



Centre for Forensic
Behavioural Science

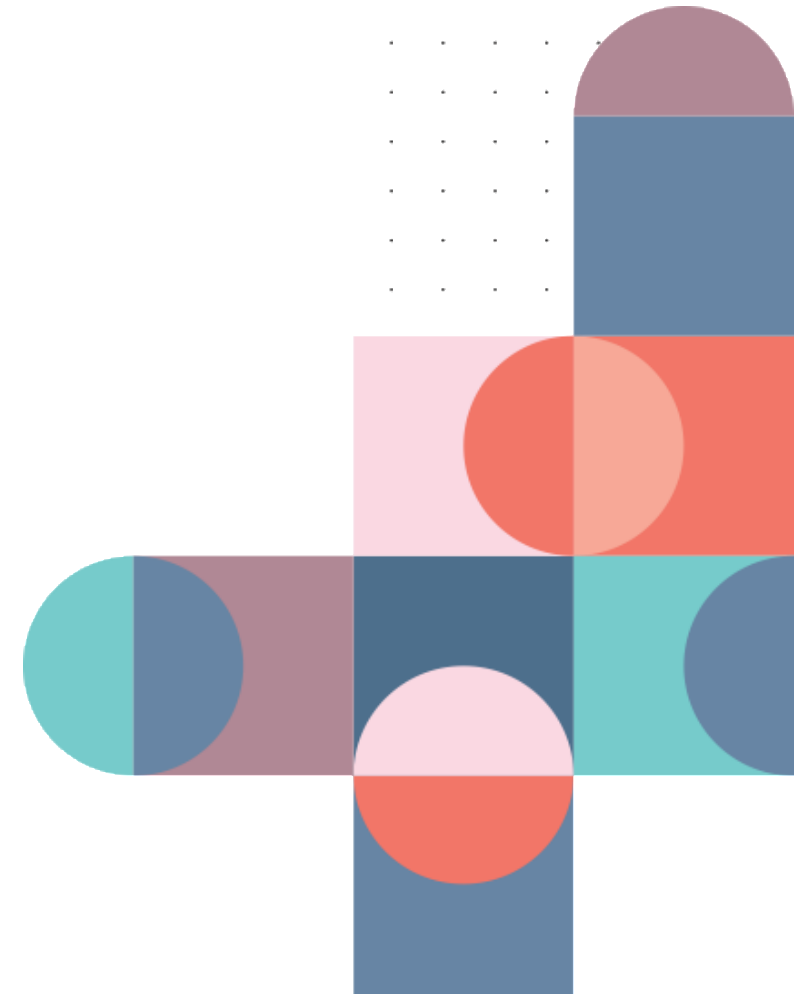
Investigating the Quality of Case Formulations among Australian Forensic Practitioners

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Forensicare



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Acknowledgement of Country

We respectfully acknowledge the Wurundjeri People of the Kulin Nation, who are the Traditional Owners of the land on which Swinburne's Australian campuses are located in Melbourne's east and outer-east, and pay our respect to their Elders past, present and emerging.

We are honoured to recognise our connection to Wurundjeri Country, history, culture, and spirituality through these locations, and strive to ensure that we operate in a manner that respects and honours the Elders and Ancestors of these lands.

We also respectfully acknowledge Swinburne's Aboriginal and Torres Strait Islander staff, students, alumni, partners and visitors.

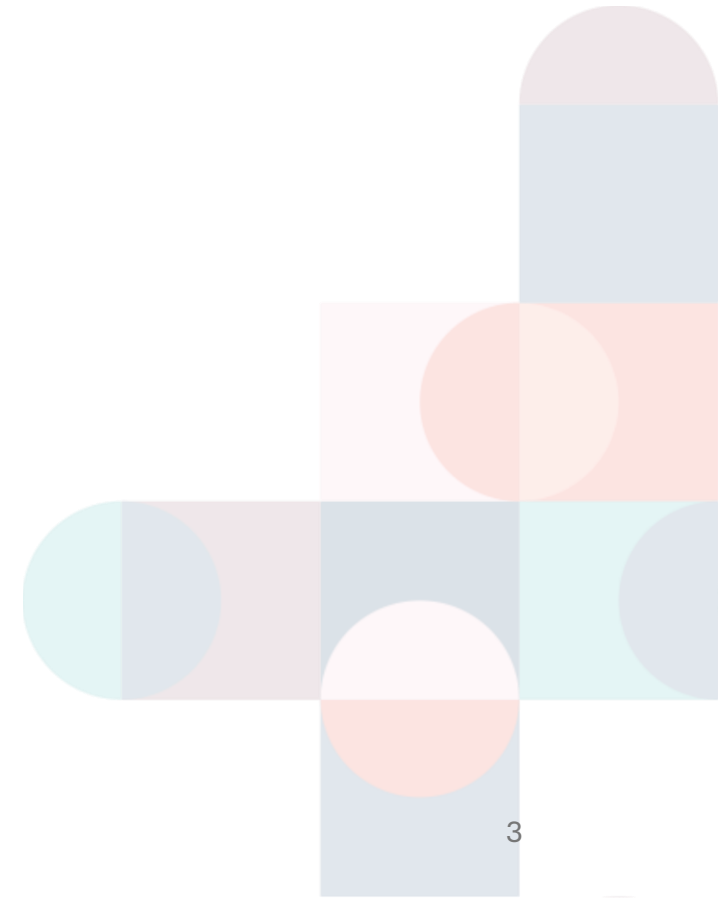
We also acknowledge and respect the Traditional Owners of lands across Australia, their Elders, Ancestors, cultures, and heritage, and recognise the continuing sovereignties of all Aboriginal and Torres Strait Islander Nations.

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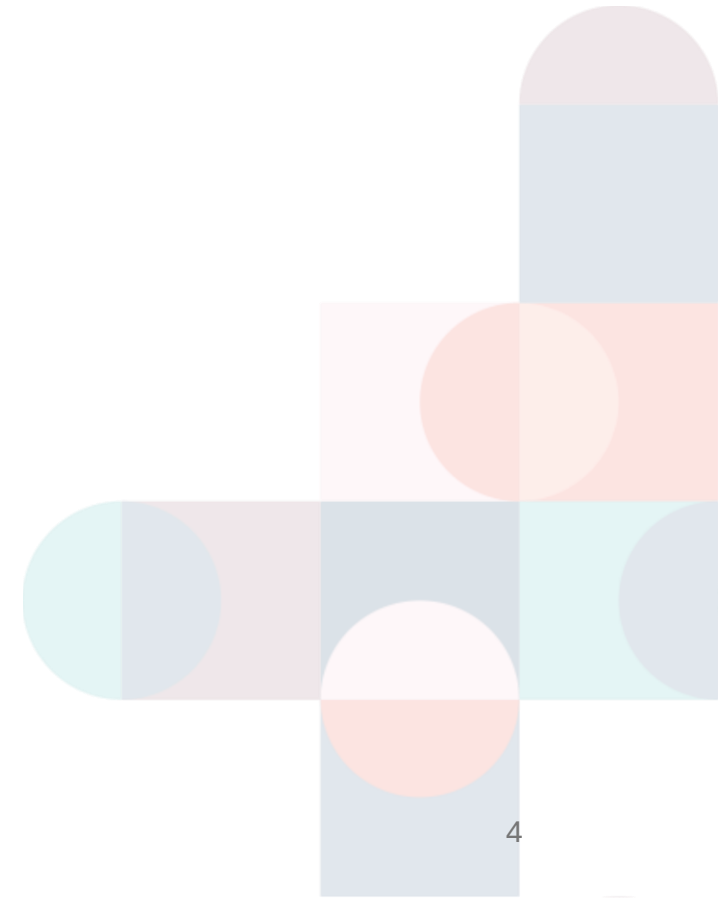
Acknowledgements

- Prof. Troy McEwan
- Dr Nichola Tyler

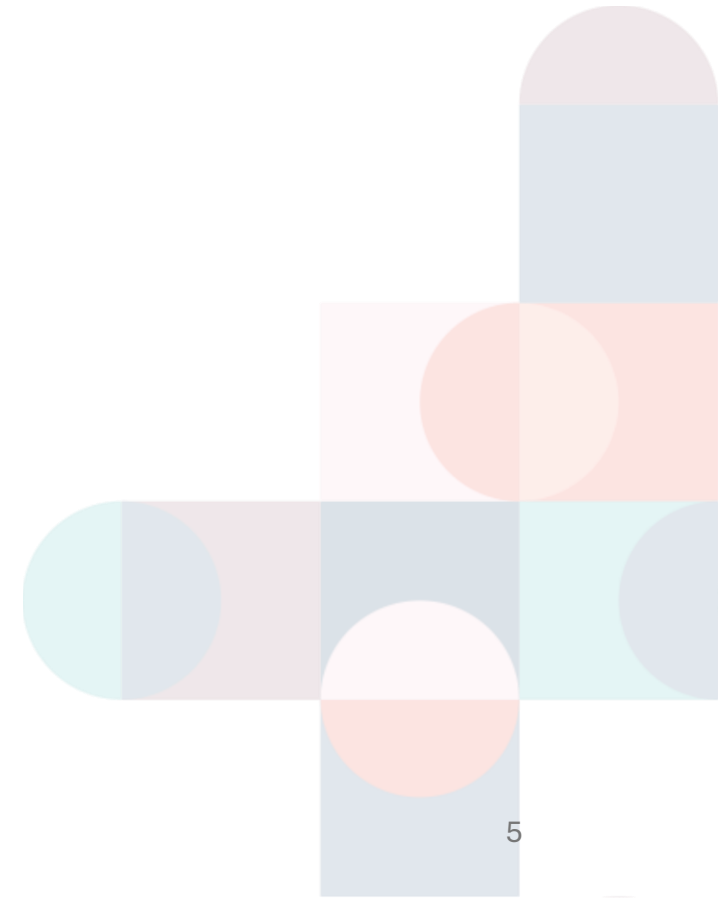


Objectives

- Background and Rationale
- Methodology
- Preliminary Findings
- Implications



Background on Case Formulation

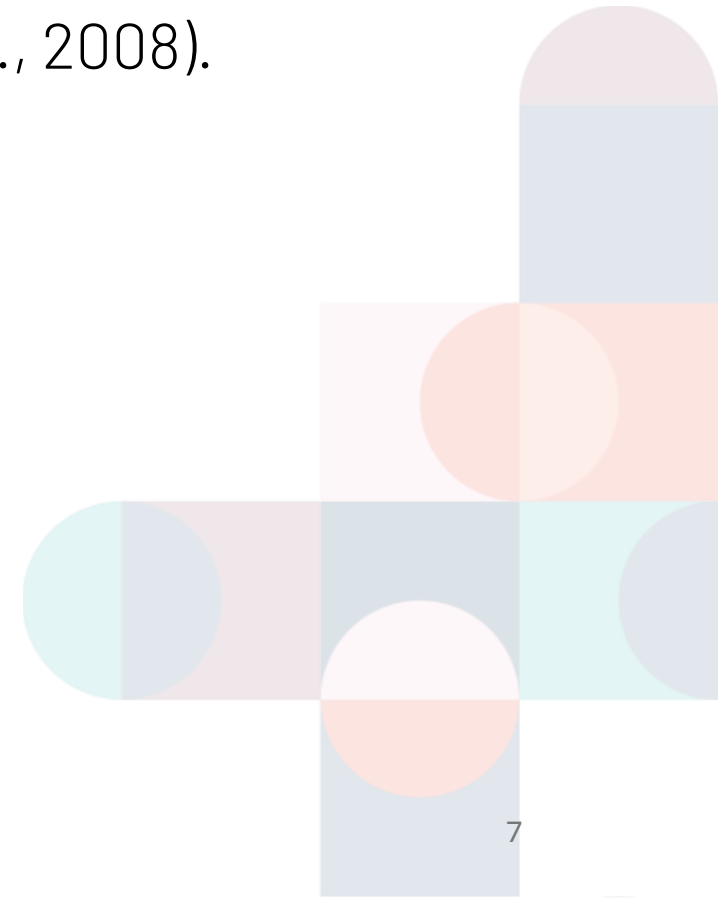


History of Formulation

- Core competency across various disciplines (APA, APS, BPS).
- In the 1950's case formulation gained prominence as psychology separated from psychiatry (Corrie & Lane, 2010)
- Scientist practitioner model (Corrie & Lane, 2010; Davidson, 2008; Dudley et al., 2010)

Clinical Formulation Definition

“Formulation is the process of creating one or several linked hypotheses about the underlying mechanism of a complex clinical problem (or problems) in order to prepare action to facilitate positive change.” (Kuyken et al., 2008).

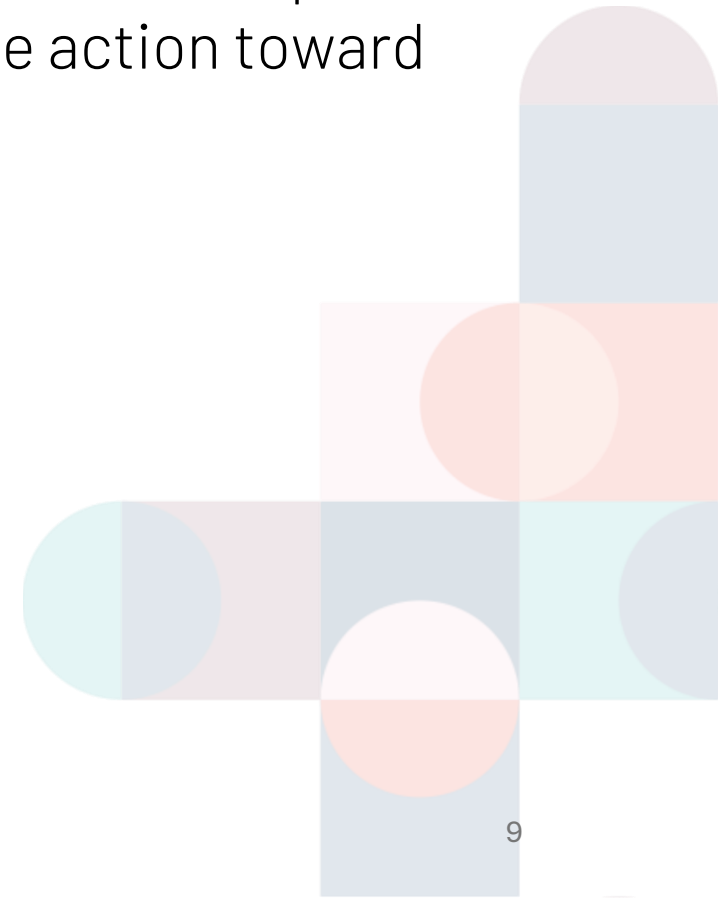


Forensic Formulation

- Recent attention has only been applied to formulation in forensic settings within the past two decades (Craig & Rettenberger, 2018; Davies et al., 2013; Hogue et al., 2007).
- Formulation in forensic settings is particularly important given the complexity of many client presentations.
- Forensic formulations can help explain past offending behaviour (Davidson, 2008; Howells et al., 2007; Wheable & Davies, 2020).

Forensic Formulation Defined

“Formulation as a clinical task endeavors to **EXPLAIN** the origins, development, and function of the difficulties experienced by a client in order to anticipate and design the most effective, meaningful, and proportionate action toward their amelioration.” (Logan, 2017, pp. 190–192)



Formulation in Legal Contexts

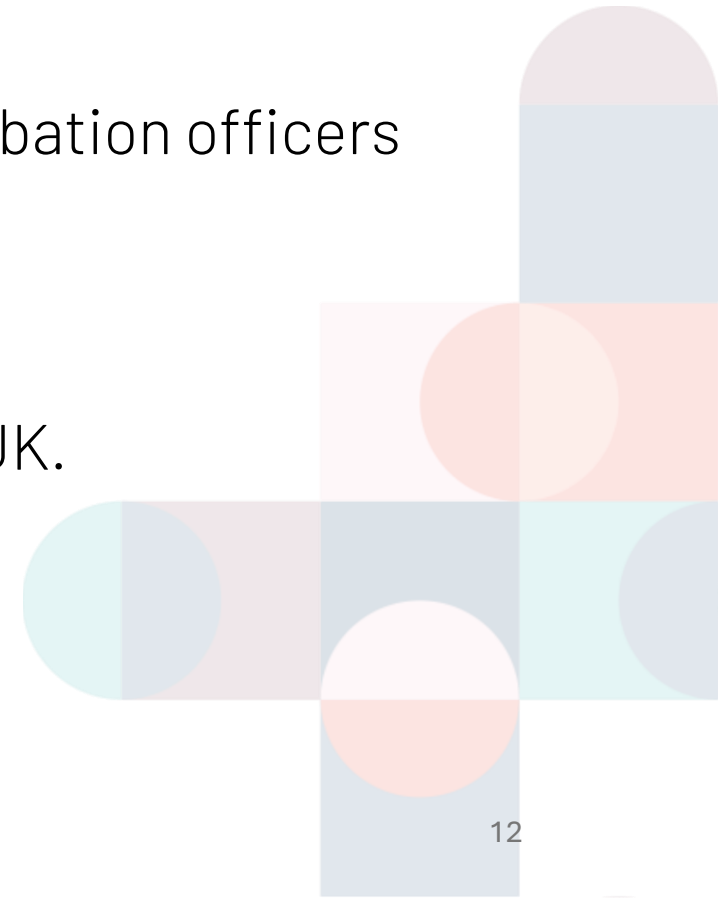
- Informs legal practitioners about the underlying mechanisms contributing to the problematic behaviour or mental illness.
- Explains individual, environmental, systemic factors that may be at place and/or place an individual at a greater likelihood at a particular risk.
- Gives way to what interventions may address the problematic behaviour or psychological illness.

Literature on Forensic Formulation Training

- Between 2011 and 2020, only 14 studies on forensic case formulation (Wheable & Davies, 2020).
- Formulation training can improve confidence, knowledge and understanding (Brown et al., 2018; Mapplebeck et al., 2017; Radcliffe et al., 2018)
- Formulation training can improve formulation quality and competence (Brown et al., 2018; Mapplebeck et al., 2017; Minoudis et al., 2013; Radcliffe et al., 2018)

Rationale

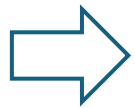
- Most of the literature to date has focused on clinical formulation
- Research on forensic formulation has largely recruited probation officers who have limited experience in psychology.
- Most of the forensic literature has been conducted in the UK.



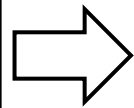
Method

- Ethics approval was provided by SUHREC, (reference number: 20247424-19122) and Forensicare (ORC).
- Two groups of participants (forensic mental health service and professional development program)

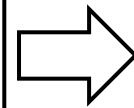
Collected
(x2) Pre-
Workshop
Formulation



Completed
Pre-
workshop
survey



Participants
attended
formulation
workshop



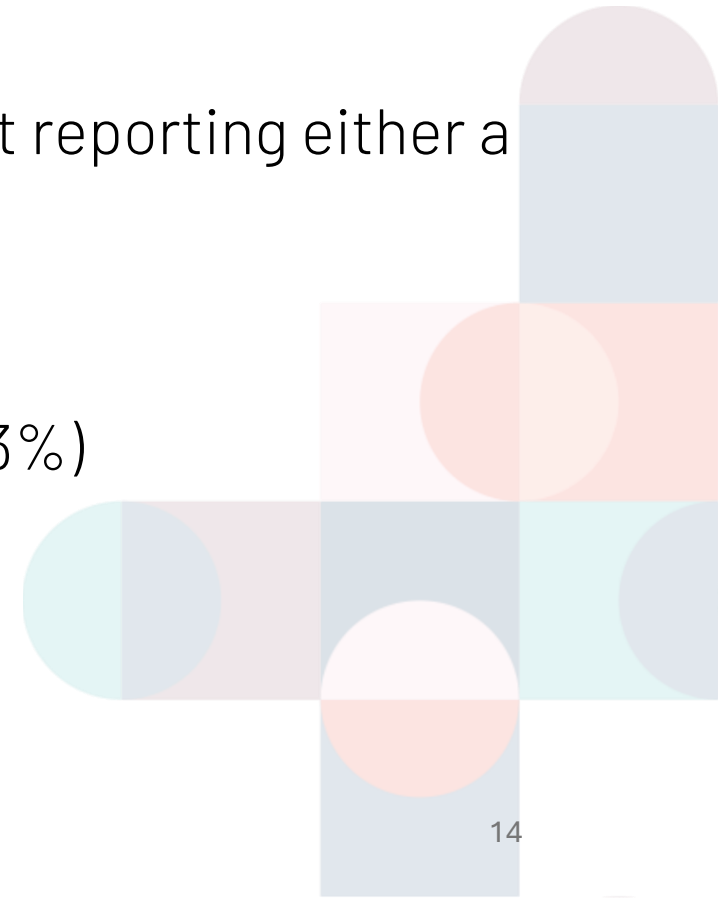
Participants
submit a
formulation
and survey



Collected
Post-
Workshop
Formulation

Participants

- In total, there were 32 participants across 5 workshops.
- All participants had completed higher education, with most reporting either a masters' (43.8%) or PhD/doctorate level (37.5%)
- Most participants were from the psychology discipline (81.3%)



Measures

- Pre/Post-Workshop Surveys
 - The pre-workshop survey contained self-report demographic questions. Both the pre and post workshop survey had self-evaluation questions for participants to rate their understanding, confidence and formulation skills.
 - Confidence, 1 = *not confident* to 5 = *mostly confident*
 - Understanding of the formulation process, 1 = *poor* to 5 = *excellent*
 - Self-evaluation of formulation skills (1 = *poor* to 5 = *excellent*)
- Case Formulation Quality Checklist Revised (CFQC-R)

CFQC-R

0 <i>Does not meet this criterion at all</i> Criterion	5 <i>Meets this criterion somewhat</i> Definition	10 <i>Meets this crite exceptionally w</i> Rating
1. Narrative	The formulation is presented in everyday language that tells a coherent, ordered, and meaningful story	
2. External coherence	The formulation is explicitly consistent with an empirically supported theory	
3. Factual foundation	The formulation is based on relevant information about the case that is adequate in terms of quantity and quality	
4. Internal coherence	The formulation rests on propositions or makes assumptions that are compatible or non-contradictory	
5. Completeness	The formulation has a plot that ties together as much of the relevant information as possible	
6. Events are understood by the way they relate over time	The formulation ties together information about the past, present, and future of the case	
7. Simplicity	The formulation is free from unnecessary details	
8. Predictive	The formulation goes beyond description, statement of facts, or classification to make detailed and testable predictions. The key predictions are those about which strategies will be most effective in treating and managing harmful behaviour	
9. Action oriented	The formulation prioritises and plans treatments	
10. Overall quality	The formulation is comprehensive, logical, coherent, focused, and informative	

Case Formulation Quality Checklist – Revised

McMurrin & Bruford, 2016

Data Analysis

- Compared participants self-evaluation of confidence, understanding and skills from pre- to post-training.
- Immediately post-workshop formulations were assessed using the CFQC-R by a researcher and a research assistant.
- Both the researcher and research assistant attended two training meetings to ensure consistency in rating process.
- IRR - acceptable
- A bar graph was developed to show the distribution of scores across the CFQC-R standards.

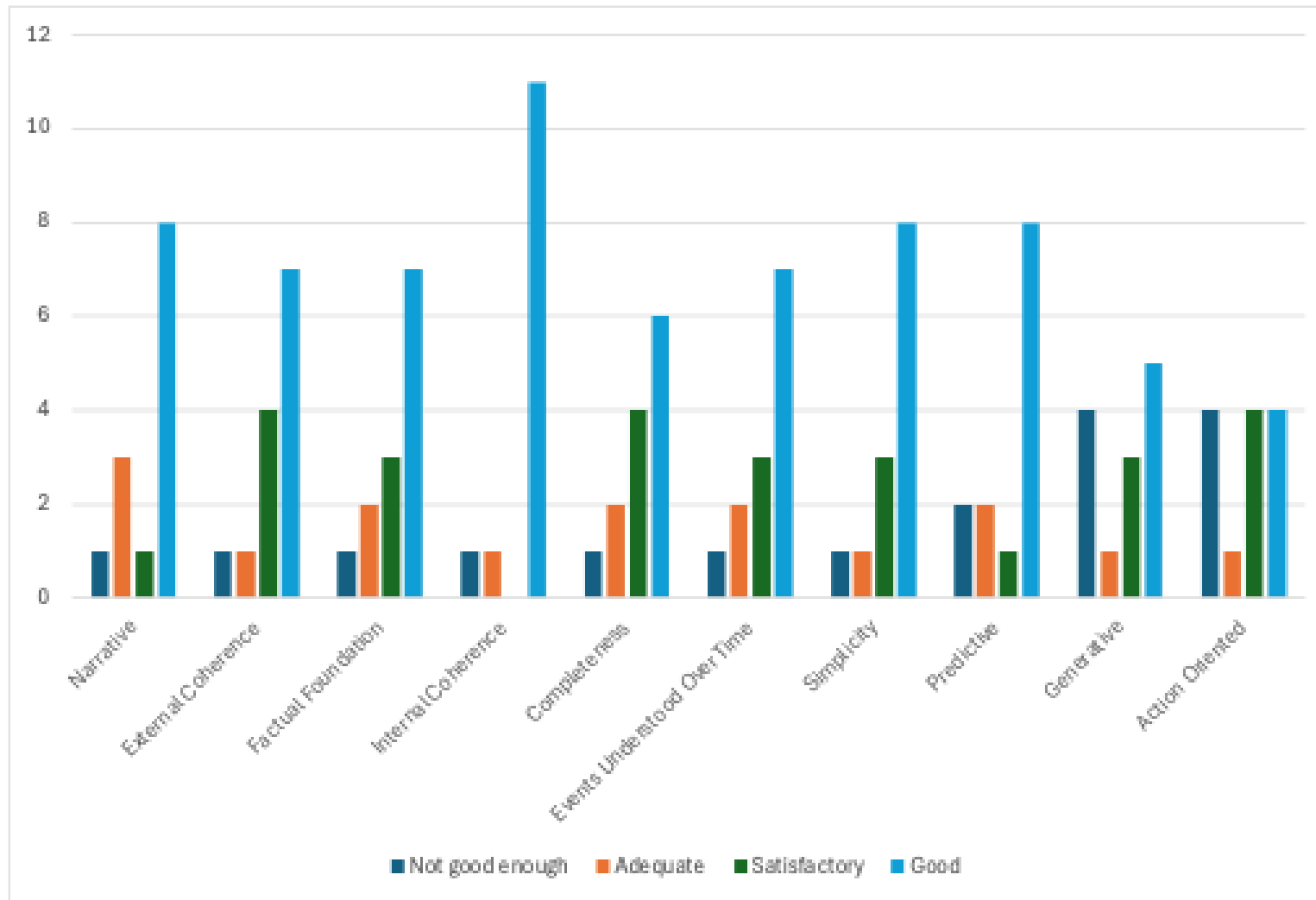
Preliminary Findings

There was a statistically significant increase from pre- to post-training in participants' self-evaluation of confidence ($p < .001$), understanding ($p < .001$) and skills ($p = .003$)

Means and Standard Deviations for Participants (N = 32) Pre- and Post-Workshop Scores on their Self-reported Confidence, Understanding and Skills

Participant self-reported	Pre-Workshop	Post-Workshop
	<i>M(SD)</i>	<i>M(SD)</i>
Confidence	3 (1.24)	3.87 (1.01)
Understanding	2.97 (0.90)	3.97 (0.70)
Skills	2.91 (0.99)	3.59 (0.84)

Frequency Distribution for the Adapated CFQC-R Elements



Implications

- Improvements in practitioners' self-evaluation of confidence, understanding and skills builds on previous literature by showing that formulation training can be effective for psychologists.
- However, practitioners' formulations lacked adequate recommendations to managing risk or provide clear steps on how to manage risk.
- More targeted training may be required to refine this skill.

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