

# 11 THE B3-5CS MENTAL TOUGHNESS TRAINING MODEL: TRANSFERRABLE BEST PRACTICES FROM ELITE, HIGH-PERFORMANCE SPORT TO LAW ENFORCEMENT AND EMERGENCY-RESPONSE APPLICATIONS

Edgar K. Tham<sup>a,b</sup>, Kamil Fahmi Selamat<sup>a</sup>,  
Kong Yi Qian Michelle<sup>a</sup> and Toh Jia Wen Alida<sup>a</sup>

<sup>a</sup>*SportPsych Consulting, Singapore*

<sup>b</sup>*S R Nathan School of Human Development,  
Singapore University of Social Sciences*

## Abstract

Security, law enforcement and emergency-response operations tend to be highly stressful and demanding. Mental toughness skills (MTS) can be a psychological resource to help operations personnel thrive under high pressure and adversity. This paper summarizes the implementation strategy of using the 'B3-5Cs' mental toughness training model (Tham, 1996; Tham & Weigand, 2010). The 'B3' refers to the 'Basic 3' or the three basic skills of goal setting, imagery, and self-talk. The '5Cs' denote the five application-based skills of Composure, Concentration, Confidence, Coping with adversities/challenges (or 'Cope-ability' for short) and Cohesion. This model, used

in elite, high-performance sport, may be adapted for security, law enforcement and emergency-response applications. Developing MTSs may help these three personnel types across different disciplines to improve their adversity-coping capabilities and facilitate the injury or post-operations recovery process. When faced with critical situations, operations personnel may feel overwhelmed if they have a history of many stressors, a personality that might worsen the stress response, and/or insufficient coping resources (Williams & Andersen, 1998). Should they appraise the situation as being threatening or if they perceive that they lack the resources to manage a given situation, such feelings will most likely cause physiological and/or attentional changes and will further predispose them to performance errors and/or injuries. Operations and training psychology practitioners may therefore benefit from applying the B3-5Cs mental toughness model (Tham, 1996; Tham & Weigand, 2010) using a periodized psychological skills training approach.

*Keywords:* Mental Toughness; Periodized Psychological Skills Training; Operations and Training Psychology.

## Introduction

Security, law enforcement and emergency-response operations tend to be highly stressful and demanding. Some of the challenges and demands placed on these personnel may include (1) demands from routine operations (e.g., patrolling duties) and planned operations, (2) humanitarian missions, (3) sudden and/or crisis operations, (4) life-and-death situations requiring quick decision-making, and (5) traumatic incidents such as murders and mutilations. Mental toughness, a stress-coping resource widely used in elite, high-performance sport, can be a psychological resource to similarly help operations personnel thrive under high-stress situations. This introduction briefly highlights the current research on mental toughness in sport and policing.

Jones, Hanton and Connaughton (2002) first defined mental toughness in high-performance sport among athletes as the psychological edge that enables them to stay determined, focused, confident and in control. In this model, mental toughness was thus an individual skill or quality. Not until recently was a meta-analytical study of mental toughness in sport conducted (Anthony, Gucciardi & Gordon, 2016). Interviews with athletes, coaches, parents, referees and sport officials highlighted

that both individual skills (e.g., composure, concentration, confidence and adversity coping) and social or team-related skills (e.g., cohesion and teamwork) were relevant to mental toughness. In essence, these major studies highlighted the importance of mental toughness skills (MTS) in elite sport.

## Mental Toughness and Policing/Emergency Response

Limited research has been conducted to date on mental toughness with emergency-response or law enforcement personnel. The first study to examine mental toughness in police officers was published in 2018 (Ward, St Clair-Thompson & Postlethwaite, 2018). The researchers found that higher levels of mental toughness was associated with lower perceived stress in police officers, which implies the potential relevance of mental toughness training in the operations and training psychology context.

Although the term 'mental toughness' was initially used in sport, the same mental skills that are applied in elite sport may also be applicable to other domains, especially where people must perform under pressure or stress. Many parallels exist between elite sport and policing/emergency situations, including high standards of excellence and successful outcomes, day-to-day demands and stress coping, and the need to perform under pressure and in different challenging situations (Table 1).

Because of the parallels between elite sport and policing/emergency situations, as well as in how the body responds to stress in similar ways (e.g., fight or flight), emergency responders and law enforcement personnel (henceforth 'performers') are typically encouraged to plan for and start building MTS as early as possible to give them ample time to

Table 1. Parallels between elite sport and policing

| Elite sport   | Policing/emergency response  |
|---|--|
| 1. Winning (e.g., gold medals)                      | 1. Mission/deployment response   |
| 2. Juggling different aspects of life               | 2. Juggling many tasks/operations  |
| 3. Disciplined, difficult training every day        | 3. Disciplined, difficult training every day                             |
| 4. Need for teamwork (e.g., team mates and coaches) | 4. Need for teamwork (with colleagues and superiors)                     |
| 5. Performance under stress (competitions)          | 5. Performance under stress (e.g., emergency operations and deployments) |

develop these skills, prevent bad mental habits, and support stress management over the long term. MTS development should be seen as a preventive or proactive approach to preparing law enforcement officers and emergency-response personnel for future critical situations, important missions and job-related stressors.

The next part of this paper summarizes the implementation rationale and framework for utilizing the B3-5Cs mental toughness training model (Tham, 1996; Tham & Weigand, 2010) in elite, high-performance sport. The 'B3' refers to the 'Basic 3' or the three basic skills of goal setting, imagery and self-talk. The '5Cs' denote the five application-based skills of Composure, Concentration, Confidence, Coping with adversities/challenges (or 'Cope-ability' for short) and Cohesion. We propose that the model may be adapted for security, law enforcement and emergency-response applications. In particular, we focus on two key implementation questions:

- (1) What mental toughness skills should be taught or used in training?
- (2) When should these mental toughness skills be acquired and practiced?

## **What Mental Toughness Skills Should be Taught or Used in Training?**

### **Olympic Athletes' Mental Skills**

Elite athletes have been shown to possess the requisite mental resources needed to cope with the pressure of competing at the highest levels of sport. In the late 1990s, the United States Olympic Committee (USOC) compiled a list of mental factors perceived to be important to the coaches and athletes who participated in the 1996 Atlanta Olympic Games (Gould *et al.*, 1998). The results showed a ranked order of the different mental skills, as shown in Table 2.

### **Adapted Stress-injury Model**

The adapted stress-injury model (Williams & Andersen, 1998) shown in Figure 1 may be used to explain why and how athletes are more predisposed to making performance errors, thus leading to possible injury. Adapted to the policing and emergency-response context, this model can be used to explain the possible effects of potentially stressful

Table 2. Ratings of the importance of mental skills

| Mental skill                            | Importance rating |      |
|---|-------------------|------|
|   | M                 | SD   |
| Confidence                              | 9.54              | 0.85 |
| Concentration/focus                     | 9.47              | 0.95 |
| Motivation                              | 8.71              | 1.97 |
| Ways to cope with adversity             | 8.51              | 1.61 |
| Relaxation/stress management techniques | 8.45              | 1.79 |
| Strategies to stay positive             | 8.41              | 1.74 |
| Arousal/emotional regulation            | 8.33              | 1.61 |
| Imagery/visualization                   | 7.86              | 2.05 |
| Team cohesion/chemistry                 | 7.72              | 2.80 |
| Communication                           | 7.39              | 2.26 |
| Media training                          | 5.53              | 2.37 |

Note: A rating of 0 = not important, 5 = somewhat important, and 10 = extremely important.

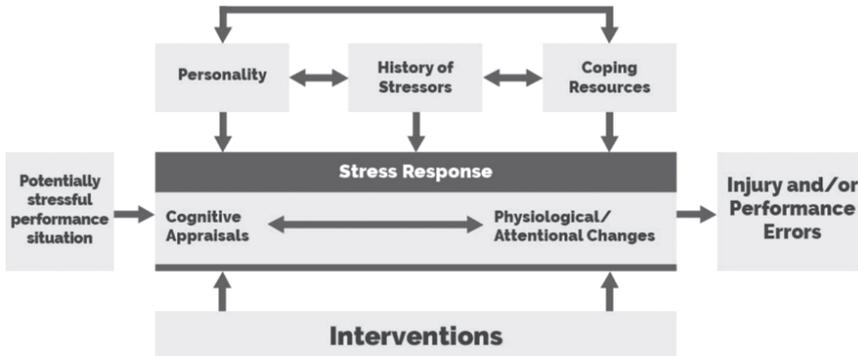


Figure 1. The adapted stress-injury model. This figure illustrates the Williams and Andersen model (1998, as cited in Tham, 2016)

situations on performance errors and/or injury during training and critical events/operations.

According to the adapted stress-injury model (Williams & Andersen, 1998), emergency-response and law enforcement personnel are more likely to feel overwhelmed in potentially stressful performance situations when they have a personality that might worsen the stress

response (such as trait anxiety), a history of many stressors (such as tactical mistakes they have made in the past), and/or insufficient resources to cope with the situation.

If these performers assess the situation as threatening and believe they lack sufficient resources to cope, then such assessments will likely cause certain physiological changes and/or attentional changes. These two mind-body factors may also interact with each other, which may in turn have an impact on a performer's movement, decision-making and execution, thus predisposing the performer to injury.

Two practical ways to help performers respond to these challenges with less perceived stress are to help them better understand their tendencies (e.g., their personality and history of stressors) and to equip them with the necessary psychological resources to cope with stressful challenges while working. Such preparations may be interventions such as MTS training (e.g., hands-on educational workshops) and social-support resources, such as one-on-one coaching, mentoring and team-cohesion building. These strategies can help to mitigate the stress response, thereby reducing the overall risk of performance errors and/or injury.

### The B3-5Cs Mental Toughness Training Model

To address each of the stress-response factors in the adapted stress-injury model (Williams & Andersen, 1998), performers must be taught several relevant mental skills and strategies. First, **composure skills** can be taught to reduce heightened physiological arousal levels when under threat. Second, **concentration strategies** can help performers focus better and make better decisions. Third, **confidence skills** can be reinforced to remind performers that they have the relevant experiences and resources to cope with the challenge. Fourth, these skills should also be combined in a synergistic way and not be used discretely, which can be achieved through **simulations and mock situations** to help performers automate their integrated usage. Fifth, mental toughness development should also include the component of **team cohesion** by enhancing strong social support and overall team 'togetherness'. These 5Cs of mental toughness skills or strategies are technically advanced application skills. To support their usage, more basic or rudimentary skills are necessary to form the foundation for their application.



Figure 2. The B3-5Cs mental toughness training model (Tham, 1996; Tham & Weigand, 2010)

As such, Tham and Weigand (1996) developed the B3-5Cs mental toughness training model (Figure 2) to provide a pedagogically layered and systematic approach. This model was used with elite, high-performance sport athletes and teams in Singapore and the United Kingdom since 1996. As noted above, the model comprises the three basic skills of goal setting, imagery and self-talk (which we term the ‘basic 3s’, or the ‘B3s’ for short) and the five Cs application skills of composure, concentration, confidence, cope-ability and cohesion.

These ‘relabelled’ mental skills also mirror those that the US Olympic athletes and coaches highlighted as being important, as identified earlier in Table 1 (Gould *et al.*, 1998), with the exception of media training. Media training was excluded from the list due to its irrelevance during stressful, high-performance situations. Table 3 shows the B3-5Cs mental

Table 3. The B3-5Cs mental toughness training model

| Important mental skills used by Olympic athletes* | B3-5Cs mental toughness training model** | Brief description of each mental skill or strategy               |
|---|--|--|
| Motivation  | Goal-setting (B1)                        | Increasing one’s commitment to goals through goals action plan   |
| Imagery/visualization                             | Imagery (B2)                             | Using imagery and mental rehearsal skills to envision excellence |

(Continued)

Table 3. (Continued)

| Important mental skills used by Olympic athletes*                     | B3-5Cs mental toughness training model** | Brief description of each mental skill or strategy  |
|---|--|---|
| Strategies to stay positive   | Self-talk (B3)                           | Thinking positively and optimistically under pressure/stress  |
| Relaxation/stress-management techniques; Arousal/emotional regulation | Composure (C1)                           | Being calm in handling pressure and emergencies   |
| Concentration/focus   | Concentration (C2)                       | Focusing on what really matters without being distracted; being able to make the appropriate decisions under pressure |
| Confidence  | Confidence (C3)                          | Having self-belief and trust during stressful situations  |
| Ways to cope with adversity   | Cope-ability (C4)                        | Coping with adversities/challenges and thriving in emergencies and other critical situations                          |
| Team cohesion/chemistry; Communication                                | Cohesion (C5)                            | Receiving support and collaborating well with others  |

\*Not in ranking order (Gould *et al.*, 1998). \*\*Tham (1996), and Tham & Weigand (2010)

toughness training model, which is based on those mental skills cited as important by successful Olympic athletes (Gould *et al.*, 1998); the model also targets the stress-response factors (Williams & Andersen, 1998).

## When Should These Mental Toughness Skills be Acquired and Practiced?

MTS take time and effort to develop. The learning and application of these skills should ideally be spread out in various situations over time via a 'periodized' approach, as discussed below.

### Periodization of Mental Toughness Skills

Periodization is commonly used in sport as a way to manage training and to spread the development of key skills over the season. This strategy

involves progressively alternating and building on various aspects of a training program over a competitive period in sport. A similar approach can also be used in security, law enforcement and emergency-response applications. The following are the major components that make up the periodized framework.

## Major Periods

The broad phases and their terms are described as follows. (1) *Transition* refers to the transition from a previous season or year to the new season or year; transitions typically occur immediately after the end of the calendar year. (2) *General preparation* is the period when performers are gearing up for the new season or year; this is the time when they develop general physical fitness and acquire new technical skills. (3) *Specific preparation* is the phase in which performers orient themselves toward critical events, such as end-of-season evaluative trials or operational exercises. (4) *Pre-event or critical events* are periods closest to the final event.

## Mental Skills Assessment

For a more holistic mental toughness training program, some form of psychological profiling or psychometric assessment should be included to raise performers' self-awareness of their mental skills. Such assessments can assist performers in understanding their tendencies when under pressure or stress. The use of multi-rater, 360-degree feedback from superiors, peers and/or subordinates is also a good alternative to providing comprehensive and realistic feedback. This aspect is best done during the earliest training period of the season or year.

## Basic Mental Skills (B1 to B3)

According to the literature, goal-setting, imagery (such as mental rehearsal) and self-talk are the three most commonly listed basic mental skills (Anderson, 1997; Hardy, Jones & Gould, 1996; Weinberg & Gould, 2018). These skills typically form the foundation for other more advanced mental skills (such as composure, concentration and confidence, among others) and thus are best taught at the earliest period of the season or year.

### **C1: Composure Skills**

When under pressure, performers are likely to show signs of increased physiological arousal, such as increased heart rate or muscle tension. Such arousal tends to have a negative impact on human movement or behavior, which in turn will limit performance potential. As such, operations and training psychology practitioners can teach their officers C1 composure skills to relax or stay calm under pressure.

### **C2: Concentration Skills**

When under stress, a performer may experience a narrowing of attentional awareness, which may lead to poor analysis and decision-making and can ultimately cause performance errors. In addition, being calm and composed is a mental quality that facilitates better focus. As such, the teaching of C1 composure skills should *precede* the teaching of C2 concentration skills (Tham & Weigand, 2010).

### **C3: Confidence Skills**

Confidence may be strengthened through (1) mastery experiences, via B1 goal-achievement; (2) vicarious experiences, via modeling excellence in others, which is a form of B2 imagery or mental rehearsal; (3) verbal persuasion, via positive B3 self-talk and encouragement from others; and (4) having optimal physiological arousal levels, via C1 composure skills (Bandura, 1997). The teaching of C3 confidence skills should thus occur *after* the teaching of C1 composure skills and should be introduced later in the season or year but *before* the teaching of C4 cope-ability skills.

### **C4: Cope-ability Skills**

The learning of relaxation, focusing or confidence skills discretely as stand-alone skills may be less than effective during high-pressure situations. The stress response can be better controlled by integrating the use of all three mental skills. As such, performers need more than one opportunity to apply these different mental skills synergistically together in real-life stressful situations, such as via simulations. Because

systematic application over time will help performers automate their cope-ability skills, C4 cope-ability skills should be introduced *after* C1, C2 and C3 skills have been covered (because cope-ability is an integrative skill); such skills should also be introduced at a much later part of the season or year.

### **C5: Cohesion (Team-player) Skills**

Recent studies suggest that social and environmental factors affect performers' abilities to cope with stressful situations (Sarkar, 2018; Taylor, 2019). Operations and training psychology practitioners may wish to emphasize both *task cohesion* (such as role clarity and task integration) and *social cohesion* (such as by resolving conflicts quickly and by giving and receiving social support) in the intact teams they work with (Carron, Colman, Wheeler & Stevens, 2002; Carron, Hausenblas & Eys, 2005). Team cohesion should be fostered over a longer duration; it should not be a one-time 'team-building thing'. Doing so will ensure that conflicts will be handled early and that any issues that arise will be addressed as soon as possible. The resolution of individual differences and disagreements close to critical events will happen too late and could potentially impair both individual and team performance, which therefore justifies why C5 cohesion skills or strategies should be implemented during all the major phases throughout the season or year.

### **One-on-one Coaching Sessions**

The mind remembers past stressful experiences as a way to 'protect' us from future occurrences. As a defence mechanism, the brain triggers the stress response during similar threatening situations, which then increases the probability of the occurrence of repeated errors or performance issues. Operations and training psychology practitioners can help performers by debriefing and learning from past stressors through one-on-one coaching sessions. The incorporation of coaching sessions gives performers the opportunity to address more personal and individual-based matters, such as personal challenges or their history of stressors. These sessions may be spread out across the whole season or year to provide opportunities for more tailored intervention support.

## On-site Observations to Triangulate Performance Data

The MTS training program should include on-site observations or else some form of performance observation and review. The program can be implemented near the second major periodization phase (i.e., *specific preparation*), when performers are refining their technical or tactical skills. Operations and training psychology practitioners should triangulate the data gleaned from one-on-one coaching sessions and training observations and should assess how performers actually perform under real-life pressure during critical events and situations. The mental skills training workshops or any issues to be discussed during one-on-one sessions can also be adjusted from the information that is gathered.

## Overview: Periodization Structure

The B3-5Cs mental toughness training model (Tham, 1996; Tham & Weigand, 2010) is a systematic framework that allows for both breadth and depth in the development of mental skills. From a pedagogical standpoint, the MTS are layered to ensure that performers will build the right fundamentals before they advance to higher-level, more application-based skills. This strategy will ensure that the development of mental skills will be both structured and progressive. Table 4 shows all the elements listed above together in a periodized structure to show the broad training phases over the season or year,

Table 4. The mental toughness periodization structure

| Transition and general preparation   | Specific preparation  | Pre-event or critical events   |
|--|---|--|
| <ul style="list-style-type: none"> <li>• Mental skills assessment (self-awareness)</li> <li>• MTS* education sessions                             <ul style="list-style-type: none"> <li>o B1: Goal setting</li> <li>o B2: Imagery</li> <li>o B3: Self-talk</li> <li>o C1: Composure</li> <li>o C5: Cohesion</li> </ul> </li> <li>• One-on-one mental skills coaching</li> </ul> | <ul style="list-style-type: none"> <li>• MTS education sessions (continued)                             <ul style="list-style-type: none"> <li>o C2: Concentration</li> <li>o C3: Confidence</li> <li>o C5: Cohesion</li> </ul> </li> <li>• Observation of on-site behaviors during training sessions</li> <li>• One-on-one mental skills coaching</li> </ul> | <ul style="list-style-type: none"> <li>• MTS education sessions (continued)                             <ul style="list-style-type: none"> <li>o C4: Cope-ability</li> <li>o C5: Cohesion</li> </ul> </li> <li>• On-site availability of performance psychologist at critical events or situations</li> <li>• One-on-one mental skills coaching</li> </ul> |

\* MTS = mental toughness skills

the recommended MTS to be taught and the intervention-support services to be implemented.

The periodization of MTS training should 'go with the flow' of, and be integrated with, other law enforcement and operations-related training aspects, such as physical, technical and tactical training. MTS training should support, and *not* interrupt, regular training. The mental toughness skills that are taught should also be practical and applicable on the ground.

In conclusion, we recommend that mental skills assessment (for self-awareness), interactive educational workshops, one-on-one coaching sessions and on-site observations and intervention support should be implemented over the course of the season or year when using the proposed periodization approach. The objective of this strategy is to help performers understand their tendencies, overcome their past history of stressors, and strengthen their mental toughness coping skills.

## Summary

This paper has summarized the implementation strategy of using the B3-5Cs mental toughness training model (Tham, 1996; Tham & Weigand, 2010), which has been used in elite, high-performance sport and may be adapted for security, law enforcement and emergency-response applications. When faced with critical situations, operations personnel may feel overwhelmed if they have a history of many stressors, a personality that might worsen the stress response, and/or insufficient coping resources. Should they appraise the situation as being threatening and believe that they lack the resources to manage the situation, such beliefs will most likely cause physiological and/or attentional changes and will further predispose them to performance errors and/or injuries.

Developing MTS may help security, law enforcement and emergency-response personnel across different disciplines to improve their adversity-coping capabilities and facilitate the injury or post-operations recovery process. The suggested MTS to be developed include the B3s of goal setting, imagery and self-talk and the 5Cs of composure, concentration, confidence, cope-ability and cohesion. MTS development should be started early, spread regularly across time, and executed in tandem with physical, technical and tactical training.

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