

# Guiding police decisions or falling short? A critical theoretical review of the national decision model

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## Abstract

Police decision-making is complex, marked by risk, high stakes, uncertainty, and time pressure. The National Decision Model (NDM), developed by the College of Policing, aims to standardise and improve decision-making within UK police forces. While its ethical framework has received some academic attention, the NDM's effectiveness in supporting decision-making across varied policing roles is largely unexamined. This article critically reviews the NDM's foundations, evolution, and practical application, highlighting key limitations and the need for further research to determine its real-world efficacy. Without robust empirical validation, the NDM risks falling short in guiding officers through the demanding realities of modern policing.

## Keywords

Police decision-making, cognitive psychology, naturalistic decision-making, evidence-based policing

## Introduction

Decision-making in policing is inherently complex: policing decisions are often made under circumstances which involve threat, risk, high stakes, information overload or a lack of information, uncertainty and time pressure (Boulton and Cole, 2016; Wright and Powell, 2006). Whether the context is tactical, strategic or investigative, the necessity for sound decision-making remains constant. The National Decision Model (NDM),

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developed by the College of Policing (CoP), is said to serve as a framework to guide and support decision making within the UK policing context.

Despite being widely taught and known among police officers for over a decade, the NDM's practical effectiveness remains debated, adding to the shortfall of research evidence regarding all aspects of police decision-making (Halford, 2024; Schulenberg, 2007). Several recent cases of police decision making in the UK and globally have resulted in social movements that question the legitimacy of policing and the decisions that police officers and/or police forces have made (i.e., Black Lives Matter and Reclaim These Streets). In an era of Evidence-Based Policing (EBP), there is broad consensus that decisions about policy, practice, procedures, and training should be guided by research evidence on what works best to reduce and prevent crime and disorder (Boulton et al., 2021; Lum and Koper, 2017, 2024; Sherman, 2013). However, if there is no evidence to demonstrate that the NDM effectively supports all aspects of police decision-making, could decisions based on the NDM be challenged in court? Furthermore, given the CoP's putative commitment to EBP, where is the evidence to support the NDM assertions?

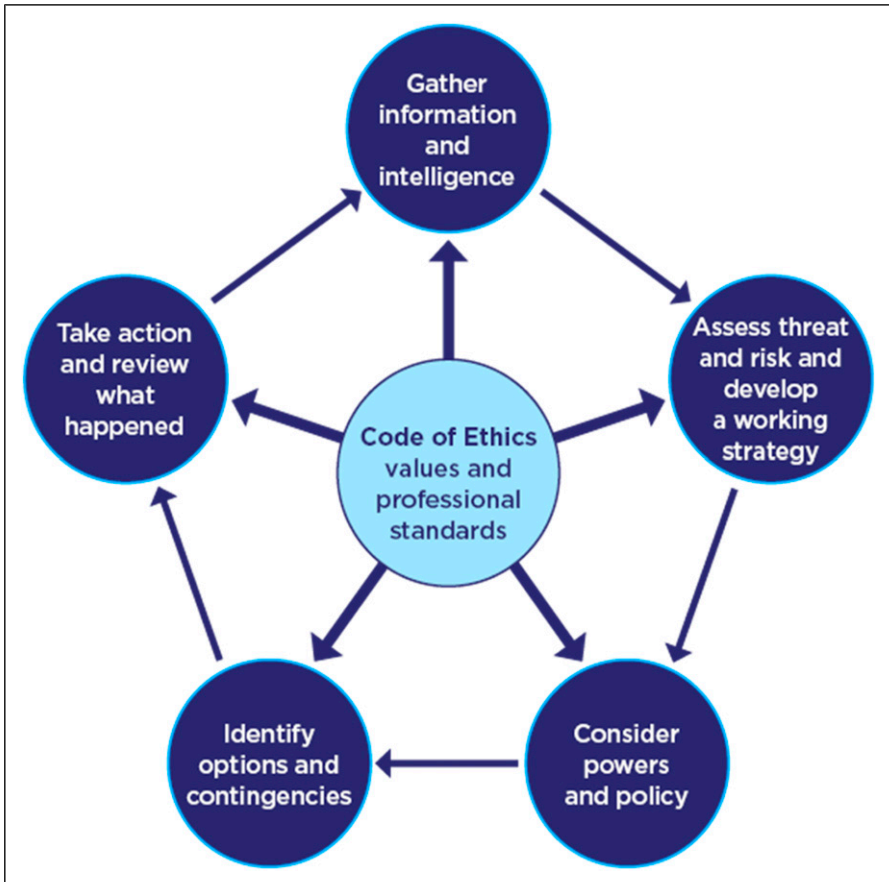
This paper combines objective theoretical analysis of related empirical research and subjective reflection on the utility of the NDM in practice as observed in my own research into police decision making and through experience whilst teaching in a Policing department at a UK university. In doing so, this paper critically examines the development and application of the NDM, highlighting its strengths while also identifying needed areas for enhancement and improvement.

## What is the national decision model?

The NDM is visually depicted as a cyclical process (see [Figure 1: College of Policing, 2013a](#)) with six key elements (CIAPOR):

- (1) **Code** of Ethics – central to all police decision making.
- (2) Gather **Information** and intelligence.
- (3) **Assess** threat and risk and develop a working strategy.
- (4) Consider **Powers** and policy.
- (5) Identify **Options** and contingencies.
- (6) Take action and **Review** what happened.

The CoP says that the NDM is suitable for all decisions and should be used by everyone in policing, including: (i) spontaneous incidents or planned operations; (ii) individuals or teams of people; and (iii) both operational and non-operational situations. The [CoP \(2013a\)](#) claims that 'using the model encourages officers and staff to act in accordance with the Code [of Ethics] and use their discretion where appropriate. It also reduces risk aversion and weighs the balance of resourcing against demand, threat, and risk.'



**Figure 1.** The National Decision Model (College of Policing, 2013a).

### *How was the NDM developed?*

The impetus for the NDM arose in 2008 when Sir Ronnie Flanagan, Her Majesty's Chief Inspector of Constabulary (HMIC), criticised the police for becoming increasingly 'risk averse' (Flanagan, 2008). Recognising the lack of attention given to risk-taking in police studies, the Association of Chief Police Officers (ACPO) and the National Police Improvement Agency (NPIA) – precursors to the current National Police Chiefs' Council which replaced the ACPO in 2015, and the CoP which has subsequently taken over the majority of the NPIA functions relating to the development of professional standards, guidance and training in policing - initiated a project to explore the management of violence-related risks. This initiative led to the creation of the 'Operational Risk Management Project,' which subsequently evolved into the development of Risk Principles (College of Policing, 2013b). The project, led by Dr Mary Schollum, drew upon a review

of theoretical and empirical studies, including those by [Carson and Bain \(2008\)](#), as well as existing decision-making frameworks such as the Conflict Management Model (CMM: a model that was already well-established in the police service to help manage conflict-related situations such as firearms or public order incidents) and the SARA problem-solving model ([Eck and Spellman, 1987](#)).

Schollum's guidance sought to elucidate key concepts of risk when applied to decision-making, including risk identification, assessment, management, and learning from risk-taking. Consequently, the project was divided into two smaller documents: one focused on 'Managing Operational Risks' and the other on 'Improving Operational Decision Making.' These efforts culminated in the development of the NDM by Chief Constable Adrian Lee and Chief Constable Brian Moore, approved by the Chief Constables Council to officially replace the CMM in January, 2011. Key differences between the CMM and the NDM include that the NDM is designed to be applied to any kind of decision relating to policing, not just conflict situations, and that the Code of Ethics is placed at the centre of the NDM, which is not the case for the CMM. The model sought to shift the focus from avoiding risk to being 'risk alert,' enabling officers to make defensible decisions under scrutiny.

## **What is known so far: Police decision making research**

### *Defensible versus defensive decision-making*

The NDM offers several potential benefits for police decision-making, including promoting consistency, enhancing accountability, facilitating risk assessment, and serving as a valuable tool for training and development within police forces ([Creutzfeldt et al., 2019](#)). [Adams \(2014\)](#) emphasises that despite limited engagement with the ethical components of the NDM, the model offers a comprehensive framework that can be universally understood and applied by officers, fostering consistency across various policing areas.

One of the assumed strengths of decision models like the NDM is their capacity to protect officers who adhere to the prescribed steps and document their rationale, as they are then supported by the College of Policing (CoP) regardless of the outcome ([CoP, 2013a](#)). Despite varied opinions on training experiences, the participants in [Edwards' \(2011\)](#) study, which explored perspectives of police practitioners on the usefulness of the NDM within criminal investigations and response policing, universally acknowledged the prominence of the NDM in officer safety training, particularly in use-of-force scenarios. Officers consistently highlighted the support provided by the NDM in justifying decisions, creating an audit trail, and ensuring accountability ([Edwards, 2011](#)).

This support could be useful in reducing decision inertia, which [Power and Alison \(2018\)](#) define as the continuing deliberation on a choice to such an extent that no decision is made. Such inertia can jeopardise public safety during critical incidents or hinder evidence collection during investigations. [Alison et al. \(2015: 315\)](#) support the notion that a structured decision-making model can mitigate decision inertia, provided there is "clear strategic direction" guiding action. However, the direct link between decision-making

models and the reduction of decision inertia remains under-explored empirically. On the contrary, decision inertia might actually be exacerbated by models like the NDM as officers continue to ‘spin the wheel’ rather than take action (Power and Alison, 2018).

In research conducted by Fenton-O’Creevy et al. (2022), which specifically explored policing leadership and decision-making in the UK during the Covid-19 pandemic, disagreement on the NDM’s merits was reported. For instance, whilst some participants stated it had obvious benefits, including “acting as a clear prompt to consider multiple relevant facets of a decision and its role in recording of a defensible basis for decisions” (p., 2), others felt it to be best confined to rapid decisions in an operational context, or alternatively was used more frequently as a post-event tool to help make decisions defensible to later scrutiny. Similarly, the officers reflecting on use-of-force decision making in Edwards’ (2011) study reported a lack of time to consciously consider the NDM but recognised its elements in hindsight, suggesting an ex-post-facto application.

In policing contexts whereby judgements are often subject to scrutiny from the criminal justice system, media, politicians and the general public more broadly, Fenton O’Creevy et al. (2022: 2) warn that there is potential for “recording a defensible basis for decisions to develop into making defensive decisions”. Defensive decisions are problematic because, in the focus to protect reputation and avoid negative consequences, they can mean the ‘right’ decision is not chosen. Therefore, understanding the difference between defensible and defensive decision making in police contexts and the role of the NDM in that distinction is crucial: while defensible decision-making allows for accountability and transparency, defensive practice can stifle genuine reflection and learning, potentially hindering the development of better policing strategies (Cushion, 2020). Furthermore, this emphasises a concern that, if the NDM is being used defensively, the lack of empirical research evidence base for its use in specific contexts may open this use to legal scrutiny.

### *Suitable for all police decisions?*

While the NDM provides a structured decision-making framework, real-world policing scenarios often present complexities that challenge its practical implementation. It has been suggested that its structured nature may not adequately accommodate the dynamic and complex aspects of criminal investigation, particularly where flexibility and adaptability are essential. For example, Fahsing (2016: 32) criticises the NDM for lacking evidence-based ‘positive guidance’ on how to think and make decisions during investigations, potentially limiting its relevance and effectiveness. He notes the absence of a clear, scientifically tested evidence base for the model’s development, especially concerning its support for investigative decision-making.

Fahsing (2016) argues that the recommendations to integrate the NDM with the 5WH method (Who, Where, What, When, Why, and How; see Cook and Tattersall, 2008) and the ‘Investigative Mindset,’ defined by the ABC-rule (Assume nothing, Believe nothing, Challenge and Check everything), fail to capture the complexity of investigative decision-making. Therefore, this approach does not adequately consider the risks associated with human decision-making in criminal justice, as highlighted by Tversky and Kahneman’s

(1981, 1986) research on cognitive biases. The practical application of the NDM in investigations may be further constrained by factors such as case complexity, time pressures, resource availability, and the expertise and experience of investigators (Halford, 2024; O'Neill, 2018). Additionally, the NDM's structured nature may not lend itself well to processes like hypothesis generation, which require more flexible and creative thinking (Dando and Ormerod, 2017; Fahsing, 2016).

In support of this, studies have indicated a gap between the NDM's theoretical framework and its practical use. For instance, none of the 26 serving detectives in our research on the decision making of detective inspectors during a simulated Sudden Unexpected Death of a Child investigation referred, directly or indirectly, to the NDM as an influencing factor or consideration of their decision-making (Holmes et al., 2022). For criminal investigations specifically, some studies have suggested tailored methods and strategies best support investigative decision making. For instance, Fahsing et al. (2023) introduced a strategy called "consider-the-opposite," aiming to reduce bias in police investigative decision-making. This approach involves training investigators to actively consider alternative explanations or hypotheses during case assessments, especially in complex or ambiguous scenarios. Their research demonstrated that participants using this strategy generated more thorough and varied investigative hypotheses, including non-criminal alternatives, and was found to mitigate common cognitive biases, such as confirmation bias, that can compromise the objectivity of investigations (Fahsing et al., 2023).

Similarly, no Authorised Firearms Officers in my 2016 study mentioned the NDM in their discussion of how they made decisions during previously experienced armed confrontations (Boulton and Cole, 2016) suggesting that perhaps the application of the NDM – or at least its overt and conscious application – is limited in both investigative and firearms settings. Instead, in high-stress and time-critical situations, officers may rely more on intuition and experience than on strict adherence to structured models, consistent with research by Hutton and Klein (1999).

Complex and ambiguous situations, such as multi-agency operations, or fast-paced situations, such as a firearms incident, may require more adaptive and flexible decision-making approaches beyond the NDM's formalised structure (Boulton and Cole, 2016). In support, Hine et al. (2018) found that Queensland Police Service recruits' and trainers' decision making in use-of-force scenarios was more aligned with an intuitive style rather than an analytical style and so concluded that applying the traditional analytical decision-making theories to how police policies and procedures are formed is likely to be ineffective in use of force scenarios. They say that to best prepare officers for potential use of force encounters, policies and training procedures should acknowledge and aid intuitive decision making (Hine et al., 2018).

### *Individual differences in ethical decision-making*

Subjectivity and discretion are inherent in policing decisions (Alpert et al., 2006; Feys et al., 2022; Kleinig, 1996), and while the NDM provides guidance, it does not eliminate the need for individual judgment, leading to variations in decision outcomes (Edwards,

2011). Additionally, psychological (i.e., cognitive function), sociological (i.e., ethnicity) and situational (i.e., suspects behaviour) factors are also likely to impact on officers' use of the NDM in decisions relating to use of force (Cojean et al., 2020), and whether or not to make an arrest during investigations (Fahsing and Ask, 2013; Perez Trujillo and Ross, 2008). Lastly, whilst the NDM acknowledges the importance of ethical decision-making (central to the model), it may not offer specific guidance for complex ethical dilemmas in policing. With this in mind, it is important to clarify what the goal of a decision model is. Is it to standardise and reduce variation between decision outcomes, or does it acknowledge that variation exists between how people make decisions, and instead exists to support the decision process?

Structures and frameworks like the NDM and the Code of Ethics are said by Maile et al. (2022: 13) to provide an important foundation and springboard from which ethical decisions can be made, but still require officers to “employ their own personal judgement—guided by their ability, foresight and expertise—to regulate their emotions, so as to ensure effective and adaptive communication”. Making ethically and judicially correct and fair decisions is crucial for establishing and maintaining public trust in police legitimacy (Hinds and Murphy, 2007; Tankebe et al., 2016), however, insight into these decision-making processes is limited (Feys et al., 2022).

## **Applying theory to practice: Insights from Psychology**

The current body of research on the NDM's effectiveness in enhancing police decision-making is limited. Consequently, theoretical insights from disciplines like psychology and cognitive science - which examine how decisions are made – must be relied upon to infer the model's potential utility for real-world decision making.

### *Intuition versus analysis*

Psychologist and behavioural economist Daniel Kahneman (2011) delineated two modes of thinking: System 1 (intuitive) and System 2 (analytical). System 1 relies on experience and pattern recognition, resulting in quick, instinctive responses that require minimal cognitive effort. In contrast, System 2 is slower and more deliberate, involving conscious effort to systematically evaluate alternatives based on factors like strengths, weaknesses, opportunities, and risks. Classical Decision-Making theories, such as Bayesian decision theory (Berger, 1985), argue for the superiority of System 2 thinking. This approach involves identifying hypotheses, evaluating evidence, and considering possible outcomes before making a decision through probability estimates (Gärdenfors and Sahlin, 1983; Stanovich and West, 2002). However, in real-world settings like policing, the Naturalistic Decision-Making research framework challenges this perspective. It argues that analytical processing can be impractical and overly time-consuming, especially in situations characterised by uncertainty, incomplete information, and rapid changes (Green and Shapiro, 1994; Klein, 2008; Zsombok and Klein, 1997). In reality, human rationality in decision-making is often bounded by factors such as limited access to information,

cognitive constraints, and time pressures (Gigerenzer, 1996; Simon, 1956; Tversky and Kahneman, 1974).

In the context of policing, officers frequently operate under conditions of uncertainty, stress, and time pressure (Staller and Koerner, 2020; van Den Heuvel et al., 2012). These constraints often necessitate quicker decision-making strategies that rely more on intuition (System 1) and heuristics. Heuristics are cognitive shortcuts that simplify complex decision-making tasks, though they can sometimes lead to biased or inaccurate outcomes (Simon, 1991). For instance, the availability heuristic might cause officers to prioritize cases based on recent, emotionally charged events rather than objective risk assessments. Similarly, confirmation bias can lead officers to focus on information that supports their preconceptions while ignoring contradictory evidence (Klein, 1999). In police investigations, such biases can result in tunnel vision, where the focus on incriminating evidence against a prime suspect overshadows other exonerating information (Ask and Granhag, 2005). Such biases are exacerbated under conditions of uncertainty and time pressure, potentially compromising the objectivity and effectiveness of investigations (Ask and Fahsing, 2018; Dror, 2005).

The growing international scrutiny of police actions, especially in high-profile incidents involving the use of force, has intensified debates about the reliability of officers' intuitions and hunches (Suss and Boulton, 2019). Given these challenges, structured decision-making frameworks like the NDM may offer a potential solution by promoting System 2-style analytical thinking. The NDM encourages conscious deliberation and systematic consideration of its six elements, potentially reducing the impact of heuristics and cognitive biases. However, as the Naturalistic Decision-Making movement suggests, the analytical rigour demanded by such frameworks may be impractical in many policing contexts characterised by uncertainty and time constraints. Furthermore, research on expertise suggests that expert decision making reflects System 1 style thinking in their ability to rapidly identify a course of action and therefore, a structured model like the NDM, may not adequately reflect the reality of expert police decision makers (see *Decision-making expertise* section below). This dichotomy between intuitive and analytical thinking raises questions about the NDM's applicability in fast-paced policing scenarios. Therefore, it remains unclear whether using the NDM can consistently mitigate the impact of cognitive biases or whether the structured and time-consuming nature of its format limits its utility in certain policing settings. This gap in understanding underscores the need for further research to evaluate the model's practical utility and limitations.

### *Decision-making expertise: Balancing structured models and intuitive judgments*

Established psychological models of decision making recognise the impact that experience and expertise can have on the way in which people cognitively seek, process and use information to make decisions in different contexts. For instance, the Recognition Primed Decision Model (Klein, 1999) suggests that in time pressured and changing situations, experts are more able to identify and evaluate a course of action quickly

through pattern matching their response option to cues in the situation they are facing from a collection of analogues (i.e. previously encountered similar experiences) from their experience, stored in their implicit memory (Lipshitz et al., 2001; Loveday et al., 2013). In reality, this might feel like acting on intuition (i.e., System 1 thinking: Kahneman, 2011). Fenton-O’Creevy et al. (2022: 19) found their sample of police leaders commonly agreed that in addition to being thought out, difficult decisions also need to ‘feel right’, reflecting both experience-based intuitions as well as personal and policing values. In consideration of this, Fenton-O’Creevy et al. (2022) state concerns that increasing emphasis on the NDM may delegitimise, but not reduce, the use of experience-based intuition, making the actual processes underlying police decision making less transparent and “hence less available for critical scrutiny and reflection” (p. 2).

Furthermore, Rasmussen’s (1976) decision ladder suggests that novices or non-experts respond to decision making tasks in a linear process of reasoning compared to experts who flexibly shunt from cue to cue depending on the contextual demands (Naikar, 2010). Essentially, expert decision makers are more able to understand when and why particular procedures are appropriate or inappropriate and are more able to adapt their decision making to flexibly respond to recognition of cues in the environment (Fiore et al., 2012). I found this to be the defining difference between the decision making of expert and non-expert firearms officers (Boulton and Cole, 2016). Fahsing and Ask (2016) similarly, found that experienced detectives are better at using intuitive and analytical thinking in tandem in an adaptive way, while less experienced officers rely more on rigid, rule-based approaches.

With this in mind, it may be assumed that experts and non-expert decision makers within varying policing roles would be likely to use the NDM differently depending on the nature of the decisional situation they are facing. In support of this idea, Edwards’ (2011) findings indicated a *subconscious* application of the NDM by all police practitioners in their sample, reflecting the cognitive process of situational cue recognition and option evaluation (i.e., recognition primed decision making), whereas conscious use of the NDM was only described in unfamiliar situations, where having no past experience to develop patterns from means practitioners are required to take an analytical approach in order to assess and understand the circumstances. Therefore, perhaps structured approaches like the NDM benefits and supports non-expert police decision makers more than experts who may adapt and shift away from the process.

## **Discussion and reflection: Victim of its own success?**

So far, in this paper, a comprehensive review of existing literature reveals a lack of empirical evidence supporting the NDM’s effectiveness. Indeed, the majority of related empirical studies raise questions about both the evidence base and the practical utility of the NDM. Despite this, the NDM is a familiar tool in UK policing, widely recognised not only by serving officers but also by new recruits and students enrolled in policing-related undergraduate programs. As an educator in this field, I have observed that my policing students can readily cite the NDM’s six stages from memory. However, when asked to articulate why they find it effective, their responses often lack depth beyond the framework’s policy definitions. These experiences have led me to question this gap in

understanding and application, where the NDM is seen more as a procedural checklist than as a tool for critical reflection and improvement. The NDM was never intended to prescribe specific decisions; rather, it was designed to provide a structured approach for individuals to reflect on their decision-making processes. Despite this, my discussions with students and police practitioners suggest that the NDM's application has occasionally become mechanistic, or even defensive — as a shield to justify actions rather than as a means to critically evaluate and improve future decisions. This raises questions about whether the model is fostering genuine understanding and effective decision-making or if it is being misused as a defensive measure.

My observations are, of course, anecdotal, however the lack of empirical research either confirming or refuting the NDM's impact means theoretical insights from disciplines like psychology must be relied upon to infer the model's potential utility, as discussed above. While these connections are valuable, they highlight the need for more targeted research to explore how the NDM is used in practice and its actual influence on decision-making quality.

### *Call for research*

Given the police's current emphasis on using the research evidence base to tell us 'what works' in modern day policing, it is crucial to evaluate the NDM's effectiveness comprehensively. The CoP are currently developing Authorised Professional Practice (APP) guidelines on decision making, making it a very good time for us to consider what works best to support police decision making. This is a call for research which can begin to comprehensively assess the utility of the NDM for police decision making, address existing gaps in understanding, and provide evidence-based recommendations for enhancing decision making in police settings. Future research should focus on assessing the model's utility, identifying areas where it excels or falls short, and exploring potential improvements or alternatives. Key research questions include, but are not limited to, the following:

- What is the purpose of the NDM?
- What is a good decision?
- Does the NDM improve decision-making outcomes?
- In what contexts is the NDM most effective?
- How do factors like expertise influence the use of the NDM?
- Can the NDM mitigate cognitive biases and support ethical decision-making?
- How can it be better integrated into training and practice?

To answer such questions, policing researchers could consider methodologies such as:

- A national, mixed methods, survey to investigate the extent to which police staff of different roles and ranks perceive they use the NDM in their decision making.
- Qualitative analysis of secondary data, such as policy decision books used during investigations and retained by detectives, to explore the use of the NDM in an investigative field.

- Comparative interviews using methods such as Cognitive Task Analysis to examine the decisional processes underlying the utilisation of the NDM among officers in varying policing contexts.
- Experimental designs to compare decisional performance (i.e., measuring decision making timing, errors, outcomes, confidence reporting etc.) of participants who have and have not been trained using the NDM in high-fidelity simulated police decision making scenarios.

Addressing these questions is essential for enhancing police decision-making and maintaining public trust. The anticipated outcomes of the research include:

- Identification of strengths and limitations of the NDM in various policing contexts.
- Recommendations for refining the NDM or developing alternative decision models tailored to specific roles and decision-making scenarios.
- Insights into the factors influencing decision making in policing and potential avenues for improving decisional processes.
- Enhanced understanding of the perceptions and practices surrounding the NDM among police staff, including the identification of barriers and facilitators to its implementation.

## **Conclusion**

This structured and detailed examination of the NDM provides a comprehensive overview of its theoretical foundations, practical applications, and areas in need of further research. The NDM represents a significant effort to standardise decision-making in UK policing. While the NDM represents a significant step toward standardising decision-making in UK policing, its practical utility and effectiveness remain under-explored. The framework's emphasis on consistency and accountability is commendable, yet its current empirical support is insufficient to fully validate its role in improving police decision-making. To truly serve its intended purpose, the NDM must undergo rigorous, continuous empirical scrutiny. As policing evolves, so too must the tools and frameworks that support officers in making informed, ethical, timely and effective decisions. Without a robust evidence base, reliance on the NDM risks perpetuating a system that may not fully meet the demands of modern policing. Addressing these limitations through focused research is critical to refining the model, ensuring that it not only aligns with the principles of EBP but also equips officers to effectively navigate the increasingly complex and dynamic challenges of their profession.

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