



MIND WARFARE

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What is Sports Psychology

Ever wondered why you can practice a single technique correctly multiple times in training, but then when the time comes you do it incorrectly? This is Sports Psychology sports Psychology involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors. In addition to instruction and training of psychological skills for performance improvement, applied sport psychology may include work with athletes, coaches, and parents regarding injury, rehabilitation, communication, team building, and career transitions.

The increased stress of upcoming events can cause athletes to react both physically and mentally in a manner that can negatively affect their performance abilities. They may become tense, their heart rates race, they break into a cold sweat, they worry about the outcome of the competition, they find it hard to concentrate on the task in hand.

This has led coaches to take an increasing interest in the field of sport psychology and in particular in the area of performance anxiety. That interest has focused on techniques that athletes can use in the situation to maintain control and optimise their performance. Once learned, these techniques allow the athlete to relax and to focus his/her attention in a positive manner on the task of preparing for and participating in competition. Psychology is another weapon in the athlete's armoury in gaining the winning edge.

The History of Sports Psychology

Sports psychology is a relatively young discipline within psychology. In 1920, Carl Diem founded the world's first sports psychology laboratory at the Deutsche Sporthochschule in Berlin, Germany. In 1925, two more sports psychology labs were established – one by A.Z. Puni at the Institute of Physical Culture in Leningrad and the other by Coleman Griffith at the University of Illinois.

Griffith began offering the first course in sports psychology in 1923, and later published the first book on the subject titled *The Psychology of Coaching* (1926). Unfortunately, Griffith's lab was closed in 1932 due to lack of funds. After the lab was shut down, there was very little research on sports psychology until the subject experienced a revival of interest during the 1960s.

Ferruccio Antonelli established the International Society of Sport Psychology (ISSP) in 1965 and by the 1970s sports psychology had been introduced to university course offerings throughout North America. The first academic journal, the *International Journal of Sport Psychology*, was introduced in 1970, which was then followed by the establishment of the *Journal of Sport Psychology* in 1979.

By the 1980s, sports psychology became the subject of a more rigorous scientific focus as researchers began to explore how psychology could be used to improve athletic performance, as well as how exercise could be utilized to improve mental well-being and lower stress levels. The name for improving psychological is called Psychological skills training, or PST.



Perception and Body Image Psychology

Anxiety surrounding body image and exercise is related to muscle gain, weight control and attractiveness leading to the question “Does this manifest in sport?” In short, yes it does, while athletes and coaches should be aware that personal sporting identity and body image are vulnerable to damage due to a perceived failure to meet the ideal body shape and physical self-worth. This is developed through four forms of physical self-perception:

- 1) Perception of physical fitness
- 2) Perceptions of body attractiveness
- 3) Perceptions of physical strength
- 4) Perceptions of sport competence.



Body dysmorphic disorder (BDD) is important when dealing with athletes' body perceptions as it engenders an excessive pre-occupation with an imagined or small bodily imperfection in the hope of improving body image. To correctly monitor the evaluation of body image it is important to note how it varies between genders, with females more concerned with fatness, while males focus on the level of muscularity. This often materializes in females through the checking of reflections to evaluate the degree of self-perceived fatness in clothing, while males evaluate the degree to which muscles protrude from clothing. However, female athletes, particularly elite and power-based athletes, resemble males in body checking for muscularity.

It is essential for coaches and support staff to maintain a positive and open relationship in order to identify these incorrect perceptions of muscle and body fat percentage in athletes, as extreme diets result in a very high prevalence of injuries among athletes. Eating as a pre-requisite to leanness engenders manipulating diets through an initial anabolic or muscle building phase through high food consumption. Consequently a catabolic phase follows which reduces fat and increases muscle distribution due to a diet restricted below normal energy maintenance levels thus increasing the body's susceptibility to injury. (Caffri et al., 2005). Furthermore women are more inclined to engage in severe weight loss behaviours such as purging, fasting and use of diuretics and laxatives.

Coaches, support staff and athletes must be aware that traits of BDD resemble traits of disordered eating in sport, as individuals desire their appearance to reflect an athletic aesthetic model as outlined by society

Individual and weight class sports are predictors of disordered eating through an increase in anxiety, weight reducing diets, body weight measurement; and a decrease in self-regard and body satisfaction. As such disordered eating may be easily exacerbated through body image and BDD in the excessive drive to create an aesthetic athletic body shape. However this is rarely observed in team sports such as basketball as portrayed through research using the Eating Attitudes Test in Michou & Costarelli (2011).

Psychological Skills Training

Psychological Skills Training (PST) is an individually designed combination of methods selected to attain psychological skill needs. There is no single idyllic PST package, each program must be individualised based on the psychological state of the individual and, the sport. To assemble a successful PST program it is important to distinguish between PST principles and PST techniques. PST principles are the psychological qualities or attributes that need to be developed (i.e. confidence, concentration); whereas the PST method is the tool that will be used to help improve the PST technique.

PST Principles: The Four C's

Concentration

Concentration is the ability to sustain attention on selected stimuli. It can be disrupted by our own thoughts and feelings that distract us. Intense concentration requires emotional energy. The harder athletes try to concentrate, the more it can slip away. Effective concentration is an effortless process. Concentration comes naturally when the mind is completely consumed with the immediate situation. The athlete becomes absorbed in the competition, paying attention to just the right cues to perform well. Concentration is dynamic, so it constantly shifts from one point to another. A loss of concentration occurs when attention is divided or shifts to something irrelevant.

Confidence

Confidence results from the comparison an athlete makes between the goal and their ability. The athlete will have self-confidence if they believe they can achieve their goal. When an athlete has self-confidence they will tend to: persevere even when things are not going to plan, show enthusiasm, be positive in their approach and take their share of the responsibility in success and fail.

To improve their self-confidence, an athlete can use mental imagery to:

- visualise previous good performance to remind them of the look and feel
- imagine various scenarios and how they will cope with them

Good goal setting (challenging yet realistic) can bring feelings of success. If athletes can see that they are achieving their short term goals and moving towards their long term goals then confidence grows.

Confidence is a positive state of mind and a belief that you can meet the challenge ahead - a feeling of being in control. It is not the situation that directly affects confidence; thoughts, assumptions and expectations can build or destroy confidence.

Control

An athlete's ability to maintain control of their emotions in the face of adversity and remain positive is essential to achieving. Two emotions which are often associated with poor performance are anxiety and anger. Emotions can claim the athlete's level of concentration and attention. Identifying when an athlete feels a particular emotion and understanding the reason for the feelings is an important stage in helping an athlete gain emotional control.

Anxiety comes in two forms

- 🌸 Physical (butterflies, sweating, nausea, needing the toilet)
- 🌸 Mental (worry, negative thoughts, confusion, lack of concentration).

Relaxation is a technique that can be used to reduce anxiety.

When an athlete becomes angry, the cause of the anger often becomes the focus of attention. This then leads to a lack of concentration on the task, performance deteriorates and confidence in ability is lost which fuels the anger - a slippery slope to failure. Relaxation would resolve this kind of behaviour and the athlete would then be able to concentrate on the issue at hand rather being anxious and angry.

Commitment

Sports performance depends on the athlete being fully committed to numerous goals over many years. In competition with these goals the athlete will have many aspects of daily life to manage. The many competing interests and commitments include work, studies, family/partner, friends, social life and other hobbies/sports

Within the athlete's sport, commitment can be undermined by:

- 🌸 a perceived lack of progress or improvement
- 🌸 not being sufficiently involved in developing the training program
- 🌸 not understanding the objectives of the training program
- 🌸 injury
- 🌸 lack of enjoyment
- 🌸 anxiety about performance - competition
- 🌸 becoming bored
- 🌸 coach athlete not working as a team
- 🌸 lack of commitment by other athletes

Setting goals with the athlete will raise their feelings of value, give them joint ownership of the goals and therefore become more committed to achieving them.

Many people (coach, medical support team, manager, friends, etc) can contribute to an athlete's levels of commitment with appropriate levels of support and positive feedback, especially during times of injury, illness and poor performance.

Techniques used in PST

Music



Music has been shown to increase the performance of both endurance tasks and short power tasks. Endurance tasks such as lasting an entire bout or constantly striking a kickpad can be performed with better results when accompanied by music. High intensity short power tasks such as quick, explosive throws showed similar results. However, movements with a clear rhythm such as certain katas may be much better affected by music.

Therefore, research clearly shows a vast amount of support for the use of music to improve performance. But how exactly does music improve performance? One benefit is that music has been shown to be a positive distraction. When music is playing, people are more likely to divert our attention away from the pain or discomfort they may be experiencing and onto the external music. Therefore it helps to temporarily forget fatigue, and carry on for longer.

Fast paced music has also been shown to increase arousal, which is great for 'psyching up' before performance. However, slow paced music can also have a beneficial effect when arousal levels are too high, as it has been shown to have a relaxing effect and reduce arousal.

Another added bonus is the enhanced positive mood that music can bring about. This is enhanced even further when the music has a faster tempo, creating a positive buzz to drive your training session!

How does this relate to Jujitsu?

Blaring loud techno music through cheap K-mart headphones can actually cause the buzz to motivate you to defeat your opponent, or relax you enough to lower your stress levels before a big grading.

Imagery

Mental imagery involves the athlete imagining themselves in an environment performing a specific activity using all of their senses (sight, hear, feel and smell). The images should have the athlete performing successfully and feeling satisfied with their performance.

Have you ever spent the day after an important competition or session going over different stages of the event in your mind? Did you think through all the different parts of it and replay them over and over again?

If so, you have essentially been using imagery. Imagery is when one goes through an event or activity in their mind without making any physical movements. Ideally it involves all of your senses, including sight, hearing, smell, taste, touch and movement. Imagery is actually a form of simulation. As you imagine yourself performing a skill or competing, you are creating muscle memory within the nervous and muscular systems of how to do the skill

Imagery can:

- 🌸 Improve your technique by imaging good technique between training sessions
- 🌸 Assist you to practise skills when you are too tired to physically train or when you are unable to train and want to get an edge on your competitors
- 🌸 Increase your competition confidence by running through your performance in your head before competing
- 🌸 Increase your activation levels if you are feeling lethargic. Image yourself riding fast through pain with everything moving effortlessly
- 🌸 Calm your activation levels if you are feeling nervous or stressed. Image yourself moving effortlessly in the bunch and use calming music to help you relax
- 🌸 Help you get to sleep by distracting you from all the thoughts racing through your head. Think of a place that you find relaxing. Image yourself on a quiet beach just chilling out.



A good example of imagery is sitting and imagining yourself performing a technique.

How does this relate to JuJitsu?

Sitting back in a relaxed environment, picturing yourself performing the perfect kata for a certain grading, or delivering perfect strikes against a kickpad is certainly going to help your skills, instead of having to think about it when you're called perform, it comes naturally.

Goal Setting

Every member of the Yudansha has set goals to achieve what they have. Goal setting is an extremely powerful technique for enhancing performance so it is one of the most important strategies you can implement for success in any environment. Goal setting helps to focus attention and it is critical to maintain and enhance motivation. Goal setting gives direction both in the short term and the long term and you can see success as you achieve your short term goals. This increases your confidence as you are being success and achieving. So if you don't set goals you must start today. However goal setting must be implemented correctly.

How does Goal Setting Work?

1. Goals direct attention to tasks at hand and highlights what needs to be completed. It allows you to implement strategies to develop specific elements of the business that need to be utilise to complete the goal.
2. Goals mobilise your efforts. You will put your efforts into moving towards the goal as you are provided with the incentive of completing the goal.

3. Goals prolong your persistence because you are rewarded with incentives as you achieve your goals. People who set goals stick at tasks for longer as they are achieving smaller goals that combined form larger goals.

4. Goals foster the development of new learning strategies. In order to achieve the goals you may need to develop new strategies to complete the task at hand.

How does this relate to Jujitsu?

Setting a goal in Jujitsu would be to tell yourself you're going to achieve a certain belt before the year is out, or wanting to be able to perform certain techniques are both examples of goal setting.

Relaxation

When gearing up for a big grading or bout the simple acts of inhaling, exhaling and relaxing for just a few moments can have a significant impact on your performance. Just take a look at Tori next time he lines up to complete a kata under grading conditions –some inhale deeply before exhaling to allow them the time to relax and focus on the task at hand. This ability to relax and focus on the skill to be executed is not something that can be implemented instantaneously but rather it is developed over time and with practise.



Practising 'relaxing' may sound easy enough but in reality it is something that requires dedication, time and effort. Relaxing on the couch in front of the television after work is not the same as relaxing effectively through the use of breathing techniques and one of the most popular techniques that anyone can use is Progressive Muscle Relaxation (PMR). This technique involves tensing and relaxing muscle groups for 20 minutes a day, in a quiet location where you can 'let go' and clear your mind of worry. It is a very accessible method and if you Google 'Progressive Muscle Relaxation' you can find audio and scripts that will guide you through a 20-minute session of relaxing and controlled breathing.

How does this relate to Jujitsu?

Similar to *Imagery*, Relaxation involves relaxing right before a big event to clear your head and set yourself right but clearing all stress from the body.

Pre-performance routines

Pre-performance routines refer to the actions and behaviours athletes use to prepare for a game or bout. This includes pre-performance routines, warm up routines, and actions an athlete will regularly do, mentally and physically, before they execute the performance. Frequently, these will incorporate other commonly used techniques, such as imagery or self-talk. Examples would be visualizations done by skiers, dribbling by basketball players at the foul line, and bouncing side to side for a martial artist. These routines help to develop consistency and predictability for the player. This allows the muscles and mind to develop better motor control.

How does this relate to Jujitsu?

Routines are a large part of Jujitsu, when gearing up for a competition, grading or even a demonstration some will perform a certain set of moves or say certain cues to prepare themselves, a routine may also involve the use of any other technique as part of an athlete's routine.

Self-talk

Self-talk refers to the thoughts and words athletes and performers say to themselves, usually in their minds. Self-talk phrases (or cues) are used to direct attention towards a particular thing in order to improve focus or are used alongside other techniques to facilitate their effectiveness. For example, a softball player may think "release point" when at bat to direct her attention to the point where the pitcher releases the ball, while a jujitsuan may say "fight smart" before entering to stay relaxed. Research suggests either positive or negative self-talk may improve performance, suggesting the effectiveness of self-talk phrases depends on how the phrase is interpreted by the individual. The use of words in sport has been widely used. The ability to bombard the unconscious mind with one single positive phrase is one of the most effective and easy to use psychological skills available to any athlete.













How does this relate to Jujitsu?

Picture this scenario, you're halfway through a kata and you've made a wrong move, you know it's only one mistake and there's still room for two more, until you mess up the next move. You're whole grading is riding on this kata and you're one mistake away from losing it all. This would be the perfect time for positive self-talk. Telling yourself to forget about it and you'll be fine and manage to make it through and pass, all because of self-talk.

Summary

Overall, Sports Psychology is an imperative part of both advanced, intermediate and beginner levels of Jujitsu. There are many techniques which improve athlete's minds' and principles that these techniques are involved with. Since its studies began, athletes and psychologists alike are finding more and more methods and techniques to overcome fear, over-arousal and just plain nerves, they are also finding more principles relating to Sports Psychology as the study uncovers more pockets of the mind. Although there is a most broad range of techniques, the effectiveness of these techniques on athletes is purely dependent on the athlete, and how he/she reacts to certain stimuli (eg. Music, Relaxation etc.).

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