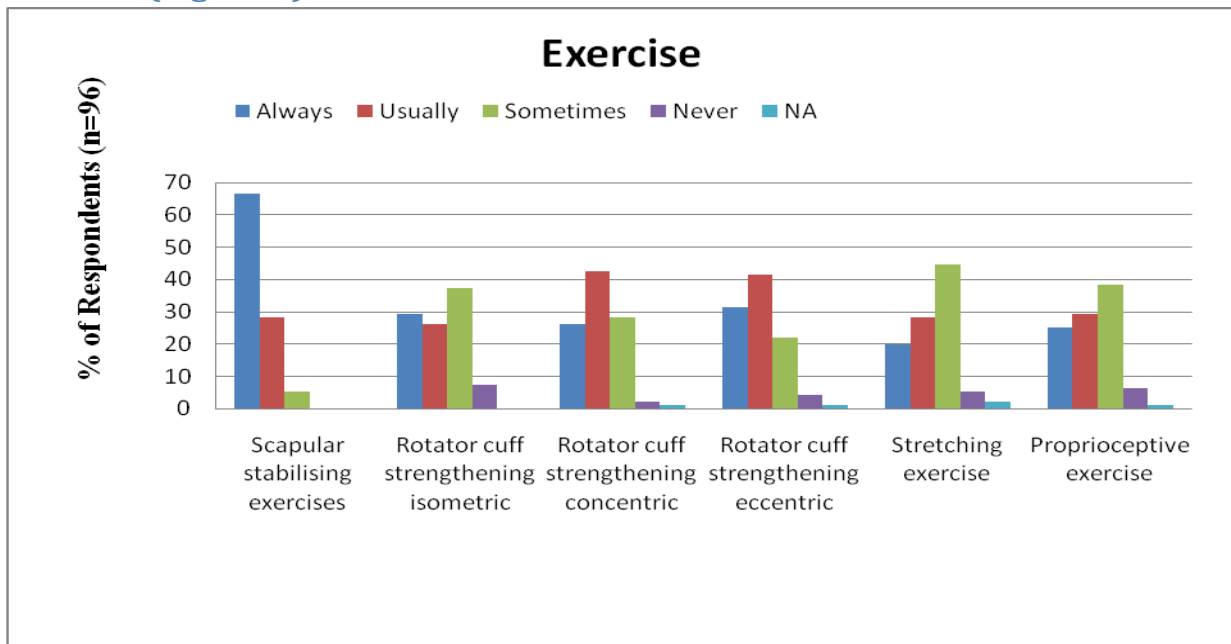


From the above table we can see that Exercise and Education are “Always” used 85.42% and 93.75% respectively, Joint Moibilasations are “Usually-Sometimes” used accounting for 66.67%, Soft Tissue Techniques are “Always-Usually” used accounting for 66.66%, Thermal and Electrical Modalities are “Sometimes-Never” used accounting for

77.09% and finally other treatment options were 79.17% Non Applicable. Which would suggest that the majority of the options were covered in this survey.

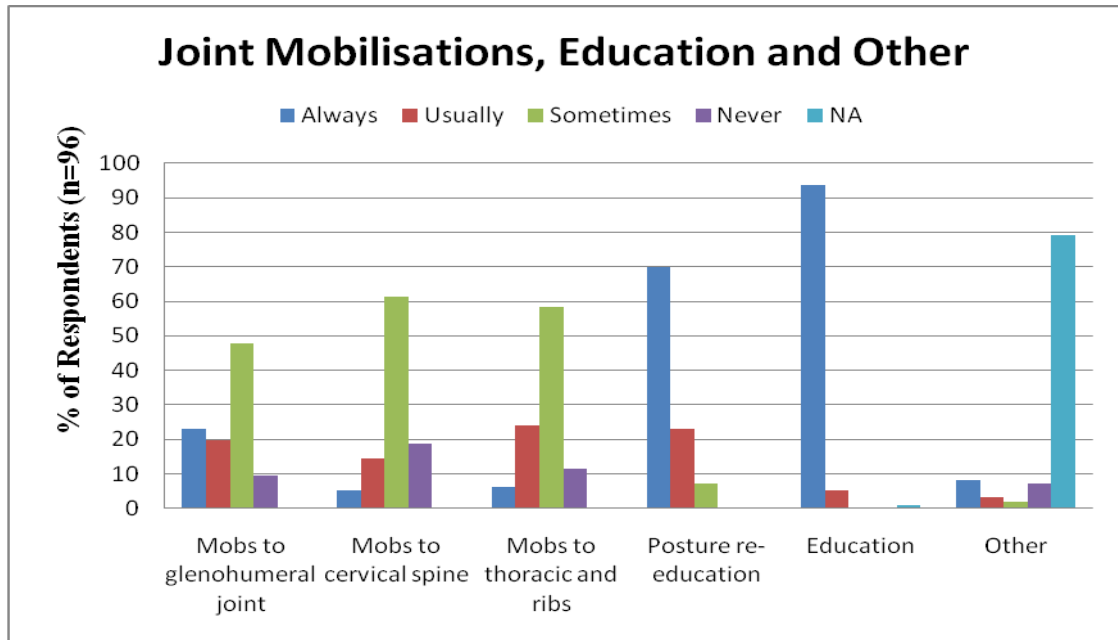
Other treatment options mentioned included, Functional strengthening exercises for shoulder, rest if applicable from work, mobilise clavical, latissimus dorsi strengthening exercises, pec-minor specific work, Advice, Neural mobilisation, self-mobilisation, movement pattern re-education, SNAGS, Advice on use of heat,ice and NSAID's, and finally Steroid Injection.

Exercise (Figure 6)



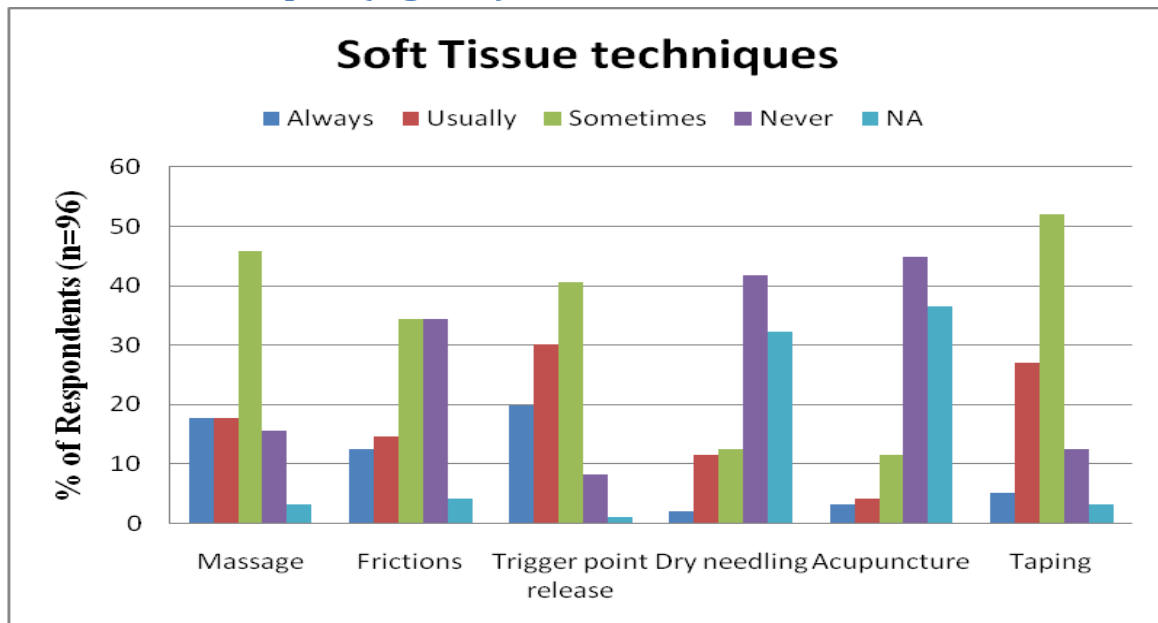
From the above table which looks at exercise in more detail it suggests that Scapular stabilising exercises are “Always” used 66.67% of the time while Rotator Cuff strengthening (isometric, concentric and eccentric) are used “Always-Usually” 55.21% for isometric, 66.75% for concentric and 72.92% for eccentric. Finally fro stretching and proprioceptive exercises these are used “Usually-Sometimes” of the time both 72.92% and 67.71% respectively.

Joint Mobilisations, Education and Other (Figure 7)



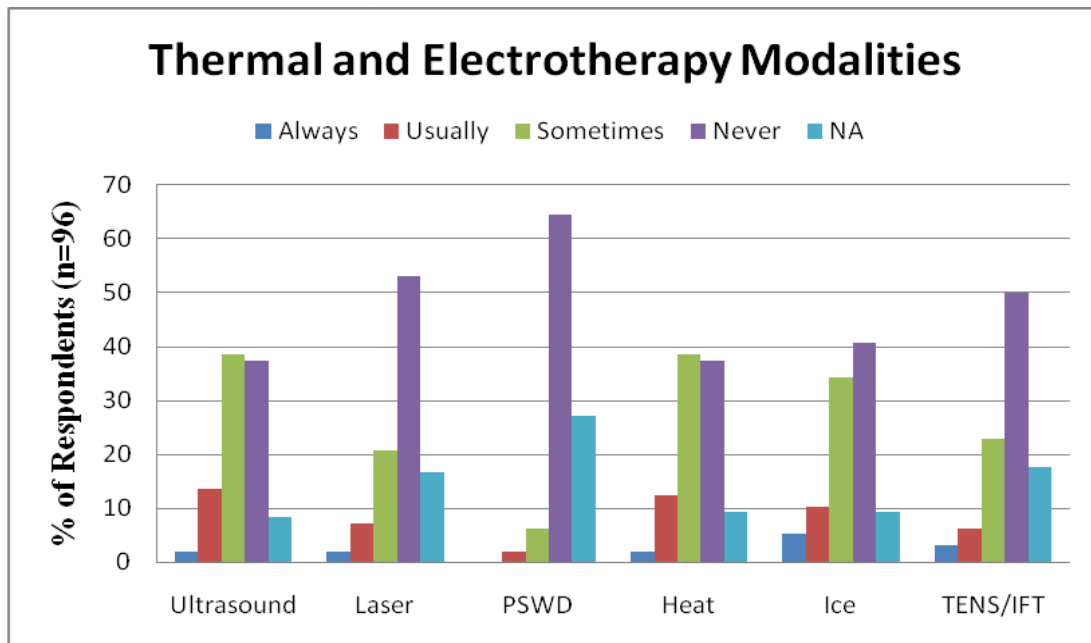
In the above table which looks at education and joint mobilisations in more detail it is shown that Education and Postural re-education are “Always” used in the management of RCT 93.75% and 69.79% respectively. As for Joint Mobilisations which include to the glenohumeral joint (GHJ), cervical spine and thoracic spine and ribs these are only used “Sometimes” in the management of RCT 47.92% (GHJ), 61.46% (cervical spine) and 58.33% (thoracic spine and ribs) and finally other treatment options were 79.17% Non Applicable.

Soft Tissue Techniques (Figure8)



The above diagram displays soft tissue techniques and their use in more detail. Massage, Trigger point release and Taping and “Usually–Sometimes” used in the management of RCT; Massage 63.54%, Trigger point release 70.84% and Taping 79.16% respectively. Frictions are used “Sometimes-Never” at 68.76% while Dry Needling and Acupuncture are “Never-Non Applicable” used at 73.96% and 81.25% respectively.

Thermal and Electrotherapy Modalities (Figure 9)



From the above diagram we can see Thermal and Electrotherapy Modalities use in practice in more detail. Ultrasound, Heat and Ice are used “Sometimes-Never” at 76.04%, 76.04% and 75.01% respectively. While the other modalities such as Laser, Pulsed Short Wave Diathermy (PSWD) and Trans Electrical Neural Stimulation (TENS/IFT) are “Never-Non Applicable” used in practice standing at 69.80%, 91.66% and 67.71% respectively.

Discussion

Questionnaire development:

The questionnaire was developed specifically for this project and the questions were based on pre-existing questionnaire studies of which were similar. However there were some changes that could have been made to the questionnaire, for instance; 130 physiotherapists started the questionnaire however only 96 fully completed the questionnaire which is 73.85% full response. This could be due to a variety of reasons, firstly problems with the questionnaire itself in terms of ease of use, formatting and phrasing of questions. Secondly participants understanding of questions asked and knowledge around the area. Finally participant's availability of time, with one of the clinical interest groups targeted being Chartered Physiotherapists in Private Practice (CPPP) of where time is extremely valuable and more often than not are self-employed therefore time would be very valuable to these participants. Also the other clinical interest group CPMT predominately working in hospital setting where also time would have been valuable however I tried to limit the time needed to fill out the questionnaire by limiting the amount of questions and also keeping them mainly closed in order to gain information in quickest time possible. However this may have had

Questionnaire Distribution and Response

Questionnaire distribution via clinical interest groups and via Survey Monkey 2010 was the best option however it had some drawbacks, as making contact initially⁷ with clinical interest groups proved difficult and also getting these clinical interest groups to distribute questionnaire. It proved to be more time consuming than originally taught and planned, which therefore reduced to length of period of time that the questionnaire could be kept open thus reducing response rate. This was an oversight on my part as I should have gained these contacts prior to ethical approval as it would have really sped up the distribution of questionnaire while enhancing the response rate and saving valuable time.

Analysing Results

CPMT members accounted for the majority of responses at 57.94% (n=62) and also the most common workplace setting within which this sample of therapists worked was predominately Private Practice accounting for 58.88% (n=63) of the sample. 13.3 years was the mean years qualified within the sample however this varied from 42 years to a half of a year. The majority of the participants highest qualification achieved being a BSc/BA/BPhysio

at 40.19% (n=43) closely followed by MSc as the highest qualification of the sample at 37.38% (n=40).

It was interesting to note what resources therapists found to be the most useful in developing their knowledge outside of undergraduate education around the management of RCT. It was interesting to note that Internet Resources and Journal articles were 7th and 5th least useful resources respectively out of 8 in the development of knowledge around the management of RCT. The top four being; On hand clinical experience, Post-Registration short course, Post-Graduate Study and In-service training.

With regards to assessment for RCT which we didn't explore in great detail as it was beyond the scope of this study. However we see that therapists use a combination of diagnostic tests while bearing in mind the patients clinical picture and history in order to make a diagnosis of RCT. This is probably best practice currently, with the limitations and gaps in research as said in the New Zealand Guidelines (2004) there is no evidence that any specific test is both valid and reliable for the diagnosis of shoulder injuries, therefore it is difficult to establish which diagnostic tests should be used in diagnosing RCT. This would be another area of future research but which is outside the aims of this current research. 92.08% (n=93) use function as their primary outcome measure however only 23.76% of therapists use a Standard Outcome Measure.

The average amount of RCT patients seen per month by therapists was predominately between 5-10 patients per month at 44.79% followed by 1-4 at 41.67% which suggests that 86.46% of the study population see between 1-10 RCT patients per month. This would suggest that the study population sees quite frequently these patients with RCT therefore should be very knowledgeable in the management of this condition. Also the number of treatment sessions provided on average per RCT patient averaged around 4-6 sessions at 71.88% (n=69), with 26.04% (n=25) giving between 7-10 treatment,. So combined 97.92% of therapists give between 4-10 sessions per RCT patient. This would re-enforce the opinion that these therapists should be very knowledgeable in managing this RCT patients. However the results from Table 3 around the awareness of RCT Guidelines suggest that therapists involved in this study weren't informed around current clinical guidelines of which I believe were 3 different types of Guidelines circulating at the time of this study; including CSP guidelines 2004, New Zealand Guidelines 2004 and Philadelphia Panel Guidelines 2001 all around RCT.

The results suggest that therapists are poorly informed of current clinical practice with only 10.42% (n=96) physiotherapists aware of current clinical guidelines for RCT of which they identified the CSP Guidelines (n=9) and the New Zealand Guidelines (n=1).

With regard to the treatment options used in practice by this study population, it is clear that they use Exercise and Education always in the management of RCT, Usually use Soft tissue techniques and sometimes use joint mobilisations and Sometimes-Never use Thermal and Electrotherapy Modalities. This would be broadly in line with current evidence based practice where Electrotherapy modalities were shown to have no beneficial effect bar for calcific tendinitis and exercise and education were greatly recommended in the management of RCT (Hachard et al 2004 CSP Guidelines). NSAID's and Steroid Injections were included in "Other" category however as therapists don't administer these in Ireland they weren't included as treatment options even though there is good evidence around there use especially in the first 7-21days (Hachard et al 2004 CSP Guidelines).

Stabilising exercise were Always used along with postural re-education which would mirror the recommendations made by the CSP 2004 Guidelines.

Limitations of study

One limitation of this study was that I targeted specifically two clinical interest groups however I also excluded CPSEM as another student was targeting this clinical interest group. This shows a bias for good quality replies and also limited randomisation. The inclusion of only two clinical interest groups limits any conclusions being applied to a wider physiotherapy population in Ireland.

The results of this study are limited in their application by a poor/unknown response rate. Indications of response bias are evident within the results of the study and should be recognised when discussing the conclusions. This type of bias has been recognised as a limitation of a self-report research tool (Hicks 2004).

Physiotherapists have a personal professional responsibility to maintain current evidence based practice (Turner 2001) This responsibility may have influenced response rate towards the survey which dertermines evidence based practice for RCT management. However this limitation was protected against by the confidentiality of identifying information of respondents.

Furthermore, the interpretation of shoulder pain research is complicated by the broad inclusion criteria that allow mixed populations with different aetiologies of shoulder pain to

be examined (Philadelphia panel members, 2001). The broad definition of RCT being used as an umbrella term for many conditions makes it complicated and finally the lack of high quality trails makes decisions making for the management of RCT that bit more difficult.

Implications of this study

It seemed that therapists were reluctant to gain information using the internet, which would enhance therapist's knowledge around this condition and also where clinical guidelines are found. Maybe it is that certain therapists are unaware of how to gain this information from the internet and are unclear of where to look. Therefore maybe as part of CPD within department's tutorial of how to search for articles and use internet most effectively could be offered to therapists who struggle within this area. However lack of use of internet resource for gaining information could just be around time constraints that therapists are under rather than lack of knowledge and skill to find appropriate material online.

Future research recommendations

Further investigations need to be carried out into whether there is a link between length of period qualified and/or highest qualification gained and whether therapists adopt evidence based practice needs to be established.

Conclusion

Overall the respondents of this study exhibit similar management strategies as to what the evidence suggests including the 2004 CSP Guidelines, 2004 New Zealand Guidelines and the 2001 Philadelphia Guidelines however the awareness of many therapists within this study around the available guidelines for RCT is quiet poor with only 10.42% (n=10) of therapists aware of RCT Guidelines. An element of response bias may contribute towards apparent increases in evidence based practice.

“The only thing that we know is that we know nothing and that is the highest flight of human wisdom.” Leo Tolstoy

References:

- Ainsworth, R. and Lewis, J.S. (2007) 'Exercise therapy for the conservative management of full thickness tears of the rotator cuff: a systematic review', *British journal of sports medicine*, 41(4), 200-210.
- Bridges-Webb CH, Britt D, Miles S, Neary A, Charles M. (1992) 'Treatment in general practice in Australia'. *Medical Journal of Australia* ;**Suppl**(S1-S56).
- Cumpston, M., Johnston, R.V., Wengier, L. and Buchbinder, R. (2009) 'Topical glyceryl trinitrate for rotator cuff disease', *Cochrane Database of Systematic Reviews*, 3
- Ewles, L. and Simnett, I. (2003) 'Promoting Health – A Practical Guide', 5th ed., London: Elsevier Science.
- Gomoll AH, Katz JN, Warner JJP, Millett PJ.(2004) 'Rotator cuff disorders: recognition and management among patients with shoulder pain'. *Arthritis and Rheumatism*;**50**:3751–61.
- Hanchard, N., Cummins, J. and Jeffries, C. (2004) 'Evidence-based clinical guidelines for the diagnosis, assessment and physiotherapy management of shoulder impingement syndrome', Chartered Society of Physiotherapy, London, UK. Accessed Online: http://www.csp.org.uk/uploads/documents/csp_shoulder_guidelines.pdf
- Hicks, C.M. (2004) 'Research methods for clinical therapists: applied project design and analysis,' 4th ed., Edinburgh: Churchill Livingstone.
- Iles, R. and Davidson M. (2006) 'Evidence based practice: a survey of physiotherapists current practice,' *Physiotherapy Research International*, 11(2) 93-103.
- Jette, D.U., Bacon, K., Batty, C., Carlson M., Ferland, A., Hemingway, R.D., Hill, J.C., Olgivie, L., Volk, D. (2003) 'Evidence-based practice: beliefs, attitudes, knowledge, and behaviours of physical therapists,' *Physical Therapy*, 83 (9), 786-805.

- Johansson, K., Oberg, B., Adolfsson, L. and Foldevi, M. (2002) 'A combination of systematic review and clinicians' beliefs in interventions for subacromial pain.', *The British Journal of General Practice*, 52(475), 145.
- Lee M, Haq A, Wright V, Longton E. (1973) 'Periarthritis of the shoulder: A controlled trial of physiotherapy'. *Physiotherapy*;59(10): 312–315.
- Luime, J.J., Koes, B.W., Hendriksen, I.J., Burdorf, A., Verhagen, A.P., Miedema, H.S. and Verhaar, J.A. (2004) 'Prevalence and incidence of shoulder pain in the general population; a systematic review', *SCAND J RHEUMATOL*, 33(2), 73.
- Michener, L.A., Walsworth, M.K. and Burnet, E.N. (2004) 'Effectiveness of rehabilitation for patients with subacromial impingement syndrome: a systematic review', *Journal of hand therapy*, 17(2), 152-164.
- New Zealand Guidelines Group (NZGG) 2004: The Diagnosis and Management of Soft Tissue Shoulder Injuries and Related Disorders. Accessed online:
[\[http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_communications/documents/guide/wcm001684.pdf\]](http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_communications/documents/guide/wcm001684.pdf)
- Oppenheim, A.N. (1992) 'Questionnaire Design, Interviewing and Attitude Measurement', London: Continuum Publishers
- Ostor AJK, Richards CA, Prevost AT, Speed CA, Hazelman BL. (2005) 'Diagnosis and relation to general health of shoulder disorders presenting to primary care'. *Rheumatology*;44:800–5.
- Philadelphia panel members,(2001) 'Philadelphia panel evidence-based clinical practice guidelines on selected rehabilitation interventions for shoulder pain', *Physical Therapy*, 81(10), 1719-1730. Accessed online: <http://ptjournal.apta.org/cgi/reprint/81/10/1719>
- Sackett, D.L., Roseberg, W.M.C., Muir Gray, J.A., Haynes, B., Richardson W.S. (1996) 'Evidence-based medicine: what it is and what it isn't', *British Medical Journal*, 312, 71-72

Turner P.A. and Whitfield T.W.A. (1999) 'Physiotherapists reasons for the selection of treatment techniques: A cross-national study', *Physiotherapy Theory and Practice*, 15,235-246.

Turner, P. (2001) 'Evidence-based practice and physiotherapy in the 1990's', *Physiotherapy Theory and Practice*, 17, 107-121

Van der Windt DAWN, van der Heijden GJMG, Scholten RJPM, Koes BW, Bouter LM.(1995) 'The efficacy of non-steroidal anti-inflammatory drugs (NSAIDs) for shoulder complaints. A systematic review'. *Journal of Clinical Epidemiology*;48: 691–704.

Appendices

Appendix 1 (Invitation)

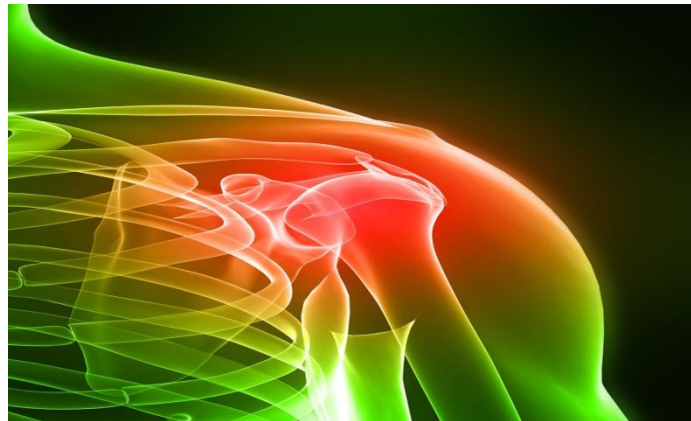
Would you like to take part in a survey on Rotator Cuff Tendinopathy?

Dear CPPP Member,

My name is Gordon Cagney and I am currently a final year student at the University of Limerick and am currently undertaking research for my final year project. "A survey of current practice in the management of Rotator Cuff Tendinopathy in Ireland within specific clinical interest groups of the Irish Society of Chartered Physiotherapists".

Link to survey: <http://www.surveymonkey.com/s/RotatorCuffTendinopathy2010>

I would **greatly appreciate their involvement**. It only takes **5 minutes**.



Kindly Regards,
Gordon Cagney
4th Year Physiotherapy Student at the University of Limerick

Appendix 2

Information Leaflet

A survey of current practice, in the management of Rotator Cuff Tendinopathy in Ireland within specific clinical interest groups of the Irish Society of Chartered Physiotherapists.

The aim of this study is to determine current clinical practice of Irish Physiotherapists in the management of patients with rotator cuff Tendinopathy and compare to recommended best practice. Participants will require completing the attached questionnaire.

The benefit will be that we will be able to describe therapist's management of Rotator Cuff (RC) disorders and compare it to best practice. Once disseminated this may help therapists to choose more evidence based management approaches which will be in line with current literature recommendations. Information gained from study could also form the basis of a clinical trial examining usual care for RC disorders.

Rotator Cuff tendinopathy is an umbrella term which includes many conditions of the rotator cuff, these include: Subacromial bursitis, subacromial impingement syndrome, tendinosis, painful arc syndrome, partial or full thickness and massive tear of the rotator cuff, long head of biceps tendinosis or rupture and calcific tendinitis.

You are under no obligation to participate in the study and your co-operation is much appreciated. Participation is voluntary.

The information gathered from the study will be used exclusively within the confines of the study and will not be disclosed to anyone not connected with the study.

Should you have any questions/concerns regarding the study, please do not hesitate to contact the primary investigator at the address listed below.

Project Investigators

Karen McCreesh karen.mccreesh@ul.ie
Gordon Cagney 0764205@studentmail.ul.ie

If you have concerns about this study and wish to contact someone independent, you may contact

The Chairman of the University of Limerick Research Ethics Committee

Prof Alan Donnelly, PESS Dept

University of Limerick

Limerick

Tel: (061) 202672

Link to survey: <http://www.surveymonkey.com/s/RotatorCuffTendinopathy2010>

Appendix 3



UNIVERSITY *of* LIMERICK
OLLSCOIL LUIMNIGH

Informed Consent Form: A survey of physiotherapist's management of rotator cuff tendinopathy in Ireland

- I have read and understood the **information sheet**.
- I understand what the project is about, and what the results will be used for.
- I am fully aware of **all** of the procedures involving myself, and of any **risks and benefits** associated with the study.
- I know that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason.
- I am aware that my results will be kept confidential.

"I understand fully what this study entails and hereby give my consent to participate"

SIGNATURE: _____

DATE: _____

“Try not to become a man of success, but rather try to become a man of value.” Albert Einstein