

Written case formulations in the treatment of anorexia nervosa

Karina Allen^{1,2}, Claire Baillie¹, Caitlin O'Hara², Tracey Wade³, Ulrike Schmidt^{1,2}

¹ Eating Disorder Service, South London and Maudsley NHS Foundation Trust, UK

² IoPPN, King's College London, UK

³ School of Psychology, Flinders University, Australia

Overview

- Background to case formulation
- Maudsley Anorexia Nervosa Treatment for Adults (MANTRA)
 - The MANTRA model and case examples
 - Discussion of how MANTRA may apply to your own cases
- Formulation letters
- Research on the effects of formulation letters on AN treatment outcomes
- Practice time / discussion groups throughout

Background to case formulation

Background to case formulation

- Case formulation serves as a hypothesis about the causes, precipitants and maintaining factors associated with a patient's presenting difficulties.
- Lots of cited benefits...
 - A greater shared understanding of presenting difficulties.
 - Improved therapeutic alliance.
 - Making sense of multiple presenting difficulties.
 - Tailoring evidence-based treatments to the requirements of an individual.
 - Improved treatment outcomes.

Background to case formulation

- Is there lots of evidence?
- No...
 - Surprisingly few studies.
 - Inconsistent definitions (diagram vs. letter, maintenance vs. origins).
 - Inconsistent use (therapist only, shared with patient, developed with patient).
 - Even when studies have been conducted, formulations do not consistently predict therapeutic alliance or treatment outcomes.

Background to case formulation

- What we concluded:
 1. Urgently need more research.
 2. The presence / absence of a case formulation may not predict outcomes, but perhaps the *quality* of formulation does so.

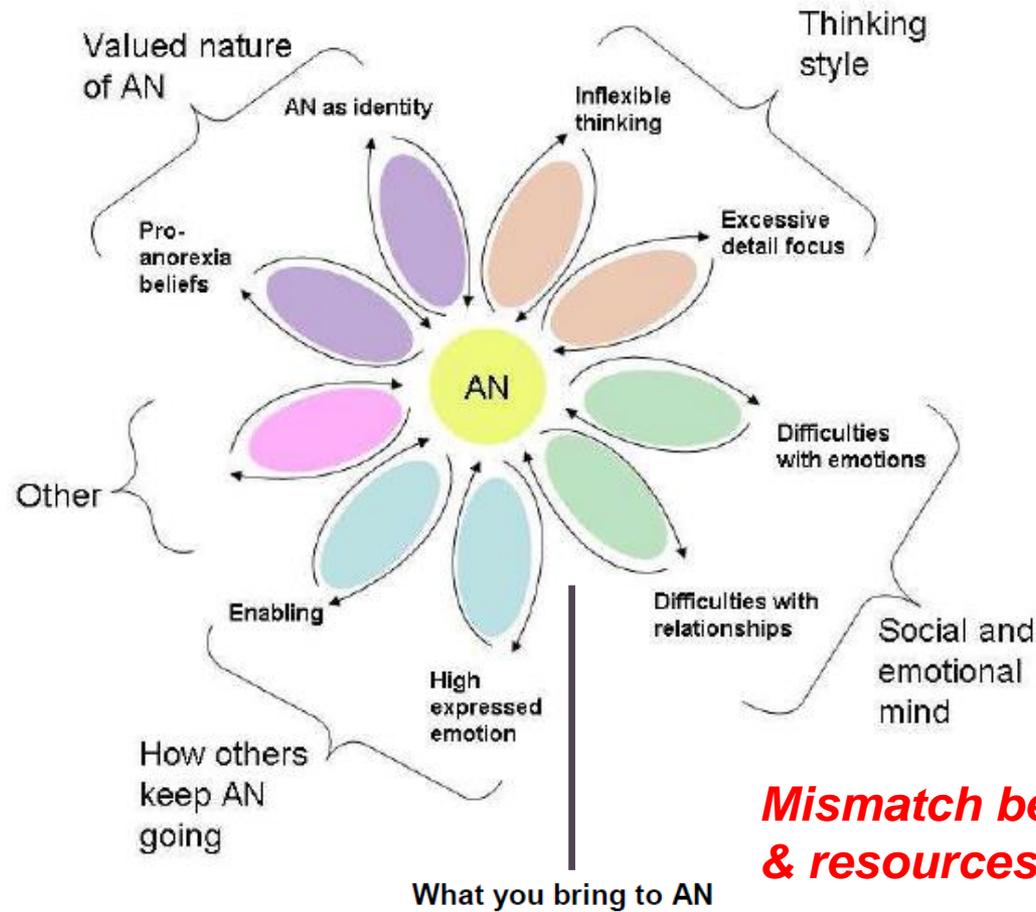
The Maudsley Anorexia Nervosa Treatment for Adults (MANTRA)

MANTRA

- Developed by Ulrike Schmidt and Janet Treasure.
- Based on a cognitive-interpersonal model of AN and draws heavily on motivational interviewing (content and style).
- Treatment makes use of a diagrammatic formulation and a formulation letter.

MANTRA (cont.)

- Model proposes that there are predisposing factors such as obsessive-compulsive features and an anxious-avoidant interpersonal style that increase vulnerability to AN, and which also contribute to the maintenance of AN because they foster pro-anorexia beliefs and behaviours.
- These traits and AN also have a profound impact on other people and can lead them to react in ways which serve to further maintain the disorder.



Mismatch between challenges & resources

Schmidt & Treasure, 2006; Treasure & Schmidt, 2013

Traits/personality:	Strengths:
Events/challenges/difficulties that have shaped your view of the world:	Support:

MANTRA: Thinking style

Detailed

Global

People with ED

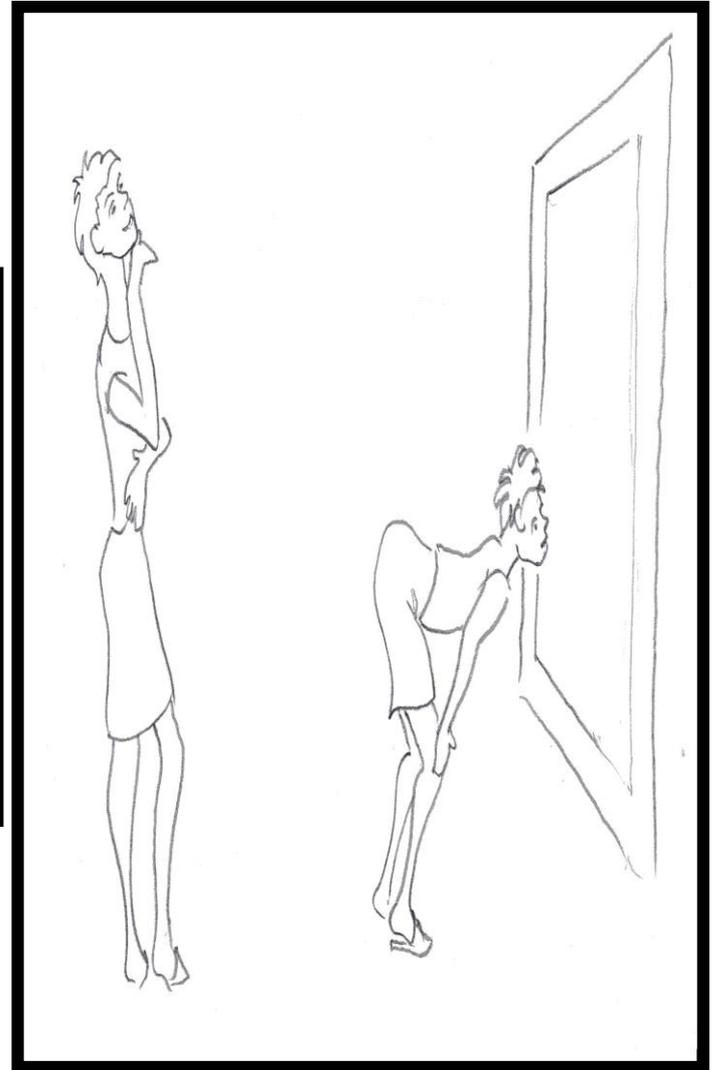
Unable to see the bigger picture and lack perspective (don't see the wood for the trees)...but meticulous, thorough, careful.

Tend to do things in a very precise way and struggle to change routines...but good at seeing plans through.

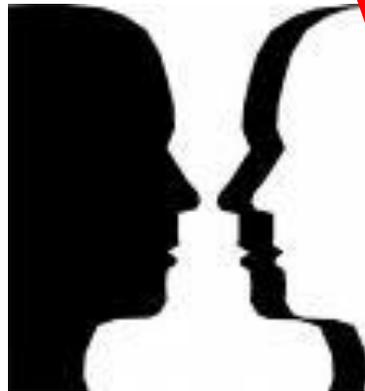
Rigid

Flexible

People with ED



So everyone has their own cereal, everyone likes different cereals, so we have so many, and um we all like different cereals, and at the moment I like wheetabix and because everyone has two wheetabix's and they are even because there are 24 wheetabix in the thing, because it is supposed to be even, because everyone is supposed to have two and that's what's normal, which I am trying to be normal. And, things that annoy me, it got down to the end one day and there was one left, I took two and I was like 'why is there one left?' because I had two, because I am the only one that eats this. And then I said to mum, obviously someone else has had some wheetabix and I was like but that means they have only had one and that's not normal and so she was like maybe they had one wheetabix and some of their cereal... She was trying to make me relax.... dad he sort of brought it up a few days later, he goes, well I am worried that you start counting things.....

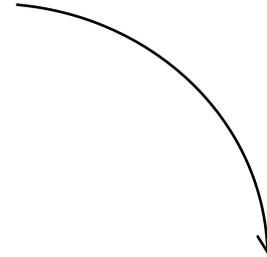


The vicious circle of thinking style

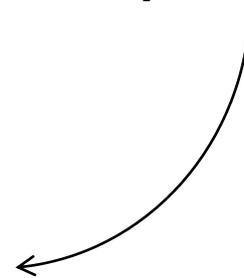
OCPD traits



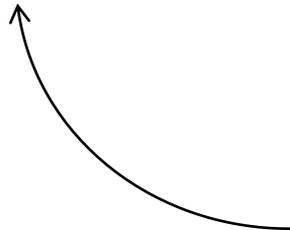
**AN mode:
Starved
Rigid
Detail-focused**



**Very exact routines
Struggle to see big picture**

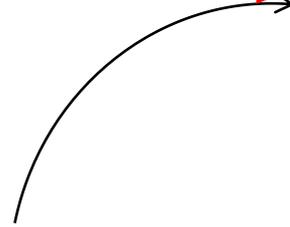


**Rules get stricter
Increased attention to detail**



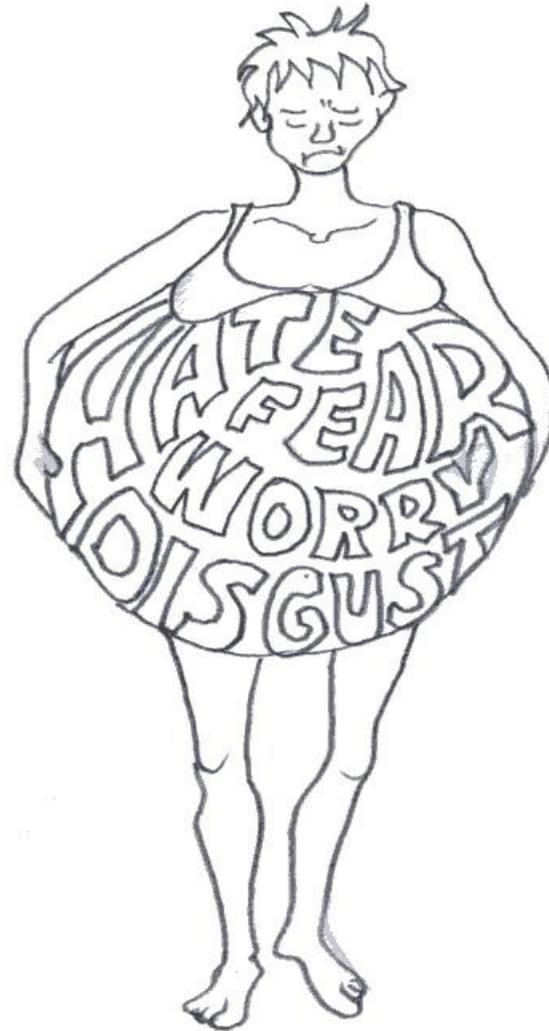
Trapped in AN habits

Worsens cognitive problems

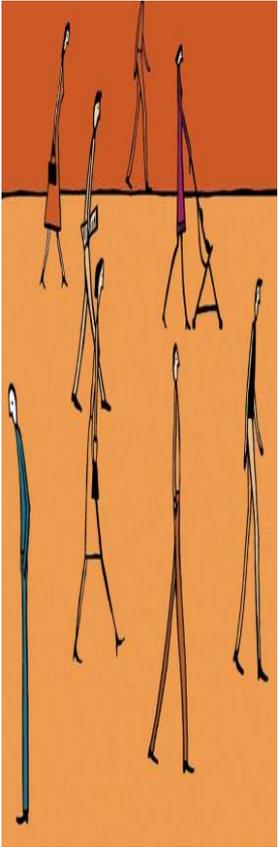


MANTRA: Emotion & social difficulties

- Sensitivity to punishment & criticism.
- Avoidance behaviours.
- Difficulties recognising emotions (own, others).
- Difficulties regulating emotions – avoid, ruminate, suppress.
- Poor understanding of self and others.
- Very self-critical.



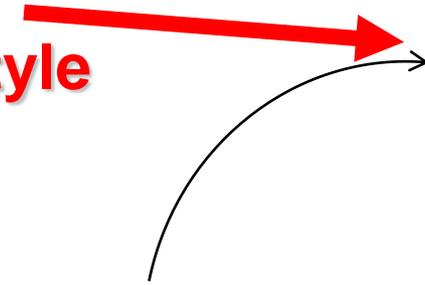
Increasing isolation



- “I was recently asked to sum up my experience of anorexia nervosa in one sentence—actually, I can do it in just one word—isolation” (McKnight 2009)
- “It’s the loneliness that will get you. Not the hunger, or the worrying, or the rituals, or the paranoia. Not even the fear of getting fat. It’s the loneliness that’s the real killer. The longer you’re ill, the worse it is.” Melissa

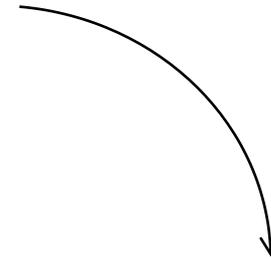
The vicious circle of social-emotional difficulties

Anxious-avoidant style



**AN mode:
Starved**

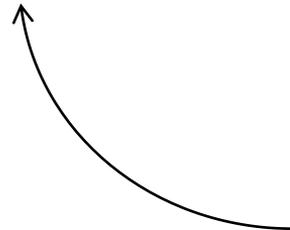
**Avoid close
relationships**



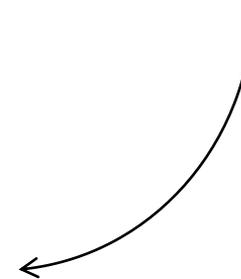
**Social interaction
feels overwhelming**

**Increased
anxiety**

Self-criticism



**Maladaptive
strategies:
Avoidance,
suppression,
rumination**

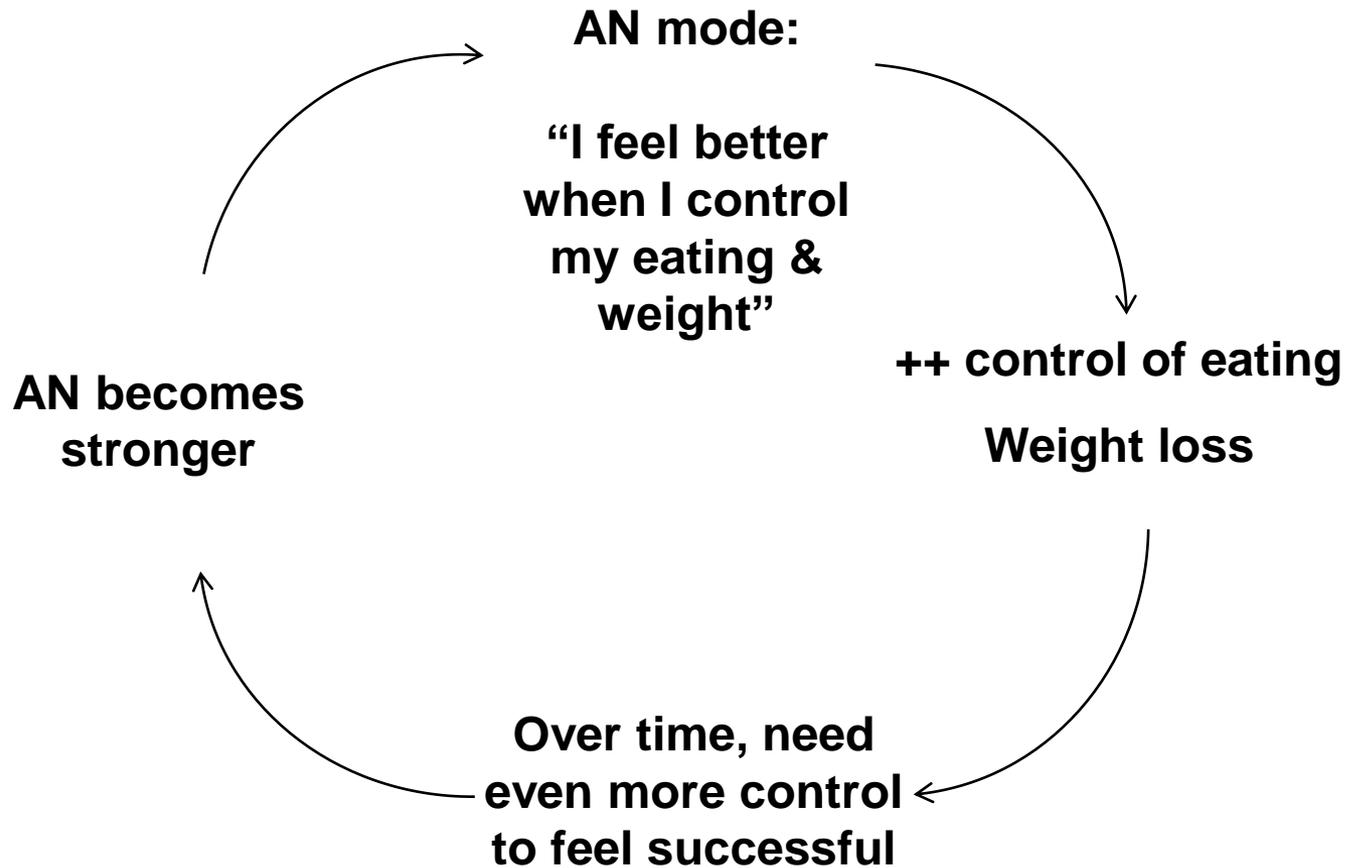


MANTRA: Pro-AN thinking

- “Anorexia makes me feel special”
- “Anorexia is who I am”
- “If I don’t have the eating disorder, I have nothing”
- “Controlling my eating makes life more manageable”



The vicious circle of pro-AN beliefs



MANTRA: Interpersonal factors

- Living with or caring about someone with AN is exhausting, and necessarily has an impact on relationships
- Common to be drawn into enabling symptoms (*“I really want you to come out to dinner with us, so we’ll make sure we go somewhere that serves plain salad”*) or to become exasperated (*“You’re being ridiculous and ruining everyone else’s meal by being so demanding”*).

The animals



— “Jelly fish”. Being transparently very sad, anxious and/or mad and so much “in “ the emotion so that it is difficult to see the bigger picture of life, with a tendency to be adrift within the currents and tides of the emotional sea.



“Ostrich”. Avoiding dealing with things that are painful or challenging. Perhaps you yourself are an ostrich in your relationship with your body?



“Kangaroo” . Staying in the pouch. Are you safe or are you being stifled? Is your anorexia nervosa putting you in a position whereby other people take decisions and start to take over control of your life? Does anorexia nervosa stop you standing on your own two feet?



“Rhinoceros”. Are other people (close others, tutors, occupational health) becoming overly directive and imperative towards you? Does anorexia nervosa fight back with its own weapons?



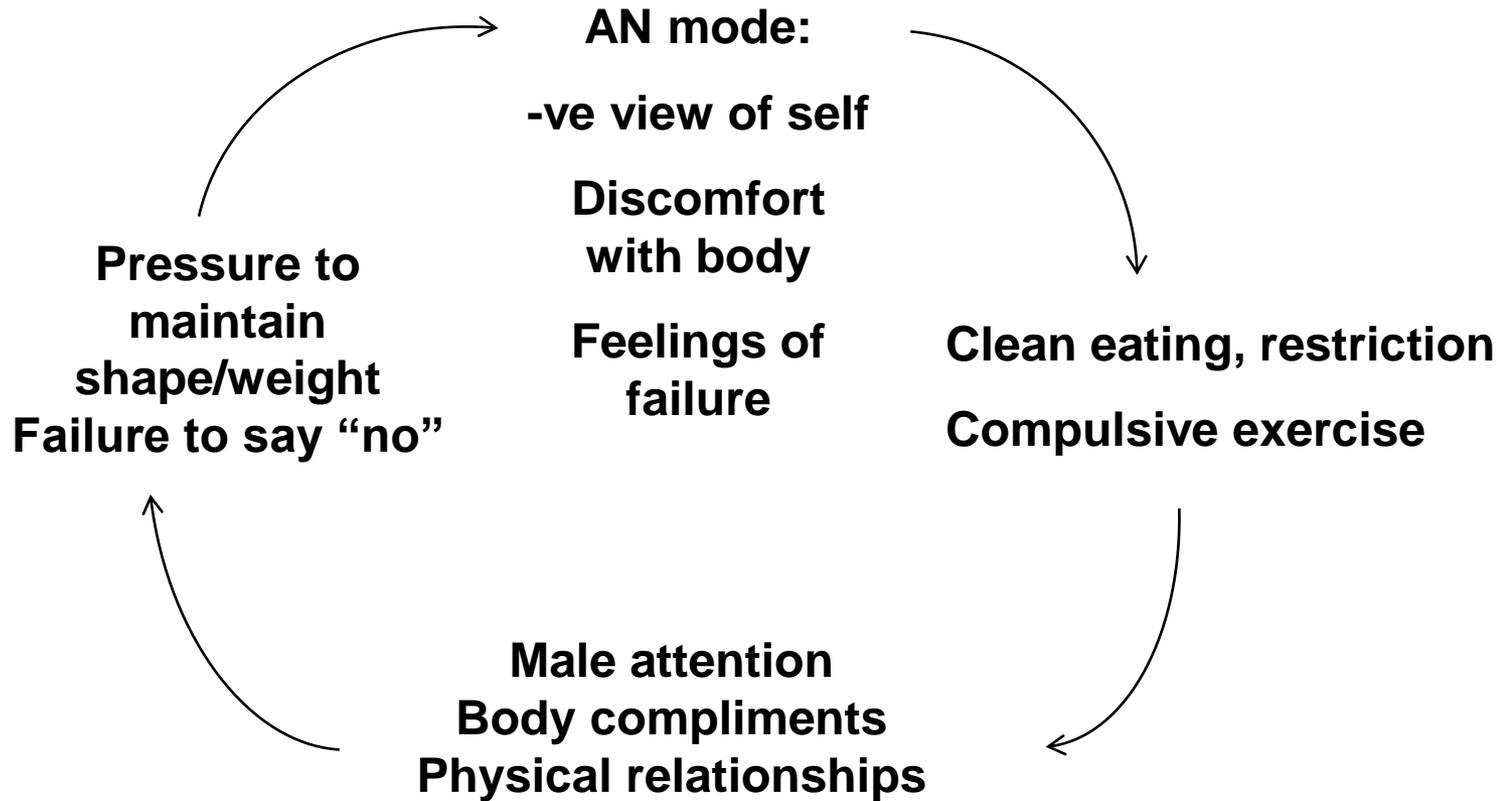
Terrier. Are you surrounded with a constant barrage of criticism and nagging? Is this just from other people or is it your own anorexic voice?

MANTRA: Other Maintaining factors for AN

- Additional loop provided to individualize formulation further if needed.
- Permits clients to highlight or include any other individual circumstances or challenges which maintain their eating difficulties.
- Can also explore if any specific additional work required in this area to support recovery.

“Angela”

Other: Perception of Body as a Sexual Object



**The Maudsley Anorexia Nervosa Treatment for
Adults (MANTRA) –
can you see this framework applying to your
patients?**

*Discuss applicability to 1 or more cases in small groups
[10 mins]*

The Maudsley Anorexia Nervosa Treatment for Adults (MANTRA) – formulation examples

Case vignette 1 – “Eva”

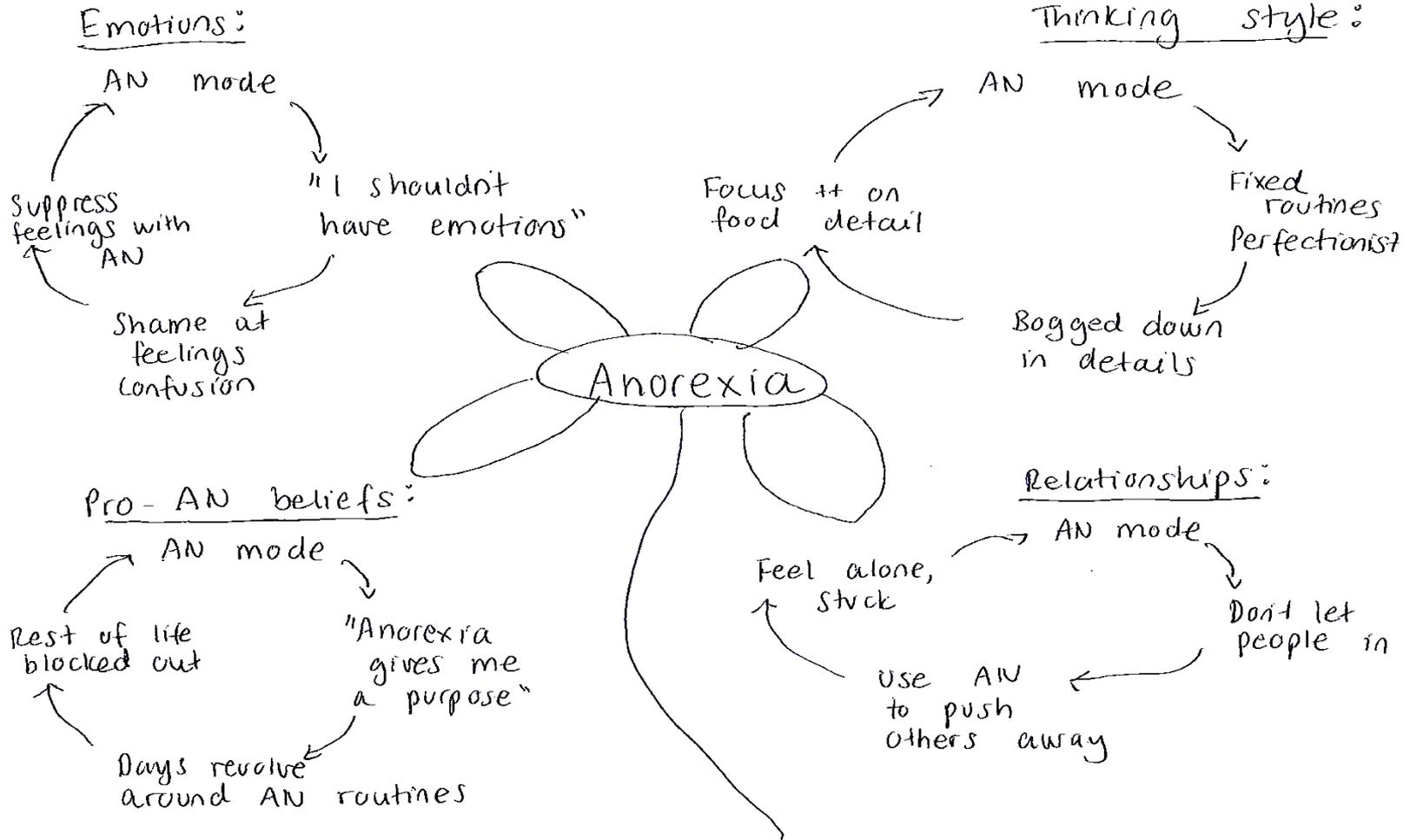
- 19-year-old, anorexia nervosa-binge/purge.
- Unwell since age 13. Three past hospital admissions at very low BMI, plus daycare and outpatient treatment.
- Lives with married parents (father works, mother at home) and a younger brother; variable relationships as parents exhausted by AN and father has low tolerance of AN symptoms.
- Growing up, father very depressed and brother very unwell with physical health issues – difficult period for the whole family.

Case vignette 1 (cont.) – “Eva”

- Eva remembers thinking she had to “be fine” at home because the family couldn’t cope with any more difficulties, and that she needed to be a support to her mother whilst her Dad and brother were unwell.
- She tells you that she now sees her emotions as signs of weakness.
- Eva is also very bright and she did very well at school, gaining acceptance to a secondary grammar school. However, this meant that she started at secondary school without any of her junior school friends and she felt an outsider (esp. as family life at the time was difficult).

Case vignette 1 (cont.) – “Eva”

- Eva threw herself into academic work and remembers working long hours and trying to achieve exceptional marks. She became unwell with AN shortly afterwards.
- Eva continues to set very high standards for herself and describes herself as a perfectionist. She makes very detailed plans for herself and tells you that AN is now the area where she can “succeed”. She also reports feeling better about herself when she is controlling her eating and weight.
- Eva has some friends but avoids seeing them as she finds socialising disrupts her routines.



<u>Early experiences:</u> <ul style="list-style-type: none"> - Not fitting in - Family difficulties 	<u>Traits:</u> <ul style="list-style-type: none"> - Obsessional - Perfectionistic - self critical
<u>Supports:</u> <ul style="list-style-type: none"> - Parents - Dog - Close friends 	<u>Strengths:</u> <ul style="list-style-type: none"> - Determined - Methodical - Kind-hearted

Case vignette 2 “Nikki”

- 20 year old with anorexia nervosa, BMI 15.1.
- Unwell since age 16, treated in CAMHS (mainly family therapy); then 12 sessions of CAT in adult service.
- Lives with both parents, father provides lots of practical support, mother seems uninvolved and critical.
- Growing up: Mother alcohol problems (unavailable + unpredictable), enmeshed with father “if there is not my dad then there is not me”, no female role model.

Case vignette 2 (cont) “Nikki”

- Shy, introverted and insecure as a child, anxious and fearful of new things.
- Always felt inadequate to other girls, feels jealous and tries to copy but fearful of being ridiculed.
- Describes being angry and irritable at times at home, parents then avoid her and atmosphere tense.
- Very preoccupied with food, meals have to be perfect and themed, records everything on myfitnesspal, small mistakes ruin the day.

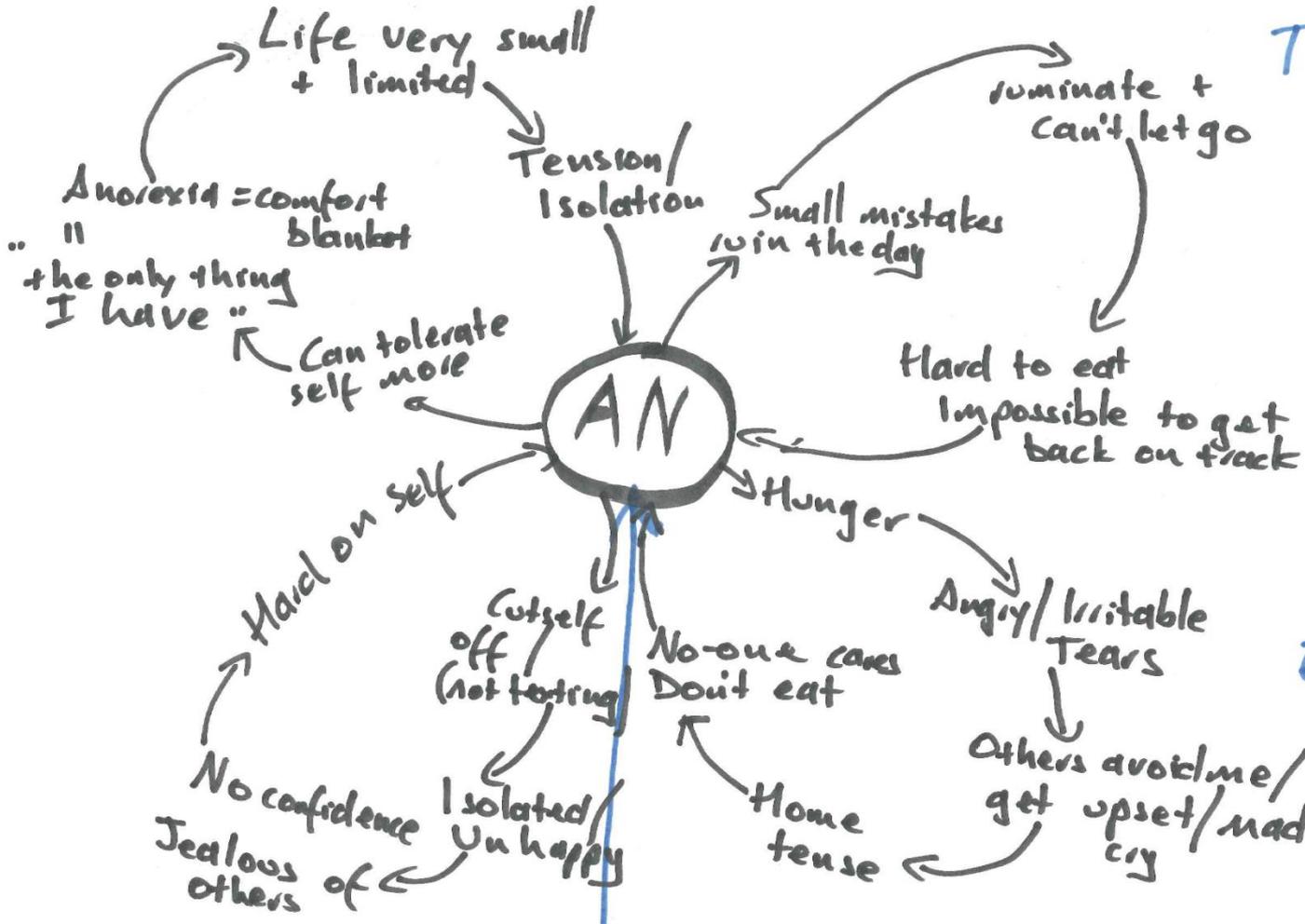
Case vignette 2 – (cont) “Nikki”

- Unable to sit for long periods, subtracts time sitting down from sleep.
- Feels angry/ uncared for when not supported/prompted to eat.
- Spends all day at home.
- Has no hobbies or social network, avoids responding to attempts at contact by friends/therapist.
- Very distressed by small weight increases “why I followed the rules? I can’t eat any less, I’m already exhausted, I can’t do it”.

AN Valued

Thinking

Emotional/Social



Traits

Events/Challenges

Fearful of new things self-critical Perfectionist Insecure/Shy Anxious	?
Unpredictable/unavailable Mum Lack of female guidance and nurture No female role model	Dad God mom School friend

Strengths

Support

Practicing formulation diagrams

*In small groups, identify key factors that seem relevant to AN developing and being maintained (e.g., using the 'vicious flower' model) for the case example provided -
10 mins*

Case vignette 3 – “Jane”

- 20yr old with AN, BMI 18
- 1st episode, previously treated as an inpatient for 5 months
- Trigger for onset 2 yrs ago – car accident leading to facial reconstruction surgery (minimal signs)
- Lives with mother and brother, frequent family tension and arguments, Jane feels she has failed when arguments occur between mother and brother
- Growing up: Parental divorce, Conflict at home, Jane the mediator
- Highly emotional mother
- Always been a perfectionist, “I never do anything well enough” , average is not ok
- Describes self as a shy and sensitive child
- Taller than peers, “odd one out”, associates thin with pretty

Case vignette 3 – “Jane”

- Perceives emotions and showing them as weakness, AN allows me to “shout the loudest that I am not ok”
- Believes recovery from ED is the easy option, AN represents self-control others envy and provides a an excuse not to be succeeding, human needs are “mortal cravings”
- AN means I don’t have to worry about anything else
- Family are nicer to me when I am ill, they are more interested in my emotions and treat me as fragile
- Since developing AN, has become reliant on mum to feed/care, knows mum distressed by illness; dad more irritable around Jane refusing to eat
- Everything needs to be justified and nothing is enough for AN
- Strong fear of judgement and criticism
- AN give me confidence and strength; real me is a failure

Formulation letters

Formulation letters in MANTRA

- Core part of the treatment – opportunity for the therapist to summarise shared discussions of what has contributed to, and is now maintaining, the AN.
- Also an opportunity to enhance motivation and alliance by using a motivational, collaborative, respectful tone.
- Usually written around session 8, after in-session formulation work.

Formulation quality in MANTRA

- MANTRA Case Formulation Rating Scheme (MANTRA-CFRS) (see handout).
- Focuses on the *content* and *style* of letters.
 - Content: Development, maintenance, treatment focus.
 - Style: Collaborative, reflective/respectful, affirming, empathic/compassionate.

(b) Reflective, respectful of patient's views, and/or adopting one-down position

(e.g. 'this is my attempt to understand you...I may not have got it all right...' Includes using tentative language, putting forward hypotheses, e.g. 'I wonder...'' I sense...' ...'Perhaps'

0=language placing therapist as expert

1=no use of one-down position or tentative language.

2=some use of one down position or tentative language , but somewhat formulaic

3= Reflective, respectful, one-down position permeates letter, e.g. "I look forward to our future sessions where we will work towards your goals and aspirations, should you feel that you are now ready to allow anorexia to loosen its grip".

Case 1 – formulation letter (snippets)

Dear Eva,

As discussed, I am writing this letter to try and summarise what we have mapped out over recent weeks. It is my attempt to reflect on what may be keeping your anorexia going. I may not have everything quite right, so please do correct me if certain things don't fit for you.

When thinking about what you bring to anorexia, you recognised that even before you became ill you had many characteristics of the “anorexic thinking style”. That is, you are prone to all-or-nothing, perfectionistic and obsessional thoughts. You are also very self-critical.

...

Case 1 – formulation letter (cont.)

Against this background, it is perhaps understandable that anorexia nervosa could take hold. Of course, once present, anorexia also aggravated these traits and left you even more obsessional and critical of yourself.

...

Given some of your early life experiences, it makes sense that you have developed specific beliefs about emotions. You told me that you don't think you should have emotions, and we discussed how when you do have emotions, you feel a sense of shame. You can also be confused over exactly what you are feeling. As a result, you tend to internalise your feelings and channel them into self-destructive behaviours. These include eating disorder behaviours, which help in the short-term, but make it hard to address the root cause of your emotional distress.

Case 1 – formulation letter (cont.)

...

Historically, positive beliefs about anorexia seemed very relevant and you recognise that anorexia has provided a sense of achievement as well as a purpose and structure to your days. Over time, this resulted in your days revolving around anorexia so that the rest of your life was blocked out and felt difficult and unsafe. Recently, you have made several courageous steps towards letting other things into your life and you are giving less time to anorexia and its cycles of bingeing and purging. I know this is a new and scary change for you but I hope it can also give you a glimpse of a different possible future. I've enjoyed hearing about the things you're doing with your extra time and your goals for the longer term (including volunteering and travel).

Case 1 – formulation letter (cont.)

...

It has often been difficult for you to see a way forward from anorexia. Recently, though, you have described some hope for change. I also appreciate that there is still a way to go, and that we will run into challenges sometimes. That is OK – treatment is about the good weeks but also the difficult ones.

...

Eva, I very much look forward to working with you on your goals in a way that is manageable for you.

Case 2 – formulation letter

Dear Nikki,

We have been working together to try to understand why your anorexia developed, what has kept it going and to see if we can find alternative ways forward toward the life you really want.

We know that people who tend to be anxious and perfectionist are more vulnerable to developing anorexia. You described yourself as someone who is fearful of new things, tending to feel insecure, anxious and shy. You are very self-critical and feel you need to do things perfectly, as a result you were unable to identify any strengths you might have. ...

Case 2 – formulation letter (cont)

You faced a number of significant challenges growing up, ... you had no female role model ... which ... seems to have left you constantly feeling you are less than other girls, as if they know some special secret you do not. You have spent most of your life trying to figure out how to be popular, have felt you could not trust your own instincts and always judge yourself to have failed. Even though you work so hard all the time to “get it right” you are unable to recognise your efforts and have never felt worthy enough to take care of yourself. ...

Case 2 – formulation letter (cont)

For you the self-denial of anorexia seems safe, familiar and always available ... On the other hand anorexia's demands leave you feeling upset and constantly hungry which you say the anorexia is triumphant about. Anorexia seems to want to keep you all to itself, cutting you off from other people so you do not reply to invitations or messages which results in you feeling even more isolated and unhappy. This lowers your confidence even more and leaves you feeling very jealous of other people's happiness which you then give yourself a really hard time about.

...

Case 2 – formulation letter (cont)

We have begun to work on strengthening your sense of who you are as a person, not based on what others might think but by your gut instincts, what you are drawn to, what you like or don't like, what interests you etc. You have begun to think about life outside of the anorexia and what you want for yourself in the future, you think you want to work with children, maybe as a primary school teacher.

You have already managed to take some really positive steps like continuing to eat the same way after a small weight gain to challenge the anorexia. ... I very much look forward to continuing to support you to keep challenging the anorexia and create some space for you to grow and flourish without it.

Research on the effects of MANTRA formulation letters on treatment outcomes

Research aim

- To determine if the quality of formulation letters in MANTRA predicts treatment outcomes for adults with AN.
 - Treatment outcome was defined in terms of patient-reported treatment satisfaction, the number of attended therapy sessions, and improvements in eating disorder symptoms, including Body Mass Index (BMI) and Eating Disorder Examination (EDE) scores.
 - Formulation quality was defined in terms of MANTRA-CFRS scores.

Participants

- 46 adults with AN who participated in the MOSAIC Study, an RCT comparing MANTRA to Specialist Supportive Clinical Management (SSCM).
 - Participants were trial patients randomised to MANTRA, who remained in treatment long enough for a formulation letter to be written (63% of the MANTRA sample).
 - There were NS differences between these patients with formulation letters (n=46) and MANTRA patients without letters (n=26), except for our sample attending more sessions.

Participants

- On average, participants were:
 - Aged 27 years
 - Had been ill for 9 years
 - Had a pre-Treatment BMI of 16.70
- Treatment included 20 to 30 weekly sessions.

Method

- All formulation letters rated using the MANTRA-CFRS.
- Resulting scores included:
 - Three subscale scores (range=0 to 3) relating to the MANTRA model: Development of AN, maintenance of AN, and focus of treatment / way forwards.
 - Four subscale scores (range=0 to 3) relating to the MANTRA style: Collaborative, reflective/respectful, affirming, and empathic/compassionate.
 - A Total score (range=0 to 21) reflecting overall adherence to the MANTRA model/style.

	Mean (SD)
Item 1a (development)	1.72 (1.15)
Item 1b (maintenance)	2.13 (0.88)
Item 1c (way forward)	2.09 (0.86)
Item 2a (collaborative)	2.24 (0.97)
Item 2b (respectful)	1.78 (0.94)
Item 2c (affirming)	2.37 (0.83)
Item 2d (empathic)	1.93 (0.93)
Total score	14.26 (4.42)

Results: Treatment acceptability

- Total formulation scores did not significantly predict patient's post-treatment ratings of treatment acceptability ($\beta=.29, p=.06$) or credibility ($\beta=.26, p=.10$).
- **Greater attention to the development of AN by the therapist did significantly predict patient's post-treatment ratings of treatment acceptability ($\beta=.54, p=.002$), although not treatment credibility ($\beta= .20, p=.220$).**

Results: Sessions attended

- There were no significant associations between Total or subscale formulation scores and the number of therapy sessions attended ($ps=.06 - .79$).

Results: Symptom change

- Total formulation scores did not significantly predict changes in EDE scores ($p=.630$) or BMI ($p=.758$).
- **Greater use of a reflective and respectful tone by the therapist did significantly predict improvements in EDE scores ($r=.43$, $p=.003$), although not in BMI ($p=.228$).**

Study conclusions

- In this sample, there were benefits in formulation letters paying greater attention to the development of AN (in terms of greater treatment acceptability ratings from patients) and using a reflective and respectful tone (in terms of greater improvements in eating disorder psychopathology over treatment).

Formulation implications

- The attention to AN development is noteworthy as many approaches to formulation emphasise attention to *current* difficulties and maintaining factors.
 - For patients with AN, there may be something reinforcing about their story being heard and understood.
 - This doesn't negate attention to maintaining factors, but can add to it.

Formulation implications

- It is also understandable that in AN, a disorder where ambivalence and self-criticism are common, a respectful stance may aid change.
 - Important for therapists / clinicians to hold in mind, especially given the frustrations these patients may raise when physical health is deteriorating.
 - This doesn't negate the need for firm boundaries and ensuring physical safety, but can guide the stance used in discussions.

Practicing formulation letters

Identify key points that you would want to include in a formulation letter for 'Jane' (and have a go at wording things if you can) - 15 mins

Take home messages

- This approach to formulation makes use of 3 key and related elements
 - In session discussion.
 - ‘Vicious flower’ diagram formulation.
 - **Formulation letter.**
- It’s the tone and the content of letters that matter.
 - Respectful and reflective tone.
 - Attention to origins of AN.

General Discussion / Questions?

karina.allen@slam.nhs.uk / claire.baillie@slam.nhs.uk

Maudsley Eating Disorders Service – 020 3228 3180

Slm-tr.eatingdisorders@nhs.net

Ratings

- Baseline patient characteristics did not correlate significantly with Total scores, but did correlate significantly with five item scores:
 - Therapists paid more attention to the development of AN when patients held beliefs about emotions being unacceptable ($r=.40$, $p=.006$) and compared themselves negatively to others ($r=.31$, $p=.040$).
 - Therapists paid more attention to the maintenance of AN when patients were depressed/anxious ($r=.30$, $p=.049$) and compared themselves negatively to others ($r=.30$, $p=.048$).
 - Therapists were more empathic in their writing when patients reported less close relationships with others ($r=.35$, $p=.019$).