What makes great police leadership? What research can tell us about the effectiveness of different leadership styles, competencies and behaviours.

A Rapid Evidence Review

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Authors: Isla Campbell and Jenny Kodz
1. Overview and key findings

The purpose of this paper is to present a review of the current evidence base on what makes a great police leader – in terms of leadership styles, behaviours and competencies. It focuses on internal police leadership for all ranks from first line-managers (sergeants) to chief executives (chief constables/commissioners) and summarises findings from relevant UK and international research studies published in English over the last three decades (1979 - 2008.) An extensive systematic literature search was conducted to identify relevant research evidence that reported on outcomes and impact of police leadership. Think pieces and research papers that did not report on such outcomes were excluded. The resulting list of 23 research studies have been reviewed by the NPIA research team and their findings summarised in this paper.

Leadership is a complex research area and across all sectors there is ambiguity over which styles and behaviours are the most effective. Difficulties of linking leadership with organisational outcomes are particularly pronounced for the police, since common police performance measures are affected by multiple confounding factors. The findings of this review are, therefore, largely based on perceptions of what makes a great police leader. There is virtually no reliable evidence of what impacts police leadership styles and behaviours make on the ground.

Key findings

Findings from the reviewed studies have been summarised below. They offer an indication of the potential effectiveness of different police leadership styles, competencies behaviours and where the existing “weight of evidence” lies. The standard of evidence offered by the reviewed studies was not high enough to draw strong “What Works” conclusions.

1. Limitations of the evidence: the evidence base for what makes a great police leader is limited and is largely restricted to leaders’ impacts on subordinates and subordinates’ perceptions of effectiveness of their leaders. Very little evidence was found that assessed impact of leadership competencies and behaviours on operational and organisational outcomes.

2. Transformational leadership: police leaders that seek to inspire, set a vision, offer intellectual stimulation and appeal to followers’ moral values, desire to fulfil potential and make a positive contribution may be viewed as more effective leaders than those that don’t. There is evidence to indicate that they can have a positive impact on subordinates’ organisational commitment and their willingness to exert extra effort and comply with directives.

3. Transactional Leadership: evidence suggests that police leaders that rely heavily on rewards and punishment and ‘management-by-exception’ (taking action only when there are deviations from expected behaviours and/or service delivery) rather than employing transformational behaviours, may have fewer positive impacts on subordinates. However, there is evidence that transactional behaviours can have positive impacts in specific circumstances, for example: subordinates may respect supervisors that adopt transactional behaviours and styles to deal with poor standards and performance; ‘goal-oriented’ leaders may be preferred by lower ranking and less experienced officers than those in
higher ranks; role-clarification may be more appreciated when tasks are perceived as unpredictable; individuals that have a disposition to prefer external direction and control (and who are less self-motivated) can also express a preference for transactional style leadership behaviours.

4. **Mixed style leadership:** there is evidence to indicate that police leaders that combine transformational and transactional behaviours may be more effective than leaders that rely purely on transformational behaviours.

5. **Active leadership and role-modelling:** leaders that are active, out in the field, who set a good example and employ role-modelling strategies may be more effective at influencing subordinates’ behaviour (including impacting on integrity and the ethical culture of their force) than transformational leaders that rely too heavily on inspirational motivation and interventions such as mentoring.

6. **Situational leadership:** leaders that modify their behaviours to suit the context, including the years of experience, rank and role of their subordinates, may be most effective.

7. **Participative Leadership:** leadership styles that encourage participation in decision making may positively impact on job satisfaction and subordinates’ organisational commitment and there is more limited evidence that shared-leadership initiatives have potential for similar impacts.

8. **Laissez-faire/ Passive/Avoidant:** evidence indicates that police leaders that practice inactive leadership (and essentially fail to lead) are almost universally viewed as less effective. There is evidence they can have negative impacts on subordinates’ willingness to exert extra effort, but there may be exceptions to this amongst higher ranking officers.

9. **Variations:** policing may sometimes require approaches to leadership that are unusual compared to other sectors. For example, police officers in Australia have been found to have a higher level of satisfaction with their leaders than industry/business workers – despite evidence indicating that Australian police leaders are less transformational than their industry/business equivalents.

10. **Emotional intelligence:** there is evidence that an ability or capacity to perceive, assess, and manage the emotions of one's self, and of others (i.e. “emotional intelligence”) can be positively related to police leader effectiveness, but that high levels of emotional intelligence can also undermine effectiveness when coupled with high levels of narcissism (a personality trait involving conceit, egotism, vanity or selfishness.)
2. Review methods

**Summary:** Evidence for this paper was retrieved by systematically searching 7 electronic databases of social research literature and the UK National Police Library on-line catalogue for the publication periods 1979 to end 2008. It was an international search but only studies published in English were included. The objective of the search was to identify research evidence on the impact/degree of effectiveness of police leader competencies, behaviours and styles - think pieces and research papers that did not report on outcomes were excluded. After sifting the initial long list of references, 18 relevant journal articles, reports and PhD’s were identified (masters level theses have not been included), along with 7 further publications found through following-up footnote references. In total, they report on 23 separate research projects.

An initial appraisal of the identified studies by the NPIA research team found the standard of evidence they offered to be insufficient to enable ‘what works’ statements. Instead, this review summarises the findings of the individual studies (presented in section 5 below) and draws together their shared conclusions (presented as ‘Key Findings’ in Section 1 above) as indicators of where the current ‘weight of evidence’ lies. It should be noted, that the journal articles will have undergone a peer review process prior to publication, which gives some extra support to their reliability. The quality of previous vetting of PhDs and other reports is less certain.

**Further details of the search and review process are provided in appendix A.**

3. Overview of papers

In total, references for 25 relevant publications were identified: 9 PhD theses; 13 peer reviewed journal articles and 3 police/government organisation reports. The publications present results from individual research studies – in two cases there were two papers reporting on the same study.

The majority of the studies (15 of the 23) identified through the search are North American. Only four are British. Three quarters were published in the last decade of the search (between 1999 and end 2008) and none were published in the middle period (1989 – 1998.)

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<th>Year of Publication</th>
<th>Total No. of Studies</th>
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<td>1979 - 1988</td>
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<td>USA 4; Canada 1; New Zealand 1</td>
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<td>1999 - 2008</td>
<td>17 (19 papers)*</td>
<td>USA 9 (10 papers)<em>; Australia 1(2 papers)</em>; Nigeria 1; Israel 1; Netherlands 1; UK 4.</td>
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1. Applied Social Sciences Index and Abstracts (ASSIA); MEDLINE; National Criminal Justice Reference Service Abstracts; PsycINFO; Social Science and Science Citation Indices (and Conference Proceedings Citation Index – Science); Emerald Management Reviews and the Criminal Justice Abstracts database.
Interest in police leadership research largely developed in North America in the 1970s – in response to the civil rights movement and the social unrest of the previous decade and coinciding with the early development of community policing. Academic theories of leadership had been developing in the previous thirty years and a shift had occurred from trying to identify "traits" that make a great leader, to looking more at behaviours and overall styles that could potentially be learnt and emulated, rather than simply gifted at birth. Police focused leadership research, therefore, emerged within a context of change, where new leadership models and theories were being tested to see whether and how traditional policing could evolve to meet current social needs.

The earliest studies reviewed for this paper (dating from the late 1970s and early 1980s: Jermier and Berkes 1979; Brief et al, 1981; Kukyendall and Unsinger, 1982) concentrate on testing a suggested assumption that autocratic, impersonal leadership was preferred by police officers and that quasi-military structure and leadership styles were essential – to maintain centralised control whilst officers are allowed considerable discretion on the ground; to ensure rapid mobilisation in crisis and emergency situations and to give public confidence in the legitimacy and accountability of police activities. On the whole, these early studies tend to present evidence to undermine a blanket approach to police leadership, to question the validity of a strictly ‘quasi-military’ leadership structure and promote supportive and participative leadership behaviours rather than purely ‘instrumental’ ('leader as commander').

These early studies are based on contingency or situational theories of leadership. According to the ‘path-goal’ contingency theory, leadership can be divided into four over-arching behaviours - achievement-oriented, directive, participative, and supportive – and leaders should take the approach that most suits the situation. The ‘personal-situational’ theory assumes that leaders should alter their style according to the maturity level of subordinates, again with four main different approaches: telling, selling, participating and delegating.

From the mid 1980s a new theory of leadership was developed. ‘Transformational leadership’ is an approach where leaders concentrate on developing (or ‘transforming’) followers through a range of encouraging behaviours. The concept was developed into a full leadership theory by Bass in 1985 and the popularity of his 'Full-Range Leadership Model’ (FRL) is attested by the fact that it is the theoretical basis for six of the studies in this paper (dating from 1987 to the most recent: Singer and Jonas, 1987; Densten 1999 and 2003; Schwarzwald et al 2001; Morreale, 2003; Murphy 2007 and Sarver, 2008.)Whilst criticism of the model has grown in recent years, it still dominates the current evidence base for effective police leadership. The FRL model distinguishes between transactional and transformational leadership - where transactional leadership focuses on rewards and discipline and transformational engages higher values, with leaders seeking to motivate subordinates by setting out an organisational vision, providing a good example and appealing to moral values, intellect and desire to fulfil individual potential and contribute to organisational aims. Above all, transformational leaders are believed to be able to bring about change and encourage innovation, whereas

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Transactional leadership (often characterised by ‘management-by-exception’) is more likely to maintain the status quo.

Essentially, the findings and purpose of the Full-Range Leadership Model studies reviewed for this paper are not dissimilar to the earlier research. They build on the evidence challenging the ‘instrumental’ leader as commander style and encourage inspirational, supportive and participative leadership. They also tend to support the ‘contingency’ or ‘situational theory’ of leadership – that assumes that leaders can and should adapt their behaviours to suit different contexts. Whilst virtually all studies working from the FRL model, for example, support high levels of transformational behaviour, a number of papers evidence a role for transactional and even laissez-faire leadership behaviours in certain policing contexts (Densten 2003; Schwarzwald, et al 2001.)

Over the last fifteen years, police leadership research has also been influenced by theories relating to “Emotional Intelligence” and personality. Two of the most recent papers support a relationship between high emotional intelligence and effective police leadership, providing it is coupled with a genuine sense of morality and low narcissism (Hawkins and Dulewicz, 2007; Yocum, 2007). One study in this review have also attempted to assess the impact of personality and emotions on leadership effectiveness (Green, 2007 and Murphy, 2007.)

Further recent work including the largest UK study (Dobby et al, 2004), have set out to reveal and to a limited extent test, core leadership competencies for senior police officers (Weiss, 2001; Silva, 2004; Devitt, 2008.) They have gone back to first principles, and rather than testing the prevalence of particular styles and behaviours, as specified by one of the current leadership models, they have started with long lists of competencies and sought to identify the most essential ones. On the whole, they have helped support the notion that a mix of transformational and to a lesser extent transactional related behaviours, skills and attributes are desirable. It is outside the remit of this paper to provide a full review of police leader competency research – only studies of this type which include outcome measures are included.
4. Research gaps and limitations

Perhaps the most important finding of this review has been to establish the limitations of the evidence base. As well as the relatively low number of police focused studies in this area, the value of their findings are constrained by the complexity of the topic. Leadership research is an evolving process and across all sectors there is little certainty over which styles and behaviours produce the most effective outcomes. Police leadership is no exception.

The following factors inhibit the value of current police-related evidence base:

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<td>1a)</td>
<td>Standard police performance measures are affected by multiple factors, making it difficult to link leadership with “real-life” outcomes.</td>
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<td>1b)</td>
<td>Research has tended to rely heavily on perceptions of outcomes of leadership behaviours and styles, rather than actual outcomes</td>
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<td>2a)</td>
<td>Synthesising research findings is complicated by the use of different leadership models and definitions of styles and behaviours.</td>
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<td>2b)</td>
<td>Research has largely drawn on pre-existing instruments for measuring leadership styles, effectiveness and other outcomes – which tend to over generalise and which may not reliably translate in a complicated policing context.</td>
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<td>3)</td>
<td>Research has tended to rely heavily on questionnaires (rather than direct observations and interviews) which can over-simplify reality and may elicit socially desirable rather than realistic answers.</td>
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<td>4)</td>
<td>Most research has been conducted in the US – only four UK based studies have been identified. Cultural and organisational differences between countries constrain the generalisability of findings.</td>
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<td>5)</td>
<td>No studies have been found that have a robust quasi-experimental research design – due to problems establishing comparison/ control groups and controlling for significant confounding factors. This means there is a complete lack of studies offering a high standard of evidence. Leadership does not lend itself to this type of research design, which means that conclusive ‘what works’ type evidence will be difficult to ever achieve.</td>
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The first factor, measurement difficulties, is probably the most important. The majority of the reviewed studies for this paper have sought to assess how different leadership behaviours and styles impact on subordinates, in terms of morale; organisational commitment; job satisfaction; responsiveness to directives/ willingness to comply and to a lesser extent, influencing their behaviour. Assessing the impact of senior leaders on police officer and organisational performance outcomes has been limited by measurement difficulties. Linking organisational leadership with organisational outcomes can be problematic in any sector, and perhaps especially so for policing. Only two studies attempted to link leadership style with crime detection, crime rates or citizen satisfaction surveys and the results are weakened by the potential influence of multiple confounding factors. Only two studies attempted to link leadership style with crime detection, crime rates or citizen satisfaction surveys and the results are weakened by the potential influence of multiple confounding factors. Instead, most (eight studies) use ratings by colleagues (including subordinates, peers and bosses) as an indication of leader effectiveness. Perhaps more tenuously, two others (both based on the Personal-Situational theory of leadership) rate leaders by their responses to written scenarios and the extent that they opt for leadership styles that match a pre-determined ‘best-fit.’
This paper, therefore, largely presents evidence on perceptions of leadership style and what makes a great leader. As one researcher argues (Densten, 2003) “individuals act upon their perceptions and for them perception is their reality.” Unarguably, however, there is a risk that subordinates and other observers may incorrectly attribute an outcome to leader behaviour. The opinions of subordinate officers as well as those of leaders, their peers and superiors, are largely the only evidence currently available on what makes a great police leader. Data on whether these perceptions are correct and what impact police leaders’ styles and behaviours have on policing itself is currently limited, but synthesising the evidence that does exist can make a much stronger evidence base.

The third limiting factor, the fact that police leadership research has been conducted within a number of differing theoretical frameworks and models, is also significant. This paper will not attempt to explain and assess the merits of the various models. Instead, the purpose has been to extract the findings, assess their credibility and attempt to gauge and explain the overall weight of evidence in the simplest terms.

Finally, it is hard or impossible to conceive of a robust research study in this field with have a randomised control trial (RCT) design, or even have effective comparison/ control groups. It is not practical to identify samples of police personnel that only significantly differ by the type of leadership they receive. In other research fields, RCTs are commonly considered the ‘gold standard’ for ascertaining cause and effect and allowing ‘what works’ type conclusions. It is not surprising no studies of this type were identified in the search, but as a result it is not possible to present conclusive evidence on ‘what works’ in terms of police leadership styles and behaviours. The evidence from the reviewed studies can only be, at best, indicative of what can make a ‘great police leader’.

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5. Main findings from the studies

The 23 studies that have been reviewed all provide evidence of the impact of effectiveness of distinct leader competencies, styles or behaviours. The measures of effectiveness they use vary, but can be broadly grouped into four areas which have been used as subheadings in this chapter:

- subordinate job satisfaction, morale and organisational commitment
- influencing and improving performance
- perceptions of leader effectiveness and subordinate responsiveness to leader
- integrity and force ethics

Under each sub-heading, a short summary is provided of the combined findings of the relevant studies, followed by a brief description of the individual studies and their conclusions.

A fifth subheading emerged – ‘personality and emotional intelligence’. This final category is so closely related to leadership competencies, styles and behaviours it was deemed appropriate to include findings in this area. However, the systematic search was not designed to specifically find studies of this type and the four that have been identified and included in this review may constitute a very small and unrepresentative sample of the actual evidence base.

5.1 Job satisfaction, morale and organisational commitment

Summary: Only five research studies included in this evidence assessment tested how leadership may impact on job satisfaction. Overall, the findings suggest that supportive, participative and more generally transformational leadership styles have a positive impact on subordinates’ job satisfaction. Little evidence was found that the contrasting ‘leader as commander’ or transactional style adversely affects subordinate job satisfaction, but there is an indication that in certain situations transactional leadership behaviours can have a positive effect.

A study published in 1979 (Jermier and Berkes, 1979), which involved a survey of 158 police officers, sergeants and lieutenants in a mid-western US police department, tested whether certain behaviours associated with the ‘leader as commander’ style (also referred to as ‘instrumental leadership’) affected job satisfaction and organisational commitment amongst subordinates. Three specific behaviours were tested, which each involve the leader exerting some control over subordinates’ work. Two were said to have no affect on job satisfaction or organisational commitment – specification of procedures and assignment of tasks. A third behaviour – when the leader stipulates the remit of an officers role (‘role clarification behaviours’) - was found (with very weak supporting evidence) to have some positive impact when subordinates’ jobs are either highly unpredictable or require a high degree of joint working with other officers. This was only the case however, when informal leader substitutes were not in place – such as experienced officers acting as role models and mentors.

Further evidence to support a relationship between leader role clarification behaviours and job satisfaction was also found in a similar study published three years later (Brief et al, 1981). This study applied a similar methodology, but the study was conducted in another mid-Western US city and in this case, only 68
officers (all below the rank of inspector) were surveyed, making the findings even less reliable.

The first, larger study (Jermier and Berkes, 1979), also explored two alternative police leadership styles – participative and supportive (which correspond to the transformational rather than transactional style) – and found they were both positively related to job satisfaction and organisational commitment. Again, the sample sizes were small, but evidence was uncovered that when jobs are predictable, supportive leadership had its most positive effect and participative was more important when jobs are unpredictable. When tasks are interdependent, a consultative, participative style rather than directive style is best for improving job satisfaction and organisational commitment.

A 2004 UK study for the Home Office (Dobby et al, 2004) included a survey with responses from 1,066 officers (of all ranks) and police staff from 36 forces in England and Wales. Participants were asked to rate their line manager against 14 dimensions of transformational leadership. They also completed questions on how their line managers’ behaviour may affect them psychologically. It was found that leaders who scored high for transformational behaviours could have positive psychological impacts on subordinates. There was also evidence that the opposite was true – leaders that scored low on the transformational scales could have negative psychological outcomes on their followers. The scale score which had the strongest relationship to the psychological outcomes was ‘genuine concern for others’ well-being and development’. Leaders that rated highly on this dimension were found to be particularly likely to have a positive effect on subordinates’ commitment to do their job, self-confidence and self-esteem; sense of job satisfaction and fulfilment and commitment to the organisation and motivation to exceed expectations. The study also found that a line manager who displays one aspect of transformational leadership is also likely to display the others.

A 2008 case-study write-up of a ‘Shared Leadership’ initiative in Oklahoma, USA (Steinheider and Wuestewald, 2008) presents limited evidence that such schemes can improve police officer morale. A ‘Leadership Team’ was set-up and given responsibility for making most policy decisions - with representatives from all ranks and civilian staff. Before and after surveys of officers and staff within the agency indicate that they felt much more empowered, motivated and committed to their organisation after the introduction of participative management. The very low sample size at baseline (n = 32) weakens the evidence. Perhaps even more importantly, the results may have been affected by multiple confounding factors – for example, the police chief was replaced immediately prior to the new initiative. The special circumstances surrounding this case, including the very low levels of morale at the outset, mean that the findings of this research are not generalisable to other forces. It should be noted that this is only one of two studies included in this review that attempted to link leadership with force performance measures. The authors report outstanding improvements in local satisfaction and police productivity following the introduction of the shared leadership initiative – but the causes for this can not be ascertained.

An earlier study (MacDonald, 1986) which involved researching leadership in three Canadian police departments, also found evidence that most officers included in the study wished to participate in management decision making – but the authors’ also concluded that the extent to which individuals may wish to have an input partly depends on psychological predispositions. The study write-up (seen for this review)
includes little detail on method and results, but instead presents findings in broad conclusions. Interviews were conducted with almost all officers at level of staff sergeant and above and with 20% below that rank; 300 hours of observation were undertaken and perception data was drawn from 220 questionnaire responses (60% supervisors and 40% operational officers.) A further conclusion made by the authors’ was that a significant proportion (possibly the majority) of officers participating in the study could be described as ‘self-legitimators’. These individuals reported that self-evaluations had more effect on their own feelings of competence, personal safety, pride in their work and job satisfaction than external evaluations such as peers, supervisors or higher level administrators.

5.2 Influencing and improving performance

Summary: There is evidence to indicate that transformational leadership may be more effective at encouraging subordinates to exert extra effort than transactional leadership and that supportive and particularly participative styles are positively related to subordinates’ organisational commitment. There is more limited evidence, however, that officers of certain ranks/performing certain roles may respond positively to more transactional leadership and even more rarely – laissez-faire management styles.

Exerting extra effort:

A significant proportion of the later studies (four dating from 1987) have used the Multifactor Leadership Questionnaire (MLQ) initially developed by Bernard Bass in 1985 and revised several times by Bass and Avolio since 1990⁴. Since this tool has been so frequently used in leadership research, it is worth providing some explanation of how it works and the theory that underpins it (but with an acknowledgement that criticism of both the tool and the model has grown in recent years.) The questionnaire is used to establish the leadership style of a leader based on the Full Range Leadership Model (FRL), which separates leadership into three categories with associated behaviours:

- **Transformational**: individualised consideration; intellectual stimulation; individualised consideration and idealised influence.
- **Transactional**: contingent reward and management-by-exception (active)
- **Passive/avoidant**: management-by-exception (passive) and laissez-faire

The Full Range Leadership model also consists of three leadership outcomes: willingness of subordinates to exert extra effort; perceptions of leader effectiveness and satisfaction with the leader. The MLQ tool is intended to be used as a 360 degree instrument with leaders being evaluated by subordinates, peers and superiors, but it can use fewer raters or be a self-rating tool.

Two American studies that used the MLQ to measure exertion of extra effort found evidence to indicate that transformational leadership is more effective than transactional leadership at encouraging subordinates to exert extra effort (as well as improving job satisfaction.) In Morreale’s survey of 177 line-officers (reporting on their direct managers) in 75 New England police departments (Morreale, 2002),

laissez-faire leadership had the effect of reducing effort. Sarver’s study of the leadership style of Texan Police Chiefs (Sarver, 2008), relied on self-completion surveys by 161 chiefs – the fact subordinates were not consulted undermines the findings.

A 2004 Nigerian study (Adebayo, 2005) used an alternative survey instrument to gather views from 184 police officers (up to the rank of inspector) on their direct supervisors’ leadership behaviours. It found that perceptions of workplace fairness and transformational leadership behaviour were positively related to participants’ work motivation.

Australian research (Densten, 1999) which used the MLQ has found similar results, but with certain caveats. The study compared the perceived leadership style of senior Australian police officers (mostly chiefs and superintendents) with a business and industry leader norm group established by Bass and Avolio in 1990 (which had a sample of 1,006 subordinates rating 251 business and industrial leaders.) 480 senior Australian officers took part in the study. They scored their leaders as using transformational leadership styles less frequently than the MLQ norm, and correspondingly, they reported exerting extra effort significantly less frequently. However, a further write-up of the study (Densten, 2003) reported that the different styles had varying effects on officers of different ranks. The transactional style of management-by-exception could be a positive indicator of leader effectiveness for senior sergeants. Laissez-faire supervision was a positive predictor of extra-effort for superintendents. The author, Densten, suggests these results are unusual compared to other work sectors and may reflect the special nature of certain aspects of police work.

The 2004 UK Home Office study (Dobby et al, 2004) involving a survey of 1,066 police officers, found a strong correlation between subordinates’ perceptions of their line managers’ displays of transformational leadership (particularly showing genuine concern for others’ well-being and development) and a belief that their line managers act in a manner that enables them to achieve beyond their expectations.

**Changing behaviour:**

An American study (Engel, 2002) on the supervisory study of 64 police sergeants combined observations (5,700 hours) with qualitative survey evidence and interviews with the sergeants and 239 of their subordinate patrol officers. The research identified four main supervisory styles: traditional; innovative; supportive and active.

The ‘active’ style was characterised as leaders that have:
- high activity levels
- generally hold positive views of subordinates
- are proactive and directive in decision making
- are authoritative and who offer little inspirational motivation
- are often in the field.

The innovative style was described as:
- high relations-orientation (i.e., leaders that tend to consider more officers their friends)
- low task-orientation
- supportive of innovative changes
more likely to embrace coaching and mentoring
more likely to delegate and be less instructive.

Whilst the study found that none of the supervisory styles affected the likelihood that patrol officers would make arrests or issue citations, there was one style that did seem to influence officers’ behaviour - the ‘active style.’ Officers with ‘active’ superior officers spent most time per shift on self-initiated activities and problem solving. In contrast, officers with ‘innovative’ police supervisors spent more time on personal business. This study, therefore, suggests that being ‘transformational’ without being active, will not bring about changes in police officer behaviour. It was also found, however, that active supervisors (in this study) were twice as likely to use force on citizens, as were their subordinates, indicating that if active supervisors are to have a positive impact on subordinate behaviour they must set a good example.

An earlier study (MacDonald, 1986) used a similar methodology to Engel. It was a smaller study, this time of three case study Canadian forces. As well as extensive interviewing, 300 hours of observation were undertaken and perception data was drawn from 220 questionnaire responses. A main conclusion from the study was that officers that are ‘self-legitimators’ (motivated more by self-evaluation than external praise) can be influenced to change their behaviour by managers through the development of mutual understanding and meaning. The authors’ stressed the need for leaders to make roles, responsibilities and expectations clear and give operational personnel an understanding of the police function for society. They were concerned that the forces in the study were missing the opportunity to influence behaviour through effective leadership. It should be noted that the write-up seen for this review did not include detailed results or explanation of the methodology.

Kuykendall and Unsinger (Kuykendall and Unsinger, 1982) administered a self-completion survey to 155 police managers attending training programmes in Arizona and California, which sought to measure the participants’ own leadership style. This study fits within the Personal-Situational theory of leaders, which divides leadership into four over-arching behaviours: ‘Telling’; ‘Selling’; ‘Participating’ and ‘Delegating’. They used a pre-existing survey instrument (the LEAD tool) to measure participants’ leadership style against these four behaviours. Leaders indicate how they would respond to given scenarios and the tool works by assuming that leaders should adapt their style according to the maturity level of their subordinates, and that there are optimum responses to the described situations. The results found that the police managers used ‘participating’ the most, along with ‘telling’ and ‘selling’. The ‘delegating’ style was infrequently used. The authors compared the results of the study to similar research in other work sectors and concluded that police may need more active leadership rather than inactive and that police managers were at least as ‘effective’ if not more so than managers in other sectors (according to the Personal-Situational theory of ‘effectiveness’.)

Devitt (2008) has carried out PhD research on effective strategic leadership in crisis situations in the context of UK multi-agency incident response. She conducted interviews with 34 members of Gold command teams and observed simulations of major incidents. She uncovered three key skill areas which are potentially trainable: task skills; interpersonal skills and stakeholder skills as well as competencies.

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associated with each. Important personal attributes, which may be less trainable, included confidence; presence; credibility; cognitive ability; stress handling; moral courage and ethical value set. Knowing when to apply various skills and competencies was also found to be important.

5.3 Perceptions of leader effectiveness and subordinate responsiveness to leader

Summary: The systematic search found thirteen relevant studies for evaluating this potential outcome. Five concentrated on the differences between ‘transformational’ and ‘transactional’ leaders and all but one found that transformational leaders were seen as more effective and more likely to elicit compliance from their subordinates. There was also evidence, however, that transactional behaviours could have positive outcomes in this area and that mixing styles could be best.

The MLQ survey instrument (described in section 5.2) was used in a New Zealand study in 1987 (Singer, 1987) to find whether there are preferred leadership styles and behaviours amongst police officers. 60 constables and sergeants took part in the study and each completed the MLQ twice - first describing their current supervisor’s behaviour, and then describing their ideal supervisor’s style. Participants gave better effectiveness ratings to leaders that displayed transformational leader behaviour (particularly ‘individualised consideration’) significantly more frequently than most transactional or laissez-faire behaviours. However, the transactional behaviour of ‘management-by-exception’ was preferred over the transformational behaviours of ‘charisma’ and ‘intellectual stimulation.’

All but one of the studies reviewed for this paper that have used the MLQ to report on satisfaction with the leader have reported greater satisfaction with leaders that use a transformational style (Singer, 1987; Morreale, 2002, Sarver, 2008). The one contrary Australian study (Densten, 1999) found that leaders of senior Australian police officers were scored as using transformational leadership styles less frequently than a business and industry MLQ norm group established by Bass and Avolio, but (contrary to the hypothesis) satisfaction with leaders amongst the police group was higher.

An Israeli study reporting two years later (Schwarzwald et al, 2001) explored the relationship between police captains’ leadership behaviours, as measured by the MLQ, and subordinate officers’ compliance to supervisor requests in conflict situations. The research drew on MLQ responses from 36 captains and survey evidence from 216 of their subordinates – who were asked to think of a situation where their captain asked them to perform a task they found hard to accept and then respond to a range of reasons at to why they might comply. The results indicate that followers are more likely to comply with soft rather than harsh power tactics and transformational rather than transactional leadership. Harsh power tactics include coercion and reward, whereas soft power tactics can include a leader drawing on their expertise and access to knowledge and referential influencing. The study also found evidence that greater use of transformational leadership was associated with greater compliance to harsh and soft power in subordinates - and

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the latter effect was found to be particularly strong when the leader also shows low transactional leadership.

An American study (Standing Bear, 1986) analysing the leadership behaviours and styles of 211 police sergeants (first line supervisors) found that those who altered their leadership style to suit the perceived ‘maturity’ level of subordinates (ie, they followed the Situational Leadership model) were rated as being more effective leaders by their peers, subordinates and superiors. The study drew on a total of 716 ‘360 degree’ survey responses.

A UK PhD study (Wigfield, 2001) explored how four different constituencies (peers, superiors and indirect and direct subordinates) perceived their police leaders. 997 ‘constituents’ provided feedback on 109 ‘focal leaders’ of all ranks in 31 police forces. Motivating people, communicating and working collaboratively were all found to be important for being perceived as effective. Self-promotion was a negative predictor of leader effectiveness. There was some variation between constituencies; for example, subordinates saw leaders’ communication skills and feedback as more important than superiors and peers. The contention that constituents will favour a focal leader who is behaviourally similar to themselves over one who is behaviourally different was also strongly supported.

A UK Study - ‘The Scottish Police Service Leadership Study’ (Hawkins and Dulewicz, 2009) - drew on evidence from 577 ‘360 degree’ surveys (the Leadership Dimensions Questionnaire) providing feedback on 120 police leaders from first line-managers up. This study, like the studies by Wigfield and Standing Bear, found evidence that different ranks respond differently to leadership styles. Goal-oriented or transactional leadership was perceived as the most effective leadership style for leadership of sergeants.

Interviews with operational officers in three Canadian police forces (Macdonald, 1986) found that, on the whole, the most respected supervisors were visible; spent some time in the field, asked for inputs from officers, discussed operations, officers’ objectives, rumours etc; they had high standards; they tried to make the task interesting; were knowledgeable and capable and supported their officers when they deserved support. On the other hand, supervisors that were viewed as slack and self-centred were not highly rated. Using too much monitoring, enforcing, disciplining and measuring effectiveness by numbers was not popular behaviour and nor was covering up poor behaviour. (Details on the survey methodology and data from the responses were not given in the report seen for this review.)

The main conclusion of a 1999 American study (Beito, 1999) which drew on questionnaire responses from 421 ‘community police officers’ in one police department, was that perceptions of democratic leadership was positively correlated with perceptions of leadership effectiveness. Leaders that were perceived as ‘technically expert’ (ie, they had a high level of training) also tended to be perceived as more effective, but experience (measured as years in supervisory post) did not have a measureable impact on perceptions of effectiveness.

Two American PhD studies have tested the validity and generalisability of a competency model for executive police leadership (Silva 2004; Weiss 2004.) Both

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7 This publication is included in this evidence review as preliminary findings from the study were published in 2007 – ie, within the date parameters for this review.
studies drew on the same first phase of research – this involved interviewing eight ‘star performing’ senior leaders in one American force about essential characteristics for a police leader. This resulted in a list of 24 core competencies being produced. Four of the competencies were identified as most important: credibility; leading employees; communicating and courage.

- Silva went on test these competencies by surveying 687 police and civilian staff from 13 police organisations. As well as rating the importance of the competencies, the participants were asked to rate the skill level of their senior leadership team. Interpersonal competencies tended to be rated as more important than organisation level competencies. An attempt to link the ratings with performances related data was abandoned after a failure to gather sufficient data and a realisation that isolating the impact of leadership from other confounding factors would not be practical.

- Weiss developed a 360 degree feedback tool, based on the top 12 of the 24 competencies identified in the first phase study:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Importance</th>
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<tbody>
<tr>
<td>Active Listening*</td>
<td>Leading employees</td>
</tr>
<tr>
<td>Communicating*</td>
<td>Courage</td>
</tr>
<tr>
<td>Managing organisational change*</td>
<td>Managing politics and influencing</td>
</tr>
<tr>
<td>Organisation commitment*</td>
<td>Credibility</td>
</tr>
<tr>
<td>Setting vision and strategy*</td>
<td>Self-confidence</td>
</tr>
<tr>
<td>Knowledge of the organisation*</td>
<td>Empowering</td>
</tr>
</tbody>
</table>

62 captains and lieutenants (or civilian equivalent) completed surveys on their own leadership style and effectiveness and in total, they were rated by 568 subordinates, peers and bosses. The study found evidence to support the validity of the leadership competency model. It was concluded that all twelve of the competencies were important and necessary to the role of captain and lieutenant and six of them were found to differentiate leader performance (marked with a * in the lists above.) Just one of the twelve competencies was thought to account for a significant amount of variance in leader performance – managing organisational change.

The 2004 Home Office study (Dobby et al, 2004) included interviews with 150 police officers of all ranks to identify competencies considered essential for effective police leadership. A repertory grid technique was used, which allowed participants to describe effective leadership in their own words, with reference to six leaders they had encountered during their career. In total, 53 behaviours were identified and 50 of those related to transformational leadership. The three others were professional competence, competence in both strategic and tactical modes and high levels of commitment. The authors’ concluded “in essence, what officers see as effective leadership, irrespective of rank, is that which enables them to feel proud of the service and their contribution.”
5.4 Integrity and force ethics

Summary: one recent Dutch study has found evidence that leader behaviour – particularly setting a good example, open discussion of ethical values and dilemmas and enforcing ethical codes of conduct - can positively influence integrity violations by subordinates. The researched impacts are largely focussed on police behaviour within the station and between colleagues, though there is some limited evidence from this and a much earlier and smaller US study that police attitudes and behaviour towards citizens can be affected.

A small US study, surveying 68 police officers (Brief et al, 1981) found moderate support for leader role clarification behaviours being positively associated with subordinate police officer attitudes towards citizens. The evidence is very weak, but analysis of a small subset of the sample found that this relationship is strongest for officers undertaking mundane, routine tasks.

Sarver’s survey of Texan police chiefs (Sarver, 2008), asked questions on participants’ leadership behaviour (using the MLQ), but also on the number of formal and informal complaints they had received as a supervisor from both civilians and fellow officers. Leaders classified as transactional rather than transformational or laissez -faire recorded having received more complaints.

A 2007 study that involved a survey of 2,130 Dutch police officers (holding no supervisory responsibility) sought to find out if a relationship exists between three leadership behaviours and a list of subordinate integrity violations (Huberts et al, 2007.) The participants completed questions on the leadership behaviour of their direct supervisor and on the integrity violations committed within their peer group. The study findings suggest police leaders can discourage integrity violations through displaying exemplary behaviour and by openly discussing values and dilemmas. They must also be strict to deter many violations such as fraud, corruption and abuse of resources. More specifically, all three leadership behaviours (role modelling, openness and strictness) were found to be negatively related to the integrity violations. Role modelling influenced the frequency of all integrity violation types and had a particularly strong relationship with lack of exemplary behaviour, favouritism within the organisation, sexual harassment, gossiping, bullying and falsely calling in sick. Strictness was related relatively strongly with lack of gossiping, misuse of working hours, falsely calling in sick and carelessness in use of resources. Openness was related particularly strongly to internal favouritism and discriminatory remarks to citizens.

5.5 Personality and emotional intelligence

Summary: Four of the most recent studies present evidence on the impact of leaders’ personality and emotional intelligence on their effectiveness. This corresponds with the growth of interest in this leadership research area since the mid 1990s. Emotional intelligence (in this case defined as ’an ability to recognise and manage emotions in oneself and others’8) was found in two studies to benefit performance as a leader. Another study found that subordinates valued emotional connections with their leaders and liked them to share their values. One further

study found no links between personality type and leader effectiveness, but only drew on self-completion surveys by the study participants as evidence.

A UK Study – The Scottish Police Service Leadership Study (Hawkins and Dulewicz, 2007) - used 360 degree surveys (completed by study participants, as well as their peers, subordinates and managers) to test links between emotional intelligence and performance as a leader. The study defined emotional intelligence as “an ability to recognise and manage emotions in oneself and others” and used questions on the following topic areas as measures: self awareness; emotional resilience; intuitiveness; interpersonal sensitivity; influencing, motivation and conscientious. A total of 577 surveys were completed for the study (the authors’ own ‘Leadership Dimensions Questionnaire’), providing feedback on 120 police leaders of all ranks. The results provided support for a positive relationship between emotional intelligence and performance as a leader. It also provided partial support for ‘emotional intelligence’ explaining more variance in performance as a leader than IQ and management ability.

A small study drawing on questionnaire evidence from a medium-sized law enforcement agency on the West Coast of America (Yocum, 2007) found evidence to support the notion that high levels of emotional intelligence is generally a valuable trait for leaders (in terms of securing better ratings from subordinates), but with significant caveats. 53 supervisors completed self-assessments on their levels of emotional intelligence, capacity for moral reasoning and their tendency for narcissism (a personality trait involving conceit, egotism, vanity or selfishness.) 61 of their subordinates completed surveys on their own supervisors’ leadership style and how much they trusted them. Emotional intelligence was measured by ability to ‘use emotions’ and by ability to ‘manage emotions.’ Results indicated that highly narcissistic leaders with a strong ability in terms of “using emotions” were less effective as leaders, and had a less developed sense of moral reasoning than their supervisory peers who were less narcissistic. The combination of high narcissism and elevated skill on the ‘using emotions’ branch of emotional intelligence was also found to produce supervisors who were less trusted by their subordinates. Finally, narcissistic leaders who were found to have a high level of ability in terms of the ‘managing emotions’ branch of emotional intelligence scored higher on ratings of subordinate trust; the authors’ suggested that this could lead to amoral leadership.

A 2006 American PhD study (Green, 2006) found no evidence for a relationship between personality and leadership effectiveness. The study involved 161 attendees of the FBI National Academy completing surveys on their personality types and leadership styles. The DISC model was used for measuring personality type (dominating, influencing, steadfast and conscientious) and the situational model of leadership was used (telling, coaching, supporting and delegating). Leadership effectiveness was measured by how participants responded to written scenarios, with the assumption that there are optimum leadership styles for a given situation. According to these rather limited measures, there was no variation between personality type and leader effectiveness.

An auto-ethnographic study (Murphy, 2007) (which involved the researcher joining study participants in the normal course of their duties, as well as conducting more formal interviews) explored the potential impact of inspirational leaders in a large metropolitan American police organisation. Transformational leaders were found to be able to challenge dominant paradigms and police officers could emotionally connect with them. The approach to the research enabled officers to express
emotions relating to leadership. The author explained that the police officers participating in the study wanted to have leaders that inspire them and who they feel personally connected and committed to - but the need to appear as detached professionals means this can be concealed from most observers. The author found that his approach to the research enabled participants to be more open about their emotional connections with their leaders. A conclusion was that leaders who demonstrated values consonant with those of followers and "walked the talk" were particularly admired by police officers. The culture of the police force, however, was found to be an important influence on the emergence of transformational leadership – a collectivist culture was best.
6. Conclusion

As to be expected, given the context of its origins and in keeping with general trends in leadership theory, police leadership research identified in this rapid evidence review tends to support a less authoritarian style of police leadership than was prevalent three decades ago. Generally, the studies stress the value of typically ‘transformational’ leadership behaviours, but above all, they point to the importance of being able to adapt style to suit context and this includes being able to provide directive, active leadership when required.

The importance of context perhaps helps explain another important finding of this review – the limitations of the evidence base. Whilst there are multiple sources of advice on effective police leadership, only 23 social research studies were found. ‘More of the same’ may not be the best way to expand the evidence base. Many of the existing studies that currently exist have attempted to control or ignore context and have tried to reach conclusions through large sample sizes and carefully constructed, but in some ways restrictive questionnaires. Quasi-experimental longitudinal designs which attempt to draw more causal inferences would be challenging, but potentially helpful. However, it is arguable that this area of study is best researched through a ‘realist’ approach and by building up a bank of more context specific but detailed case studies. Studies that include direct observations and more sensitive qualitative methods, such as repertory grid, are likely to be useful, as well as ethnographic approaches.

Despite the limitations, this review has yielded findings that both challenge the traditional pervasive ‘leader as commander’ style of police leadership, as well as the more recent trend to emphasise the importance of ‘softer’ leadership styles, competencies and behaviours almost to the exclusion of all ‘transactional’ alternatives. It supports the view that policing requires an approach to leadership that differs to other sectors, but as well as being able to ‘command and control’, effective police leaders also need to cultivate participative and supportive styles, competencies and behaviours.

7. Acknowledgements

Carol Tighe, Institute of Work Psychology and colleagues for conducting the systematic search and Sonia Cunningham for managing the process; peer reviewers Professor Jean Hartley, Warwick Business School and Chief Constable Peter Fahy, Greater Manchester Police; NPIA colleagues - Fleur Stewart for contributing to the review and Rachel Tuffin and Andy Myhill for comments on drafts.
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Standing Bear, Z. 1986, ‘Police leadership styles: an empirical investigation of the relationships between perceived leader effectiveness and prescriptive leadership’ PhD: Ann Arbor, MI: University Microfilms International


Yocum, R. 2007 'The moderating effects of narcissism on the relationship between emotional intelligence and leadership effectiveness, moral reasoning and managerial trust.’ Ph.D., Seattle Pacific University
APPENDIX A. REVIEW METHODS – DETAILED OVERVIEW

A.1 Search process

In 2009, NPIA commissioned the Institute of Work Psychology (IWP) to undertake a series of systematic searches to help inform NPIA’s police leadership improvement programmes. The output was a databank of references (including abstracts) to research studies that addressed the following areas:

1. Leadership competencies and behaviours
2. Leadership development programmes
3. Talent management

This paper presents findings in relation to the first research area – leadership competencies and behaviours. Whilst the systematic searches were cross-sector (ie, identifying references for all organisation types – public, private and third sector) this paper is focussed on the identified police-related references.

A.2 Research questions

The following questions were developed to set the parameters of the systematic search on “leadership competencies and behaviours.”

a. What different leadership competencies and behaviours are used by individuals in senior, middle and lower management roles, both in the police service and in other sectors?

b. What are the outcomes of these leadership competencies and behaviours, in terms of team and organisational performance, in particular?

c. What leadership competencies and behaviours have been found to be most effective and how does this vary by type of role (both in the police service and other sectors).

Step 2. Inclusion Criteria

It was agreed that studies would be included if they:

- described distinct leader competencies
- were work-related
- provided research evidence of the effectiveness of distinct leader competencies, styles or behaviours

and excluded if they:

- were not related to leading people
- only provided anecdotal evidence/ observations
- only referred generally to ‘leadership’ with no specification of any particular competencies

Step 3. Searching

A series of scoping searches were performed employing a range of free-text terms and database keywords, and from this a final set of search strategies were agreed. The aim was to develop sensitive, systematic, replicable searches to retrieve all possible relevant evidence, but also to enable the screening and categorisation of the resulting citations within the timeframe of the project.
The following databases were searched: Applied Social Sciences Index and Abstracts (ASSIA) 1980-, MEDLINE 1950-, National Criminal Justice Reference Service Abstracts 1980-, PsycINFO 1979-, the Social Science and Science Citation Indices 1979- (and Conference Proceedings Citation Index- Science (CPCI-S)-1990-), and Emerald Management Reviews 1989.

The search terms are presented in the two tables below. Titles and abstracts stored in each social science data base were searched with both the “leader” key words and repeated with management key words. In both cases, only studies that included a keyword from the ‘A’ category (in either their title or abstract), as well as either a key word in the ‘B’ or ‘C’ category were included.

<table>
<thead>
<tr>
<th>“LEADER” search terms, synonyms, and phrases</th>
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<tbody>
<tr>
<td><strong>A. Core search for synonyms of leader competence</strong></td>
</tr>
<tr>
<td>“leader* competenc*” or “leader* skill*” or “leader* effective*” or “leader* style*” or “leader* behav*” or “leader* attrib*”</td>
</tr>
<tr>
<td><strong>B. Broad performance outcomes</strong></td>
</tr>
<tr>
<td>Performance OR outcome*</td>
</tr>
<tr>
<td><strong>C. Well-being outcomes</strong></td>
</tr>
<tr>
<td>well-being OR satisfaction OR morale OR turnover OR absence</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANAGEMENT search terms, synonyms, and phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Core search for synonyms of manager competence</strong></td>
</tr>
<tr>
<td>“manager* competenc*” or “manager* skill*” or “manager* effective*” or “manager* style*” or “manager* behav*” or “manager* attrib*”) or (”managem* competenc*” or “managem* skill*” or “managem* effective*” or “managem* style*” or “managem* behav*” or “managem* attrib*”</td>
</tr>
<tr>
<td><strong>B. Broad performance outcomes</strong></td>
</tr>
<tr>
<td>Performance OR outcome*</td>
</tr>
<tr>
<td><strong>C. Narrower performance outcome</strong></td>
</tr>
<tr>
<td>“Team performance” or “organi* performance” or “team outcome* or “organi* outcome*”</td>
</tr>
</tbody>
</table>

7,407 references were initially identified.

**Step 4. Selection of relevant studies**

Titles and abstracts in of each of the identified publications were then screened by IWP project team members against the inclusion/exclusion criteria. Inter-rater reliability checks were carried out at this time to ensure that reviewers were being consistent and criteria were revised and refined as necessary.

570 of the initial 7,407 identified publications were selected for inclusion in the database and a further 527 were categorised as “cannot exclude” (ie, the title and abstract indicate that the study may meet the inclusion criteria but there is not enough information to include for certain.)
Of the 570 “includes” references, 9 referred to police/ law enforcement agency related studies. The full publications were retrieved and reviewed and of these 8 were deemed relevant for this paper. Two further relevant papers in the “cannot exclude” database were also identified.

Additional searches

In addition to the systematic search undertaken by IWP, NPIA researchers conducted further searches using the same inclusion criteria:

- **Footnote references**: references in the 9 reviewed studies from the includes data-base were followed up, leading to the identification of 7 relevant studies.
- **A wide search of the Bramshill police library catalogue database** (using the 30 year date parameters and the term “leader” in all fields) found 5 additional relevant references.
- **A search of the Criminal Justice Abstracts database** (using the 30 year date parameters and search teams used in the IWP searches) produced 2 extra relevant references.

A.3 Critical appraisal

A first step in the review process was to assess whether there were enough studies, offering a high enough standard of research evidence, to reliably answer the research questions. Whilst none of the studies test the impact of an intervention, the Maryland Scale of Evidence was deemed an appropriate tool for judging the standard of evidence of the studies, and assessing the studies against this scale was the first step in the critical appraisal process.

“The Maryland Scale of Scientific Methods (MSSM) was developed by Sherman and colleagues (1997) at the University of Maryland for their review of crime prevention interventions. It is a five-point scale for classifying the strength of methodologies used in “what works?” studies. Although developed for the criminology field it has wider application; the five levels of methodological quality are generic and so can be applied to other areas of social science. (extract from Government Social Research Service REA toolkit.)

<table>
<thead>
<tr>
<th>Increasing methodological quality</th>
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<tbody>
<tr>
<td><strong>Level 1</strong></td>
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<td><strong>Level 2</strong></td>
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<tr>
<td><strong>Level 3</strong></td>
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9 [http://www.civilservice.gov.uk/my-civil-service/networks/professional/gsr/resources/REA-how-to-resources-for-appraising-studies.aspx](http://www.civilservice.gov.uk/my-civil-service/networks/professional/gsr/resources/REA-how-to-resources-for-appraising-studies.aspx)
two locations in the UK would fit into this category if the individuals in the research and the areas themselves were comparable.

| Level 4 | Comparison between multiple units with and without the intervention, controlling for other factors or using comparison units that evidence only minor differences. A method such as propensity score matching, that used statistical techniques to ensure that the programme and comparison groups were similar would fall into this category. |
| Level 5 | Random assignment and analysis of comparable units to intervention and control groups. A well conducted Randomised Controlled Trial fits into this category. |

Sherman and colleagues (1997) argue that only studies with a robust comparison group design (ie, level three and above) can provide evidence that a programme has caused the reported impact. In the case of this evidence review, a level three or above study would provide evidence of the impact of effectiveness of distinct leader competencies, styles or behaviours. Whilst a number of the studies did have a comparison group design, in no case was the methodology deemed sufficiently robust to reach a Level 3 on the Maryland Scale.

Leadership research does not lend itself easily to experimental design and this is arguably particularly true within the police. For example, trying to establish two directly comparable groups of police officers, that only significantly differ in terms of how they are led, is practically impossible. Large sample sizes could be a means to overcome this difficulty, but even then, controlling for the multiple confounding factors that can influence leader performance measures is an extreme challenge.

Given the limitations of the research studies, it was not possible to derive “what works” type conclusions in terms of police leadership styles, competencies and behaviours. There were insufficient studies to fully address each of the research questions developed at the start of the project (see A.2 above). Instead, once the studies had been reviewed, their findings were categorised into main theme areas (which make up the subheadings in Section 5) and conclusions indicate where the “current weight of evidence” appears to lie.

Whilst none of the studies included in this review offer a high standard of evidence, there is variation in their methodological quality. In each case, the write-up of individual study findings includes a short description of methods and a note of when conclusions are particularly unreliable. The summary of findings (presented in Section 1 of this paper) draws on the best available evidence - but at best, these findings can only be indicative.