

LECTURE 4

The Planning Process

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- **The Planning Process**
- **Consultation & Screening Process**
- **SMART Goals**
- **Measurements & Testing**

**Introduction to Planning
& Preparing Exercises**

LECTURE **4**

The Planning Process

This lecture is about planning gym-based exercise programmes. We will jump initially into what information you need to gain from your clients, and how this will impact your planning process.

You will generally work with a healthy population. Not everyone will be fit but more often than not, you won't have to plan around chronic illness. If you do, then you should ensure you network with relevant professionals in order to keep the client's safety central to the process.

The people you work with will be looking to get a little fitter (there are many ways this can be interpreted) and enjoy the benefits that enhanced fitness can offer. Some of the inherent but important benefits of exercise, such as lowering the risk of obesity, diabetes and heart disease can be achieved through careful and appropriate programming. The majority of people would actually like to look better, lose some weight and feel better and exercise can help them to do this.

The initial information-gathering stage with a client is important in realising exactly who you are working with and what they may or may not be able to do, as well as how you can best help.

A personal trainer is not qualified to diagnose any medical conditions and we must also avoid trying to rehabilitate clients following injury. What we CAN do however, is identify potential issues that clients may be dealing with based on a comprehensive screening, and if appropriate plan and deliver programmes following this.

Consultation & Screening Process

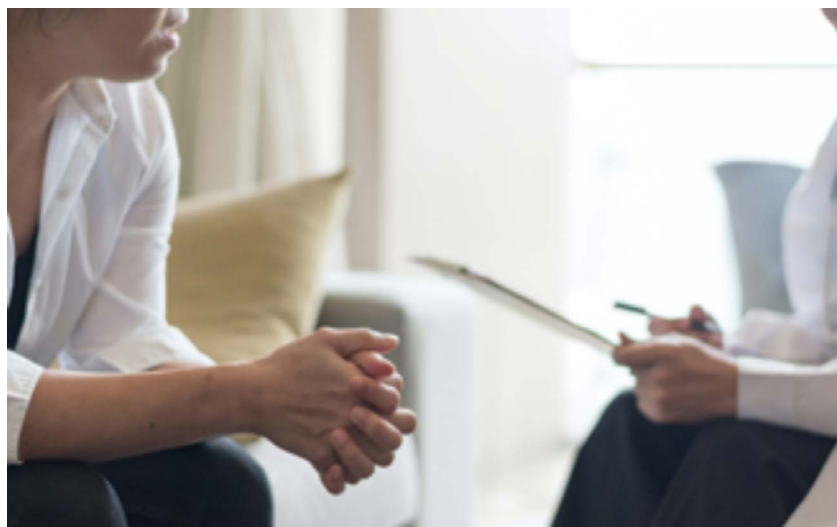
What is involved?

There are many key phases to the consultation process that you will need to consider...

First of all we'll look at the...

Screening Process

PAR-Q



A PAR-Q is a form with several questions regarding the client's health and wellness. It will be completed by the client in order to identify any major issues that they may have. You can act on any issues that are worrying them accordingly. You should be aware of how to deal with any specific questions that are answered with a YES. Generally, you should pass the person along to a suitable professional.

Informed Consent

An informed consent form is signed by the client as an acknowledgment that they understand the process they are about to take part in, and that their data will be taken and held for the purposes of planning etc. They are confirming that they are happy to proceed.

You should highlight any and all of the stages they are going to go through including testing, physical assessment and exercise delivery.

Medical Referral

- If the client has any major health concern then you should immediately refer them to a medical professional.
- If a client is suffering with an injury or illness, you may refer them so that they can be cleared to exercise or receive special attention.
- It is always best to refer if you have any doubts or concerns about the client's suitability to exercise.
- If the client would prefer to get peace of mind prior to starting exercise you should respect their wishes and wait for their clearance before starting training.

At this point it is also worth offering the client a copy of the club's Health Commitment Statement (HCS) in order that they are aware of everyone's role in health and safety at the facility...

Next...

Client Information Gathering

Client information is a vital part of the process as it allows you to offer the very best session design based on exactly what the client needs. There are many ways to gather this information and advantages and disadvantages to each. Have a look at the information below to familiarise yourself with these methods, as well as some of the key information you need, so that you can successfully put them into practice with your clients.

- **Interview** - this can sometimes be more useful than a questionnaire as it allows you to ask more specific questions as well as ask follow-up questions. You can get into more detail in an interview which can be helpful.
- **Observation** - can help to identify whether a client suffers from any muscular compensations or postural issues. This could be a static or dynamic observation. It will take experience to be able to effectively observe and distil the information down into a programme but it does get easier with time.
- **Questionnaire** - can be a simple and quick way to gather a large amount of information. It is important to recognise however, that the findings from a questionnaire may well be short on detail so they are a good starting point.
- **Preferences** - what does that client like and dislike? Ultimately, adherence to a plan is the most important factor in whether or not that client will be successful, so including things they don't like will not help them.
- **Time** - your clients may have limited time available, therefore it is down to you to set their expectations and programme something that works within their schedule.
- **Lifestyle factors** - their lifestyle can have an impact on everything from their time available to train, their likelihood to stick to a plan and more!
Some factors could be what they do for a living, whether they smoke or drink, do they travel a lot, do they have a family and do they have any exercise experience
- **Goals** - what are your clients goals - do they even have any clear goals? It can be down to you to help not only articulate those goals but make sure they are manageable.
- **Training ability and age** - age will have obvious implications on the type of exercise that a client might enjoy, be comfortable doing or even capable of doing. Their training ability will influence what options you have in terms of exercise selection and how advanced you could make your workouts. Are they a total beginner or have they already been training for a number of years?

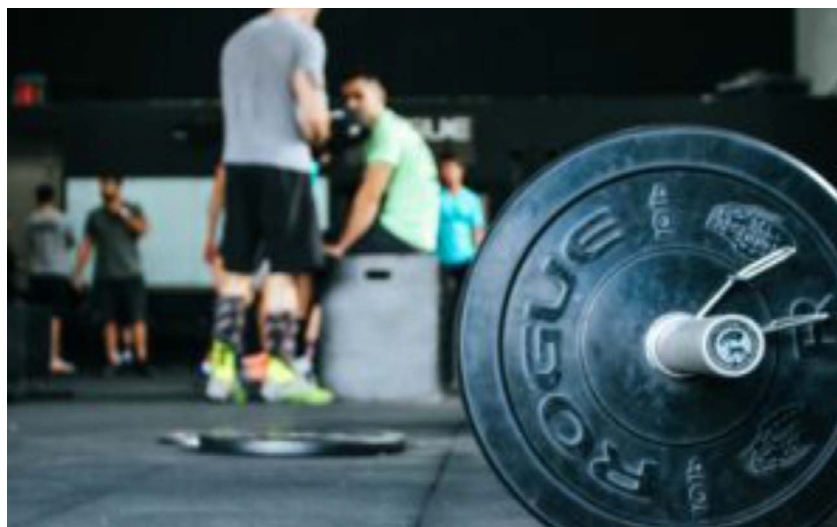
SMART Goals

Once we have screened the client and are happy with their suitability to train, and we have the information we need, we can then focus on creating SMART Goals...



Measurements & Testing

Physical measurements can be really useful in order to assess the client's current condition, as well as being used as a reference point when taking measurements in future to mark progress. The measurements you take and the testing you do should be related to the client's goals so that you can be certain that the training will assist their progression... all the more reason to ensure that the information-gathering stage was comprehensive.



Consider the following...

- **Validity of tests** - refers to how well a test measures what it is designed to measure. For example, providing you have appropriately calibrated equipment, you can be confident that a client's height and weight can be tested accurately using tape measures and weighing scales.
- **Reliability** - how well can a test be repeated and provide the same result? The degree of consistency in the testing is related to its reliability.
- **Timing of testing** - the time of the day that you perform the fitness tests is important as people's physical and mental state will be different at different times of the day - and indeed at different times in the week. This way you can largely ensure the situation for the client is similar, meaning the results are more reliable.
- **Neutral state** - to ensure the greatest accuracy of test results, and the greatest re-test accuracy later on you should ensure the client is arriving in a neutral state that is repeatable. For instance, if they are arriving for testing following the completion of a 10km run the day before then the accuracy of the results will be compromised as they will be fatigued.
- **Lifestyle or work commitments** - if a client arrives from a stressful work day, or are under a lot of pressure in the time leading up to the fitness testing period you should consider rearranging. Another example for this would be working a night shift.
- **Medical** - you should be aware of the client's medical status at this point but it is important to avoid any testing that would cause an issue for clients in a medical setting. In addition, if they are using any medication at this point, they should bring it with them, particularly if exercise may exacerbate the issue, such as with asthma.
- **Equipment & environment** - all equipment used for testing should be in good working order, and calibrated if necessary. Also consider temperature etc when trying to repeat tests. If there is anything out of the ordinary, such as a particularly hot day when testing, make a note of it so that it doesn't impact the interpretation of the results.

Testing can cause tremendous strain and stress for the client. For this reason, you should keep the client's safety as top priority and stop the testing process immediately if any of the following issues arise...

- Chest pains of any description.
- Client feels sick or nauseous.
- Light-headedness, dizziness or feeling faint.
- Any significant change in blood pressure – increase or decrease.
- Either red, or cold, clammy skin.
- Shortness of breath.
- Equipment stops working.
- Signs of severe fatigue.
- Client wants to stop.
- Injury occurs.
- Irregular pulse.
- Serious arrhythmias.

So...what tests can I do?

Anthropometric

Height, Weight or BMI



You can measure a client's height and weight for an understanding of their current measurements. If using scales make sure they are on an even, hard surface and that you use the same scales, as well as ideally the same time etc for re-tests. Once you have the client's height and weight you can calculate their BMI, which offers an indication of their current health risk.

Circumferential



When taking a circumferential measurement, it is important to ensure the tape measure isn't twisted on the skin and that it is not pressing into the skin either.

These measurements are particularly useful when measuring waist:hip ratio as this gives an insight into the client's risk factor for medical issues.

Blood Pressure or Resting Heart Rate



Blood pressure can be taken with a cuff manually, or with an automated machine. This is a really important measure as clients may have high blood pressure and be unaware of it.

Most machines will also give the client's resting heart rate reading as well.

Cardiovascular

Rockport Walk Test



For this test you walk as fast as you can for one mile. Following this, you record your time as well as your pulse immediately following completion of the test. You can then check your predicted VO₂Max by using the following equation:
 $132.853 - (0.0769 \times \text{your weight in pounds}) - (0.3877 \times \text{your age}) + (6.315 \text{ if you are male or } 0 \text{ if you are female}) - (3.2649 \times \text{your walking time}) - (0.1565 \times \text{your heart rate at the end of the test}).$

Cooper Tests



There is the 1.5 mile test and the 12-minute run. For both you want to have a warmup prior to taking the test. Following this, the participant is to simply run or walk as far as they can on a track or treadmill in 12-minutes. For the Cooper 1.5 mile run they are to complete 1.5 miles in as short a time as possible. These tests are used to estimate the cardiovascular fitness of the client.

Muscular Endurance

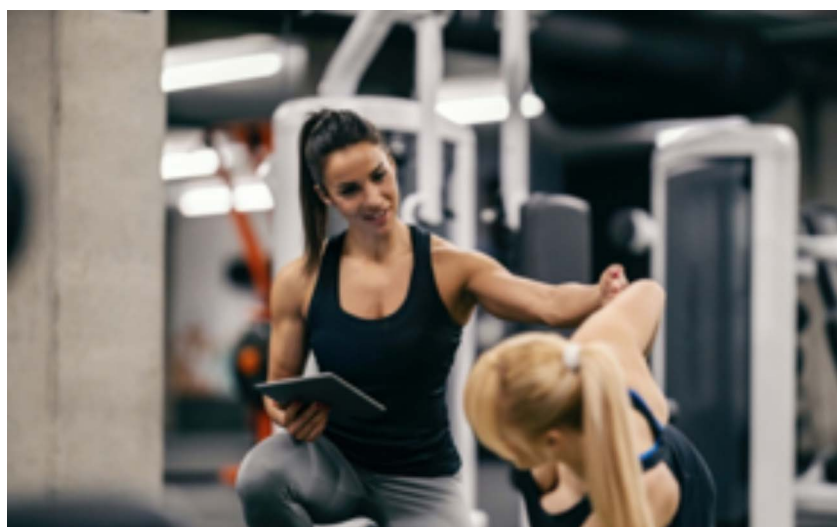


Max Reps



The instructor needs to be confident in the client's technique and stop the test if this starts to fail. The idea here is to see how many reps the client can perform for a given exercise with a specific weight. If this number increases over time with the same weight, it is a good indication that the client's muscular endurance is progressing. You can also perform this type of test with bodyweight exercises such as press-ups and sit-ups.

Timed Efforts



For exercises such as the plank or the back extensor test it can be good to see how long someone can maintain their form. For exercises such as press-ups and sit-ups, performing maximum reps in a given timeframe can be a useful measure of muscular endurance, providing the technique is good.

Be aware that there are some clients, such as those suffering with hypertension among others, for whom isometric exercise will be contraindicated.

Muscular Strength



Strength is measured by movement against some resistance. The most common tests are the bench press and the leg press although arm curls, lat pull-downs, and knee extensions are also used.

Repetition Max Tests



1RM, 3RM & 5RM are all rep max tests that you could use with a client. The 1RM would be considered as the maximum weight that a client can move for a single rep and indicates their maximal strength. There should be several sub-maximal sets in the lead up to performing a 1RM as well as adequate recovery time between sets. This type of test should only be performed on compound sets by individuals who are fit, healthy and have the correct technique.

Contraindications

Strength tests should not be performed by novice lifters. Rep max and strength testing should also not be performed by anyone that has underlying medical conditions that may be affected by performing the tests. An example would be those with hypertension, the high level of exertion could make the issue worse.

Flexibility



Static ROM



For this type of measurement, you might choose to use a manual or electronic goniometer, which measures joint angles. This can also be completed without this equipment with estimations of ROM but it will be less accurate.

Sit & Reach



The sit and reach test measures the flexibility and mobility of the hamstrings, hips and low back. During the test the participant should move slowly to a stretch position without bouncing and hold for a few seconds.

Testing Order

Testing order is important to consider. You should perform the static testing prior to the dynamic testing as any of the tests that effect your resting state will effect the results of your static tests. For example if you complete a Cooper 1.5 mile run prior to taking your blood pressure then the result of the BP test will not be reliable...

Final Stage

The final stage to this planning process for your clients is to work on the programme design itself. The process up until this point will become more fluid as you progress in your career and gain experience. You are fully prepared to start writing the programme however, once you have gone through the earlier stages comprehensively with the client.

Make sure you take into account their background and history, preferences, screening data and SMART goals to tailor the programme and offer the maximum chance for success.