E-Risk Study Concept Paper Form

Response was completed on 13-10-2025 17:14.

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1. Collaborating researchers

Please note:

Once approved, a formal data use agreement will be required between King's College London and the university or research organisation that employs any collaborator having access to the data if they are not a member of staff, a student or affiliate of King's College London. This needs to be signed by both universities/organisations before data access can be granted.

For projects carried out by a student (e.g., MSc/MA, MPhil/PhD, clinical doctorate), the lead applicant should be the student's supervisor at the same university, and the student should be named as the student collaborator requiring access to the data.

If you have additional collaborators, please name them below and indicate whether they need to have access to the data. It would be common, for instance, for other researchers to see summary results of analyses and act as co-authors on your paper without having access to the data. You will not be permitted to share the dataset except with those indicated in the table as requiring access.

Applicable?	**Category**	**Name**	**Email address**	**University/organisation**	**Needs access to data for analysis?**
	Applicant **(lead researcher)**	Brianna Turner	briannat@uvic.ca	University of Victoria	◉ Yes ○ No
◉ Applicable ○ Not applicable	**Student collaborator** ***(if data is for their dissertation/thesis)***	Lily Rigaud	lilyrigaud@uvic.ca	University of Victoria	◉ Yes ○ No
◉ Applicable ○ Not applicable	**E-Risk Sponsor** ***(if applicant is not an E-Risk investigator)***	Helen Fisher	helen.2.fisher@kcl.ac.uk	King's College London	○ Yes ◉ No

Are there additional collaborators to add?	◉ Yes ○ No
If yes, how many additional collaborators would you like to add?	1

Category	Name	Email address	University/organisation	Needs access to data for analysis?
Other collaborator #1	Jessica Ryan	jessicaryan@uvic.ca	University of Victoria	(●) Yes ( ) No

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2. The project proposal

Note: *Please provide sufficient detail to enable the committee to review your proposal. Please be as specific as possible about the project aims and analysis methods as once approved this concept paper will be posted publicly and thus will act as a form of pre-registration of your project. Expand boxes as required.*

Title of project	Early Borderline Personality Symptoms as Predictors of Disordered Eating in Young Adulthood
Background and rationale for project ***(approx. 300 - 1000 words)***	Borderline personality disorder (BPD) is defined by a pervasive pattern of instability in affect regulation, impulse control, interpersonal functioning, and self-image (American Psychiatric Association [APA], 2013). Although BPD has traditionally been conceptualized as an adult disorder, research increasingly indicates that borderline symptoms can be reliably identified by early adolescence, typically between ages 12 and 14, and display moderate stability across development (Sharp & Fonagy, 2015; Guilé et al., 2018). Early detection is clinically important, as BPD symptoms in adolescence predict enduring psychosocial difficulties, including poor educational attainment, relational instability, and elevated risk of self-harm (Kaess & Cavelti, 2025; Cavelti et al., 2024). Moreover, recent research emphasizes that adolescents with BPD are not only diagnosable, but also that recognition at this stage allows for timely intervention, significantly reducing self-harming behaviours, strengthening emotion regulation, and improving both social and academic functioning (Cavelti et al., 2024). Disordered eating refers to a spectrum of maladaptive eating-related thoughts and behaviours, such as dietary restraint, binge eating, purging, and body dissatisfaction, which can occur in clinical and non-clinical samples (Stice et al., 2013). These behaviours typically emerge during adolescence and can persist into adulthood, increasing risk for both physical and psychological morbidity. There is substantial conceptual and empirical overlap between BPD features and disordered eating behaviours, particularly regarding emotional dysregulation, impulsivity, and heightened sensitivity to interpersonal stress (Miller et al., 2021). Clinical research has documented high rates of co-occurrence between BPD and eating disorders, with estimates suggesting that up to one-third of individuals with BPD also meet criteria for an eating disorder at some point (Godt, 2008). Furthermore, adolescents with comorbid BPD and anorexia nervosa appear to represent a distinct clinical phenotype, characterized by greater illness severity, more pervasive emotion dysregulation, and higher functional impairment compared to those with anorexia nervosa alone (Riva et al., 2024). This underscores the importance of examining nuanced, trait-specific pathways between BPD and disordered eating behaviours.

	Despite these advances, most existing research is cross-sectional or limited to treatment-seeking populations (Miller et al., 2021; Riva et al., 2024), constraining the ability to determine whether early BPD symptoms contribute to the development of disordered eating in community samples. Longitudinal, population-based studies are essential for clarifying temporal relationships and pinpointing which BPD-related traits (e.g., emotional dysregulation, impulsivity, or identity disturbance) prospectively predict eating-related difficulties. Yet, even longitudinal designs often cannot fully address the extent to which associations reflect causal pathways versus shared familial risk factors. Analytic approaches that leverage genetically informative designs, such as twin studies, are therefore especially valuable. The E-Risk Longitudinal Twin Study provides a unique opportunity to address these gaps. With assessments of BPD symptoms at age 12 and disordered eating behaviours collected at age 18, the study enables investigation of prospective associations between early borderline symptomatology and later disordered eating behaviours in a community cohort. Importantly, the twin design allows for a discordant monozygotic (MZ) analysis, in which within-pair differences in borderline symptoms are used to predict within-pair differences in later disordered eating. This approach controls for genetic and shared environmental influences, offering stronger evidence for potential causal inference than whole-sample regression models alone. Given recent calls for longitudinal, disorder-specific prevention strategies (Kaess & Cavelti, 2025; Cavelti et al., 2024), applying both whole-sample and discordant MZ analyses will provide novel insights into the developmental link between borderline symptoms and disordered eating behaviours.
Project aims / objectives	This project's primary objective is to investigate whether borderline personality symptoms assessed at age 12 prospectively predict disordered eating behaviours at age 18. In addition to whole-sample analyses, a discordant monozygotic (MZ) twin design will be used to evaluate whether associations remain when controlling for shared genetic and environmental influences.
Brief statement of your hypothesis	It is hypothesized that adolescents with higher levels of borderline personality symptoms at age 12 will be more likely to report disordered eating behaviours at age 18. Furthermore, this association is expected to remain significant when examined within discordant MZ twin pairs, providing stronger evidence that the relationship is not solely attributable to genetic or shared environmental confounds.
Data analysis methods to be used ***(approx. 100 - 500 words)***	Whole-sample regression models will test whether borderline (BP) symptoms at age 12 predict disordered eating behaviours at age 18. We will adjust for non-independence of twin observations using the ROBUST subcommand in SPSS (or using TYPE=COMPLEX in MPlus). The type of regression (e.g., logistic) will be selected based on the distribution of the outcome. We will include participant sex and family SES at age 5 as covariates, as appropriate. Next, we will test whether BP symptoms at age 12 predict disordered eating at age 18 over and above other internalizing symptoms, namely depression and anxiety, at age 12, and externalizing symptoms, namely conduct disorder, at age 12. Finally, we will calculate the difference in BP symptom scores at age 12 between MZ twins in a pair and the difference between them on their disordered eating behaviour scores at age 18 and then regress the BP difference score on the eating difference score.
Significance for theory, research methods, or clinical practice	Clarifying whether borderline personality symptoms in early adolescence prospectively predict disordered eating behaviours has both theoretical and applied significance. Theoretically, this project advances developmental psychopathology models by identifying personality-related vulnerabilities that may contribute to later maladaptive behaviours. Methodologically, it combines longitudinal, population-based data with a MZ twin design, which moves beyond standard regression by controlling for genetic and shared environmental confounds. Clinically, demonstrating that early borderline traits predict later disordered eating could highlight these traits as useful markers for screening and early intervention. By leveraging the strengths of both whole-sample and twin-

	difference analyses, this study will provide novel insights into an underexamined but clinically meaningful developmental pathway.
References cited	APA. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: American Psychiatric Association. Cavelti, M., Blaha, Y., Lerch, S., Hertel, C., Berger, T., Reichl, C., Koenig, J., & Kaess, M. (2024). The evaluation of a stepped care approach for early intervention of borderline personality disorder. Borderline Personality Disorder and Emotion Dysregulation, 11. https://doi.org/10.1186/s40479-024-00256-1 Godt, K. (2008). Personality disorders in 545 patients with eating disorders. European Eating Disorders Review, 16(2), 94-9. doi: 10.1002/erv.844 Guilé, J. M., Boissel, L., Alaux-Cantin, S., & Garny de La Rivière, S. (2018). Borderline personality disorder in adolescents: prevalence, diagnosis, and treatment strategies. Adolescent Health, Medicine and Therapeutics, 9, 199-210. https://doi.org/10.2147/AHMT.S156565 Kaess, M., & Cavelti, M. (2025). Research Review: What we have learned about early detection and intervention of borderline personality disorder. Journal of Child Psychology and Psychiatry, Early View. https://doi.org/10.1111/jcpp.70011 Miller, A. B., Racine, S. E., & Klonsky, E. D. (2021). Symptoms of anorexia nervosa and bulimia nervosa have differential relationships to borderline personality disorder symptoms. Eating Disorders, 29(2), 161-174. https://doi.org/10.1080/10640266.2019.1642034 Riva, A., Brasola, E., Sforza, S. E., Marfone, M., Biso, F., & Nacinovich, R. (2024). Anorexia Nervosa in comorbidity with Borderline Personality Disorder in adolescence: A specific clinical endophenotype? European Eating Disorders Review, 33(2), 434-443. https://doi.org/10.1002/erv.3155 Sharp, C., & Fonagy, P. (2015). Practitioner Review: Borderline personality disorder in adolescence -recent conceptualization, intervention, and implications for clinical practice. Journal of Child Psychology and Psychiatry, 56, 1266-1288. Stice, E., Black Becker, C., & Yokum, S. (2013). Eating disorder prevention: Current evidence-base and future directions. International Journal of Eating Disorders, 46(5), 478-485. https://doi.org/10.1002/eat.22105 Tedesco V., Day, N. J. S., Lucas, S., & Grenyer, B. F. S. (2023). Diagnosing borderline personality disorder: Reports and recommendations from people with lived experience. Personality and Mental Health,18(2), 107-121. doi: 10.1002/pmh.1599

Are there any files you would like to upload to support your concept paper?	○ Yes ◉ No

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3. Expected project outcomes

Please note:

The stated end date must be within 24 months of the date when this form is submitted. This end date will form part of the formal data use agreement and on this date you should delete the dataset. Therefore, it must be a realistic date for completion of the project including all analysis, writing a manuscript, review of the manuscript by all collaborators, submission, revisions, and acceptance of a paper for publication.