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Violence Risk Formulation

The Move Towards Collaboratively Produced 'Strengths-Based' Safety Planning

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Introduction

The recent interest and increased attention to the area of formulation has highlighted a number of issues that need to be addressed for practitioners working with risk. Cooke and Michie (2013) describe four 'eras' of risk assessment: unstructured clinical judgement, actuarial clinical judgement, risk management and, more recently, the era of risk formulation. Recognizing that both unstructured clinical judgement and the misuse of the insurance-based notion, of actuarial risk assessment were flawed practitioners turned to the use of case formulation as a clinically justifiable processes for assessing risk. Case formulations are parsimonious accounts explaining why an individual is functioning in the way they are. They can focus on a range of behaviours or individual problems or on a specific behaviour/problem (e.g. violence). The accounts involve linking theory to the individual case in a manner that suggests ways of intervening to bring about change. As such, a formulation is an individualized causal model. Ideally, they are developed collaboratively with the individual that they refer to.

Validation criteria for risk formulations are identified by Cooke and Michie as the 'next challenge'. There is no clear framework yet for establishing the validity or reliability of case formulations. Indeed, there are a range of different approaches to formulation that each have each a range of explicit or implicit criteria for establishing validity. There are a range of theoretical explanations and models for violent offending in the literature. Each of these have their own approach to formulation and to testing or establishing the validity of the formulation (e.g. Sturmey and McMurran 2011).

As well as informing risk assessment, formulations are used in designing treatment interventions. Historically, as part of a move towards standardized and manualized interventions,

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formulation was neglected in some areas of forensic practice in favour of 'one size fits all' group-based interventions.

Recent failure to replicate outcomes in interventions accredited because of their evidence base, have highlighted the importance of case formulation as a way of tailoring the intervention to the individual case. Indeed, some accredited interventions have evaluations which suggest possible iatrogenic outcomes. It has thus become imperative that individualized interventions are devised and that these are tested for their reliability and validity on a case-by-case basis.

In this chapter, one approach to formulation will be outlined; this approach will adhere to the following set of practitioner values deriving from the need for clinical accountability:

(A) That practice should follow a scientist practitioner framework (Hayes et al. 1999; Shapiro 2002). This involves applying scientific methodology and application of the current evidence base for 'what works' to the validity of individual case.
(B) That formulations should be logically coherent causal models of the domain being formulated.
(C) That formulations should be testable and that the practice of formulation should involve seeking evidence to establish the validity and reliability or otherwise of the formulation.
(D) That formulations should be accessible, co-produced (done with not done to or for the individual) and ethically and culturally attuned to those who they are being used with.
(E) That formulations should be focused on strengths as well as deficits.

This chapter explores issues, skills and competencies that practitioners need to take into account when they undertake a formulation of violence risk.

The Relationship Between Formulations and Actuarial Measures of Risk

Actuarial measures of risk are based on – usually predictive – correlational analysis. As such, they do not offer a clear causal model to explain why an individual offended in the way they did. Ward (e.g. Ward and Fortune 2016) has argued that dynamic risk needs to be conceptualized clearly as being about causal processes. In case formulation, these causal processes need to be placed in a developmental narrative, itself an account of multiple interacting causal processes.

Because a particular factor correlates with reconviction does not mean that it is a causal factor. In order to establish the reasons for the correlation the following questions need to be asked:

- Is the observed factor a marker for some other factor or process that is more directly causally linked with the outcome?
- Does the factor mediate the link between some other factor and offending?
- Does the factor moderate the link between some other factor and offending?

For the purposes of formulation, what is needed is a clear **risk mechanism** linking a factor causally with the behaviour being explained. Risk factors on their own are of little use without translating them into contextualized causal processes or risk mechanisms. To illustrate this, the Andrews and Bonta (2003) 'central eight' risk/need factors associated with offending are listed below (see Table 5.1) and each one is linked with examples of risk mechanisms linked with key developmental experiences.

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Table 5.1 Examples of developmentally informed risk mechanisms linked with the risk needs responsivity model.

Criminogenic Needs Identified in the RNR model (Andrews and Bonta 2003)	*Example of developmental antecedents and Risk Mechanisms associated with each need*	*Possible Interventions*
Procriminal attitudes (thoughts, values, and sentiments supportive of criminal behaviour)	Early violent or sexual abuse linked with longstanding preoccupation with revenge and hypervigilance looking for possible violence in current context. Beliefs in the validity of violence and abusive behaviour as a means of meeting revenge needs. Beliefs about violence being a way of preventing further victimization. Belief about the legitimacy and efficacy of violence deriving from social learning in abusive family contexts. These beliefs impacting on choices about how to manage ambiguous situations and meeting needs.	Working on trauma and trauma reactions using staged approach (e.g. Courtois and Ford 2009). Eye Movement Desensitization and Reprocessing (EMDR) for intrusive thoughts and memories. Developing strategies for feeling safe that do not involve violence. Ensuring that perpetrators are notified to social services and police so that if possible prosecutions can be proceeded with (to prevent further victims and to offer a sense of justice). Exploration of links between victim experiences and those of the victims they have made. Strategy of choices (e.g. Bush 1995)
Antisocial personality (low self-control, hostility, adventurous pleasure seeking, disregard for others, callousness)	Trauma impacting on: Futurelessness (Kerig and Becker 2010) linked with short term perspective, Emotional numbing (Kerig and Becker 2010) linked with lack of sensitivity to i) emotions linked with consequential thinking and behaviour (e.g. anticipatory anxiety or compassion for self in the future) ii) linked with compassion for others iii) a preoccupation with generating sensations because of experience of ongoing numbness	Trauma work using EMDR (Shapiro) Schema Therapy (e.g. Young et al. 2006) or CAT therapy (e.g. Pollock and Stowell-Smith 2006). Compassion focused therapy (e.g. Gilbert and Procter 2006)
Procriminal associates	Not trusting adults or people who have not got a similar background to the self – i.e. due to history of violent abuse, institutional trauma, betrayal trauma (Chakhssi et al. 2014).	Working on building relationships with a non-offender peer group. Building sense of belonging through work and education.

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Table 5.1 (*Cont'd*)

Criminogenic Needs Identified in the RNR model (Andrews and Bonta 2003)	*Example of developmental antecedents and Risk Mechanisms associated with each need*	*Possible Interventions*
Social achievement (education, employment)	Capacity to think and think about others' minds requires attachment experience to develop (e.g. Fonagy and Target 1997). Truancy, emotional dysregulation. Child abuse alters the normal development of the brain and neural pathways (e.g. Teicher et al. 2002, 2003), this then increases the risk of cognitive impairments later in life (Lupien et al. 2009).	Provision of opportunities to achieve in a 'scaffolded' supportive context. Using relational interventions to foster capacity to mentalize. Using thinking skills training and practise.
Family/marital (marital instability, poor parenting skills, criminality)	Developmental attachment traumas, e.g. loss, rejection, family breakdown leading to problematic attachment styles. These then lead to a cascade of poor relationships in later life. Offending taking place in the context of serial attachment ruptures and disturbances which act as a significant trigger for 'futurelessness' and 'giving up' on values linked with engaging woth the 'social contract'.	Intervention addressing attachment style using, e.g. limited reparenting (Young et al. 2006) or long term attachment based interventions. Psycho-education about attachment. Relationship rupture repair interventions (e.g. Safran et al. 2011)
Substance abuse	Child maltreatment has been strongly related to substance misuse disorders in a range of populations (e.g. Dube et al. 2006; Ducci et al. 2009; Enoch 2011). Substance misuse as a strategy for managing trauma related emotional dysregulation. Substance misuse as a response to neglect and consequent exposure to substance misuse valorizing peer group	Intervening to address trauma difficulties so that 'self-medication' is not required (e.g. EMDR). Work on finding healthy peer groups and healthy social activity. Work on emotional reaction to experiences of social exclusion.

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Table 5.1 (*Cont'd*)

Criminogenic Needs Identified in the RNR model (Andrews and Bonta 2003)	*Example of developmental antecedents and Risk Mechanisms associated with each need*	*Possible Interventions*
Leisure/recreation (lack of prosocial pursuits)	Neglect in developmental context resulting in significantly limited repertoire of pleasure, relaxation and enjoyment skills.	Provision of structured opportunities to engage in range of leisure and recreational pursuits in a 'scaffolded' and supportive manner. Happiness skills such as learning about how to enjoy things and mindful savouring of recreation

Top Down and Bottom Up Approaches to Looking at the Data

In the process of generating a formulation, the practitioner can use two kinds of model building: top down or bottom up, both of which are essentially qualitative methods.

The top-down method entails examining the available information about the individual with a set of preconceived constructs thought to be relevant to the issue at hand. So, for instance, one might look at an individual's interview and file information and examine the extent to which there is evidence for each of the Risk domains in the Risk-Need-Responsibility (RNR) model, or each of the 'goods' in the good lives model. In this case, the literature guides the potential selection of causal factors in the individual case. In this way, there are a number of sources for practitioners to identify possible areas to explore in generating hypotheses about risk mechanisms. Daffern and Howells (2009) developed a typology of functions of aggressive acts. This kind of typology can be useful in prompting the clinician to explore different functional possibilities. Theoretical models of violence such as the General Aggression Model (e.g. Gilbert and Daffern 2011) can suggest domains for the practitioner to explore with respect to the individual case. Such a theoretical model can only work as a guide to what kinds of factors to explore. Without knowledge of different kinds of variables relevant to violence, derived from the literature, it is possible that the practitioner might miss a significant domain. To use the literature unthinkingly – using 'one size fits all' for example – can result in missing out on the unique developmental history and constellation of contributory factors of the specific case.

Essentially, in applying these models to the individual, the practitioner is engaged in a form of content analysis. The data are scanned with a view to seeing if it 'fits' with a set of preconceived constructs.

Another method is to attempt to 'bracket' – or try to hold back on – any preconceptions and to see what kinds of causal mechanisms emerge from the data. This is more akin to bottom-up qualitative methods like Grounded theory (e.g. Bryant and Charmaz 2007; Henwood and Pidgeon 2006) or Thematic analysis (Braun and Clarke 2006). Once a set of causal themes have been identified, these themes can then be used when looking at the literature to see if there is anything relevant to this kind of process that could be applied to this particular case.

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An example of this might be looking at all of the offences of a repeat offender (using serial 'deviant' case analysis (Kelly and Taylor 1981; Needs 1988) and building a model that attempts to explain all the offences. The offences of a particular individual might, for example, all have been committed in the context of:

(a) substance misuse disinhibiting and making them more impulsive
(b) being exposed to opportunities for acquisitive offending involving attacking somebody perceived as weaker than them
(c) periods of unemployment.

Making Logical Inferences Based on the Nomothetic Literature About the Individual Case

Kuyken (2009) advocates that one test of a formulation is that there is evidence to support the psychological mechanism(s) being employed. If there is evidence supporting it, then this evidential support, underpinning the causal mechanism is passed on to the individual case. Interestingly, this offers an alternative source of warranty to that offered by accreditation of 'one size fits all' 'programs'. A scientist practitioner approach (e.g. Barlow et al. 1984) to formulation ensures that a defensible 'treatment justification' is provided. In contexts where all practice can be subjected to critical scrutiny in legal or quasi-legal contexts, it is imperative that a clearly argued logical case is provided for requiring an individual to engage in an intervention and for evidencing that change has taken place.

It is important to establish that the individual case is a good representative of the population that was described in the literature and which is being used to make inferences about it'. Yin (1984) proposes a process for doing this called 'pattern matching'. This is a process whereby a hypothesized pattern or constellation of factors from the literature are applied to the individual case, to see if the individual case matches those used in the study. For example, say a study was done with a group of individuals in Setting A who had an average age of B and had developmental experiences C, D and E and had committed an offence of F. If researchers also found that, for this population, work focusing on beliefs about violence could impact on the chances of being violent again then one might want to use this same intervention with an individual case assessed as having this same demographic profile/pattern. The question becomes, does the constellation of demographic features found in the individual case match those used in the original research? If there is a match between the two patterns, then confidence can be invested in the hypothesis that the individual case will behave in a similar way as was identified in that study.

The Turn Towards Strengths-Based Practice

In recent years, there has been an increasing emphasis on strengths-based practice. Rather than focusing on a 'deficit model' which, it is argued, can have the demoralizing effect of stigmatizing and emphasizing the negative aspects of an individual's presentation, it is important to highlight the strengths, resources and social capital that an individual possesses. The early work by researchers such as Seligman (e.g. Seligman and Csikszentmihalyi 2000) on positive psychology, has been applied to the forensic field and elaborated by Ward's 'Good lives' model (GLM) (e.g. Ward 2002) and, more recently in the health sector, the recovery movement (e.g.

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Moore and Drennan 2013). Ward proposes that formulations should look at the underlying needs that were met by offending and the offending lifestyle. Drawing on the literature which suggests that approach goals (i.e. goals that we move towards) are more effective in achieving self-regulation than avoidance goals (i.e. goals that we try to avoid). In the recovery paradigm, strengths are seen as a way of avoiding the stigmatizing impact of diagnosis and being labelled as a particular kind of offender. Stepping away from these processes of 'othering' is at the heart of the recovery model. In forensic settings, this has resulted in a move away from a focus on risk and a move towards a focus on 'safety planning'; looking at how to achieve safety in a person's life as well as in the contexts in which they live.

The implication of positive psychology and GLM for formulation is that instead of formulating when things have gone wrong, the times when an individual has managed crises effectively should be focused on. Times when an individual has managed not to offend when they had an urge to, can also be focused on. Instead of 'problem behaviour' being formulated 'coping pro-social behaviour' or indeed thriving behaviours are explored to develop a psychological model of what caused this and then to follow the solution-focused approach of 'if it works then do more of it' (Jones 2010a). This amounts to an individualized 'what works' approach.

Formulation as Causal Modelling Linking Evidence to Practice

From a scientist practitioner perspective, formulation is an activity that is aimed at identifying, for the individual case, what plausible psychological mechanisms were in play related to the development of risk for the individual case. There is a danger of implicitly using a 'one-size-fits-all' approach if thinking about what the causal mechanism is in the individual case is not explored. Identifying that somebody's ruminations about revenge are 'linked with' their violent behaviour is not as useful as knowing that the link was mediated by a set of psychological processes. For example, increased physiological arousal associated with rumination, triggered by trauma memories, that were in turn triggered by trauma reminders or cues in the environment.

Some argue that formulations do not necessarily only need to attempt to be 'true' insofar as they serve an additional function of helping people feel contained and, as such, feel less distressed and alone (Division of Clinical Psychology 2011). From this perspective, a formulation is conceived, at least in part, as a 'convenient fiction' that allows the individual to overcome a sense of being 'other' and not understood. A scientist practitioner approach is not necessarily at odds with this approach. What is critical, however, is that the final formulation may be translated into a format that is accessible to the individual to whom it applies. Even more critical perhaps, is the idea that the formulation has been co-produced with the person that it is about. Co-production means collaborating and co-creating the formulation with the person it is being used with (Moore and Drennan 2013).

If the practitioner has a different view from the client, then there needs to be an effort to understand (i) what this difference is about and (ii) what the implications of this difference are.

Sequential Analysis

The question of 'what to formulate' needs to take into account the fact that much offending is the result of a sequence of events as opposed to single episodes. This construal of the problem is captured well by Layne et al.'s (2014a) account of causal factors linked with the analysis

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of the impact of trauma that is very relevant to causal analysis of violent behaviour. Layne et al. (2014a) talk about 'risk-factor caravans':

> '*Risk factor caravans* [emphasis in original] consist of constellations of causal risk factors that: a) occur, co-occur, and statistically covary; b) 'travel' with their host over time; c) each serve as a risk marker for the occurrence (whether temporally prior, concurrent, or subsequent) and adverse effects of one another; d) intersect with, and exacerbate, the adverse effects of one another in potentially complex ways; e) tend to increase their host's risk for subsequent exposure to, and vulnerability to the adverse effects of, additional risk factors; and f) accumulate in number, accrue, and 'cascade forward' in their cumulative adverse effects across development. In contrast, elements making up risk factor caravans do not necessarily: g) emanate from the same causal origin, h) occur, co-occur, or recur at the same point in time or during the same developmental periods, i) relate in similar ways to other variables, j) carry the same risks, k) exert similar causal effects, l) operate through the same pathways of influence, m) eventuate in the same causal consequences or sequelae, or n) respond in similar ways to the same intervention components …. (p. S3)

This constellatory approach to causal factors can be contrasted with more simple, single-factor models that are derived from data-dredging exercises that fail to differentiate, at a theoretical level, between risk markers, mediating variables and risk factors. Formulation requires a skill set that includes the ability to understand and use causal reasoning. Layne et al. (2014b) provide a useful framework for the interested reader to develop competencies in this area.

A useful approach to a series of offences where there is a process of learning across the offences is the Multiple Sequential Functional Analysis model (Gresswell and Dawson 2010; Gresswell and Hollin 1992; Hart et al. 2011). This approach starts with an initial formulation of an early offence and then uses this as the antecedent to the formulation of a subsequent offence and then, again, using this as the antecedent for the next offence. This analysis allows an understanding of serial offending as a developmental process.

Domains and Types of Causal Factor in Formulations

A number of different models of formulation have been used with people who have been violent. Perhaps the most common approach is functional analysis. One example is the SORC model (Setting conditions, Organism variables, Response variables and Consequences; Ireland 2008; Lee-Evans 1994) which has the strength of including critical developmental experiences (see Ireland 2008). However, Jones (In press), notes the importance of looking at offence-related altered states of consciousness in analysing offending, something that historically behavioural analysis has avoided.

Formulations seek to identify different kinds of causal factors. Morton (2004) working in a developmental psychology context identifies a typology of causal factors which, he argues, are fundamentally different in kind. They include biological factors, cognitive/emotional factors (intra-psychic factors), environmental factors (which include developmental experiences), and behavioural factors. Each of these types of factor (see Table 5.2 below) can be used to conceptualize the different types of causal process commonly known as the '5Ps' model (Weerasekera 1996).

Kinderman and colleagues (e.g. Kinderman 2005; Kinderman and Tai 2007) have highlighted the way in which, generally, biological processes impact on behaviour through the mediation of psychological processes. So, for instance, the impact of alcohol on an individual's

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Table 5.2 Domains for formulation.

	Pre-disposing (distal antecedents)	*Precipitating (proximal antecedents)*	*Presenting*	*Protective*	*Perpetuating (including reinforcement)*
Biological					
Intrapersonal factors Cognitive/ emotional States of consciousness					
Environmental					
Behavioural					

behaviour is mediated by changes in cognition, emotion and states of consciousness linked with the use of alcohol; thinking might be more impulsive and emotional reactions exaggerated for instance.

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Fictional Case Study

The following brief example of a formulation aims to illustrate the ways in which this framework can be used:

Peter was brought up by a single mother and in the course of his childhood was violently abused by one of his mother's partners and often witnessed violence against his mother. When he was eight, he was involved in a car crash and was in a coma. Assessment of cognitive functioning after the accident revealed that he had difficulties suggestive of a frontal lobe injury with poor performance on tasks involving problem solving and set shifting. When he was 10, he was sexually abused by a neighbour and began to get into trouble for violent behaviour at school soon after this. He started drinking heavily in his early teens and went on to develop a significant drink problem. He indicated that he had found a group of friends who valued violence as a way of dealing with problems.

He reported that he had always had a good relationship with his grandmother and grandfather. He had spent periods of time living with them as a child and had good memories of this.

In prison, he had started out not coping well. Soon after his arrival into custody, he assaulted another inmate who he found out had committed a sexual offence. When he had discussed this, he indicated that the assault was linked with feelings triggered in relation to his own experience of sexual abuse. Another assault was triggered by the belief that he was not safe, and he reported that the assault was driven by a belief that the only way to feel safe would be to assault the other person first. A formulation of the case using the '5Ps' model is illustrated in Table 5.3.

Testing the validity of case formulations

As indicated above, hypotheses used in a formulation need to be tested if we want to invest them with any degree of confidence (see also Hart & Logan; 2011). Part of this testing

Table 5.3 A formulation of the case using the '5Ps' model.

	Pre-disposing	*Precipitating*	*Presenting*	*Protective*	*Perpetuating*
Biological	Head injury impacting on frontal lobes	Use of alcohol		Healthy diet	Frontal lobe deficits ongoing. Drink problem.
Cognitive/emotional	Problem solving difficulties. Schema identifying people as un-trustable. Difficulties feeling safe.	Schemas linked with people being un-trustable triggered. State switching from frightened to hostile. Ruminative thoughts about revenge against perpetrator of sexual abuse. Shame and self-loathing linked with blaming self for abuse Trauma related dissociative state triggered by hostile behaviour of victim. Alcohol linked with increased impulsivity.	Ongoing difficulties with relationships with peers and staff linked with emotional dysregulation and feelings of mistrust. Occasionally violent in custodial setting. Ongoing shame and revenge rumination linked with sexual abuse. Hypervigilance for possibility of violence in prison.	Positive attitudes to psychological interventions. Periods of relative stability in custody linked with being employed in jobs that he found rewarding. Beginning to engage effectively with education for the first time.	Impulsive thinking style. Abused related thinking and emotions. Difficulty maintaining and generalizing change after previous attempts to change.
Environmental	Sexual and violent abuse	Absence of restraining relationships	Capable of triggering punitive reactions from staff.	Some good attachment experiences, e.g. with grandparents.	Exposure to peer group who value violence
Behavioural	History of violent behaviour	Escalation of violent behaviour	Index offence Violent assault	Has evidenced self-regulation attempts and successfully stopping self from offending in past	

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process is to look at their validity and reliability. In order to subject hypotheses developed in devising a formulation to the test Haynes et al. (2011) describe a number of procedures for establishing the validity of causal relations.

1. *Logical analysis of casual factors*
   Following John Stuart Mill they propose that we establish:
   (a) The **temporal precedence** of the causal variable. The cause must come before the effect.
   (b) The cause and effect must be **related** (otherwise described as covariation)
   (c) All other explanations of the cause–effect relation must be eliminated.
   They propose exploring, in interview or through observation, a 2×2 matrix that is displayed in Table 5.4.
2. *Predictive validity*
   The 'offence paralleling behaviour' (e.g. Jones 2004, 2010c) paradigm is one way of looking at the predictive validity of a formulation. This is essentially a framework for testing the predictive validity of a formulation and thereby identifying current behaviours that warrant intervention in order to address longstanding behavioural problems.
   If a causal model for a particular kind of problem has been developed, then in order to have confidence in it as a model it needs to be tested. If the target behaviour is violent offending, then specific **causal mechanisms** linking offending to causal factors need to be tested. In the example above, we are asking 'how' or 'in what way does shame and rumination link with offending?'. This could be underpinned by a number of different hypothetical casual mechanisms. It could, for example, be that the individual experiences emotional pain associated with shame and has learned that this pain can be offset by being violent or it could be that they have a belief that they should punish people for making them feel bad. The offence paralleling behaviour framework then suggests that these hypothesized causal mechanisms or **risk mechanisms** be tested, by looking at predictions of sequences or chains of events in the current setting.
   An offence paralleling behaviour prediction for this hypothesis might be: Peter feels unbearable pain when experiencing shame and then tries frantically to avoid it.
   The avoidance doesn't have to be the same as it was at the time of the offence. So, they might use self-harm or substance misuse as strategies for managing unbearable shame; not

Table 5.4 Haynes et al. (2011) matrix.

Status of target behaviour	*Hypothesized causal variable present*	*Hypothesized causal variable absent*
Target behaviour present	Evidence supporting causation (Necessary Condition) Example: 'How frequently do you feel like hitting people when you feel shame and ruminate'	Evidence against causation Example: 'How frequently do you feel like hitting someone when you do not feel shame and ruminate?'
Target behaviour absent	Evidence against causation Example: 'How frequently do you **not** feel like hitting someone when you feel shame and ruminate?'	Evidence supporting causation (Sufficient condition) Example: 'How frequently do you not feel like hitting someone when you don't feel shame and don't ruminate?'

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just violence. Evidence of this pattern playing out in the current context offers support for the veracity of the case formulation. Absence of evidence leads to a return to the formulation to see if it needs to be revised.

3. *Face validity*
   Perhaps more than any other kind of validity, face validity with the client, is critical. In order for a formulation of violence risk to be effective as a tool for intervention or indeed as an aid to safety planning, it needs to have face validity. One of the best ways to ensure this is to co-produce the formulation (Moore and Drennan 2013) with the aim of facilitating a process of ownership of the formulation.
   Managing the **differences** in formulation between different stakeholders in the process is critical and is perhaps a key role for forensic practitioners. It is important, for example, to explore the kinds of risk factors that the practitioner thinks are important but which the service user does not. Ideally, the level of agreement about the key causal mechanisms and processes between the practitioner and the client is maximized and differences minimized. Similarly, it is important to anticipate differences of opinion between other stakeholders – within the clinical team or even those making judgements about moving on – in order to ensure that work undertaken is going to ensure progress through the system.
   It could be argued, however, that the tabulation of factors outlined above (see Figure 5.1) does not actually help to integrate information, it is simply a useful typology of variables to encourage the practitioner to explore different **kinds** of relevant causal process. Making formulations accessible and giving them face validity requires integration and an appreciation of the complexity involved.
   Integration can come out of thinking about how the different casual factors interact with each other and getting some sense of the 'big picture'.
   Two approaches are used to try and achieve this. One is to use diagrams (e.g. Cognitive Analytic Therapy (CAT) Diagrams Pollock and Stowell-Smith 2006) and the other is to try to present the formulation in a narrative format. Both CAT and Schema therapists use letter writing as a way of sharing the formulation in an integrated way with the person that it has been produced with. This can be done with varying degrees of co-production involved. If an account is written and re-written collaboratively with the person about whom the formulation has been made, it can serve as a powerful 'roadmap' for the intervention.

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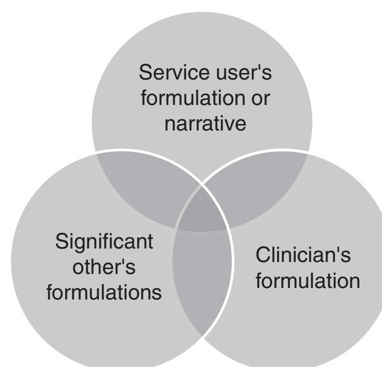

Figure 5.1 Different partially overlapping perspectives.

A narrative account for Peter:

> We worked to try to understand why you did the things you did. You described having some horrible experiences when you were young where you were violently and sexually abused. We saw how these experiences left you with a feeling of disgust with yourself and also with people who remind you of the people who offended against you. Whenever you are reminded of these feelings, all those memories from the past come back, and you find it hard to cope with them. You want to get rid of them and the hurt that goes with them. You have learned to use violence as a way of getting rid of these bad feelings.

Diagrams can also be used to illustrate a formulation, see Figure 5.2 below.

Reliability of formulation

Kuyken (2006) and Beiling and Kuyken (2003) summarize the literature on the reliability of cognitive behavioural therapy (CBT) formulations and concludes that it is often poor. When different clinicians attempt to develop formulations for the same material they often come up with different factors or emphasize different factors. The more the process is standardized the greater the degree of congruence between formulations.

In practice, strategies for testing reliability include seeing if the formulation changes over time and seeking peer review.

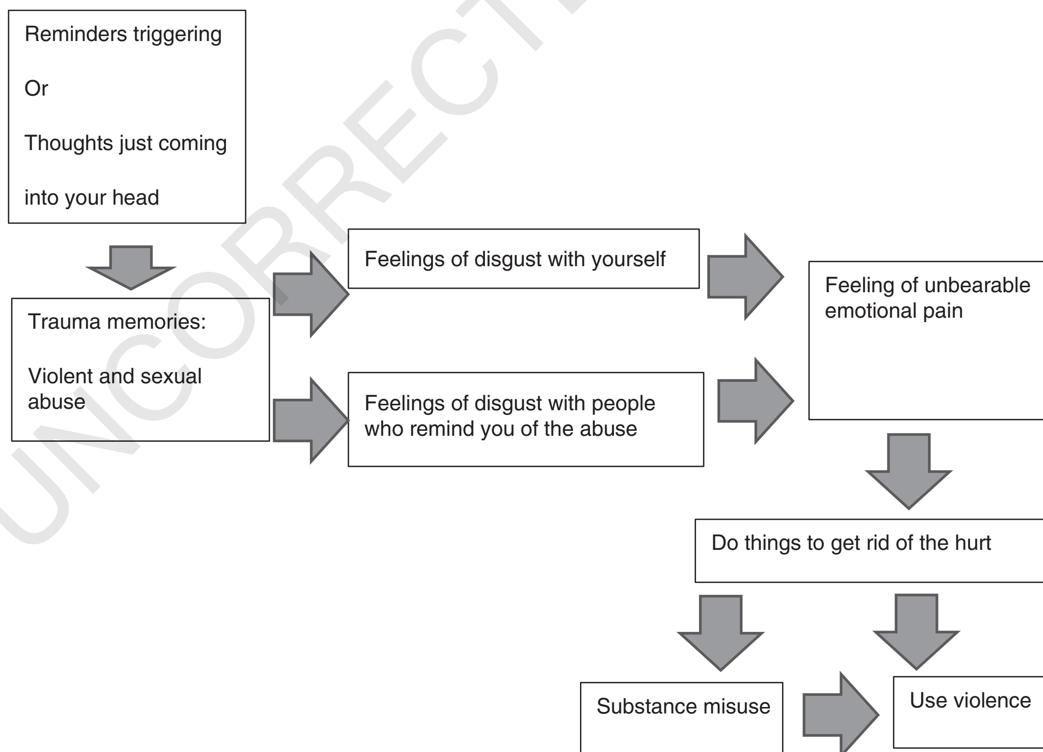

Figure 5.2 Diagram illustrating formulation.

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'Strengths-based' approach

Just focussing on the offence runs the risk of increasing the burden of stigma carried by the individual. Moving away from 'offender' identities and towards a more pro-social identity involves identifying strengths (Ward 2002; Woldgabreal et al. 2014).

This can be achieved by exploring a number of strengths-oriented assumptions:

1. Most people who have committed serious offences are not offending most of the time and, therefore, have a significant array of offence evasion skills and skills for meeting needs in a pro-social manner.
2. Offending is aimed at securing a range of 'goods' (Ward) that are a normal part of being a human being and it is possible to secure these same 'goods' through non-offending behaviour.
3. Approach goals have a motivational advantage over avoidance goals.

Instead of doing a formulation of the offence or other offending behaviour, building a formulation of times when the individual had successfully managed *not to offend* or had met the same needs in a non-offending way can be useful (see also Jones 2010a).

Trauma-informed violence formulation

In an attempt to identify the key areas that clinicians need to explore in developing formulations, Johnstone et al. (2018) have taken a critical step in moving towards a trauma-informed systemic model. The Power Threat Meaning framework highlights the following domains as being important for the practitioner to consider in developing a formulation and is explained below.

Power Powerlessness in different forms is seen as playing a critical role in the development of psychological difficulties, attitudes and beliefs. It is conceptualized as being in the following domains:

> Embodied power, Coercive power, Legal power, Economic and material power, Social and cultural capital, Interpersonal power, Ideological power.

Threat The experience of threats of different kinds in an individual's life is seen as another critical domain in an individual's life. Threat is conceptualized as happening in the following areas of an individual's life:

> Relational, Emotional, Social/community, Economic/material, Environmental, Bodily, Knowledge and meaning, Value base and beliefs.

Meaning Meaning is also construed as being critical in shaping an individual's responses. This is seen as deriving from the following domains:

> Ideological meanings, Social discourses, Personal meanings.

Critically, this framework moves away from defining people in terms of what is 'wrong' with them and moves towards identifying 'what happened to them'. This parallels the move in

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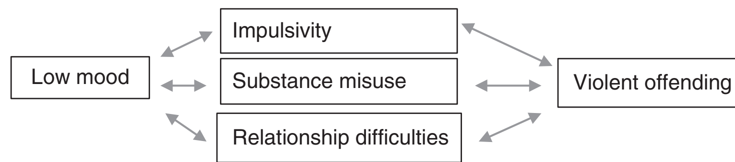

Figure 5.3 Illustration of underlying factor.

intervention from focussing on the offence – which is seen as perpetuating a stigmatizing and condemnatory personal narrative linked with returning to offending (e.g. Maruna 2001) – to focussing on the individual and building their lifestyles so that they are meeting unmet needs in a way that renders offending obsolete (e.g. Ward).

Deriving treatment targets from the formulation

One of the main purposes of drafting a formulation is to identify treatment targets. This needs to be kept in mind during the process of formulation. The causal factors that are identified need to be ones that are amenable to intervention. It is, moreover, important to be using the process of developing the formulation as an opportunity to think about the critical question of: what kinds of intervention, with what kinds of factor(s), in what contexts, are going to have the biggest impact on the desired outcome. Identifying common factors, that perhaps drive several other key factors, can point towards interventions that have a significant impact through their knock-on effects. As per Figure 5.2, it might be argued that intervening with low mood could impact on violent offending through its impact on three other factors.

The aim here is to identify the most parsimonious target(s) for intervention. However, care needs to be taken to explore the possibility that the assumption made that Low mood is the most parsimonious target is not a consequence of implicit assumptions that have shaped the way in which variables have been selected. It might, for example, be more parsimonious to intervene with relationship difficulties as this could have a greater impact on mood and, by implication, the other two factors, Impulsivity and Substance misuse. Testing these hypothesized links between components of the formulation would help the practitioner to clarify the causal processes involved.

Contexts of formulation

Formulation takes place in a number of different contexts within forensic settings.

Formulation in the context of therapy Each therapeutic model has a different epistemology and set of causal factors, or way of describing causal factors, that are given primacy. The practice of formulation can sometimes become biased by a need, in the interests of adherence, to shoehorn each individual into the set of constructs available to the therapeutic model. Whilst it is important within a therapeutic intervention to use constructs from that model, it is debatable whether this is an effective strategy for identifying what the key points of intervention are for an individual. There is possibly a tendency for practitioners to use constructs from their preferred model and thereby run the risk of entertaining alternative causal factors. Jones (2012) found that few neuropsychological factors were being used in a thematic review of case formulations with people who had offended who had a personality disorder diagnosis; this was

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felt to be due to the fact that the practitioners drafting the formulations were mainly working within a schema therapy or cognitive analytic therapy framework. Attempts to use a theory neutral formulation strategy, e.g. Morton diagrams (Jones 2010b) is one way of getting away from this. Whatever formulation model one uses, including theory-neutral ones, are likely to have implicit assumptions that shape the way the practitioner seeks out causal variables.

Formulations in consultancy work with teams Formulation in the context of consulting to a team might require a different kind of focus than formulations developed in the context of individual clinical work. In this context, formulation is more focused on in-treatment behaviour management problems rather than working on the offence. The aim is also slightly different. The focus is on management rather than on therapeutic change per se (the two agendas can, however, overlap). This has implications for the collaborative nature of the work and the experience of the formulation as 'being known about so you can be controlled' as opposed to 'being known about so that change for the better can be brought about'.

Formulating change processes

It is important to have a clear understanding of what processes are going to be underway in a change process. A formulation can sometimes help the practitioner think about ways in which the intervention can be de-railed and also to identify potentially iatrogenic outcomes (Jones 2007). Identifying how the individual might be expected to respond to the change process, or to risk-management plans, can help with clinical scenario planning. For example, often change processes involve some form of getting worse before getting better (Jones 2007), changes in belief involve going through an emotional process. If the individual cannot tolerate or respond to this process without disengaging, then this needs to be understood and integrated into the intervention and management plan.

Detection evasion skills

A significant proportion of offending goes undetected. Formulation can be used to understand what skills and competencies an individual has in evading detection. Rather than simply focusing on the offending itself, it is useful to understand the post-offending detection and conviction evasion skills (Jones 2004). This is a key part of the offending process.

Some models of formulation make a point of looking at a series of episodes, for example, offences in forensic settings, with a view to identifying what is learned in the course of the offending series (Gresswell and Hollin 1992).

Contextual formulation

Formulation is not just about things relating to the individual. It must also conceptualize the context. This requires exploration of social dynamics of the relationships that the individual is involved with. Often repeating patterns of rejection, real or imagined, are a significant precursor for violent behaviour. Analysis of the ways in which cultural and identity issues influence the context and the individual within it is also critical. Family and friendship dynamics can play a significant factor in the development of offending.

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Practitioner Factors Impacting on Utility and Veracity of Formulation

The temptation to 'shoehorn' people into a model, whilst possibly having some heuristic value, runs the risk of missing the identification of significant factors for the individual case. It is difficult not to inadvertently do this. Practitioners have relationships with their theoretical models, not unlike an attachment, and find it hard to take note of non-confirmatory information when this happens. The temptation can then be, consciously or unconsciously, to neglect this kind of information.

Awareness of attachments and being wedded to one's theory are important themes for reflective practise and supervision (Davies 2015). Skills that may be used to offset the potentially biasing impact of avoiding the more challenging emotions of being uncertain and not knowing include the following:

1. allowing oneself to be influenced by what the data, in this case data coming out of attempts to test the validity and reliability of the formulation, is telling us;
2. maintaining an open-minded sense of curiosity;
3. recognizing the kernel of truth in apparently 'irrational' self-formulations of the client and;
4. managing the strong cognitive emotions such as 'feeling of knowing' (e.g. Liu et al. 2007).

Such acknowledging uncertainty and being comfortable with not knowing is very important as a formulation competency.

Overcomplicating formulations can also be a danger and a defensive reaction to uncertainty. The danger is that 'when you don't know anything you try everything' (Tyrer, personal communication).

Conclusions

Case formulation has been increasingly recognized as critical to the tasks of intervention and risk assessment with people who have been violent. As a practice, however, formulation has little evidence as yet to support it (cf. Kuyken 2006); this is in no small measure due to the heterogeneity in approaches to creating formulations. This chapter has highlighted some of the problems with case formulation and suggested ways of addressing these concerns by testing reliability and validity. There are a number of different approaches to formulation with people who have been violent currently being used. Hopefully, there will be a common interest in the need to test formulations to see how robust they are in practice. The danger of premature closure in terms of the practitioners understanding of the causal factors involved in offending, is hopefully offset by the emphasis in the formulation process on revisiting the causal model and revising it if it does not stand up to testing.

Key competencies and skill sets need to be developed by practitioners engaged in formulation; this chapter has explored these. These include causal reasoning skills, co-production skills, cultural competencies, self-monitoring and self-reflection skills, skills in acknowledging uncertainty and not knowing, as well as being able to make conjectures and hypotheses and an up-to-date knowledge of the literature on violent offending.

Hopefully, the reader has been stimulated to explore formulation further. Attempts to systematize the approach to formulation can be found in Sturmey and McMurran (2011). Ethical issues are usefully explored in Davies et al. (2013).

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The practice of formulation involves both a scientist practitioner skill set and the clinical skills of forming relationships with people who have offended and working towards a clinically meaningful and useful account of why things have happened in the way they have. If nothing else, hopefully this chapter has helped the reader to think about how challenging this task is and how much more research needs to be done to look at better ways of engaging in this complex activity.

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