



## **Summary Report**

### **Evaluation training Mental Strength**

A plan, process, and an effect evaluation of the training mental strength for police officers

Prof. Dr. Peter van der Velden  
Drs. Kim Lens  
Hannah Hoffenkamp, MSc  
Mark Bosmans, MSc  
Erik van der Meulen, MSc

## Summary

Police personnel need to be able to withstand the many kinds of operational and organisational stress that police work can entail. In 2011 a report was published stating that the mental resilience of police employees was under severe pressure. According to the report – although it was not based on empirical research among police personnel – between 25 and 37% of police employees probably suffer from reduced or greatly reduced mental resilience (Andersson Elffers Felix, 2011). The report played a role in the development of the ‘Strengthening Professional Resilience’ programme. Among the recommendations of the programme is that police officers should receive more and better training to increase their resilience. The ‘Mental Strength’ training programme was developed to implement this recommendation.

The evaluation of this Mental Strength (MS) training, which was developed by the School for Hazard and Crisis Control of the Netherlands Police Academy, is the subject of this report. The evaluation was carried out under the auspices of the Research and Documentation Centre of the Ministry of Security and Justice. The aim of the training is to strengthen the mental resilience or mental strength of police officers by raising awareness and changing behaviour and attitudes. The evaluation research into the MS training as a whole is made up of three components, which form the subject of this report:

1. Plan evaluation
2. Process evaluation
3. Product evaluation

### 1 Plan evaluation

The aim of the plan evaluation is to provide insight into the theoretical basis of the MS training. The central question of this component of the research is *“To what extent can the MS training be regarded in theory as an effective intervention for the target group (police employees), in view of its general objective and specific aims?”*

#### *Research methods*

To answer this central question, reference was made to the relevant policy documents of the professional resilience programme, the vision document and the training programme handbook. This policy reconstruction was supplemented with semi-structured interviews with the designers of the training (2), policy officers (3) and participants in the MS training (20). In addition, a literature review was carried out to discover whether national or international studies are available concerning the components or the content of the MS training.

## *Results*

According to the vision document that underpins the MS training, the general aim of the training – (strengthening the mental resilience of police officers – would be achieved by focusing on various mental skills in the training, based on three components: Challenge, Control and Trust. Each of these components consists of two mental skills. The Challenge component is made up of the mental skills of *Setting Targets* and *Visualisation*, the Control component of *Energy Management* and *Attention Control*, and the Trust component of *Reflection on Action* and *Control of Thoughts*.

Although the vision document describes a number of general scientific assumptions concerning the relationship between the components of the training and the strengthening of mental resilience – in particular the enlargement of the components Challenge, Control and Trust – a connection between explicit learning aims and the mental skills to be trained is almost absent. In addition, there are no clear supporting arguments for why these skills were identified, or for the division of the various skills under the associated components. Because of this it is difficult to establish what the envisioned change may be.

From the interviews with experts it emerges that the theoretical basis of the MS training is not only founded on scientific assumptions, but that it is based on and given form by practical experience, with a specific focus on practical experience within the system of special units and of crisis and conflict management.

Two active elements are distinguished within the MS training: raising awareness and insight, and a signalling function. Through learning activities, new insights are given into the field of mental resilience, so that new (and/or other) behavioural and other aspects are discovered. The (group) discussion of incidents is intended to ensure that the MS training gives a clear picture of the state of mind and the functioning of the individual police officers as well as the team.

The analysis of the academic literature, located with the help of PUBMED, PSYCINFO and Web of Science<sup>1</sup>, on the effectiveness of interventions concerning the mental resilience of police officers and/or relevant professional groups shows that there is as yet only limited theoretical and empirical support for the components of the MS training and its specific elements. Existing studies into the effectiveness of similar training programmes show very few scientifically substantiated positive results: the research groups are mostly small, and the methodological quality is variable.

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<sup>1</sup> This is made up of three separate databases: Science Citation Index Expanded, Social Sciences Citation Index, and Arts & Humanities Citation Index (approximately 9,500 journals in total).

For example, a recent methodologically well-designed investigation into a training programme for police officers shows no statistically significant results<sup>2</sup> in the short or long term.

Although various studies have examined the effectiveness of resilience training programmes for police personnel and/or relevant professional groups, the ways in which these training programmes and their associated components are intended to lead to the desired outcomes, and the supposedly effective mechanisms behind the programmes and/or their components, are barely described. Because the studies that were identified sometimes did not sufficiently specify the training programmes they were referring to, it was not always clear what component of the training programme had an effect on what element of resilience, and it was also difficult to make a distinction between the components of the training programmes.

It can however be deduced from the studies that were included that some mental skills are more often found as components of resilience training for police personnel and relevant professional groups than others. In virtually all studies, use is made of (a specific form of) 'energy management'. The mental skill of 'control of thoughts' also turned out to be a frequent component of the programmes. The mental skills of 'setting targets' and 'reflection on action' were only found in one study, however.

### *Conclusions*

The general objective of the MS training is to strengthen the mental resilience of police employees. It is also expected that this strengthening will lead to an improvement of cognitive performance during an arrest, an enhancement of long-term and short-term motivation, general wellbeing and mental health of the police employees and even, in the long term, their physical health. The presumed results of the MS training are therefore not inconsequential, and are extremely broad. However, an adequate theoretical and empirical substantiation with regard to these objectives is lacking. What is more, it is unclear what the active elements and factors of the MS training that can be influenced are that could lead to behavioural change.

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<sup>2</sup> In this report it was first investigated whether differences between, for example, trained and untrained police officers are statistically significant, i.e. whether it can be stated with a reasonable degree of certainty that both groups do indeed differ on, for instance, scores on a questionnaire. However, a statistically significant difference in scores does not necessarily mean that the difference between the scores is also practically or substantially relevant or significant. If that is the case, then this is explicitly stated.

## **2 Process evaluation**

The general objective of the process evaluation is to acquire insight into the manner in which the MS training is implemented in practice, and the degree to which the training is delivered in accordance with the programme handbook. The central question of this element of the research is: *“To what extent is the Mental Strength training implemented consistently and in accordance with the plan?”*

### *Research methods*

In order to acquire insight into the content of the training protocol and the preconditions of the MS training a study was made, in addition to public sources of information, of the vision document, the original trainers’ handbook, the revised handbook 2.0, the workbook 2.0 and the evaluation forms of the participants in the training. This document analysis was supplemented with observations of 15 full training days, whereby the training was scored with the aid of a scoring list/checklist that was developed on the basis of information acquired by means of the document analysis. Finally, semi-structured interviews were held with six trainers in order to acquire insight into the experiences of trainers with aspects including the implementation of the training, the motivation of the participants, cooperation with fellow trainers and the preconditions and possible bottlenecks in the roll-out of the MS training.

### *Results*

#### *Implementation of MS training*

The results show that the protocol of components was handled by the trainers in a systematic manner. During all the observed training sessions the ‘mental toolbox’ with the components Challenge, Control and Trust was explained to the participants in detail. The associated mental skills were also discussed and dealt with in depth by the trainers. The programme was consistently followed in this regard. Differences were found in the use of case histories and practical exercises from the handbook to link in with the group’s learning needs. The sequence of the programme’s components and the essence of the training were adhered to at all times, however.

#### *Target groups*

The training was initially developed for all executive employees (charged with the provision of basic police services, including enforcement and emergency assistance) and line managers of the National Police Force. In practice, the groups sometimes turned out to be made up of both executive and non-executive police employees (charged with ancillary tasks, including administration and policy) who work together in a particular department.

According to the trainers who were interviewed, it is desirable that the MS training is aimed at the police organisation as a whole. They find it important that both the executive and non-executive police employees are approached to participate in the training, because they consider the training to be appropriate for both groups, and that both groups can benefit from following the training. However, the trainers suspect that the learning effects would not be the same for all participants, because they are dependent on factors including the motivation, openness and commitment of the individual participants and the team as a whole, as well as the size of the group. Setting these factors aside, the trainers expect that, in particular, people who are under great psychological pressure, experience high levels of stress or display symptoms of a burnout or post-traumatic stress disorder can benefit from following the training.

#### *Selection of participants*

No inclusion or exclusion criteria are applied by the Police Academy for participation in the training; this is dependent on the decisions of the police unit and the manager concerned. Police employees with psychological complaints – including symptoms of (post-traumatic) stress, burnout, anxiety and depression – are therefore not excluded from participation in advance. If an employee is absent from work through illness in the short or long term, this person will generally not participate in the training.

#### *Preconditions*

The results show that the preconditions under which training programmes are implemented are in order. Because the MS training consists of a combination of applicable *theory* and practical *exercises*, accommodation was sought where the opportunity exists to hold discussions the theory ‘indoors’ and experiment with practical exercises ‘outdoors’. The Police Academy has various types of accommodation that are eminently suitable for this.

#### *Conclusions*

The Mental Strength training is implemented consistently and in accordance with the plan. The training observations and interviews with the trainers reveal that all the protocols of training components are handled by the trainers in a systematic and thorough manner. In addition, the level of support among the MS trainers appears to be high. The trainers who were interviewed are highly enthusiastic about the structure and content of the training. This generally also applies to the participants in the MS training who were interviewed. With the exception of a number of individual participants or teams who displayed resistance at the outset of their training, the participants were reasonably well motivated to participate in the training. The attitude of the manager appears to determine the support and the motivation of the team.

### **3 Product evaluation**

One of the key questions of the evaluation research was: “Does following the training contribute to achieving the objectives of the professional resilience programme?” More specifically, the aim of the product evaluation was to determine whether, at the conclusion of the MS training, the participants were better able to cope with the mental pressure that police work can entail, whether the training resulted in improved execution of tasks by the participants, whether the training was aimed at the appropriate target group, and what characteristics of the participants or the training were associated with the (envisioned) usefulness and success of the MS training. To investigate the effects of the MS training, the development of mental strength of trained police employees (the ‘experimental group’) was compared in detail with the development of mental strength of their untrained colleagues (the ‘control group’). The following section gives an account of this investigation.

#### *Method*

A questionnaire was completed by the participants three times over a period of around nine months: before the training (prior measurement), approximately 3 months after the training (first follow-up measurement) and approximately 9 months after the training (second follow-up measurement). At these three measurement points the participants filled out a questionnaire on, particularly, their background, work experience and absence through illness, their mental strength including their mental toughness and resilience, their experiences with shocking events and their self-reliance in this regard (CSE-7) and their mental health, including aspects such as anxiety, depression, hostility, burnout and PTSD.

#### *Results*

Control analyses showed that the group that took part in all measurements was reasonably representative, with regard to the prior measurement, of members of the experimental and control groups who dropped out. Nevertheless, the results in this report are principally based on the participants who took part in all three measurements<sup>3</sup>, because the progress of resilience could only be measured among them (and the drop-out rate was not inconsequential). In respect of the characteristics of the participants, the following two aspects are important: their mental strength at the prior measurement stage and their mental health. We did not find any indications that the mental strength of the majority or significant minority is low or extremely low. The same applies to self-reliance in the context of shocking events. The percentage of participants in the three measurements with severe or very severe psychological complaints is low.

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<sup>3</sup> N Experimental = 138, N Control = 167.

According to the questionnaire that was used to investigate PTSD, the percentage of participants who possibly have PTSD was between 0.3% and 1.5% of the total number of participants at each measurement. The percentage of participants with extremely severe anxiety or depression was between 0% and 2.4% across the groups.

Unlike 'normal' studies of the effects of training (or other interventions)<sup>4</sup>, the experimental and control groups were not selected at random: the participants and non-participants in the MS training were followed over the specified period. It emerged that the two groups had no statistically significant differences in (mental) health, but did differ with regard to their mental strength. The control group scored slightly higher on mental strength than the experimental group in the prior measurement. The differences (effect sizes) are generally not pronounced, with the exception of two outliers: the total score on the MTQ-48 and the *interpersonal trust* subscale. The differences (effect sizes) are quite marked for these two outcomes.

The Mixed Models statistical technique was used to analyse the effect of the training over time. Furthermore, in the statistical analysis the relatively short-term effect (differences in changes between the prior measurement and the first follow-up measurement in both groups) and the relatively long-term effect (differences in changes between the prior measurement and the second follow-up measurement in both groups) were analysed. The results of these analyses show that virtually no changes in mental strength took place over time among the experimental and control groups as a whole. A significant (interaction) effect of the MS training was only seen in the *interpersonal trust* subscale (MTQ-48). This effect indicates that trust among the experimental group (slightly) increased between the prior measurement and the first follow-up measurement, while trust (slightly) decreased among the control group. The development of scores on the RS-NL questionnaire did not give any indications that the MS training had any effect on resilience. Taken together, these results do not provide any indication that the mental strength of the participants was (greatly) increased by the training.

It was also investigated whether the MS training possibly had an effect on the specific groups: a) within the subgroup of participants who had experienced a shocking event in the course of their work, b) within the (small) subgroup who displayed psychological complaints at the prior measurement, c) within the subgroup with relatively low mental strength at the prior measurement (lower 30%) and d) within the subgroups with the most years of service (upper 50%) and the least years of service (lower 50%).

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<sup>4</sup> This refers (in technical/scientific terms) to Random Control Trial (RCT) studies.

With regard to shocking events experienced at work, the results were broadly comparable with the results of the research group as a whole. As well as the effect on *Interpersonal Trust*, there was also a significant (interaction) effect<sup>5</sup> on the total MTQ-48 score. With regard to the subgroups with psychological complaints, there were indications of four statistically significant interaction effects: for *Interpersonal Trust*, *Challenge*, the *total score for Resilience* (RS-NL) and *Personal Competency*. There were also indications of a (slight) fall in the scores of the control group, whereas these remained constant or (slightly) rose among the experimental group. No significant (interaction) effect occurred among the participants with the relatively lowest scores on *Mental Toughness* and *Resilience*. Finally, in relation to years of service, there was only a similar significant (interaction) effect on *Interpersonal Trust* (once again) within the group with the relatively fewest years of service.

Finally, the way in which participants evaluated the training, both at the first and the second follow-up measurement, was examined. The possible correlation between the evaluation and differences in mental strength was analysed. Participants hardly differed in their evaluation of the training between the first and second follow-up measurement. Over half of the participants evaluated the training as fairly useful to extremely useful and informative. However, one in six of the participants were of the opinion that participants had become more resilient because of the training. There was little or no correlation between differences in the evaluations and changes in mental strength over the two measurements.

### *Conclusions*

Taken over the research group as a whole, we found hardly any indications that the MS training had (greatly) improved mental strength. There are, however, indications that there was a (limited) effect on *Interpersonal Trust*, which showed statistically significant interaction effects in all three group analyses (the group as a whole, groups who had experienced shocking events, and groups who had psychological complaints at the time of the prior measurement).

The analyses in connection with the group of respondents with psychological complaints, which was extremely limited in size, showed the most statistically significant interaction effect in relative terms. It should be noted here that only very small groups were involved, and that only the first two measurement points were examined. It very probably plays a (major) role in these findings that the participants in this study were in good or very good health at the outset, and were not characterised by a severe lack of mental strength.

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<sup>5</sup> The term 'significant interaction effect' means that the course of scores among the trained employees during the three waves differs statistically significant from the course of scores among the untrained employees. More technically: time and training interact if the effect of one of these two variables differs depending on the level of the other variable.

### *Finally*

With the 'alarming' conclusions of Andersson Elffers Felix in mind, the outcomes of the training might be seen as surprising: if the resilience of so many police officers is probably (extremely) inadequate, then why does the MS training not show more effects? Are adjustments to the training or the target group required? Can mental resilience be changed in a three-day training programme? In answering these questions it must be taken into account that the findings of this investigation concerning the mental state of police personnel, just as those of other recent investigations (Van Beek et al. (2013) and Van der Velden et al. (2013)) do not correspond with the picture outlined by Andersson Elffers Felix (which, to repeat, was not carried out among police employees). The results of our research and of the above-mentioned empirical studies suggest that the 'alarming' impression, notwithstanding the limited resilience of some individual police officers, must be adjusted and nuanced. For example, the participants already appeared to possess considerable mental resilience before the training. A possible lesson is that any new training programmes to be developed should be scientifically investigated, for example in the form of pilot schemes, at an earlier stage.