Sport psychology for orienteering

*unifying body and mind for success



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BASES Accredited Sport and Exercise Psychologist

What is it?

"The application of psychological knowledge to enhance personal development and performance of individuals in sport"

Vealy & Garner Holman (1998)

Research suggests that "elite athletes generally recognize the need for a professional sport psychologist... and this **increases** as athletes come into contact with sport psychologists' services"

Orlick & Partington (1987)

Mental vs. Physical/technical training



"Athletes train their body to incredible levels, everything is put into the physical training, yet very little is done mentally. Most of the time the limiting factor is the mind and not the body."

Sir Steve Redgrave

Example - Paivio's Pendulum

What was that, and what could it be used for in orienteering?

"Sport Psychology is the best thing since sliced bread"

I'd love to be able to say this, but is it really..? Or are there caveats?

It works...! (Doesn't it?)

- Sport psychologists have often conducted correlational studies linking 'mental skills' with performance (Gould, et al., 1992; Gould et al., 1981; Orlick & Partington, 1988).
- Popular cognitive-behavioural principles and techniques are often used to build confidence, reduce anxiety etc. and so are also proposed to help athletes perform well (Whelan, et al., 1991)
- Hence, traditional techniques (including goal-setting, imagery, self-talk and arousal regulation) are <u>believed to</u> help athletes achieve peak performance (Andersen, 2000; Hardy et al., 1996; Van Raalte & Brewer, 2002).

Yeah but... this is applied

"Practitioners' experience of treatment success and athletes' reports of treatment gains are the only meaningful data for judging clinically significant treatment effectiveness" (Myers et al., 1996, p.146)

VERSUS

"Such positions are the antithesis of the scientific method and are problematic in a field with increasing demand for accountability and ethical responsibility"

(Gardner & Moore, 2006, p.66)

Strean and Roberts (1992) reported that sport psychology interventions "have not been critically examined, and practitioners do not know the efficacy of many procedures they employ" (p.62)

Yet in all reality...

What are some of the most hard-hitting stories you hear?

- Media?
- Advertising?
- Mates in the pub?
- High-profile successes and 'flops'?
- 'Interesting' or striking findings?
- Claims made by famous or 'expert' practitioners?
 - Claims made by famous or top-class performers??

We ALL do it, we're ALL fallible...

At a conference discussing evidence based practice, one audience member couldn't contain their anger:

"In Michael Jordan's book he described how he used imagery throughout his career, and he ended up being the best basketball player in history, so this shows that imagery *must* work!"

Q. What's wrong with this statement?

(Trite) Response: "Well, he could have simply been the best basketball player all along, regardless of whether he used imagery, ate Wheaties, or wore purple socks"

Taken from Gardner and Moore (2006, p.70)

The purple socks argument

We cannot safely deduce that using imagery caused Michael to be the world's best basketball player.

Q. What prevents us making this deduction?

- We have no control group, no comparison
- Maybe imagery has no effect and Michael would have been the best player in the world anyway
- Maybe, even if it did work for Michael, it wouldn't work for anyone else
- We have no idea if/how/when the imagery was used so we don't know whether
 it contributed in any way to a performance improvement

Without controlled administration, a comparison to a control group (or normative data), and a decent, unbiased sample we cannot say that the imagery <u>caused</u> the high level of performance.

The placebo effect

Many drugs and psychotherapies have an initial beneficial effect

This can be as strong as a 25-30% improvement

The act of receiving some kind of treatment or attention often causes an improvement or alleviation of symptoms

In a study of depression, the group receiving medication showed a 25% improvement over the placebo. But the placebo group showed a 200% improvement over a group receiving no treatment! (Evans, 2004)

Hence, 'beating' the placebo can be a difficult task!

The Bottom Line (Part 1)

- Not a single sport psychology intervention has been trialled to the level that drugs/medicines are before they are approved for sale
 - Mainly due to no-one trying
 - Where proper studies are done, some promising findings emerge
 - So let's say so when dealing with athletes tell it like it is
- Anybody claiming to have found a magic-bullet (i.e., that always works) is misleading you – intentionally or accidentally (i.e., through ignorance)
- Only trust the people who give qualified "it depends" answers
- There are certain steps, conditions and processes that significantly improve the changes of an intervention working
 - E.g., practice, practice
 - E.g., in imagery, real-environment seems to work much better than relaxing in a quiet room... (Smith, Wright, Allsopp, & Westhead, 2007)
 - So find out these and use them!

"I am the best sport psychologist working in this sport" Recently used to start a talk at a conference (not by me!) rkeegan@lincoln.ac.uk

Well... What makes for "the best" psychologist?

- Gets results
- Acts fast, never hesitant
- Has <u>lots</u> of <u>loyal</u> clients
- Has the most famous clients
- A high profile success story
 (perhaps overlooking the failures?)
- Is famous / well-known
- Makes the most money (charges the most?)
- Is a good 'salesman'
- Offers certainty (guarantees)
- Can do some impressive tricks
- Has sold lots of books / DVDs
- Has a 'program' of success

- Never screws up, does no harm
- Takes time, sometimes lots
- Seeks to <u>put her/himself out of job</u>
- No-one knows if clients are famous
- No notable / public success stories
- No-one heard of her/him
- Makes a modest living charges a fair price
- Does not need to 'sell' a service
- Always tentative, reflects the uncertainty
- Never misleads, never over-hypes
- Has a completely flexible / unique approach for each client

Best-ness

- The idea of 'best-ness' implies competition, big egos, and self-interest
- These ideas are completely inappropriate to being a psychologist, as all
 of these ideas undermine a helping, facilitative relationship.
- The psychologist should never stand to gain anything from the relationship:
 - Fame
 - Status
 - Reputation
 - Popularity
 - Recognition
- This is why they charge money in the first place, to forsake these things and just help.
- Even testimonials and endorsements with the client's consent should be frowned upon – a good psychologist never name-drops
- A good psychologist should be neither seen nor heard about in the public eye/media.

Socrates and the Oracle of Delphi

- 2 things human beings cherish: certainty and simplicity......
- However, the only things we can be certain of is that our knowledge is limited, fallible, imprecise, flawed.
- There is no such thing as a true theory
 - Part of the definition of a theory is that it is wrong we just have to find out how
 - A theory should be like a paper cup
 - So why do we hold theories so precious in our psyche?
- This is why your good psychologist will be tentative, and offer full informed consent
 - E.g., "The idea we're discussing here, if it was like a drug in medicine it would be "experimental". We think it works and we can see how it might work, but it's still unproven. Are you sure you want to go ahead with this?"
 - E.g., "Well try it, give it a go and see how you get on and don't be afraid to come back and tell me it didn't work, I won't mind."



Derived from the Hippocratic oath

OK – but then what can we do ..?!

Good idea? Making Talking to the Using - Excellent - so try observations athlete - about questionnaires it and then go back during training or their thoughts and - to assess any to the needs Bad idea? emotions during sport aspects of the athlete's performances analysis stage (i.e., Not to worry, go skills, thoughts or check how well it back to Stage 5 emotions works) and generate a new idea - or if that fails, perhaps you need a new theory (Stage 4) 1) "Needs 2) "Case 3) "Theoretical 4) "Idea 5) "Idea ____ **Understand** conceptualisation" evaluation" analysis" context" generation" how likely Using a variety of - Trying to understand - Using theory to - Evaluating your - Combing lots of information your techniques to assess your athlete in relation make predictions intervention ideas to arrive at an understanding your athlete's mental to a useful (good) about what might to see how likely idea/plan is of your athlete's current theory (or theories) help or benefit your they are to actually skills mental skill-set to work work athlete Stakeholder' analysis **Evaluate the Evaluate the** "Professional theory evidence - Using judgement" -**Sport analysis** - Thinking critically Thinking and reflecting scientific research that has tested your idea. about previous times about the idea, and you might have used where it's come from. especially in relation to **Performance** your specific 'problem' this idea, and how well profiling it worked "Optimisation" Pick up hints and tips that give your idea/plan the best chance of working © Dr. Richard J. Keegan, 4th November 2010.

Evaluating the evidence

- Anecdotal stories and example
- Questionably measured observations (e.g. surveys/questionnaires, some types of interview data)
- Reliably measured observations (e.g. reaction times)
- Validity of measurement (e.g. did we test what we set out to test? Did we test it with the right population? Did the way we tested allow people to learn? Or get tired?)
- Differences observed between groups
- Correlations / relationships
- Longitudinal relationships suggesting causality...
- Differences observed as a result of intervention
- Quasi-experiments no control group
- Randomised control trials (Gold standard??)
- Cumulating mountain of strong evidence?

Experimental / observational

Probably efficacious

Wellestablished

The Bottom Line (Part 2)

- Sport Psychology <u>can</u> be an excellent aid in helping athletes achieve excellence – but only if done properly
- You can definitely incorporate sport psychology into your coaching
 - Ideally, do it in a way with the best chance of working, and where you know you will do no harm
 - If you have any reason to believe you are going beyond your 'competence', stop and call in a professional (with insurance, ethical codes, quality assurance etc.)
- If and when you need to find a sport psychologist, use the following websites:
 - Health Professionals Council: http://hpc-portal.co.uk/online-register/
 - British Psychological Society: http://www.bps.org.uk/bps/e-services/find-a-psychologist/register.cfm
 - BASES http://www.bases.org.uk/Consultants
- Don't get fooled by all the flim-flam and poppycock out there!

