

VTCT Level 4 Certificate in Exercise for Management of Low Back Pain

| | |
|---------------------------------|--------------------|
| Operational start date: | 1 July 2013 |
| Credit value: | 16 |
| Total Qualification Time (TQT): | 160 |
| Guided learning hours (GLH): | 91 |
| Qualification number: | 600/9981/1 |

Statement of unit achievement

By signing this statement of unit achievement you are confirming that all learning outcomes, assessment criteria and range statements (if/where applicable) have been achieved under specified conditions, and that the evidence gathered is authentic.

This statement of unit achievement table must be completed prior to claiming certification.

| Unit code | Date achieved | Learner signature | Assessor initials | IV signature (if sampled) |
|-----------------|---------------|-------------------|-------------------|---------------------------|
| Mandatory units | | | | |
| UV41574 | | | | |
| UV41573 | | | | |
| UV41575 | | | | |

The qualification

Introduction

The VTCT Level 4 Certificate in Exercise for Management of Low Back Pain is focused towards those wishing to specialise in physical activity/exercise for the management of low back pain.

Through this qualification you will develop the skills, knowledge and understanding needed to competently design, agree, deliver and adapt physical activity/exercise programmes for the management of low back pain.

You will study the epidemiology, prevalence, common interventions and current guidelines for the management of low back pain in the United Kingdom.

You will be able to design and deliver programmes, that include screening, assessment, monitoring and evaluation methods and safe and effective exercises relevant for clients suffering with low back pain.

This qualification gives entry onto the Register of Exercise Professionals (REPS) at Level 4.

Tutor information

You must refer to the SkillsActive Guidance on the VTCT website (<http://www.vtct.org.uk/>) prior to delivering this qualification.

National Occupational Standards (NOS)

This qualification has been mapped to the relevant NOS, and is regulated on the Regulated Qualifications Framework (RQF).

- SKAD519 Design, agree and adapt a physical activity programme with adults with low back pain

This qualification is approved and supported by SkillsActive, the sector skills council for active leisure and learning.

Prerequisites

You must hold registration status as an exercise referral instructor on REPS.

AND

Possess at least 150 hours of relevant professional practice at Level 3 in designing, delivering, monitoring, adapting and tailoring exercise programmes for individuals. This should have been gained within the last two years.

For exceptions please see the SkillsActive Guidance on the VTCT website.

Learners who wish to undertake this qualification must also achieve the VTCT (ITEC) Level 2 Award in Infection Prevention (COVID-19) for Sport and Fitness Sessions qualification or a regulated equivalent.



Progression

On completion of this qualification you may wish to seek employment as:

- a specialist fitness instructor
- an exercise referral instructor specialising in the management of low back pain.

Qualification structure

Total credits required - 16

All mandatory units must be completed. All 16 credits must be achieved.

Mandatory units - 16 credits

| VTCT unit code | Ofqual unit reference | Unit title | Credit value | GLH | Level |
|----------------|-----------------------|---|--------------|-----|-------|
| UV41574 | J/505/2541 | Designing progressive exercise programmes for clients with low back pain | 6 | 40 | 4 |
| UV41573 | F/505/2540 | Delivering progressive exercise programmes for clients with low back pain | 4 | 10 | 4 |
| UV41575 | L/505/2539 | Understanding low back pain | 6 | 41 | 4 |

Guidance on assessment

This book contains the mandatory units that make up this qualification. Optional units will be provided in additional booklets (if applicable). Where indicated, VTCT will provide assessment materials. Assessments may be internal or external. The method of assessment is indicated in each unit.

Internal assessment

(any requirements will be shown in the unit)

Assessment is set, marked and internally verified by the centre to clearly demonstrate achievement of the learning outcomes. Assessment is sampled by VTCT external verifiers.

External assessment

(any requirements will be shown in the unit)

Externally assessed question papers completed electronically will be set and marked by VTCT.

Externally assessed hard-copy question papers will be set by VTCT, marked by centre staff and sampled by VTCT external verifiers.

Assessment explained

VTCT qualifications are assessed and verified by centre staff. Work will be set to improve your practical skills, knowledge and understanding. For practical elements, you will be observed by your assessor. All your work must be collected in a portfolio of evidence and cross-referenced to requirements listed in this record of assessment book.

Your centre will have an internal verifier whose role is to check that your assessment and evidence is valid and reliable and meets VTCT and regulatory requirements.

An external verifier, appointed by VTCT, will visit your centre to sample and quality-check assessments, the internal verification process and the evidence gathered. You may be asked to attend on a different day from usual if requested by the external verifier.

This record of assessment book is your property and must be in your possession when you are being assessed or verified. It must be kept safe. In some cases your centre will be required to keep it in a secure place. You and your course assessor will together complete this book to show achievement of all learning outcomes, assessment criteria and ranges.



Creating a portfolio of evidence

As part of this qualification you are required to produce a portfolio of evidence. A portfolio will confirm the knowledge, understanding and skills that you have learnt. It may be in electronic or paper format.

Your assessor will provide guidance on how to prepare the portfolio of evidence and how to show practical achievement and understanding of the knowledge required to successfully complete this qualification. It is this booklet along with the portfolio of evidence that will serve as the prime source of evidence for this qualification.

Evidence in the portfolio may take the following forms:

- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies

All evidence should be documented in the portfolio and cross-referenced to unit outcomes. Constructing the portfolio of evidence should not be left to the end of the course.

Many frequently asked questions and other useful information are detailed in the VTCT Candidate's Handbook, which is available on the VTCT website at www.vtct.org.uk/students. Other questions should be addressed to the tutor, lecturer or assessor.

Case studies

Case studies must be based on a real clinical case (i.e. a set case study patient), OR, by directly engaging with real patients (i.e. patients with low back pain).

The case study patient must possess at least **one** co-morbidity in addition to the main diagnosis and should ideally present as **medium-high** risk according to appropriate risk stratification.

Case studies are required for the following units:

- UV41574 - Designing progressive exercise programmes for clients with low back pain

Unit assessment methods

This section provides an overview of the assessment methods that make up each unit in this qualification. Detailed information on assessment is provided in each unit.

| Mandatory units | | | | |
|-----------------|---|-------------------|----------------|-----------------------|
| | | Internal | Internal | |
| VTCT unit code | Unit title | Question paper(s) | Observation(s) | Portfolio of Evidence |
| UV41574 | Designing progressive exercise programmes for clients with low back pain | 0 | ✓ | ✓ |
| UV41573 | Delivering progressive exercise programmes for clients with low back pain | 0 | ✓ | ✓ |
| UV41575 | Understanding low back pain | 1 | ✗ | ✓ |

Unit glossary

| | Description |
|--|--|
| VTCT product code | All units are allocated a unique VTCT product code for identification purposes. This code should be quoted in all queries and correspondence to VTCT. |
| Unit title | The title clearly indicates the focus of the unit. |
| National Occupational Standards (NOS) | NOS describe the skills, knowledge and understanding needed to undertake a particular task or job to a nationally recognised level of competence. |
| Level | Level is an indication of the demand of the learning experience; the depth and/or complexity of achievement and independence in achieving the learning outcomes. |
| Credit value | This is the number of credits awarded upon successful achievement of all unit outcomes. Credit is a numerical value that represents a means of recognising, measuring, valuing and comparing achievement. |
| Guided learning hours (GLH) | The activity of a learner in being taught or instructed by - or otherwise participating in education or training under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training. |
| Total qualification time (TQT) | The number of hours an awarding organisation has assigned to a qualification for Guided Learning and an estimate of the number of hours a learner will reasonably be likely to spend in preparation, study, or any other form of participation in education or training. This includes assessment, which takes place as directed - but, unlike Guided Learning, not under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training. |
| Observations | This indicates the minimum number of competent observations, per outcome, required to achieve the unit. |
| Learning outcomes | The learning outcomes are the most important component of the unit; they set out what is expected in terms of knowing, understanding and practical ability as a result of the learning process. Learning outcomes are the results of learning. |
| Evidence requirements | This section provides guidelines on how evidence must be gathered. |
| Observation outcome | An observation outcome details the tasks that must be practically demonstrated to achieve the unit. |
| Knowledge outcome | A knowledge outcome details the theoretical requirements of a unit that must be evidenced through oral questioning, a mandatory written question paper, a portfolio of evidence or other forms of evidence. |
| Assessment criteria | Assessment criteria set out what is required, in terms of achievement, to meet a learning outcome. The assessment criteria and learning outcomes are the components that inform the learning and assessment that should take place. Assessment criteria define the standard expected to meet learning outcomes. |
| Range | The range indicates what must be covered. Ranges must be practically demonstrated in parallel with the unit's observation outcomes. |
| Case studies | A process or record of research into the development of a particular person, group, or situation over a period of time. |

UV41574

Designing progressive exercise programmes for clients with low back pain

The aim of this unit is to develop the knowledge and understanding of correct protocol to follow when working with healthcare professionals and clients, including when to refer to others and the importance of having a named link.

You will develop the skills, knowledge and understanding to screen clients and collect appropriate information to design progressive exercise programmes for clients with non-specific low back pain. Programmes will include exercises, alternatives, modifications, monitoring and evaluating techniques appropriate to the client's needs.

Level

4

Credit value

6

GLH

40

Observation(s)

1

External paper(s)

0



Designing progressive exercise programmes for clients with low back pain

Learning outcomes

On completion of this unit you will:

1. Be able to collect information and agree goals with clients with low back pain
2. Be able to design a progressive exercise programme for clients with low back pain
3. Understand the protocol to follow when working with healthcare professionals and clients
4. Understand how to screen and risk assess clients suffering from low back pain

Evidence requirements

1. *Environment*
Evidence for this unit may be gathered within the workplace or realistic working environment (RWE).
2. *Simulation*
Simulation is not allowed in this unit.
3. *Observation outcomes*
Competent performance of Observation outcomes must be demonstrated on **at least one occasion**. Assessor observations, witness testimonies and products of work are likely to be the most appropriate sources of performance evidence. Professional discussion may be used as supplementary evidence for those criteria that do not naturally occur.
4. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the Knowledge section of this unit. In most cases this can be done by professional discussion and/or oral

questioning. Other methods, such as projects, assignments and/or reflective accounts may also be used.

5. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes in this unit. All outcomes must be achieved.
6. *External paper*
There is no external paper requirement for this unit.
7. *Case Studies*
This must be based on a real clinical case (i.e. a set case study patient), OR, by directly engaging with real patients (i.e. a patient undergoing cardiac rehabilitation).

The case study patient must possess at least **one** co-morbidity in addition to the main diagnosis and should ideally present as **medium-high** risk according to appropriate risk stratification.

8. *Optional Assessment*
Best practice assessment design for Level 4 Specialist Exercise instructor qualifications will require you to directly engage and interact with the relevant patient population.

Suggested assessment evidence could include a log and witness testimony or self-reflective account (with documented pass/fail criteria) of visits to:

- local exercise referral sessions (having been allocated relevant client/s)
- hospital/clinical setting (pulmonary/cardiac rehabilitation)

Achieving observations and range

Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of competent observations required is indicated in the Evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you will be asked questions to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved through professional discussion and/or oral questioning. This evidence will be recorded by your assessor in written form or by other appropriate means.

Your assessor will sign off a learning outcome when all criteria have been competently achieved.

Guidance for tutors and assessors

You must refer to the Skills Active Guidance found under the Qualifications section of the VTCT website:

- <http://www.vtct.org.uk/>

Achieving range

There is no range section that applies to this unit.

Case study

This must be based on a real clinical case (i.e. a set case study patient), OR, by directly engaging with real patients (i.e. a patient undergoing cardiac rehabilitation).

The case study patient must possess at least **one** co-morbidity in addition to the main diagnosis and should ideally present as **medium-high** risk according to appropriate risk stratification.

| Case study details | Date achieved | Assessor initials |
|--------------------|---------------|-------------------|
| | | |



Observations

Learning outcome 1

Be able to collect information and agree goals with clients with low back pain

You can:

- a. Collect information from clients with low back pain using appropriate methods
- b. Interpret and utilise information to enable planning for progressive exercise programming
- c. Agree Specific, Measurable, Achievable, Realistic and Time bound (SMART) goals with low back pain clients
- d. Record information accurately
- e. Follow correct procedures/protocols for confidentiality and consent

* May be assessed by supplementary evidence.

| | | | |
|----------------------------|---|----------|----------|
| Observation | 1 | Optional | Optional |
| Date achieved | | | |
| Criteria questioned orally | | | |
| Portfolio reference | | | |
| Assessor initials | | | |
| Learner signature | | | |

Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below*:

- Projects
- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion

Where applicable your assessor will integrate knowledge outcomes into practical observations through professional discussion and/or oral questioning.

When a criterion has been orally questioned and achieved, your assessor will record this evidence in written form or by other appropriate means. There is no need for you to produce additional evidence as this criterion has already been achieved.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work that meets knowledge criteria, then there is no requirement for you to be questioned again on the same topic.

**This is not an exhaustive list.*



Learning outcome 2

Be able to design a progressive exercise programme for clients with low back pain

| You can: | Portfolio reference |
|---|---------------------|
| a. Select exercise activities that are appropriate for low back pain clients | |
| b. Apply the principles of Frequency, Intensity, Time and Type (FITT) to the design of progressive exercise programmes for clients with low back pain | |
| c. Integrate a range of training variables and techniques appropriate to the client's needs, following national guidelines | |
| d. Identify alternatives or modifications to individual exercise, specific to the client's needs | |
| e. Identify methods of monitoring and evaluating the status of clients with low back pain | |
| f. Record the programme in appropriate format | |



Learning outcome 3

Understand the protocol to follow when working with healthcare professionals and clients

| You can: | Portfolio reference |
|---|---------------------|
| a. Explain the protocol to follow when dealing with: <ul style="list-style-type: none">• Healthcare professionals• Self-referred clients | |
| b. Explain circumstances when you would refer to healthcare or fitness professionals | |
| c. Explain the importance of having an agreed link with a named healthcare professional from a secondary and/or primary care setting | |



Learning outcome 4

Understand how to screen and risk assess clients suffering from low back pain

| You can: | Portfolio reference |
|--|---------------------|
| a. Describe a range of pre-screening questionnaires used for clients suffering from low back pain | |
| b. Explain other methods of collecting information on clients suffering from low back pain: <ul style="list-style-type: none"> • functional assessment • physical activity levels • psychological assessment • reports | |
| c. Discuss the possible contra-indications and red and yellow flags that need to be taken into account for clients with low back pain | |
| d. Investigate methods currently used to monitor and evaluate the status of clients with low back pain | |
| e. Explain how to interpret information obtained from clients suffering from low back pain | |
| f. Explain how to respond appropriately to medical complications and emergencies for clients with low back pain | |

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Learning outcome 1: Be able to collect information and agree goals with clients with low back pain

Collect information: Appropriate methods, questionnaires, interviews, assessments, screening tools.

Interpret and utilise: Interpret and utilise information, plan progressive exercise programme.

Agree goals: Agree goals with low back pain client, SMART (specific, measurable, achievable, realistic, time bound).

Record information: Record information (ensure accurate, legible, logical/user friendly format), use appropriate forms, in appropriate format, information can be used for official/legal purposes, used by multidisciplinary teams.

Correct procedures/protocols for confidentiality and consent: Secure storage of information, use of informed consent, adhere to Data Protection Act, Freedom of Information Act, written permission to share information with other professionals.



Learning outcome 2: Be able to design a progressive exercise programme for clients with low back pain

Appropriate exercise activities: Stability programme, foundation skills (e.g. neutral spine, learning to activate abdominal wall), lumbo-pelvic rhythm (hip hinging), limb movements superimposed on a stable base (crook lying, four-point kneeling position), progression with emphasis based on balance, co-ordination, ultimately to train functional movements and strength, power, flexibility, incorporate all components of fitness, exercise professional to work within scope of practice (e.g. programme to contain exercises/activities from discipline professional is qualified to prescribe).

FITT principles: Apply FITT principles to progressive exercise programmes, incorporate all components of fitness, apply FITT for specific training and general exercise.

Training variables/techniques: FITT principles, gravity, movement complexity, range of motion, planes of motion, balance.

National guidelines: NICE guidelines, other guidelines as recommended by health care professionals.

Alternatives/modifications: Specific to client's needs, progress, adapt, modify, regress, progress, modify in line with client's response (e.g. alternative positions, exercises).

Methods to monitor intensity/evaluate status: For example, monitoring during exercise (e.g. RPE, body language, back pain scales, gait, client feedback (before, during and after session)).

Evaluation longer term: Functional assessments, questionnaires, reviews.

Record programme: Programme to include (exercises, structure of session,

warm-up, cool down, alternatives, modifications, intensities, timings, reps, sets), equipment needed, monitoring methods, format (programme card), using appropriate language for the client, user friendly.



Learning outcome 3: Understand the protocol to follow when working with healthcare professionals and clients

When would you refer: Outside of scope of practice (e.g. pain relief, greater medical intervention needed, if different exercise discipline more appropriate), change in symptoms/circumstances e.g. red flags, increased pain, condition worsened, client is non-compliant with medication or treatment, any change in circumstance which resulting in uncertainty/ambiguity regarding clients suitability for exercise.

Refer to: Original referrer, general practitioner, healthcare professional, exercise professional, clients can self-refer to (physiotherapist, osteopath).

Protocol to follow: As per accepted protocol (for general practitioners, healthcare professionals), keep everyone involved up-to-date (multi-disciplinary), adherence to exercise referral scheme protocol, understanding of the referral protocol, if client self-refers to exercise professional (refer for diagnosis), respect professional boundaries, check appropriateness of referral, professional etiquette, communication (written, accurate recording of information).

Importance of agreed link: Clear line of communication, continuity within a multi-disciplinary team, continuity of care, client confidence, client reassurance, professional to liaise with, established link, to ensure all interested parties have up-to-date information.

Healthcare: Diagnosis, treatment, prevention of disease, illness and other physical/mental impairments.

Secondary care setting – healthcare services provided by medical specialists, those who do not have first point of contact

with patient (e.g. cardiologist, urologist, dermatologist), includes acute care (e.g. intensive care, childbirth).

Primary care – healthcare given by healthcare provider, principal point of consultation for patients (e.g. general practitioner, family physician, nurse practitioner), co-ordinates other specialists patient may need.



Learning outcome 4: Understand how to screen and risk assess clients suffering from low back pain

Pre-screening questionnaires: PAR-Q, medical screening, Morgan and Irwin risk stratification tool, Oswestry low back disability, Roland-Morris disability, Bournemouth, International Physical Activity questionnaire, STarT back screening tool, fear avoidance beliefs, pain scales.

Other methods of collecting information: Reports, interview, observation, functional/physical assessment.

Reports – healthcare professional reports, referral letters, status reports.

Interviews – formal, informal, to gather information, motivational/adherence purposes, review process.

Functional/physical assessment – postural assessment (standing, seated), rising from chair, gait (walking), functional ability questionnaires, range of motion (hamstring, hip flexors), hip hinging ability, lumbopelvic rhythm, abdominal bracing, abdominal hollowing, Biering-Sorensen test.

Contra-indications:

Red flags – existing or suspected medical conditions (symptomatic of cardiovascular disease etc.), mode of onset (trauma), non-mechanical pain, history suggestive of tumour, carcinoma or Cauda Equina Syndrome.

Yellow flags – psychosocial factors (depressions, fear avoidance belief, pain catastrophizing).

Comorbidities – obesity, cardiovascular disease.

Methods of monitoring and evaluating:

Pain scales, heart rates, RPE, talk test, pain questionnaires, functional/disability questionnaires.

How to interpret information:

Understanding results, interpretation of scores, accepted norms, implications of results.

Emergencies: Cauda equina (deal with immediately, call 999).

Response to medical complications/emergencies: Refer for diagnosis/guidance, follow emergency care plan, CALM (Calm yourself, Assess situation, Locate assistance, Make area safe).

Medical complications – sudden change in symptoms, loss of sensation, loss of mobility, sudden increase in pain, comorbidities (symptoms of other disease).

Notes

Use this area for notes and diagrams



UV41573

Delivering progressive exercise programmes for clients with low back pain

The aim of this unit is to develop the knowledge, understanding and skills needed to prepare for, instruct, review and evaluate progressive exercise programmes for clients with low back pain. In addition, you will critically evaluate performance and implement strategies to improve personal performance.

Level

4

Credit value

4

GLH

10

Observation(s)

1

External paper(s)

0



Delivering progressive exercise programmes for clients with low back pain

Learning outcomes

On completion of this unit you will:

1. Be able to prepare for a planned exercise session for clients with low back pain
2. Be able to instruct a session for clients with low back pain
3. Be able to review and evaluate progressive exercise programmes for low back pain clients
4. Be able to evaluate personal performance

Evidence requirements

1. *Environment*
Evidence for this unit may be gathered within the workplace or realistic working environment (RWE).
2. *Simulation*
Simulation is not allowed in this unit.
3. *Observation outcomes*
Competent performance of Observation outcomes must be demonstrated on **at least one occasion**. Assessor observations, witness testimonies and products of work are likely to be the most appropriate sources of performance evidence. Professional discussion may be used as supplementary evidence for those criteria that do not naturally occur.
4. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the Knowledge section of this unit. In most cases this can be done by professional discussion and/or oral questioning. Other methods, such as

projects, assignments and/or reflective accounts may also be used.

5. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes in this unit. All outcomes must be achieved.
6. *External paper*
There is no external paper requirement for this unit.
7. *Optional Assessment*
Best practice assessment design for Level 4 Specialist Exercise instructor qualifications will require you to directly engage and interact with the relevant patient population.

Suggested assessment evidence could include a log and witness testimony or self-reflective account (with documented pass/fail criteria) of visits to:

- local exercise referral sessions (having been allocated relevant client/s)
- hospital/clinical setting (pulmonary/cardiac rehabilitation)

Achieving observations and range

Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of competent observations required is indicated in the Evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you will be asked questions to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved through professional discussion and/or oral questioning. This evidence will be recorded by your assessor in written form or by other appropriate means.

Your assessor will sign off a learning outcome when all criteria have been competently achieved.

Achieving range

There is no range section that applies to this unit.

Guidance for tutors and assessors

You must refer to the Skills Active Guidance found under the Qualifications section of the VTCT website:

- <http://www.vtct.org.uk/>



Observations

Learning outcome 1

Be able to prepare for a planned exercise session for clients with low back pain

You can:

- a. Prepare the environment and undertake risk assessment before the planned session
- b. Check client's experience and conduct a verbal screening
- c. Advise clients on appropriate health and safety factors specific to the session
- d. Explain the aims and demands of the session, obtaining informed consent

* *May be assessed by supplementary evidence.*

| | | | |
|----------------------------|---|-----------------|-----------------|
| Observation | 1 | <i>Optional</i> | <i>Optional</i> |
| Date achieved | | | |
| Criteria questioned orally | | | |
| Portfolio reference | | | |
| Assessor initials | | | |
| Learner signature | | | |



Learning outcome 2

Be able to instruct a session for clients with low back pain

You can:

- a. Physically prepare low back pain clients for sessions
- b. Instruct clients, through exercises that are safe and effective for low back pain
- c. Use appropriate teaching methods and skills to demonstrate effective communication
- d. Ensure that explanations and demonstrations are technically correct
- e. Observe and monitor low back pain clients throughout sessions
- f. Correct and improve the low back pain client's performance where necessary
- g. Offer adaptations/modifications where necessary
- h. Check client's understanding of explanations and instructions, allowing opportunity for questioning and feedback
- i. End sessions, using safe and effective exercises for the low back pain clients

*May be assessed by supplementary evidence.

| | | | |
|----------------------------|---|----------|----------|
| Observation | 1 | Optional | Optional |
| Date achieved | | | |
| Criteria questioned orally | | | |
| Portfolio reference | | | |
| Assessor initials | | | |
| Learner signature | | | |



Learning outcome 3

Be able to review and evaluate progressive exercise programmes for low back pain clients

You can:

- a. Obtain feedback from low back pain clients about the session
- b. Evaluate progress of low back pain clients
- c. Review client's goals and programme based on feedback and progress
- d. Give feedback/advice to low back pain clients based on review
- e. Agree and record any adaptations/modifications to programme
- f. Modify/revise programme accordingly

*May be assessed by supplementary evidence.

| | | | |
|----------------------------|---|----------|----------|
| Observation | 1 | Optional | Optional |
| Date achieved | | | |
| Criteria questioned orally | | | |
| Portfolio reference | | | |
| Assessor initials | | | |
| Learner signature | | | |

Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below*:

- Projects
- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion

Where applicable your assessor will integrate knowledge outcomes into practical observations through professional discussion and/or oral questioning.

When a criterion has been orally questioned and achieved, your assessor will record this evidence in written form or by other appropriate means. There is no need for you to produce additional evidence as this criterion has already been achieved.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work that meets knowledge criteria, then there is no requirement for you to be questioned again on the same topic.

**This is not an exhaustive list.*

Knowledge



Learning outcome 4

Be able to evaluate personal performance

| You can: | Portfolio reference |
|---|---------------------|
| a. Critically evaluate personal performance | |
| b. Identify strategies to improve personal performance based on clients' feedback and self evaluation | |

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Learning outcome 1: Be able to prepare for a planned exercise session for clients with low back pain

Environment: Environment, fitness studio, gym, sports hall, suitability for session type.

Prepare environment: Resources/ equipment, temperature, ventilation, flooring, space and layout, lighting, provision of water, medications available (patients responsibility to administer).

Prepare documentation: All relevant client information e.g. programme cards, personal record card, screening documentation, referral forms, session based information, exertion levels card, pain scales.

Undertake risk assessment: Ensure environment safe to exercise, identify hazards (e.g. safety, ventilation, temperature, safe use of space, check condition of equipment, ensure accessibility, emergency procedures in place (CALM – calm yourself, assess situation, locate assistance if available, make area safe), emergency care plan), decide who might be harmed and how, evaluate the risks, decide on precaution, record finding, implement finds, review your assessment regularly, update records if necessary, screening (PAR-Q, risk stratification).

Experience and verbal screening: Verbal screening, questioning, levels of support required, physical signs (posture, gait).

Advice on health and safety factors: Clothing, fluid intake, emergency procedures, fire exits.

Health and safety monitoring methods: Pain scales (pain should not increase when exercising, if pain increases stop

immediately, never allow clients to exercise through increasing pain), RPE, talk test, heart rates.

Aims and demands of session:

Physical and technical demands, aims and objectives, link session to goals, how aims relate to improvement of condition (e.g. low back pain), methods that will be used to monitor intensity/pain, expectations of effort, planned activities, session content, format, purpose, timings, possible outcomes, benefits and risks of the exercise session.

Obtain informed consent: Explain meaning and purpose of informed consent, provide detailed information to allow client to make informed decision about participation, provide client with opportunity to reflect on verbal and written information provided, checking the client's understanding, record signed consent.



Learning outcome 2: Be able to instruct a session for clients with low back pain

Physically prepare clients for sessions:

Appropriate to the patients and planned exercise, condition-based intensity and durations, adaptable to the environment (availability of equipment, space, temperature), warm-up should contain a short period of aerobic exercise and flexion and extension cycles (e.g. cat or camel for mobilising (5-6 cycles)).

Instruct through safe and effective exercises for low back pain:

Exercises for general fitness (cardiovascular, resistance, flexibility), back specific training i.e. appropriate stability work, core strength and endurance, flexibility, balance, mobility, stable surfaces, unstable surfaces, functional, use of appropriate equipment (e.g. stability balls, wobble boards/bosu).

Appropriate teaching methods/skills:

Demonstration, explanation, teaching points, motivational, visualisation, mirroring, observation (recognise signs of over exertion, poor technique), ability to adapt/modify/progress.

Effective communication: Empathy, use of appropriate body language (open), keep information clear, simple and precise, avoid use of technical language, avoid language that infers disease/disability, enhance relationship, build rapport, supportive, motivational, respond appropriately to verbal/visual feedback, effective use of agreed monitoring techniques (e.g. RPE, pain scales, talk test, heart rates), consistent with accepted good practice.

Explanations and demonstrations:

Explanations – clear, correct, stress key points, reinforce technique, teaching

points, information (name exercise, area of body worked, muscles utilised).

Demonstrations – technically correct, broken down, ensure client can observe fully (change position etc.).

Observe and monitor: Observe and analyse technique, recognise signs of over exertion, use monitoring techniques (RPE, pain scales, heart rate, talk test), respond to visual and verbal feedback.

Correct and improve: Correct exercise technique at appropriate points, poor technique (poor posture, alignment, inappropriate exertion (too high/too low)), correct technique (with verbal, teaching points, visual demonstration), ensure correction is carried out tactfully, sensitively and discreetly.

Offer adaptations/modifications:

Progress or regress exercises according to patient's performance (levers, intensity, movement complexity, planes of movement, ranges of motion, balance, speed, resistance, frequency, reduce rest time, change order of exercises), consider the original condition, suitability of progression/regression of exercise.

Check understanding: Confirm understanding of explanations and instructions, paraphrase, use verbal/non-verbal communication, adapt for disability (e.g. hearing/sight-related issues), language barriers (e.g. speak more slowly, more visual cues), allow time for feedback and reflection, review, confirmation of understanding.

End sessions, using safe and effective exercises: Allow sufficient time to end the session, adapt cool down according



Learning outcome 2: Be able to instruct a session for clients with low back pain (continued)

to client's needs (level of fitness, level of skill, level of experience), adapt cool down according to environmental needs (temperature, space, time of day, intensity of session).

Learning outcome 3: Be able to review and evaluate progressive exercise programmes for low back pain clients

Obtain feedback: Identify how well the session met clients' goals, how effective and motivational the relationship was with clients, how well the instructing styles matched needs, did exercises meet client needs (e.g. objectives, goals, enjoyment), any difficulties experienced, obtain feedback at end of session.

Evaluate progress: Goal achievement, progress from baseline levels, comparison against norms.

Methods to evaluate: Evaluation of outcomes, feedback from monitoring/evaluation methods (e.g. questionnaires, pain scales, physical and psychological measures), compare against goals and baseline.

Review goals and programme: Review based on feedback and evaluation, review with client.

Give feedback/advice: Physical activity levels, lifestyle/diet changes to help progress goals, changes to programme.

Agree and record adaptations/modifications: Discuss with client, agree with client, ensure records up-to-date, record in appropriate format.

Modify/revise programme accordingly: In line with client progress, goals, changes in circumstances/condition, client feedback.



Learning outcome 4: Be able to evaluate personal performance

Critically evaluate personal

performance: Allow time for reflection, reflect on feedback, reflect on session (e.g. interaction with clients, appropriateness of session content, communication, teaching skills, motivational skills), identify strengths and areas for improvement.

Strategies to improve personal

performance: Reflective practice, respond to feedback, continual professional development (education, qualifications, research), ensure own practice is current.

Notes

Use this area for notes and diagrams



UV41575

Understanding low back pain

The aim of this unit is to provide you with a comprehensive understanding of the epidemiology, statistics, guidelines and interventions used in the management of low back pain. You will learn how to facilitate analysis of the models and techniques used to encourage long-term adherence to beneficial lifestyle changes.

In addition you will explore the varied healthcare professionals, organisations and agencies (public and private) that are involved in the management of those with low back pain, including the roles they play.

Level

4

Credit value

6

GLH

41

Observation(s)

0

Internal paper(s)

1



Understanding low back pain

Learning outcomes

On completion of this unit you will:

1. Understand the epidemiology of low back pain
2. Understand the prevalence and guidelines for low back pain in the United Kingdom
3. Understand the effect of interventions used in the management of low back pain

Evidence requirements

1. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the Knowledge section of this unit. In most cases this can be done by professional discussion and/or oral questioning. Other methods, such as projects, assignments and/or reflective accounts may also be used.
2. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes in this unit. All outcomes must be achieved.
3. *Internal paper*
Knowledge and understanding in this unit will be assessed by an internal paper set and marked by your centre. **There is one internal paper that must be achieved alongside your portfolio.**

Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below*:

- Projects
- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion

**This is not an exhaustive list.*

Where applicable your assessor will integrate knowledge outcomes into practical observations through professional discussion and/or oral questioning.

When a criterion has been orally questioned and achieved, your assessor will record this evidence in written form or by other appropriate means. There is no need for you to produce additional evidence as this criterion has already been achieved.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work that meets knowledge criteria, then there is no requirement for you to be questioned again on the same topic.

Achieving the internally assessed paper

You will need to achieve a **pass mark of 70%**. You must refer to the Skills Active Guidance under the Qualifications section of the VTCT website:

- <http://www.vtct.org.uk/>

Your assessor will complete this table when the 70% pass mark has been achieved.

| Paper | Date achieved | Assessor initials |
|--------|---------------|-------------------|
| 1 of 1 | | |

VTCT expect centres to devise and implement their own exam papers (exams will be internally set and marked by centres). These papers should comprise of multiple choice questions and short and long answer questions. If a centre requires advice and guidance on producing a paper, then this will be provided by VTCT. The paper must be sat under controlled conditions (see invigilation guidelines on the VTCT website: <http://www.vtct.org.uk>).

Knowledge



Learning outcome 1

Understand the epidemiology of low back pain

| You can: | Portfolio reference |
|--|---------------------|
| a. Explain the physiology of pain | |
| b. Explain the different classifications of low back pain | |
| c. Describe the relevant anatomy associated with low back pain | |
| d. Discuss the possible causes and risk factors associated with low back pain | |
| e. Discuss comorbidities associated with low back pain and their exercise considerations | |
| f. Describe psychosocial factors that could contribute/influence low back pain | |
| g. Explain the possible consequences of low back pain | |
| h. Explain the importance of positive mental health promotion for clients with low back pain | |
| i. Describe the possible barriers to communication with clients with low back pain and the skills needed to overcome these | |



Learning outcome 2

Understand the prevalence and guidelines for low back pain in the United Kingdom

| You can: | Portfolio reference |
|--|---------------------|
| a. Describe the structures of the National Health Service, to include services available and their functions | |
| b. Identify agencies, organisations and sources of information concerned with low back pain management | |
| c. Investigate current national statistics on low back pain | |
| d. Explain current national guidelines for the management of low back pain | |



Learning outcome 3

Understand the effect of interventions used in the management of low back pain

| You can: | Portfolio reference |
|---|---------------------|
| a. Analyse the effectiveness of interventions used in the management of low back pain: <ul style="list-style-type: none">• physical activity• manual therapies• psychological interventions• medications | |
| b. Analyse the motivational processes, models and techniques used with low back pain clients to encourage adherence to long-term beneficial lifestyle changes | |

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Learning outcome 1: Understand the epidemiology of low back pain

Physiology of pain: Acute, sub-acute, chronic, pain receptors, transmission of signals, pain gate theory, three aspects pain (nociception, pain, suffering), nociception (protective mechanism), pain (sensation, tissue damage, sensory and emotional experience), suffering (emotional response), pain can still be experienced with no tissue damage (neuropathic pain), changes in spinal cord after chronic injury (hypersensitive to pain), gender differences in pain experience.

Classifications of back pain:

Location – below inferior border of last rib and above inferior gluteal fold.

Acute – stimulation of nociceptor, self-limiting, protective function, minimal psychological symptoms, lasts for less than 6 weeks, sub-acute.

Chronic – no protective function, dysfunctional process, persists for more than 12 weeks to years after injury, psychosocial issues.

Specific – known disease, pathological cause.

Nerve root pain – radicular, compression/irritation of spinal nerve root.

Non-specific – cause is unclear, no known disease or pathological cause.

Diagnosis – diagnostic triage.

Symptoms of low back pain: Referred pain, stiffness in morning, start pain, cyclical, pain aggravated with movement, worsens during day, pain relieved with

change in position.

Causes of low back pain: Difficult to diagnose, structures that contribute (ligaments, muscles, tendons, joints between vertebra, disc), result of minor strain, sprain or irritated nerves (impossible to accurately distinguish main source), no structural changes may be apparent, 90% of cases gone within six weeks, can reoccur.

Functional anatomy: Structures of the spine (muscles, tendons, joints, ligaments, discs), discs (pressure changes under load, during exercise), abnormal curves of spine (kyphosis, lordosis, scoliosis).

Stabilisation of spine – passive support, active support, neural control.

Passive support – intrasegmental ligaments (ligamentum flavum, interspinous, intertransverse), intersegmental ligaments (anterior and posterior longitudinal, supraspinous).

Active support – phasic muscles (mobilisers e.g. rectus abdominis, external obliques), postural muscles (stabilisers e.g. lumbar multifidus, transversus abdominis), stabilising systems (global and local), proposed mechanisms (intra-abdominal pressure, hydraulic amplifier effect, thoracolumbar fascia gain).

Neural control – neutral zone (activation of inner/outer unit), faulty mechanism in low back pain.



Learning outcome 1: Understand the epidemiology of low back pain (continued)

Possible causes and risk factors:

Risk factors – non-modifiable (increasing age, gender), modifiable (lack of fitness, smoking, obesity, stress, physical trauma, work posture, bending and twisting, heavy/repetitive lifting, prolonged sitting/standing), psychosocial (stress, anxiety, depression).

Causes – cumulative trauma (impairments in alignment, stabilisation, movement patterns), load, age, gender, muscle activation (faulty recruitment patterns), non-organic causes (forensic, iatrogenic, behavioural).

Comorbidities associated with low back pain: Comorbidities (obesity, depression, arthritis, osteoporosis), exercise considerations for each comorbidity.

Psychosocial factors: Psychological and social aspects, fear avoidance behaviour, perceived disability, catastrophising, expectations, self-efficacy, locus of control, attention on pain (preoccupation with pain), anxiety, depression.

Consequences of low back pain: Mental health issues, psychosocial issues (depression, anxiety, withdrawal from social networks), loss of function, disability, financial consequences, economic.

Importance of positive mental health promotion: Association mental health issues and low back pain, links with depression, burden of pain, importance of positive mental health (management of low back pain).

Possible barriers to communication: Use of medical terms, language that infers disability, lack of understanding of condition and implications, use of jargon, lack of trust, belief and expectancy, low

self-efficacy, lack of empathy, judgemental, poor communication skills (instructor).



Learning outcome 2: Understand the prevalence and guidelines for low back pain in the United Kingdom

Structures of National Health Service:

Secretary of State for Health, Department of Health (DoH), National Health Service England (NHS), clinical commissioning groups, health and wellbeing boards, public health England.

Services provided by the NHS:

Emergency care, hospital, dental, pharmacy, eye care, sexual health, mental health, social care.

Current national statistics: National Institute for Health and Care Excellence (NICE), National Health Service (NHS), reputable authorities, credible, current, research-based.

National guidelines: National Institute for Health and Care Excellence (NICE), European Guidelines for the Management of Chronic Low Back Pain, Royal College of General Practitioners, Chartered Society of Physiotherapy, guidelines to be current.

Agencies, organisations and literature – Agencies (e.g. NICE, DOH), organisations (Back Care, Arthritis research UK, British Pain Society), literature sources (e.g. British medical journal, Lancet, The Spine, Spine, National Institute for Health Research).



Learning outcome 3: Understand the effect of interventions used in the management of low back pain

Analyse effects of interventions:

Examine in detail, research-based evidence, effectiveness.

Interventions:

Physical activity – general physical activity, specific forms of exercise (e.g. strengthening, stretching, Pilates, Yoga, core stability).

Manual therapies – treatments that use hands, spinal manipulation, spinal mobilisation, massage, complementary therapies.

Psychological interventions – motivational interviewing, cognitive behavioural therapy, counselling.

Medications – Paracetamol, non-steroidal anti-inflammatory drugs (NSAIDs), opioids, anti-depressants, muscle relaxants, oral steroids.

Other interventions – pain management courses, ergonomics, acupuncture.

Motivational processes, models, techniques:

Motivational processes and models – social cognitive theory (self-efficacy), transtheoretical model-stages of change, pain stages of change, motivational interviewing, cognitive behavioural therapy, self-motivational assessment scales, motivational model of pain self-management.

Techniques – programme management, shape expectations, reinforcement, stimulus control, contracting, generalisation of training, social support, self-reinforcement, recruit healthcare professional support, emphasis on variety and enjoyment, periodic testing (progress),

positive teaching, cognitive dissociation strategies, positive approach, motivational interviewing.

Notes

Use this area for notes and diagrams


