

Emotion dysregulation, self-harm and disordered eating: A mechanistic investigation

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Background

- Self-harm and eating disorders are often comorbid (Svirko & Hawton, 2007; Warne et al., 2021), however, little is known about their shared and distinct risk factors.
- Emotion dysregulation (the inability to be aware of, accept, regulate, and modify emotional reactions and behaviour) is cross-sectionally linked to self-harm (Klonsky, 2007) and disordered eating (Lavender et al., 2014).
- However, few studies have investigated whether emotion dysregulation precedes self-harm and disordered eating, or the mechanisms (mediators) underpinning any relationship between emotion dysregulation and disordered eating/self-harm.

AIMS: 1. Examine the relationship between emotion dysregulation in childhood and disordered eating and self-harm in adolescence
2. Examine the extent to which social cognition, emotion recognition and being bullied mediate this relationship

Methods

Sample

- Avon Longitudinal Study of Parents and Children
- Birth cohort 1991-2 from Bristol, UK
- 3481 females, 3453 males

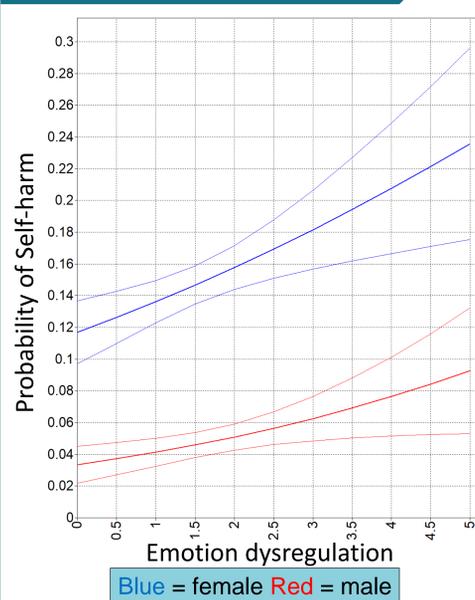


Measures

Exposure: Emotion dysregulation (7 years)
Mediators: Social cognition (7 years), Emotion recognition (8 years), Bullying (11 years)
Outcomes: Self-harm in the last year (16 years) any disordered eating (fasting, purging, binge-eating, excessive exercise) in the last year (16 years)
Confounders: Socioeconomic disadvantage, maternal mental health, IQ, (+BMI for Aim 2)

Results

Figure 1. Regression results



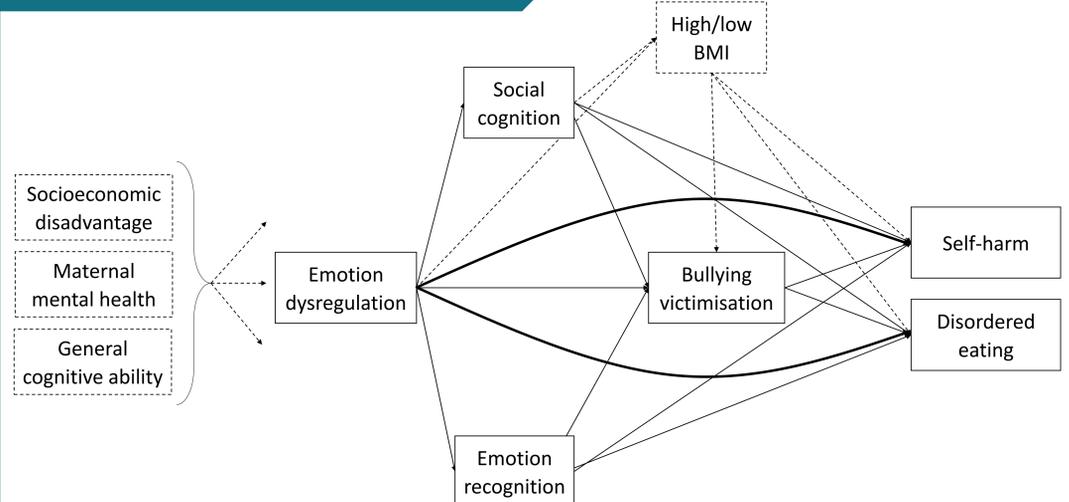
AIM 1: Regression results (Figure 1)

- Emotion dysregulation was associated with **self-harm** (probit B (95% CI)=0.093 (0.036, 0.150), p=0.001) and **disordered eating** (probit B (95% CI)=0.082 (0.029, 0.134), p=0.002).
- Little evidence of sex interaction or difference in effects for self-harm and disordered eating.

AIM 2: Mediation results (Figure 2)

- Estimates for direct and indirect pathways are shown in Figure 2, with strong mediating pathways highlighted in yellow.
- For **males**, social cognition was a strong pathway to disordered eating and to self-harm to a lesser extent.
- For **females**, pathways through social cognition and bullying were strong for both disordered eating and self-harm.

Figure 2. Mediation model and results



Path	Male		Female	
	Estimate (SE)	%	Estimate (SE)	%
Total effect for self-harm (SH)	0.102 (0.055)		0.096 (0.036)	
Emo-Dys → SH	0.085 (0.064)	83.3%	0.070 (0.042)	72.9%
Emo-Dys → Soc-Cog → SH	0.009 (0.031)	8.8%	0.011 (0.022)	11.5%
Emo-Dys → Emo-Rec → SH	0.003 (0.003)	2.9%	0.001 (0.002)	1.0%
Emo-Dys → Bullying → SH	0.002 (0.003)	2.0%	0.010 (0.004)	10.4%
Emo-Dys → Soc-Cog → Bullying → SH	0.003 (0.004)	2.9%	0.004 (0.002)	4.2%
Total effect for disordered eating (DE)	0.100 (0.053)		0.082 (0.034)	
Emo-Dys → DE	0.076 (0.063)	76.0%	0.031 (0.039)	37.8%
Emo-Dys → Soc-Cog → DE	0.021 (0.033)	21.0%	0.038 (0.019)	46.3%
Emo-Dys → Emo-Rec → DE	-0.007 (0.004)	-7.0%	-0.001 (0.001)	-1.2%
Emo-Dys → Bullying → DE	0.004 (0.003)	4.0%	0.010 (0.004)	12.2%
Emo-Dys → Soc-Cog → Bullying → DE	0.006 (0.003)	6.0%	0.004 (0.002)	3.9%
Emo-Dys → Emo-Rec → Bullying → DE	0.000 (0.000)	0.0%	0.000 (0.000)	0%

Strong mediating pathways are highlighted in yellow
Emo-Dys = Emotion Dysregulation; Soc-Cog = Social Cognition; Emo-Rec = Emotion Recognition

Conclusions

- Emotion dysregulation is an important precursor for both disordered eating and self-harm, for both females and males.
- However, the mediating pathways differed by sex (males had one dominant indirect effect via social cognition, whereas females had two dominant indirect effects via social cognition and bullying) and by outcome (indirect effects were stronger for disordered eating than self-harm).
- Social cognition (and bullying in females) may be potential targets for intervention.