

Chapter 1 : Developing Mental Toughness : Peter Clough :

Mental Toughness is one of the most important attributes to develop to become successful in your career and life. This book is the definitive handbook for coaching for mental toughness written by the "rockstars" of mental toughness, Peter Clough and Doug Strycharczyk.

Mental toughness is "Having the natural or developed psychological edge that enables you to: One general dimension was outlined: Three time-specific dimensions were outlined: These time-specific dimensions contain attributes of mental toughness such as handling pressure, handling failure and pushing yourself to your physical limit in training that pertain to their use at these times. Their model has four components: In initially conceptualising mental toughness and developing the MTQ48 [8] questionnaire measurement tool, the approach taken by Clough et al. They feel that sports specific measures are unlikely to move the field forward in any meaningful ways. The development work relating to their model is fully described and discussed in their book on mental toughness. Using personal construct psychology , these authors proposed the following definition of mental toughness: Mental toughness in Australian Football is a collection of values, attitudes, behaviors, and emotions that enable you to persevere and overcome any obstacle, adversity, or pressure experienced, but also to maintain concentration and motivation when things are going well to consistently achieve your goals. Studies[edit] Some psychologists have argued that a separate, sport-specific definitions of mental toughness should be developed. Differences have been hypothesized between male and female athletes, as well as between "team sport" and "individual sport" athletes, but to date, little empirical evidence has shown what these differences are. Sport-specific studies of mental toughness have been conducted in cricket, [11] [12] [16] soccer, [13] [17] gymnastics, [18] and Australian football. Many sports focussed studies have employed the Clough model of mental toughness. They have, using samples of athletes, shown a link between toughness, coping, emotional reactivity, psychological skills and performance. In this study it was shown that senior managers are tougher than their junior colleagues. Developmental studies[edit] There is an active debate about whether mental toughness is primarily a developed characteristic, or has a genetic basis. Two studies suggest that foundational processes occur during development that allow a person to build mental toughness throughout life. For instance, a study of American soccer players, parents, and coaches found that parents provide a "generalized form" of mental toughness upon which coaches can build a sport-specific form of mental toughness. The term resilience is often incorrectly used interchangeably with mental toughness, and researchers have found the two constructs are positively associated with one another. Hardiness has been suggested as a similar construct to mental toughness. Hardiness has typically been constructed as a personality trait , which is generally seen as stable throughout the lifetime. This differs from the conceptions of mental toughness offered by both Jones et al. These authors both conceive of mental toughness as unstable, arising in development, fluctuating over time, and varying for an individual performer between different sport and life scenarios. This definitional dilemma plagues the use of the term mental toughness and if mental toughness exists as a valid construct it may on occasion be maladaptive. Evidence to support this contention is derived from a study of overtraining behaviors and mental toughness by Tibbert The curvilinear correlations reflect decreasing recovery at the highest levels of MT. The results suggest that some attributes of MT may relate to increased ability to recover whereas other attributes are associated with lower recovery p. Arguably mental toughness is more closely linked with goal fixedness rather than adaptability and a flexible mindset, attributes which are central to resilience. Measurement[edit] Two instruments have been developed and validated since The factor structure of the MTQ48 has been supported by an independent research grouping led by Horsburgh Reliability has been assessed by numerous independent researchers and it has clearly demonstrable internal consistency and test-retest reliability. The Mental Toughness Inventory MTI developed by Middleton and colleagues measures mental toughness using twelve subscales and appears to show strong theoretical evidence for its formation. However, construct validation has only been performed with a narrow sample of athletes, leaving its psychometric properties up for debate.

Peter Clough is Professor at Manchester Metropolitan University and is recognized as a leading applied academic authority in the field of mental toughness. He is co-developer of the mental toughness model and the MTQ48 Mental Toughness Questionnaire.

Have you ever wondered what makes someone a good athlete? Or a good leader? Or a good parent? Why do some people accomplish their goals while others fail? What makes the difference? Usually we answer these questions by talking about the talent of top performers. He must be the smartest scientist in the lab. He is a brilliant business strategist. But I think we all know there is more to the story than that. What makes a bigger impact than talent or intelligence? Why is mental toughness so important? And how can you develop more of it? During their first summer on campus, cadets are required to complete a series of brutal tests. But Angela Duckworth, a researcher at the University of Pennsylvania, found something different when she began tracking the cadets. Duckworth studies achievement, and more specifically, how your mental toughness, perseverance, and passion impact your ability to achieve goals. At West Point, she tracked a total of 2, cadets spread across two entering classes. She recorded their high school rank, SAT scores, Leadership Potential Score which reflects participation in extracurricular activities, Physical Aptitude Exam a standardized physical exercise evaluation, and Grit Scale which measures perseverance and passion for long-term goals. Instead, it was grit – the perseverance and passion to achieve long-term goals – that made the difference. It was mental toughness that predicted whether or not a cadet would be successful, not their talent, intelligence, or genetics. When Is Mental Toughness Useful? Competitors in the National Spelling Bee outperform their peers not because of IQ, but because of their grit and commitment to more consistent practice. Duckworth and her colleagues heard similar stories when they started interviewing top performers in all fields. Our hypothesis that grit is essential to high achievement evolved during interviews with professionals in investment banking, painting, journalism, academia, medicine, and law. Asked what quality distinguishes star performers in their respective fields, these individuals cited grit or a close synonym as often as talent. In fact, many were awed by the achievements of peers who did not at first seem as gifted as others but whose sustained commitment to their ambitions was exceptional. Likewise, many noted with surprise that prodigiously gifted peers did not end up in the upper echelons of their field. Remember your friend who squandered their talent? How about that person on your team who squeezed the most out of their potential? Have you known someone who was set on accomplishing a goal, no matter how long it took? You can read the whole research study here, but this is the bottom line: In every area of life – from your education to your work to your health – it is your amount of grit, mental toughness, and perseverance that predicts your level of success more than any other factor we can find. In other words, talent is overrated. What Makes Someone Mentally Tough? In a word, toughness and grit equal consistency. Mentally tough athletes are more consistent than others. They always have their teammates back. Mentally tough leaders are more consistent than their peers. They have a clear goal that they work towards each day. They make a habit of building up the people around them – not just once, but over and over and over again. Mentally tough artists, writers, and employees deliver on a more consistent basis than most. They work on a schedule, not just when they feel motivated. They approach their work like a pro, not an amateur. The good news is that grit and perseverance can become your defining traits, regardless of the talent you were born with. You can become more consistent. You can develop superhuman levels of mental toughness. In my experience, these 3 strategies work well in the real world. 1. Define what mental toughness means for you. For the West Point army cadets being mentally tough meant finishing an entire summer of Beast Barracks. Which brings me to my second point. 2. Mental toughness is built through small physical wins. How many workouts have you missed because your mind, not your body, told you you were tired? How did you perform in the championship game? Can you keep your life together while grieving the death of a family member? Did you bounce back after your business went bankrupt? Mental toughness is like a muscle. It needs to be worked to grow and develop. Choose to do the tenth rep when it would be easier to just do nine. Choose to create when it would be easier to consume.

Choose to ask the extra question when it would be easier to accept. Prove to yourself “ in a thousand tiny ways “ that you have enough guts to get in the ring and do battle with life. Mental toughness is built through small wins. Mental toughness is about your habits, not your motivation. Willpower comes and goes. Mentally tough people develop systems that help them focus on the important stuff regardless of how many obstacles life puts in front of them. Here are the basic steps for building a new habit and links to further information on doing each step.

Chapter 3 : Mental Toughness Partners | Mental Toughness Development

Mental toughness measures how effectively individuals respond to stress, pressure, and challenges. Understanding this concept is essential to improving performance for both the individual and organization, and authors Peter Clough and Doug Strycharczyk explain mental toughness clearly and.

Introduction to the concept of MT;Chapter - The importance of stress;Chapter - A brief history of mental toughness;Chapter - Developing the model and the MTQ48;Chapter - Mental toughness and the MTQ48;Chapter - Innovative insights into the education and development of young people;Chapter - Mental toughness and its application in secondary education;Chapter - Mental toughness in the complex world of further education colleges;Chapter - Applying mental toughness to career guidance and career planning;Chapter - Mental toughness and the world of work;Chapter - Mental toughness and team working;Chapter - The world of work - a case study from a major call centre;Chapter - Mental toughness in sport;Chapter - Health and social factors relating to mental toughness;Chapter - Coaching for mental toughness;Chapter - Fatigue and mental toughness;Chapter - Can mental toughness be developed? Positive thinking;Chapter - Attentional control;Chapter - Goal setting;Chapter - Research using the MTQ48;Chapter - This is a timely and valuable addition to the reading list for anyone involved in people management or people development particularly in times of change and challenge. Like many common sense ideas, mental toughness is something that seems instinctively to be sound, but proving it as a real phenomenon and demonstrating that it can be measured and improved is far more demanding, making the work that Peter Clough and Doug Strycharczyk, and their colleagues and collaborators have done, enormously significant. The range of contexts in which mental toughness can be used is illustrated by the many case studies that are described here, but its value in developing leadership and management effectiveness is the area in which it has particular value. Practising leaders and managers, especially those currently being developed, will benefit from diagnosis of their mental toughness, and from learning how they can use appropriate strategies to enhance their capability. This timely book is very welcome - it describes in a very practical way an idea which appears to have almost unlimited application" David Eva, North West England Regional Manager of unionlearn and Chairman of CWP show more About Peter Clough Peter Clough is the former Head of Psychology at Hull University and is recognized as a leading academic authority on the subject of mental toughness. Doug Strycharczyk is Managing Director for AQR, a management consultancy that helps organizations to improve performance through applying the principles of mental toughness and empowering their people. Doug is a business consultant and frequent speaker, and has played a major role in showing how the concept applies across all areas where people are involved. You can find out about the mental toughness measure and questionnaire at www.mental-toughness.com.

Chapter 4 : The Science of Developing Mental Toughness in Health, Work, and Life

Developing Mental Toughness is the definitive handbook on mental toughness written by the "rockstars" of mental toughness, Peter Clough and Doug Strycharczyk. Learn more Developing mental toughness in the Blue Coat School, Oldham, UK.

The concept of tough mindedness was identified by Cattell, as one of the 16 primary source traits which were measured by his 16 personality factor questionnaire 16PF. The 16PF has been widely used in psychological research, however it has not been used in sport to measure mental toughness. Cattell saw tough mindedness as an important trait which was part of personality and many other researchers followed in this direction Kroll, Fourie and Potgieter were the first to identify psychological attributes which people considered to be related to the concept of mental toughness in sport. The data from these written responses was content analyzed and it was found that there were twelve main components of mental toughness which were identified by the participants. These twelve components were; team unity, preparation skills, competitiveness, motivation level, coping skills, confidence maintenance, cognitive skill, discipline and goal directedness, possession of physical and mental requirements, psychological hardiness, ethics and religious convictions Gucciardi, Gordon et al. Jones, Hanton et al. The researchers recruited ten international performers who took part in interviews, focus groups and a rank order task. After conducting the research the term mental toughness was defined as Jones et al. Generally, cope better than your opponents with the many demands competition, training, lifestyle that sport places on the performer. Many of the attributes found in the study were very similar to those which have been found in previous literature Thelwell, Weston et al. To extend on their earlier research, Jones, Hanton and Connaughton conducted a study where eight Olympic champions were interviewed along with three of their coaches and four of their sport psychologists. The main aim of this study was to develop a framework of mental toughness which would help to identify key attributes that are used in a number of different sports. The methodology used for this study was a data triangulation and it is seen as one of the most in depth investigations to date Jones, Hanton et al. From the study the researchers found 30 key attributes which differed from the 12 attributes which were identified by the international performers in their last study. These attributes were put into sub categories within four central main dimensions. The first dimension was related to attitudes which were possessed by a mentally tough athlete, whereas the other three related to characteristics which were relevant for three major aspects of an athletes performance which were training, competition and post competition Jones et al. This framework is seen as providing one the most in-depth descriptions of what types of mental toughness may be needed in specific contexts Gucciardi et al. Sport-specific research In sport there have been two recent studies which have focused specifically on cricketers Bull, Shambrook, James et al. Both these studies have focused on mental toughness from a specific sport context and they have both been seen as significant contributions towards its understanding. Bull, Shambrook et al. From the analysis of transcripts there were four main themes which were identified and placed in a hierarchal structure pyramid The first theme was environmental factors, which was seen as the foundation of the development for mental toughness. Within this theme it incorporated aspects such as parental influences, childhood background and exposure to foreign cricket as an important part of environmental influences. The next three themes all related to the individual person. The second theme was tough character and this related to factors such as a resilient confidence and competitiveness. The third theme was tough attitudes which was seen as important for having a tough character. These included attitudes such as; willing to task risks, a never giving up attitude and determination to make the most out of any challenge. The final theme was related to tough thinking which looked at aspects such as being able to think clearly and having high self confidence Bull et al. However, it can be argued that the study was not grounded in empirical data and that the data interpretation was very descriptive and did not involve any in-depth analysis Gucciardi et al. The study comprised of interviewing six male soccer players and comparing their soccer definition of mental toughness to the definition which was proposed by Jones et al. From the results it was found that there was a high amount of overlap between the two definitions, however the soccer sample saw mental toughness as always being able to cope better than

their opponents as opposed to just generally coping better. In the study conducted by Thelwell et al. From the results it was found that the soccer players characterized mental toughness as being able to react positively to situations and being able to remain calm under pressure. However, from the six participants it was actually found that only half of them enjoyed being under pressure whilst in performance. Recently Gucciardi, Gordon et al. The researchers addressed this from a grounded theory approach where there were three components that were seen as key to the development of mental toughness. These three components were characteristics, behaviours and situations Gucciardi et al. The characteristics represented 11 bipolar constructs such as tough attitude versus weak attitude, concentration versus distraction and resilience versus fragile minded. The situations related to the different events that the athlete experienced which helped develop mental toughness. Behaviours related to what the athletes would do in situations that required mental toughness. This research was unique to the area of mental toughness as it looked at how you develop mental toughness processes and what outcomes come out from it. Problems To understand mental toughness Jones et al used a three-stage procedure using ten elite athletes from a number of different sports. The first step of the procedure involved a focus group which involved using three elite players to all brainstorm about mental toughness. Within research focus groups are often seen as a method that can obtain descriptive rich data, however there are also a number of limitations which should be acknowledged Gibbs, There are three main limitations: Focus groups are often seen as place where individuals can be open about experiences and challenge each other in what is said Kitzinger, In the study conducted by Jones et al. As well as this the sample size was very small and therefore this should be taken into account when looking at the validity and reliability of the study. Within the research it can be argued that individual differences have not been taken into account. While there are consistent attributes of mental toughness in many studies, there are also many attributes that are not consistent among studies Crust, The mental toughness needed for rowing could be very different to the mental toughness which is needed for a soccer or rugby player. Ignoring individual differences this can have a detrimental affect on helping to develop high levels of mental toughness among the sport population. Measuring Mental Toughness To study mental toughness, qualitative research is seen as one of the most common to help us understand what mental toughness is and how people acquire it Crust, However researchers should also be encouraged to used quantitative methods to help look at differences among athletes in relation to their cognitions and behaviours Crust, Within the mental toughness research the main method which has been used to measure this construct has been through the use of questionnaires Crust, The PPI consists of 42 items which measures seven subscales which are self confidence, attentional control, visualization, imagery control, negative energy, attitude control and positive energy. Recently researchers have conducted tests to assess the psychometric properties of the PPI Crust, Middleton, Marsh, Martin, Richards and Perry a tested the construct validity of the PPI and found that the questionnaire was not a valid measure for the definition of mental toughness. Clough, Earle and Sewell b developed the Mental toughness 48 inventory MT48 which consists of four subscales which are control, commitment, challenge and confidence. Clough, Earle et al. The MT48 subscales were developed through an association with hardiness and mental toughness and it has been argued that Clough et al. Middleton, Marsh, Martin, Richards and Perry b developed the mental toughness inventory MTI which was used for their own definition of mental toughness. The questionnaire consists of 67 items and measures 12 different components of mental toughness. The questionnaire has been developed from justified research and has been found to have strong psychometric properties Middleton, Marsh, Martin, Richards et al. However the instrument needs to be tested on much larger populations to see whether it can be used to compare elite and non-elite players. The development of these questionnaires is very important for researchers who want to study mental toughness, however most of them need further testing of validity and reliability before they can be accepted to be used Crust, It is therefore very important to look at the underlying factors that help develop mental toughness. Even though personality traits are influenced by genetics they are also affected by the environment and are constantly going through a developmental process Crust and Clough, Psychologists are now adopting the approach that both nature and nurture are important with contributing to the development of behaviour and personality. Horsburgh, Schermer, Veselka, and Vernon, assessed mental toughness among twins and found that it had a

strong genetic influence and was also influenced by the environment. As well as this, there have been recent studies looking at differences in brain structures between more and less tough participants. All of this research shows us that it is clear that genetics play a key part in the developmental of mental toughness, however it is equally apparent that there are other environmental and developmental processes which need to be taken into account. In Bulls et al. A study which can relate to these aspects was conducted by Van Yperen who looked at success in soccer players over a 15 year time period. It was found that players who had more siblings and had parents who were more likely to divorce experienced more successful transitions. Therefore by experiencing stressful events, players might develop coping strategies which allow them to deal with the high pressures in their sport. Coulter, Mallett and Gucciardi also found that experiencing stressful events inside and outside of sport aids with the development of mental toughness. This research shows us how important the environment is for developing mental toughness and shows us how some of these aspects can be easily manipulated. Future Recommendations While there has been much research focusing on trying to define mental toughness, more work needs to be conducted due to differences in peoples understanding of the concept. Research needs to focus on trying to define mental toughness which is grounded in relevant personality theories. It needs to be understood whether mental toughness is best studied from a sport general perspective or a sport specific perspective. As well as this more research needs to be conducted around the observational analysis of mental toughness behaviors so that sport psychologists can intervene and identify how to improve mental toughness. Future research could look at the relationship between mental toughness and a persons cognitions. For example do mentally tough athletes exhibit more positive self-talk in comparison to less mentally tough athletes. Most studies focusing around mental toughness have lacked methodological diversity and therefore longitudinal studies may benefit researchers who are trying to study mental toughness. By focusing on developing this future research, this could help to build programmes which will develop more mentally tough athletes for the future. Overall mental toughness is an extremely important topic within sport, however much of the research which has been conducted is based on personal opinion rather than sound empirical research. Future researchers face the challenges of exploring mental toughness in a broader context and more attention is needed to look at how mentally tough individuals perform in all areas of their life.

Chapter 5 : Developing Mental Toughness ()

Peter Clough is the former Head of Psychology at Hull University and is recognized as a leading academic authority on the subject of mental toughness.

Mental Toughness can be defined in several slightly different ways, but the definition used here is given below. Mental Toughness describes the capacity of an individual to deal effectively with stressors, pressures and challenges, and perform to the best of their ability, irrespective of the circumstances in which they find themselves. Dr Peter Clough, Mental Toughness is that part of us which determines to a large extent how we deal with stressors, pressure and challenge – irrespective of prevailing circumstances. The key elements are: It is not the whole of the answer for everyone. Irrespective of prevailing circumstances – mentally tough individuals generally accept responsibility for their own performance. The better our Mental Toughness, the more likely we are to handle the challenge rather than give way. So our level of Mental Toughness also exerts a major influence over the extent to which we are able to perform to the best of our abilities. Major setbacks, such as bereavement, loss of job, sustained exposure to stressors and so on, can influence Mental Toughness significantly over the short term. Components of Mental Toughness Research carried out the Psychology Department at the University of Hull, under the direction of Dr Peter Clough, C Psych, with whom the writer has had the privilege of working, has identified four components to Mental Toughness – control, challenge, commitment and confidence. In , he confirmed that it is possible for individuals to develop Mental Toughness where needed and to improve individual and group performance. Resilience or hardiness versus Mental Toughness Mental Toughness is a wider concept than resilience. Resilience or hardiness is usually described in terms of control, commitment and challenge, comprising three of the four components mentioned above. The concept of Mental Toughness adds confidence to the mix as well. Research shows that, although an independent scale, the level of confidence can have a significant impact on resilience and it is therefore worth considering both together. Gender difference Within a particular population, there is little difference in overall Mental Toughness reflected in male and female responses to the questionnaires. On one of the scales – the confidence scale – males tend to score slightly higher on the subcomponent known as confidence in abilities, while females score slightly higher on the other subcomponent, which is interpersonal confidence. But the differences are not statistically significant. People are also encouraged to speak about being stressed more openly than ever before. However, if stress is the big killer, then our growing life expectancy suggests that life is becoming less stressful, even though it seems that we generally consider ourselves to be more stressed than ever before. Go back a years and life was tougher still. What is more likely to be the case is that, in the past, people simply got on with it and were, in general, mentally more tough. What is likely to have happened is that, overall, we have reduced our levels of Mental Toughness and we tend to allow ourselves to feel more stressed than people would have done in the past. Dealing with Mental Toughness is an important aspect of restoring our ability to deal with stressors and perform effectively in most circumstances. Where there is a lot of pressure or challenge, then a high level of Mental Toughness may be desirable. However, many people operate in less stressful circumstances than these and a high degree of Mental Toughness may not always be required. In fact, people who have very high levels of Mental Toughness can also be mentally insensitive, which may in part explain their Mental Toughness. However, this can give rise to specific personal development needs, particularly when such people have to work directly with others. Like most individual strengths, when taken to excess or wielded unwisely, Mental Toughness can also emerge as a weakness. Someone who has developed a high level of Mental Toughness may have done so at the expense of other skills that can contribute to good business performance. An example could be a person who has a low sensitivity and empathy with other people. This may assist them to be mentally tough, but will hinder their ability to handle interpersonal relationships well. Seniority A major study has shown that there is a strong positive relationship between Mental Toughness and seniority. The more senior you are, the higher your Mental Toughness score is likely to be. Typically, the more senior you are as a manager, the greater the complexities with which you need to deal, the greater the pressure to perform particularly through others and

the greater the possibility of setbacks and problems. Mental Toughness can help in all of these areas, so the more mentally tough will be more likely to succeed and be promoted. Key point The challenge for leaders is to exhibit a high degree of Mental Toughness without losing personal contact with the people they are leading. It can be argued that this is where Mental Toughness and areas like interpersonal skills, emotional intelligence, and so on, come together.

Chapter 6 : Mental toughness - Wikipedia

Tracing its development from sports psychology into the world of business, health and education, Developing Mental Toughness was the first book to look at applications at the organizational level and to provide a reliable psychometric measure.

Written by Charles Gardiner 6 minute read 2 Opinions Having a strong psychological foundation will allow athletes to achieve the greatest execution of a skill can during a performance Gucciardi et al, Current studies suggest that coaches and athletes believe that being mentally tough is vital to success in their sport Gould et al, ; Bull et al, ; Weinberg et al, Over recent years there have been various scholarly articles which debate what mental toughness actually is, and subsequently the best way to define it. Clough, Earle and Sewell , p. With a high sense of self-belief and an unshakeable faith that they control their own destiny, these individuals can remain relatively unaffected by competition or adversity. Even though this is regarded as a worthy beginning for other studies see Horsburgh et al, , some researchers have decided to work with alternative definitions see Jones et al, With mental toughness being notoriously hard to define Jones et al, , it has given other academics a chance to generate additional meanings. Each of which offer something slightly different to Clough and colleagues attempt see Jones et al, ; Gucciardi et al, ; Madrigal et al, This is another factor that this essay will inspect, looking into whether or not mental toughness is innate or accomplishable through training. Prior to defining the term, research on mental toughness has been said to have derived from Kobasa and associates prospective study on hardiness in Horsburgh et al, Yet this was as far as the study went, and the possibility of nurturing athletes to be mentally tough was not investigated until later years see Bull et al, ; Connaughton et al, ; Gucciardi, Gordon et al, These earlier studies, such as Gould et al. It is widely regarded that the catalyst to further enquiry came from Jones and colleagues , and the development of the Mental Toughness Questionnaire Jones et al, ; Weinberg et al, ; Madrigal et al, ; Crust, This particular study aided the expansion of another principal piece of literature from Jones et al , whereby a Mental Toughness Framework was formulated. Prior to the framework of , in the study a 12 attribute model to show characteristics present in mentally tough individuals was expressed. This was one of the first studies that put a major emphasis on the personality traits for mentally tough individuals Crust, , and therefore directed research towards a likely framework. Over the following years further assessments have been developed in order to evaluate mental toughness with similar concepts to the MTQ48 see Madgrigal et al, , for comprehensive list. However the validity of some of these assessments, especially the MTQ48, has divided some sports psychologists. A paper released in by Gucciardi, Hanton and Mallett called for a comprehensive inspection of the MTQ48 before it is taken as the perfect assessment. Now research has progressed from the notion of conceptualising mental toughness and more to its applications in sport with developing athletes. Examination is also heading towards the post-positivism approach and qualitative forms of analysis. One of the current debates centres on whether it can be natural or taught. The basis of mental toughness and the inherent side in particular, has developed from the theories of Cattle An example of this can be found in the study by Weinberg and colleagues , whereby coaches were reported to select national track athletes based on them already showing signs of mental toughness. This leads to further debate as to where the participants established these displayed traits. Was it in fact taught prior to selection, or is it in the DNA of the athletes? Horsburgh et al decided to advance the notion of personality playing a role in mental toughness. In this study mental toughness conformed to normative data values shown from a psychological evaluation questionnaire i. With the paper in question, groups of identical and non-identical twins completed questionnaires individually and separately see Horsburgh et al, The study looked at relating mental toughness to the Big-5 factors of personality see Capara et al, Even though the findings supported the hypothesis and showed that mental toughness exhibited strong associations to genetics, the reliability of such a test can be scrutinised. Initially due to the tests being completed in the participants own homes, the reliable nature of the results can be questioned. A number of studies have considered ways in which to train the enhancement of mental toughness to a variety of participants see Bull et al, ; Connaughton et al, ; Weinberg et al, ; Gucciardi et al, These studies have shown

that, coaches in particular, report an understanding of the term and can admit that it plays a vital role in success, but admit there has to be an underlying foundation of toughness already Weinberg et al, In particular this study reported that coaches play a pivotal role in the enhancement and nurturing of mental toughness. The entirety of the work was based around subjective views from NCAA coaches, this is also a criticism that the authors make themselves see Weinberg et al, This means that the study cannot be easily applied to real world situations and transferable across team sport for example. In particular Bull et al reported influences from outside the sporting location that affected mental toughness in cricketers. From the findings the researchers developed the Mental Toughness Pyramid. It was stated that if the pressure of external entities such as parents was to be removed, the athlete would only concentrate on the performance and therefore accomplish more Bull et al, A limitation to this nevertheless is that athletes were chosen from mental toughness assessments from two decades prior. This does not necessarily mean that were still mentally tough at the time of the test. If the article from Connaughton et al is taken into reflection, the researchers have enhanced the understanding of mental toughness and its influences. This notion is supported by the earlier findings from Connaughton et al. Another way to look at how mentally tough athletes differ is through the type of sport they play e. It has been theorised that models for different sports are need, due to individual sportspersons displaying greater mental toughness Weinberg et al, This was a recommendation made from a study that led Nicholls et al. It was found that different levels of athletic performance had little effect on mental toughness. When referring back to the earlier statement that NCAA coaches look for athletes who already show signs of mental toughness see Weinberg et al, , it leads to further debate. Having never stated that the athletes have ever received any sort of coaching in the area; does this not imply mental toughness can be a personality trait, unaffected by external influences? Conversely in a study of this type, fully analysing the participants history is not necessary, hence there could have potentially been previous psychological based skills training as reported in Bull et al As is the nature of sport, the emphasised is placed on performance based results and competitively coherent game play. Therefore could this not mean that coaches could be inclined to select players based on their genetic make-up over playing ability? Perhaps, it could potentially be the groundwork for a latter study in the nature based side of the current debate. From present research it may be worthwhile looking closely at these athletes who display traits of mental toughness either through the use of the MTQ48, PPI or other already. However rationalising what mental toughness is has become clouded. Therefore it leads to a need for the development of a universal testing method, or an overriding definition of the term, as suggested by Weinberg et al , to create a definitive understanding. The current position for mental toughness is one that is evolving. New research is being published continually and will remain to do so until a definitive and universal understanding is achieved. However this may be a target that is unattainable. There will always be an individual or group prepared to prove or disprove theories coming forward. Essentially this is the foundation for generating knowledge and advancing the understanding of mental toughness. From here it is important to view mental toughness as both natural and developed in order to generate sound training strategies to help facilitate athletes at every level. This is down to the fact that both coaches and athletes have reported mental toughness as being vastly important to success Gould et al, ; Bull et al, ; Weinberg et al, ReferencesShow all Bull, S. A new questionnaire to assess the five-factor model. *Personality and Individual Differences*, 15, Cattle, R. Harcourt, Brace and World Clough, P. The Concept and its Measurement. *The Sport psychologist*, 24, Connaughton, D. Perceptions of Elite Performers. *Journal of Sport Sciences*, 26, Crust, L. Implications for Future Researchers. *Personality and Individual Differences*, 48, Crust, L. From Research to Practice. *European Psychologist*, 11 2 , Gould, D. *The Sport Psychologist*, 1, Gucciardi, D. Perspectives of elite Australian football coaches. *Journal of Sports Sciences*, 27 13 , Gucciardi, D. A case example of the MentalToughness Questionnaire *Personality and Individual Differences*, 49, Jones, G. An Investigation of Elite Sports Performers. *The Sport Psychologist*, 21, Madrigal, L. *The Sport Psychologist*, 27, Nicholls, A. *Personality and Individual Differences*, 47, Perry, J. Ugdyamas Kuno Kultura Sportas Nr. *International Journal of Sport and Exercise Psychology*, 9 2 ,

DOWNLOAD PDF DEVELOPING MENTAL TOUGHNESS CLOUGH

Mental toughness is measured by how effectively individuals respond to stress, pressure and challenge. Developing Mental Toughness clearly and effectively explains the concept of mental toughness and traces its development from sports psychology into organizational development, health and education.

Chapter 8 : Developing Mental Toughness by Peter Clough and Doug Strycharczyk - Mental Toughness P

Developing Mental Toughness Coaching Strategies to Improve Performance, Resilience and Wellbeing Peter Clough, Doug Strycharczyk From £ Improve your ability to cope with stress and challenges in the workplace with this coaching guide to developing mental resilience.

Chapter 9 : Developing Mental Toughness Book - Doug Strycharczyk & Peter Clough

The concept of mental toughness is defined in this tome as 'the quality which determines in large part how people deal effectively with challenge, stressors and pressure irrespective of prevailing circumstances'.