University of Southampton

Faculty of Environmental and Life Sciences

School of Psychology

An examination of the link between adverse childhood experiences and coping styles, and the impact of attachment styles, and financial deprivation.

by

David Richard Hayward

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Thesis for the degree of Doctorate in Clinical Psychology

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Abstract

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This thesis comprises two chapters: a systematic review investigating the sociodemographic differences in the coping styles of adults, and an empirical exploration of the impact of ACEs on adult coping styles.

Systematic Review

Purpose

A systematic review investigating the sociodemographic differences in the coping styles of adults was conducted to address the question: "What are the sociodemographic differences in coping styles in adults?".

Methods

Research papers were sought from three databases (PsychINFO, MEDLINE (EBSCO), Web of Science) that matched the review criteria. Returned papers were screened, and quality assessed, to allow for a narrative synthesis of the extracted results. Due to the limited number of included studies, and their different clinical contexts and research methodologies, a meta-analysis was not able to be conducted.

Results

This review found that age, gender, location, and religion all seemed to have an impact on the coping of the participants studied. However, there were few papers to draw these conclusions from, and some of their findings were contradictory.

Conclusions

Age, gender, location, and faith factors were found to have a role in the coping of participants. However, due to a lack of agreement on a "definitive" definition, and measure, of coping;

completing a robust search in this topic is challenging. There is scope for future research to agree a universal taxonomy of coping, as well as explore group, and individual, level differences.

Empirical Study

Objectives

Previous research has highlighted the long-term health impacts of ACEs, but little research has explored the processes by which ACEs relate to adulthood experience. The aim of this study was to investigate the relationships between ACEs and coping styles.

Design

This cross-sectional exploration of the links between adverse childhood experiences (ACEs), attachment patterns, financial deprivation, beliefs about emotion, and coping styles gathered data from a sample of 239 people recruited online internationally.

Methods

Using moderated mediation analysis, a conceptual model is proposed and tested to find out the nature of the relationships between variables.

Results

ACEs were seen to predict an increase in attachment insecurity, financial threat, and economic hardship in adulthood. All mediating variables were seen to impact coping style usage, though only childhood family affluence was seen to moderate the link between ACEs and financial threat in adulthood.

Conclusions

The study concluded that attachment patterns, and financial hardship, mediated the link between ACEs and coping styles. However, there is scope for future research to explore these links with more diverse groups, and longitudinally over time.

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Research Thesis: Declaration of Authorship

Print name: DAVID RICHARD HAYWARD

Title of thesis: An examination of the link between adverse childhood experiences and coping styles, and the impact of attachment styles, and financial deprivation.

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signature: D. HAYWARD Date: 15/05/2024

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Definitions and Abbreviations

ACE ..... Adverse Childhood Experience

ACE-Q..... Adverse Childhood Experience Questionnaire

AFC ..... Avoidant Focussed Coping

BES..... Beliefs about Emotion Scale

EBQ ..... Emotion Beliefs Questionnaire

ECR-S ..... Experience of Close Relationships scale – Short Form

EFC..... Emotion Focussed Coping

EHQ..... Economic Hardship Questionnaire

ERGO..... Ethics and Research Governance online

FAS-III ..... Family Affluence Scale – 3rd Version

FTS ..... Financial Threat Scale

NHLBI ..... National Heart, Lung, and Blood Institute

OAB ..... Overactive Bladder

PA..... Primary Appraisals.

PFC..... Problem Focussed Coping

PRISMA..... Preferred Reporting Items for Systematic Reviews and Meta-Analysis.

QA ..... Quality Assessment

SA..... Secondary Appraisals.

SDC ..... Sociodemographic Characteristics.

SDT..... Social Defence Theory

SPSS..... Statistical Package for the Social Sciences.

SWiM ..... Systematic reviews Without Meta-Analysis

Chapter 1 Sociodemographic differences in the coping styles of adults: a systematic review

1.1 Title Page

Please note, this chapter has been formatted in accordance with the author guidelines for the Psychology and Psychotherapy Journal (see appendix Q) where possible.

Title: Sociodemographic differences in the coping styles of adults: a systematic review

Short title: Review of the literature around coping.

David Hayward[1*], Stella Pareas[1], Dr Nick Maguire, and Dr Thomas Richardson[1]

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Author Contributions:

David Hayward: Conceptualisation (equal), Data Curation (equal), Formal Analysis (lead), Investigation (lead), Methodology (lead), Project Administration (Lead), Resources (equal), Validation (equal), Visualisation (lead), Writing – Original Draft Preparation (lead), Writing – Review & Editing (equal).

Stella Pareas: Validation (equal)

Dr Nick Maguire: Supervision (supporting)

Dr Thomas Richardson: Supervision (Lead), Writing – Review & Editing (equal), Formal Analysis (supporting), Conceptualisation (equal), Project Administration (supporting).

Keywords:

Literature Review, Sociodemographic differences, Coping Styles

Data availability statement:

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Acknowledgements:

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Practitioner Points:

- Age, gender, location, and religion all seem impact on the coping of adults.
- However, finding research to include in systematic reviews is difficult due to the variability in language around coping.
- If preparing researching into coping, consider exploring the use of standardised language to make future literature reviews more replicable.

1.2 Abstract

Purpose

A systematic review investigating the sociodemographic differences in the coping styles of adults was conducted to address the question: “What are the sociodemographic differences in coping styles in adults?”.

Methods

Research papers were sought from three databases (PsychINFO, MEDLINE (EBSCO), Web of Science) that matched the review criteria. Returned papers were screened, and quality assessed, to allow for a narrative synthesis of the extracted results. Due to the limited number of included studies, and their different clinical contexts and research methodologies, a meta-analysis was not able to be conducted.

Results

This review found that age, gender, location, and religion all seemed to have an impact on the coping of the participants studied. However, there were few papers to draw these conclusions from, and some of their findings were contradictory.

Conclusions

Age, gender, location, and faith factors were found to have a role in the coping of participants. However, due to a lack of agreement on a “definitive” definition, and measure, of coping; completing a robust search in this topic is challenging. There is scope for future research to agree a universal taxonomy of coping, as well as explore group, and individual, level differences.

1.3 Introduction

The term “Coping” describes an individual’s efforts to reduce the discomfort experienced in response to stress (Lazarus & Folkman, 1984). However, the structure of coping lacks agreement within research (Skinner et al., 2003), with multiple models describing the process by which someone copes with stress. The more accepted models of coping have grown from Lazarus and Folkman’s (1984) transactional model of coping (Lazarus & Folkman, 1984; Stanisławski, 2019), and conceptualise Coping into three main styles: Emotion Focused Coping (EFC), where the priority is reducing the emotional impact of stress; Problem Focused Coping (PFC), which prioritises on mitigating the problem that is causing the stress itself; and Avoidant

Focused Coping (AFC), where the priority is to avoid (either practically or experientially) the distress itself (Parker & Endler, 1992).

For clarity, throughout this paper the following definitions will be used: “Coping Styles” refers to the three “styles” of Coping outlined by the transactional model of coping (EFC, PFC, and AFC; Lazarus & Folkman, 1984). “Coping Strategies” and “Coping Methods” will be used interchangably, and will refer to the specific actions someone employs in order to cope, in line with their currently activated coping style.

The transactional model of coping (Lazarus & Folkman, 1984) is a widely accepted conceptualisation of the coping process (Biggs et al., 2017). The “transaction” of this model sitting between the environment around an individual and their appraisal of its personal meaning (Lazarus & Folkman, 1984).

In this way, stress arises when the appraisal of an environmental stimulus is that it would overwhelm their personal resources for managing it or would have the potential to cause them harm (Folkman, 1984). Coping is then the contextual process by which an individual tries to manage this situation, with the outcome of their attempted coping being reappraised; should coping lead to a favourable outcome, this leads to positive emotion, though if the outcome is appraised as unfavourable, then further stress is experienced and the process of coping begins anew (Biggs et al., 2017; Folkman & Lazarus, 1988; Folkman, Lazarus, Gruen, et al., 1986; Lazarus & Folkman, 1984) .

The cognitive appraisal is a fundamental component of this model for the generation of emotion, and the perceived success of coping (Lazarus, 1991). The process constitutes both primary (PA) and secondary appraisals (SA): PAs are an assessment of how personally relevant the situation is to them (Lazarus, 1991), while SAs are about an individual’s available options, including resources, with which to cope. Should the PA conclude that a situation may lead to harm, and the SA concludes that the individual is able to take action that will result in a positive outcome, then coping strategies are utilised (Biggs et al., 2017; Folkman & Lazarus, 1988).

As both primary and secondary appraisals are personally and contextually dependent, it follows that an individual’s sociodemographic characteristics (SDC) plays an important role in the coping process. One review (Bottaro & Faraci, 2022) looked at the influence of SDCs on coping in people with cancer. They saw that across the 30 studies included in their review, certain characteristics were more closely linked with using adaptive coping; being a woman, being in a relationship, being employed, or having a higher income (Bottaro & Faraci, 2022). Another study (Gage-Bouchard, et al., 2013) looking at caregivers of paediatric cancer patients, saw that women were more likely to use helpful coping strategies (and religious coping) than men were.

These studies highlight the link between SDCs and coping, however much of the research focuses on coping with specific physical health difficulties; with little research available that focuses on the broader links between SDCs and coping in general terms. It is important to understand the links between SDCs and coping, as by understanding what characteristics are more closely linked with unhelpful coping methods, more targeted support can be offered by clinical services.

With so many identified coping styles identified in the research, evidence suggests that individuals will be drawn to certain styles over others (Carver & Connor-Smith, 2010). Research has also found that this is also the case at the group level, with African Americans from low-income backgrounds using EFC strategies than White participants (Brantley et al., 2002), and that Australians from minoritised ethnicities using more spiritual based coping strategies than White participants (D'Anastasi & Frydenberg, 2005). With previous research in mind, the following SDCs will be targeted in the review, as they are commonly recorded and reported on by studies in their participant demographics (Parsons, et al., 2023): gender, age, education, socioeconomic status, ethnicity, race, and disability.

Despite there being a wealth of research on the transactional model, especially with clinically significant variables within a population, to our knowledge a systematic review looking at the interaction between sociodemographic variables and coping has not yet been carried out. Therefore, this review aims to investigate studies which have reported on the interaction between sociodemographic variables and coping, to be able to add to the knowledge base around the transactional coping model and begin to highlight which SDCs are more related to each coping style. This review and subsequent narrative synthesis will aim to answer the question: “What are the sociodemographic differences in coping styles in adults?”.

1.4 Methods

1.4.1 Search Strategy

This systematic review was conducted and reported following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Moher et al., 2009), and the systematic review guidebook Boland et al. (2017). This review was pre-registered on PROSPERO (Review ID: CRD42023484005).

Scoping searches were carried out to explore the literature and refine the search terms and strategy between September and November 2023. The search was conducted using three

databases: PsycINFO, MEDLINE (EBSCO), and Web of Science. The full search syntax for each database is listed below (Table 1).

Search results were stored, deduplicated, and managed using the Rayyan online tool (Ouzzani et al., 2016).

Table 1

Search Syntax

Database	Syntax
PsycINFO & Medline (EBSCO)	((((((education level OR educational attainment OR education) OR (disabilit* OR disabl*) OR (Social class OR social status OR socioeconomic status) OR (ethni*) OR (race) OR (Sex OR gender OR wom*n OR m*n OR male OR female) OR (Age OR age group)) AND (Peer review*)) AND (LA english)) AND (coping strateg* OR coping skill* OR coping OR cope OR coping style*)) AND (Emotion* OR mood OR feeling* OR affect OR emotional state*)) S13 - S8 AND S9 AND S10 AND S11 AND S12 S12 - Emotion* OR mood OR feeling* OR affect OR emotional state* S11 - coping strateg* OR coping skill* OR coping OR cope OR coping style* S10 - LA english S9 - Peer review* S8 - S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 S7 - Age OR age group S6 - Sex OR gender OR wom*n OR m*n OR male OR female S5 - race S4 - ethni* S3 - Social class OR social status OR socioeconomic status S2 - disabilit* OR disabl* S1 - education level OR educational attainment OR education
Web of Science	((((((((((ALL=(education level or educational attainment or education)) OR ALL=(disabilit* OR disabl*)) OR ALL=(Social class OR social status OR socioeconomic status)) OR ALL=(Ethni*)) OR ALL=(Race)) OR ALL=(Sex OR gender OR wom*n OR m*n OR male OR female)) OR ALL=(Age OR age group)) AND LA=(English)) AND ALL=(Peer review*)) AND ALL=(coping strateg* OR coping skill* OR coping OR cope OR coping style*)) AND ALL=(Emotion* OR mood OR feeling* OR affect OR emotional state*))

1.4.2 Search Procedure

Using Rayyan (Ouzzani et al., 2016), all abstracts of non-duplicate titles were screened against the inclusion and exclusion criteria (Table 2) for inclusion or exclusion in the full text review. Reasons for exclusion were recorded and are seen in the PRISMA diagram below (Figure 1).

Table 2

Inclusion and Exclusion criteria

Domain	Inclusion Criteria	Exclusion Criteria
Population(s)	Adults (aged ≥ 18 years old), both clinical and non-clinical populations.	Children (aged < 18 years old)
Paper	Published, peer-reviewed journal articles.	Grey literature, unpublished studies, and studies published without peer-review will not be included. Conference papers, books, theses, will not be included. Systematic reviews.
Outcomes	Studies that include a measure of coping (such as the Brief-COPE). Studies that report on the differences between participant groups (i.e., means).	Studies that do not use a measure of coping. Studies that do not measure coping. Studies that do not report on the differences between participant groups based on demographic variables.
Study Design	Any quantitative design e.g. observational studies, intervention studies, cohort studies, experimental studies.	Systematic reviews will not be included. Qualitative studies will not be included.

A sample (20%) of these decisions were then peer reviewed by a second reviewer, with the 6 conflicts resolved through discussion until there was an agreed outcome. The inter-rater reliability of the initial decision was calculated via Cohen's kappa, there was "almost perfect" (Landis & Koch, 1977) agreement between the two reviewers' decisions (κ = .970).

Those papers that were selected for full-text review were then collated and compared again to the inclusion and exclusion criteria to assess their eligibility for data-inclusion. A sample (20%) of these decisions were reviewed by the second reviewer, with 4 conflicts resolved through discussion. The inter-rater reliability was calculated via Cohen's kappa, there was "almost perfect" agreement between the two reviewers' decisions (κ = .909).

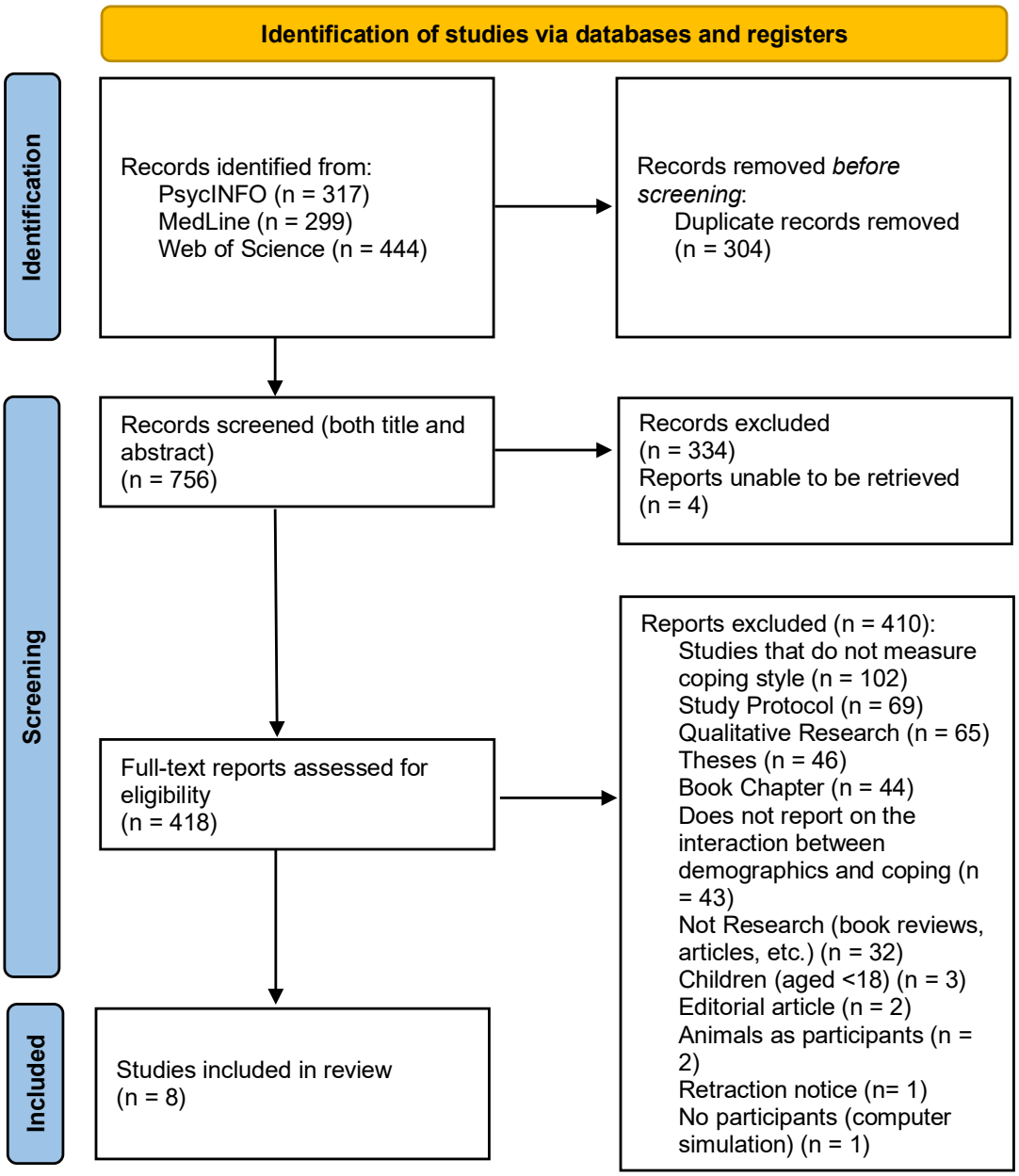
Due to the limited time available, the decision was made not to contact the authors of the 43 studies that did not report on the differences between participants groups based on demographic variables. Instead, a full-text review of all 756 papers included in the record

screening was carried out to ensure that the inclusion and exclusion criteria were not too restrictive, as there was the concern that overly restrictive criteria would mean that appropriate studies were being incorrectly excluded.

There were 1,060 titles returned from the search strategy across the 3 databases. 8 were included in the review, see figure 1.

Figure 1

PRISMA diagram



https://guides.lib.unc.edu/prisma

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

1.4.3 Data Extraction

Demographic information relevant to the review question was extracted from each study and collated (see table 3). Due to the level of clinical heterogeneity in the populations, interventions, comparisons, and outcomes of the included studies, meta-analysis of the data is unsuitable (Campbell et al., 2020).

The data were instead analysed using narrative synthesis, following the synthesis without meta-analysis (SWiM) in systematic reviews reporting guidelines (Campbell et al., 2020).

Table 3

Study Characteristics

Author(s) and publication year	Country	Reported demographics	Study focus	Context of coping investigated	Measure of coping used	Standardised or non-standardised measure of coping.	Data analysis methods	Main relevant findings	Reported interactions between demographic variables and coping.	Overall quality assessment rating
Ai, et al. (2005)	United States of America	n = 246 Male = 137 Female = 109 Age: average = 62 <65 = 136 >65 = 110 Ethnicity: White = 224 African American = 17 Asian/Pacific American = 2 Hispanic/Latino = 1 American Indian/Native = 1 Other = 1 Education: Grade school = 18 High School = 100 Some College = 86 Post College = 40	To investigate the relationship between faith factors and health locus of control.	Using faith as a coping strategy to manage distress.	Private Prayer as a Means for Coping scale (Ai, et al., 2002)	Standardised	Multiple Regression Analyses	Religious faith is related to "event-specific coping intention", and an increased sense of personal control of the situation. Being a minoritized group member, or of older age, was related to an increased external locus of	Significant, positive correlation between faith factors and prayer coping (r = 0.72), suggesting that the more religious someone is the more likely they are to use prayer as a coping strategy. Middle-aged and older participants, with an	Good

		Missing = 2 Income: < $20k = 41 $20k-$34.999k = 50 $35k-$49.999k = 50 >$50k = 94 Missing = 11 Religion: Protestant = 130 Catholic = 66 Orthodox = 5 Jewish = 9 Other = 9 No preference = 27						control, suggesting a reflection of their reduced social power.	internal health locus of control, were more likely to use prayer as a coping strategy.	
Canestrari, et al. (2019)	Italy	n = 311 Male = 45 Female = 266 Age: M(SD) = 20.2 (1.9) 18-19 = 147 20-32 = 164 Education: Undergraduate in progress = 311	To investigate the links between attachment, life satisfaction, response to ridicule, and the coping strategies employed to manage distress.	Using coping strategies to manage the distress present during ridicule.	Echelle Toulousaine de Coping questionnaire (ETC)	Standardised	Multivariate analysis of variance (MANOVA), Tukey comparisons as post hoc testing. Correlation analysis. Regression analyses.	The extent to which someone is impacted by ridicule is moderated by their age, with older participants having lower levels of gelotophobia (and by extension the associated distress)	Females under 20 scored highly for withdrawal (avoidant coping), and low scores for control (proactive coping) and social support (a form of emotional coping).	Fair

							Two step cluster analysis.	than younger participants. Those who reported higher gelotophobia utilised more withdrawal and social support coping strategies. Those who reported higher levels of gelotophilia were seen to use more proactive coping strategies, to control the context they were in.	Females over 20 had high scores for withdrawal and social support use, medium scores for control, and low scores for rejection as a means of coping. Males between the ages of 20 and 32 had high scores for control and rejections, and low scores for social support and withdrawal as coping strategies.	
Childs, et al. (2021)	Australia	n = 444 Male = 48 Female = 396	To investigate the wellbeing of	Asked about how they felt they coped during the	Original survey developed by the	Non-standardised	Fishers exact test.	Two thirds of the participants reported	60% of those in the 18-24 age group felt they	Poor

Age: 18-24 = 8 25-34 = 89 35-44 = 104 45-54 = 139 55-64 = 84 65+ = 15 Undisclosed = 5 Residence: South Australia = 40 New South Wales = 146 Victoria = 103 Queensland = 63 Tasmania = 5 Western Australia = 37 Northern Territory = 3 Australian Capital Territory = 13 New Zealand = 23 Varied = 11	frontline sonographers who worked during the COVID-19 pandemic.	early days of the COVID-19 pandemic, including how supported they felt.	research team.	feeling anxious or worried for their safety, and the safety of their families. Only 21% of participants reported that they felt they were able to cope with juggling work and home life. 37% reported they were often coping, and only 2% reported they were never coping. 46% of those in the 35-44 age group reported to	were coping, compared to 50% in the 25-34 ages, 46% in the 35-44 ages, 67% in the 45-54 ages, 71% in the 55-64 ages, and 58% in the 65+ age group. Significant difference (p = <0.001) between locations in how much more isolated they felt (which can be understood as coping less effectively). Queensland (53%), Victoria (50%), South Australia

								feeling like they were coping, compared to 50% of the 25-34 age group. The authors link this to age groups most likely to have children at home.	(42%) reported feeling often or always more isolated.	
Işık Ulusoy, & Kal (2020)	Turkey	n = 117 Male = 71 Female = 46 Age: M(SD) = 59.9 (12.9) Education: 7-12 years of education = 72 Marital status: Married = 86 Widowed = 21 Divorced = 4 Single = 6 Employment: Retired = 68 Able to work = 15	To investigate the relationships between coping strategies, quality of life, and anxiety and depressive symptoms, in people undergoing haemodialysis.	Investigating which coping strategies are used most by those in receipt of haemodialysis.	Assessment Scale for Coping Attitudes—COPE	Standardised	Student's t-test. Analysis of variance (ANOVA) tests, including Tukey comparisons as post hoc testing. Kolmogorov-Smirnov test. Spearman's and Pearson's	Emotion-focused coping strategies were used most, followed by problem-focused and dysfunctional strategies respectively.	A significant, negative correlation between age and emotion-focused coping strategies total score was found (P = 0.01).	Fair

		Disabled to work = 34					correlation tests.			
Karimzade, & Besharat (2011)	Iran	n = 300 Male = 150 Female = 150 Education: Undergraduate in progress = 300	To investigate the relationship between personality factors and coping styles.	Coping style use reported by university students.	Tehran Coping Styles Scale (TCSS)	Standardised	Regression analysis.	In girls, neuroticism was found to have a negative correlation with positive emotion-focused coping, and a positive correlation with negative emotion-focused coping. In boys, neuroticism was found to have a positive correlation with negative emotion-focused coping.	High scores in conscientiousness and extraversion in girls are significant predictors of a problem-focused coping style. High scores in extraversion in girls is a significant predictor of using positive emotion-focused coping strategies. Low scores in conscientiousness in girls is a significant	Fair

					In boys and girls, extraversion was significantly positively correlated with problem-focused and positive emotion-focused coping.	predictor of using negative emotion-focused coping strategies. High scores in conscientiousness in girls is a significant predictor of using problem-focused coping strategies. High scores in extraversion and low levels of openness in boys is a significant predictor of using positive emotion-

									focused coping strategies. High scores in neuroticism and low levels of agreeablenes s in boys is a significant predictor of using negative emotion-focused coping strategies.	
Ricci, et al. (2001)	United States of America	n = 467 Male = 139 Female = 328 Age: 18-49 = 44 50-64 = 217 ≥65 = 206 Ethnicity: White = 413 Non-White = 54	To describe the coping strategies used by adults with overactive bladders.	Coping strategies used to manage the impact of an overactive bladder (OAB).	Semi-structured interview, asking about coping strategies used.	Non-standardised	Chi-square tests. Fishers' exact tests. Logistic regression analysis.	Those with a health condition (OAB) were more likely to report using coping strategies than those without one (controls).	Women were more likely than men to use nonmedical measures (described measures align with problem focused coping strategies) to	Poor

	Education: Less than high school = 59 High School diploma = 166 Some College = 135 College degree = 106 Marital status: Married = 278 Separated/divorced = 97 Widowed = 71 Never married = 20 Income: <$20k = 141 $20k-$40,999 = 124 $41k-$60,999 = 73 ≥$61k = 53 Not stated = 76 Employment: Full-time = 93 Part-time = 32 Unemployed/disabled = 43 Student/retired/home maker = 298		Women were found to be more likely than men to use nonmedical coping strategies and to discuss their difficulty with healthcare staff (social support). Beliefs about OAB were significantly associated with seeking health care, those who believed it to be a source of embarrassment, or a serious health problem, were less	cope with OAB symptoms.

								likely to seek support.		
Shaikh, et al. (2004)	Pakistan	n = 264 Male = 138 Female = 126 Age: M = 21 Range = 17-25 Income: In receipt of financial assistance = 41.3%	To investigate the perception of stress, and the coping strategies used, by medical students.	Coping with the stress associated with attending medical school.	Semi-structured questionnaire, designed by the research team.	Non-standardised	Chi-square tests.	The frequency of reported stress was not significantly different between males and females. 75% of the medical students reported satisfaction with their coping strategies. 71.6% reported wanting to talk to somebody during a stressful situation. 46.2% said they would	Males were more content with their coping styles (78%) than females (73%). Males preferred solitude as a coping strategy (82%) compared to females (80%). 68% of males said they would want to talk to somebody during a stressful situation, compared to 76% of females.	Poor

								talk to a peer as a coping strategy (social support). 22.7% said they would talk to a family member as a coping strategy (social support).	70% of males said they would discuss their stress with a peer, while 57% of females said the same. 21% of males said they would talk to a family member about their stress, compared to 39% of females.	
Veresova (2012)	Slovakia	n = 291 Male = 61 Female = 230 Age: Average = 41.66 Range = 24-68	To investigate the relationships between self-efficacy, stress, and coping strategies used by Slovakian teachers.	Coping styles used by teachers to manage stress load associated with teaching.	Proactive Coping Inventory (PCI) (Greenglass, et al., 1999)	Standardised	Correlations.	The stronger a teacher's self-efficacy, then they believe they can cope with the demands of their work (positively influencing students,	There were no observed demographic differences in any of the observed coping styles (Proactive coping, Reflective coping, Strategic planning,	Poor

					motivate others, etc.).	Preventive coping, Instrumental support seeking, Emotional support seeking, Avoidance coping).

1.4.4 Quality Assessment

To assess the risk of bias in the included studies, the National Heart, Lung, and Blood Institute's (NHLBI) "Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies" (National Heart, Lung, and Blood Institute, 2014). This tool was selected due to its relevance to the research methods used by the included studies and is comprised of 14 different questions related to assessing the internal validity of a study. Each question can be answered with a "yes" or "no" to indicate if it meets the criteria of the question asked, or alternatively scored as "cannot be determined" (CD), "not reported" (NR), or "not applicable" (NA), as required.

The answers recorded then guide the reviewer to critically appraise the risk of potential bias and overall internal validity of the study holistically, giving an overall rating of "Good", "Fair", or "Poor". Unlike other assessment tools that use a standardised scoring system to arrive at a quality assessment (QA) rating, this tool remains unstandardised as it aims to support reviewers in critically appraising the internal validity of the studies; encouraging them to consider how bias may present differently, or confound the outcomes, of the studies assessed (National Heart, Lung, and Blood Institute, 2014).

One study was rated as "Good", three were rated as "Fair", and four rated as "Poor" for their overall QA rating (see table 3)

The main weaknesses of the studies were their inconsistently reported methodologies, impacting their replicability. Only one study (Ai et al., 2005) appeared to clearly define and attempt to control for confounding variables, only one gave a sample size justification (Canestrari et al., 2023), and three studies did not clearly define their variables or the consistency of their application to all participants (Childs et al., 2021; Ricci et al., 2001; Shaikh et al., 2004). No studies measured their exposure variables before they measured their outcome variable, which raises doubts about any causal links suggested by these studies.

1.4.5 Study Characteristics

Table 3 summarises the main study characteristics.

1.4.5.1 Country

Two studies were carried out in the United States of America (Ai et al., 2005; Ricci et al., 2001), one in Italy (Canestrari et al., 2023), one in Australia (Childs et al., 2021), one in Turkey (Işık

Ulusoy & Kal, 2020), one in Iran (Karimzade & Besharat, 2011), one in Pakistan (Shaikh et al., 2004), and one in Slovakia (Veresová & Malá, 2012).

1.4.5.2 Reported Demographics

All eight studies reported the total number of participants and the number of Male and Female participants taking part (Ai et al., 2005; Canestrari et al., 2023; Childs et al., 2021; Işık Ulusoy & Kal, 2020; Karimzade & Besharat, 2011; Ricci et al., 2001; Shaikh et al., 2004; Veresová & Malá, 2012). Seven reported the age groupings of their participants (Ai et al., 2005; Canestrari et al., 2023; Childs et al., 2021; Işık Ulusoy & Kal, 2020; Ricci et al., 2001; Shaikh et al., 2004; Veresová & Malá, 2012). Finally, one study reported the religion of their participants (Ai et al., 2005).

1.4.5.3 Populations Studied

All eight studies recruited adult samples (Ai et al., 2005; Canestrari et al., 2023; Childs et al., 2021; Işık Ulusoy & Kal, 2020; Karimzade & Besharat, 2011; Ricci et al., 2001; Shaikh et al., 2004; Veresová & Malá, 2012). Three studies recruited from enrolled university students (Canestrari et al., 2023; Karimzade & Besharat, 2011; Shaikh et al., 2004), two from populations awaiting health procedures (Ai et al., 2005; Işık Ulusoy & Kal, 2020), one from those working as sonographers (Childs et al., 2021), one from those working as teachers (Veresová & Malá, 2012), and one from an age and sex stratified telephone survey in North America (Ricci et al., 2001).

1.4.5.4 Measures of Coping

Five studies used standardised measures of coping (Ai et al., 2005; Canestrari et al., 2023; Işık Ulusoy & Kal, 2020; Karimzade & Besharat, 2011; Veresová & Malá, 2012), two used semi-structured interviews that included questions about coping (Ricci et al., 2001; Shaikh et al., 2004), and one study using an original survey developed by the research team (Childs et al., 2021).

One study (Ai et al., 2005) used the “Private Prayer as a means for Coping scale” (Ai et al., 2002), a three-item measure that asks participants about their appraisals of the importance, effectiveness, and use of prayer, scored on a four-point Likert scale of agreement with each statement (Ai et al., 2021).

One study (Canestrari et al., 2023) used the “Echelle Toulousaine de Coping questionnaire” (Esparbès et al., 1993), a forty-four item measure that measures four styles of coping: Control, Denial, Exclusion, and Social Support. These are each measured on a five-point Likert scale of how often they use each coping style.

One study (Işık Ulusoy & Kal, 2020) used the "Assessment Scale for Coping Attitudes", also known as the "COPE" (Carver et al., 1989). This is a sixty-item measure that looks at fifteen coping factors: Acceptance, Active Coping, Behavioural Disengagement, Denial, Seeking Emotional Support, Humour, Seeking Instrumental Support, Mental Disengagement, Planning, Positive Reinterpretation, Religion, Restraint, Substance Use, Suppression of Competing Activities, and Venting (Halamová et al., 2022). Each factor is rated on a four-point Likert scale of the frequency of their coping strategies.

One study (Karimzade & Besharat, 2011) used the "Tehran Coping Styles Scale" (Besharat et al., 2006), a version of the COPE (Carver et al., 1989) adapted for the Farsi language. Like the COPE, it is a sixty-item measure that assesses coping styles, with each question measured on a four-point Likert scale of frequency of coping strategy use.

One study (Veresová & Malá, 2012) used the "Proactive Coping Inventory" (Greenglass et al., 1999), a fifty five-item measure that measures coping across seven factors: Proactive Coping, Reflective Coping, Strategic Planning, Preventative Coping, Instrumental Support Seeking, Emotional Support Seeking, and Avoidance Coping. Each item is scored on a four-point Likert scale of agreement with each statement about their coping behaviours.

1.4.5.5 Context of Coping

The studies in this review have looked at coping in response to varied stressors. Four studies looked at how participants coped within the context of stressful employment or education (Childs et al., 2021; Karimzade & Besharat, 2011; Shaikh et al., 2004; Veresová & Malá, 2012), two studies looked at how participants coped within the context of having a physical health condition (Işık Ulusoy & Kal, 2020; Ricci et al., 2001), one study looked at how participants used their faith as a coping strategy (Ai et al., 2005), and one study looked at how participants coped with interpersonal ridicule (Canestrari et al., 2023).

1.5 Results

The findings related to demographic characteristics and measured coping are outlined below. One of the studies included found no significant interaction between any recorded demographic differences and measured coping styles (Veresová & Malá, 2012), while the other seven studies reported interactions.

1.5.1 Age and Coping

One study reported a significant (p= 0.01) negative correlation between age and emotion-focused coping strategies total score was found (Işık Ulusoy & Kal, 2020).

One study (Childs et al., 2021) found that when asked if they felt they coped with the demands of the COVID-19 pandemic, the highest proportion of agreement was in the 55-64 age grouping (71% agreed that they had coped with the demands of the pandemic), followed by 45-54 (67%), 18-24 (60%), 55-64 (58%), 25-34 (50%), and finally 35-44 (46%).

One study found that middle-aged and older participants, with an internal health locus of control, were more likely to use prayer as a coping strategy (Ai et al., 2005).

1.5.2 Gender and Coping

Four studies reported interactions between gender and coping (Canestrari et al., 2023; Karimzade & Besharat, 2011; Ricci et al., 2001; Shaikh et al., 2004).

One study (Canestrari et al., 2023) found that women under 20 years old scored highly in avoidant coping, and low in proactive and emotion coping. They also found that women over 20 years old had high scores for withdrawal and social support use, medium scores for control, and low scores for rejection as a means of coping. They found through cluster analysis that, on average, men aged between 20 and 32 had high scores for control and rejections, and low scores for social support and withdrawal as coping strategies.

One study found that coping style could be predicted differently in men and women, depending on their scores in different personality traits (Karimzade & Besharat, 2011). Positive emotion-focused coping could be predicted by high scores in extraversion in women and a combination of high scores in extraversion and low levels of openness in men. Negative emotion-focused coping could be predicted by low scores in conscientiousness in women, and a combination of high scores in neuroticism and low levels of agreeableness in men. Problem-focused coping could be predicted in women by high scores of conscientiousness, but not predicted in men.

One study (Ricci et al., 2001) found that women were more likely than men to use nonmedical measures (described measures aligned with problem-focused coping strategies) to cope with overactive bladder (OAB) symptoms.

One study showed that men and women had different attitudes towards their coping (Shaikh et al., 2004). Men were found to be more content with their coping style (78%) than women (73%) (though it is not reported if this result is significant), and to prefer solitude as a coping strategy (men: 82%, women: 80%, not significant with p= 0.72). They also saw that 68% of men would

want to talk to somebody during a stressful situation, compared to 76% of women (not significant with p= 0.144), that 70% of men would discuss their stress with a peer compared to 57% of women (significant with p= 0.03), and that 21% of men said they would talk to a family member about their stress, compared to 39% of women (significant with p= 0.001).

1.5.3 Faith and Coping

One study (Ai et al., 2005) found a significant positive correlation (r = 0.72) between faith and using prayer as coping, with higher religiousness occurring alongside increased likelihood to use prayer as a coping strategy.

1.5.4 Location and Coping

One study (Childs et al., 2021) found a significant difference (p = <0.001) in the rates participants said they "often" or "always" felt isolated (i.e., not coping) between those living in Queensland (53%), Victoria (50%), South Australia (42%), Tasmania (0%), and the Northern Territory (0%). Further location information is not provided, making it unclear where within each territory participants were living.

1.5.5 Synthesis

Based on the extracted data, there are SDCs that impact coping in adults, namely: age, faith, location, and gender.

Men and women differ in their coping strategies used: men are more likely to talk to a peer about their stress, women are more likely to talk to a family member (Shaikh et al., 2004), men are more likely to use nonmedical coping strategies to cope with a medical problem than women (Ricci et al., 2001), and that differences in personality characteristics between men and women can predict the coping style they will adopt (Karimzade & Besharat, 2011).

As people get older their use of emotion-focused coping strategies reduces (Işık Ulusoy & Kal, 2020), and they generally reported that they were able to cope with the pandemic more than other age groups (Childs et al., 2021). Older people who perceive themselves as having more control over their lives were also more likely to pray as a means of coping (Ai et al., 2005).

Similarly, people who have faith in a higher power are more likely to offer prayer to that power to cope with their current distress (Ai et al., 2005).

The place in which people live also impacts how much people cope, even at the territory level in Australia. Those in certain territories reported feeling isolated more frequently than others

during the pandemic, which may point to the different available resources for coping available for them at a personal, or social level.

1.6 Discussion

This review has attempted to review the sociodemographic differences in coping styles in adults, by synthesising the results of eight studies that met inclusion criteria. It found that age, gender, location, and religion all seemed to relate to the coping of the participants studied (Ai et al., 2005; Canestrari et al., 2023; Childs et al., 2021; Işık Ulusoy & Kal, 2020; Karimzade & Besharat, 2011; Ricci et al., 2001; Shaikh et al., 2004; Veresová & Malá, 2012).

One study (Ai et al., 2005) found that faith factors, such as religious identity, gave a coping resource (private prayer), but also an increased sense of personal control of the situation. However, they also found that being a member of a minoritized group, or of an older age, was related to a greater external locus of control (suggesting they perceive external forces to have a greater amount of control over what happens to them; Rotter, 1954), which the authors suggested reflected their reduced social power to affect change. This apparent dichotomy in findings makes sense when considered within the context of intersectionality; that individuals have multiple identities and the interaction between them, and with society, leads to experienced privilege and prejudice (Phoenix & Pattynama, 2006). Faith factors were positively correlated with using prayer as a coping strategy, suggesting that faith factors gave them another source of coping resource (Biggs et al., 2017). This study received a QA rating of "Good", suggesting that their conclusions were relatively free from bias.

Another characteristic that impacted coping in the review was gender. Men and women were found to engage in differing coping styles (Canestrari et al., 2023; Karimzade & Besharat, 2011), strategies (Ricci et al., 2001; Shaikh et al., 2004), and appraisals of their coping (Shaikh et al., 2004), to one another. This would suggest that gender impacts coping transaction, suggesting that men and women may have different coping resources available to them, or have different perspectives on what will be successful and the implications of this (Folkman, Lazarus, Dunkel-Schetter, et al., 1986). The strategies used by each gender differed too, with men reporting to prefer solitude more than women, and of wanting to discuss their problems with others less than women (Shaikh et al., 2004).

This aligns with the literature around gender, which argues that society privileges certain gendered experience over others, typically male over female (Lorber, 2001). This dynamic interplay between power and gender impacts the perception of the available coping resources and their likely success, which will impact the entire coping process (Barnett et al., 1987).

However, the QA ratings of the studies which reported an interaction between gender and coping ranged from “Fair” to “Poor”, this suggests that these findings may have been tainted by bias during the research process. The use of non-standardised measures (Shaikh et al., 2004), and a lack of reporting around the control of confounding variables (Canestrari et al., 2023; Karimzade & Besharat, 2011; Ricci et al., 2001; Shaikh et al., 2004), means that the reported findings may have due to variables other than gender.

Three studies reported on the interaction between age and coping (Ai et al., 2005; Canestrari et al., 2023; Childs et al., 2021). The primary theme from their findings was that older participants, compared to younger participants, appear to engage in less “maladaptive” coping such as withdrawal in men, and rejection in women (Canestrari et al., 2023), and that older participants tend to rate themselves as more confident in their coping (Childs et al., 2021). However, there appears to be contradiction between these studies, with older age being related to both reduced maladaptive coping (Canestrari et al., 2023), as well as an increased external locus of control (Ai et al., 2005). It may be that older age increases the likelihood of having found and practiced effective methods of coping (also increasing confidence in their usage) in their daily life, but that this comes with an increased awareness of the power that external forces hold over their wider social existence as they get older (Davis, & Friedrich, 2010).

This fits the transactional theory of coping, which says that part of the estimation is around what has been successful in the past (Lazarus & Folkman, 1984), so with age comes the experience and familiarity with their own coping resources and with the likely outcomes of their implementation.

While the findings do fit the literature, the QA ratings of these studies should be held in mind. While one study was rated “Good” (Ai et al., 2005), one was rated “Fair” (Canestrari et al., 2023), and the final study “Poor” (Childs et al., 2021). This suggests a variable risk of bias present in these studies, as such their conclusions held tentatively.

1.6.1 Limitations of the Reviewed Literature

A clear limitation of the reviewed literature is the clinical heterogeneity between studies. Participant characteristics, outcome measures used, methods of implementation, and analysis, all varied between papers.

Across all eight papers, the only similarity in the measurement of coping was between Canestrari et al. (2023) and Işık Ulusoy and Kal (2020) who used variations of the COPE. However, as Işık Ulusoy and Kal (2020) used the Farsi translation of the COPE. Translation to another language introduces the potential for different interpretations of the words used, as the

translated version is often being implemented in another culture (McKown et al., 2020). The other six papers each use a different, and at times non-standardised, measure of coping to one another.

Study locations were also inconsistent. While two studies were carried out in America (Ai et al., 2005; Ricci et al., 2001), the others were carried out across the European and Australasian continents. This means that most studies were carried out in different cultures, with different primary narratives around distress and coping, making specific conclusions difficult to arrive at.

While all studies looked at adult populations, this was a feature of the inclusion criteria of the search and not the studies themselves. Within each study are very different average ages, ranging from 20.2 (Canestrari et al., 2023) to 62 years of age (Ai et al., 2005), and largely different proportions of men and women included (in total: 789 men and 1,651 women participated). Again, this makes generalisation based on their findings difficult to make without inviting a large risk of bias.

Another difficulty with the reviewed literature is the variability of what has been recorded and reported. While all eight studies recorded demographic characteristics, there was a large variety in what was included. Some studies recorded the level of education participants had (Ai et al., 2005; Ricci et al., 2001), while another only recorded if they had received between 7 and 12 years of education (Işık Ulusoy & Kal, 2020), and others indirectly reported this by recruiting opportunity samples from universities (Canestrari et al., 2023; Karimzade & Besharat, 2011; Shaikh et al., 2004), and others made no mention of this at all (Childs et al., 2021; Veresová & Malá, 2012). Ethnicity, income, and marital status are all examples of other sociodemographic characteristics that were reported by some, but not all, of the studies. This inconsistency in which sociodemographic characteristics were recorded, and how they were reported, has meant that reaching conclusions to answer the research question has been tentative at best.

In reviewing these papers it has also become apparent that there is differing intent behind the conceptualisation of “coping”. Some studies have focused on looking at coping styles (Karimzade & Besharat, 2011; Veresová & Malá, 2012), while others have looked at coping strategies (Ai et al., 2005; Canestrari et al., 2023; Işık Ulusoy & Kal, 2020; Ricci et al., 2001), and others have combined the two (Childs et al., 2021; Shaikh et al., 2004). This makes it difficult to answer the research question, where the included studies would have benefitted from a shared and operationalised definition of coping to work from together.

Feeling isolated, within the context of transactional coping, can be understood as continuing distress due to the ineffectiveness of coping strategies. They found that those who lived in more affluent states of Australia rated themselves as more isolated than those from less affluent

states (Childs et al., 2021). Initially this seems to contradict the theory, as those who live in more affluent areas should have better access to coping resources, both personally and societally (Hart, 1971). However, this study investigated coping during COVID-19, where one of the major ways of managing this was to increase social distance from others. It may be that those from more deprived states of Australia developed coping strategies that account for the increased levels of isolation faced by those in poverty (Samuel et al., 2018), meaning that their coping strategies rely more on cultural connectedness than physical proximity (Gallie et al., 2003).

Alternatively, these findings can be simplified to say that participants in more affluent states of Australia felt more isolation during the COVID-19 pandemic, but it is not clear why this is. The findings may be a result of procedural or analytical bias, such as uncontrolled confounding variables. As it stands, the QA rating for this study was poor; suggesting that these findings are at risk of being influenced by bias and as such should be held lightly for consideration.

Many of the findings in the reviewed literature found demographic differences in coping when these differences explored alongside other facets of identity (Phoenix & Pattynama, 2006). Gender was found to be linked to coping styles when compared by age (Canestrari et al., 2023), or with personality types (Karimzade & Besharat, 2011). The differences in coping around age, religious identity, and coping strategy were all also seen to impact coping as significant interactions, and not main effects themselves (Ai et al., 2005).

However, it must be noted that the study by Veresová and Malá (2012) found no significant differences between demographic characteristics and coping styles, though the QA rating for their study was “Poor” (suggesting a higher risk of bias influencing their conclusions). This highlights the lack of consensus between the included studies.

1.6.2 Strengths and limitations of the Review

A strength of this study is the methodological process it followed. The study was pre-registered on Prospero for transparency and ease of replication, it was carried out in accordance with (Moher et al., 2009), and has been subject to peer review at the review and QA stages of the process, with high agreement between both the primary and secondary reviewer at each point, suggesting the review has high reliability (Field, 2013).

However, the search itself returned a small number of papers in the final review. This is despite the review title, question, and criteria being designed to capture a wide variety of papers that address the research question. While there was agreement on the final papers included for this review, it was noted that the search criteria must not have captured the full range of research at

this time. It was hypothesised that inconsistencies in how research is indexed, or made accessible to researchers, may have contributed to this issue.

Another limitation is the large clinical heterogeneity has limited the analytical methods for this review. A meta-analysis is the preferred way to investigate systematic reviews, however a combination of high clinical heterogeneity and low numbers of papers included in the final review meant that this was inappropriate (Campbell et al., 2020), instead a narrative synthesis was deemed most appropriate by the research team.

1.6.3 Future Research

Future research would benefit from some of the learning in this review; the inclusion of an operationalised definition of coping, clarifying what parts of the transactional process they are investigating, and clear and consistent use of language to describe this across different studies.

The clearest outcome of this review is the corroboration of prior research in saying that coping is a complex process, and acknowledgement should be made to the intersectional identities of those we work with, as these are likely to factor into how they cope. Further research into this complexity would benefit the conceptualisation of the distress experienced by those who face inequality in society, as well as the resources they have available to help manage this distress.

This review may highlight certain groups where there is more to learn about coping; older/younger participants, those who live outside of the gender binary, and the role of faith/religion within the process; particularly for those who are agnostic, atheistic, or prescribe to one of the many global religions and spiritual disciplines.

1.6.4 Conclusion

This review has seen how age, gender, location, and faith factors may relate to coping. However, it has also highlighted the methodological and reporting differences present in the literature. There is a lack of agreement on the “gold standard” definition, and measure of coping, which has meant finding all relevant research has been challenging (Skinner et al., 2003). There is scope for more research into the role of social characteristics, and their intersections, on the process of coping; this would help us to understand group differences in the coping process, and target support to facilitate the use of more adaptive coping decisions (Holahan & Moos, 1987).

Chapter 2 An examination of the link between adverse childhood experiences and coping styles, and the impact of attachment styles, and financial deprivation.

2.1 Title Page

Please note, this chapter has been formatted in accordance with the author guidelines for the Psychology and Psychotherapy Journal (see appendix Q) where possible.

Title: An examination of the link between adverse childhood experiences and coping styles, and the impact of attachment styles, and financial deprivation.

Short title: The impact of ACEs on coping styles.

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Keywords:

Adverse Childhood Experiences, Financial Deprivation, Attachment, Emotional beliefs, Coping Styles

Data availability statement:

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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Practitioner Points

- The impacts of ACEs on coping styles are mediated by attachment security, financial threat, and economic hardship.
- Greater the attachment insecurity is associated with more avoidant coping strategies are employed by an individual.
- Financial context and attachment history should be considered in any clinical work with someone where the goal is to better manage distress.

2.2 Abstract

Objectives

Previous research has highlighted the long-term health impacts of ACEs, but little research has explored the processes by which ACEs relate to adulthood experience. The aim of this study was to investigate the relationships between ACEs and coping styles.

Design

This cross-sectional exploration of the links between adverse childhood experiences (ACEs), attachment patterns, financial deprivation, beliefs about emotion, and coping styles gathered data from a sample of 239 people recruited online internationally.

Methods

Using moderated mediation analysis, a conceptual model is proposed and tested to find out the nature of the relationships between variables.

Results

ACEs were seen to predict an increase in attachment insecurity, financial threat, and economic hardship in adulthood. All mediating variables were seen to impact coping style usage, though only childhood family affluence was seen to moderate the link between ACEs and financial threat in adulthood.

Conclusions

The study concluded that attachment patterns, and financial hardship, mediated the link between ACEs and coping styles. However, there is scope for future research to explore these links with more diverse groups, and longitudinally over time.

2.3 Introduction

Adverse childhood experience (ACE) is a term used to describe the experience and exposure to specific abuse and household dysfunction in childhood (Felitti et al., 1998). Exposure to four or more ACEs put someone at 3.96 greater risk of smoking in adulthood (compared to those with no exposures), a 3.72 greater risk of heavy drinking, a 3.02 greater risk of being morbidly obese (Bellis et al., 2013); as well as a greater risk of suicide (OR= 1.49, $p < 0.001$, 95 % CI [1.45, 1.53]; Perez et al., 2016).

Emotional regulation skills, how someone responds to and manages emotion (Rolston & Lloyd-Richardson, 2017), have been found to mediate ACEs and later health problems (Cloitre et al., 2019), meaning those less able to manage their emotional responses to stimuli (Gratz & Roemer, 2004) are more likely to experience health difficulties later in life (Cloitre et al., 2019). Here, links between emotion regulation and coping (Modecki et al., 2017) emerge; with coping understood as a transactional process between the internal state and the external world, which seeks to resolve a favourable outcome (Lazarus & Folkman, 1984). However, there appears to be little research into the impact of ACEs on coping in adulthood; studies have found that ACEs are associated with more avoidant focused coping (AFC; Leitenberd et al., 2004) and less problem focused coping (PFC; Gipple et al., 2006). One study found that AFC mediated the relationship between ACEs and health outcomes (Sheffler et al., 2019), however there was little exploration of the relationship between ACEs and coping styles.

ACEs involve distressing interactions with a caregiver, suggesting the development of secure attachment patterns are likely to be disrupted (Bowlby, 1979). Secure attachments require that caregivers are physically and emotionally available, attuned to the needs of the child, and supportive in times of need (Bowlby, 1988; Mikulincer & Shaver, 2008). The absence of such an attachment figure leads to the development of an insecure attachment pattern, often classified as either anxious (worried about the responsiveness and availability of their attachment figure) or avoidant (stronger preferences for self-reliance, and a reduced need for interpersonal closeness) dimensions (Brennan et al., 1998).

Research has shown that experiencing adverse caregiving as a child is linked with difficulties in social functioning, relationships, and the development of insecure attachment patterns (Doyle & Cicchetti, 2017). Repeated caregiver interactions contribute to the development of stable ways of understanding, and responding to interpersonal interactions (Fraley & Shaver, 2000). Caregivers who are experienced as unsafe or unpredictable, leading to the development of an insecure attachment style, influence how the child learns to cope with distress based on the caregiver response (Steele et al., 1996). ACEs may limit the resources available to a child for coping, especially those reliant on interpersonal interactions, as their blueprint for coping is based upon their experiences seeking support from an adult who struggled to protect them from adversity (Méndez-Méndez et al., 2021).

Like ACEs, attachment style has been seen to impact adult health. One study found a significant negative association between the number of ACE exposures and telomere length, with attachment moderating this link. This highlights the impact that childhood adversity and attachment can have on a genetic level, with shorter telomeres leading to an increase in cellular aging and associated age-related health conditions (Dagan et al., 2018). A systematic review

and meta-analysis also found higher levels of attachment anxiety and avoidance were positively associated with rates of depression, anxiety, and loneliness, and negatively correlated with life satisfaction and self-esteem (Zhang et al., 2022), highlighting how insecure attachment patterns coincide with poor mental health in adulthood.

Social Defence Theory (SDT; (Ein-Dor et al., 2010)) suggests insecure attachment patterns may have once been adaptive, having evolved to fulfil different roles within larger groups to promote whole group survival. Having a variety of emotion regulation and threat sensitivity patterns would have aided a group to better respond to varied threats; such as hypervigilance to threat and emotion found in those with insecure patterns (Shaver & Mikulincer, 2002) may have been more suitable for roles which relied on rapidly identifying danger, such as watchmen (Ein-Dor et al., 2010). However, in the modern-day insecure attachments (and ACEs) are associated with poorer health outcomes and healthcare utilisation (Feeney, 2000), suggesting that attachment insecurity may be less adaptive for current living (Simpson & Belsky, 2008).

More financially secure families have been shown to have more secure attachment relationships (Diener et al., 2003), even when controlling for negative life events (Johnson et al., 2018). Research has shown that lower incomes are associated with increased risk of mental disorder (OR= 2.09, 95% CI: [1.68-2.59]; though when controlling for sociodemographic variables and debt this was non-significant; Jenkins et al., 2008), and related to insecure attachment (Casady et al., 2001). Poverty has been found to be a mediating factor between ethnicity and parental sensitivity (a key component of attachment security; Bakermans-Kranenburg, et al., 2004), demonstrating the theoretical causal order of socioeconomic status preceding infant attachment (Van IJzendoorn, & Bakermans-Kranenburg, 2010).

The inverse care law (Hart, 1971) describes how those who are most in need of support are also the least likely to receive it, in particular those who are facing financial difficulties which can result in reduced recovery rates (Delgadillo et al., 2016; Furler et al., 2002). Financial deprivation is seen to impact parenting, including consistency of discipline (Lempers et al., 1989) which may affect attachment patterns for children. Experiences of financial deprivation have also been associated with poor cognitive control in adolescence (Lambert et al., 2017), in particular inhibition which suggests that they may cope with distressing situations differently to those who do not experience financial deprivation in childhood. Furthermore, experience of financial deprivation in childhood has been linked to poorer psychological wellbeing in adulthood, regardless of their adult financial situation (Evans & Cassells, 2014) and childhood family poverty has been found to predict both PTSD and depression in adulthood (Nikulina et al., 2011).

This research highlights how those who have experience of financial deprivation, insecure attachment styles, or ACEs are going to have an increased likelihood of health problems, but a greater difficulty accessing support. Facing greater difficulty means more frequently having to utilise coping strategies to mitigate the distress that it causes (Folkman & Lazarus, 1988). Much of the literature divides coping into focussing on problems, emotions, or avoidance (Carver & Connor-Smith, 2010). An aspect of coping that is underrepresented in the literature, but may be influenced by attachment styles, is the impact of beliefs about emotions (Rimes & Chalder, 2010) on how coping is approached. Attachment patterns are theorised to include several behavioural, and psychological strategies to help regulate emotion (Shaver, & Mikulincer, 2007). Shaver and Mikulincer (2002) propose that those who have developed more secure attachment patterns go on to develop methods of regulating emotion (which we can understand as a feature of coping) which aim to problem-solve (similar to PFC) and aid reappraisal of the situation, and are developed through a secure attachment pattern with an attuned caregiver. In this way, the securely attached have experienced (directly or vicariously through observation of their attachment figure) the revision of unhelpful coping beliefs with fear of rejection and develop new and more effective methods of coping (Shaver, & Mikulincer, 2007). For the avoidantly attached, the aim of emotion regulation is theorised to instead be to prevent the activation of the attachment system and the distress this brings (avoiding certain emotional states as these are believed to be unmanageable; Shaver, & Mikulincer, 2007). While those with an anxious attachment are theorised to believe that difficult emotions are a tool by which to provoke attachment figures into providing more effective protection, and as such are either sustained or exaggerated (Shaver, & Mikulincer, 2007). Understanding the role of an individual's beliefs about emotions may give insight into their intention in adopting certain coping styles or strategies, especially when viewed from an attachment perspective.

Attachment has been seen to affect beliefs about relationships (Stackert & Bursik, 2003) and wider beliefs about the world and others (Fonagy, 2002), however there is little to no research that looks at the moderating role of beliefs about emotions on coping styles specifically.

As described above, ACEs may negatively impact on both physical and mental health. The research suggests that this relationship may be moderated by emotional regulation skills, which in turn may be related to attachment patterns. Attachment styles also impact on physical and mental health and are thought to be important in the development of coping strategies.

To investigate the links between these variables, this study uses a cross-sectional, moderated-mediation model. Mediation is the statistical method used to explore the mechanisms (M) by which an independent variable (X) has a causal effect on a dependent variable (Y), while moderation is the statistical methods that investigates the influence of another variable on the

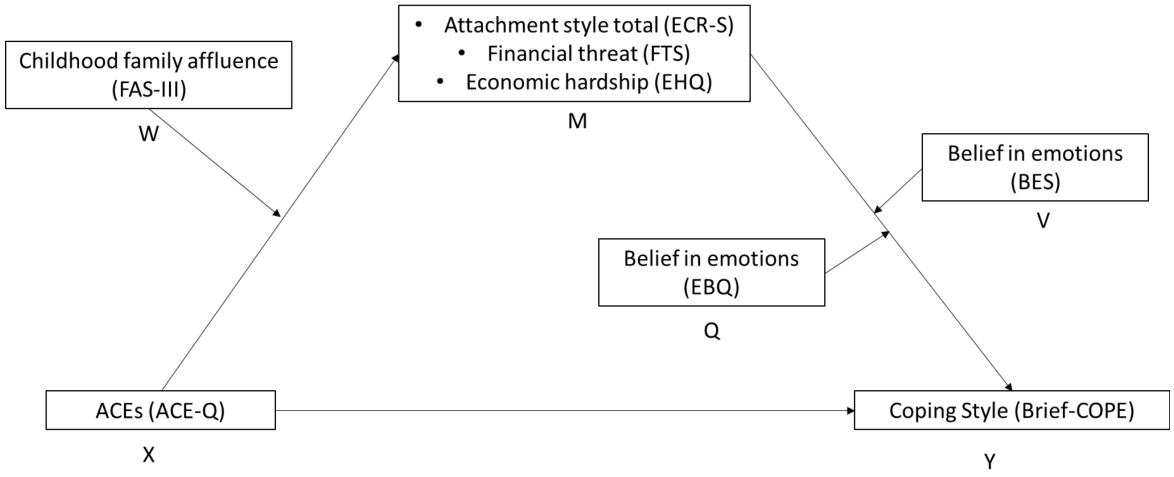
link between two variables (Hayes, 2017). As this is a causal method of investigation, the causal ordering of the variables is important, as this allows the inference of the direction of effect between variables and establish that the "cause precedes the effect in time" (Hayes, 2017). One way to establish this in research is to use a longitudinal design, where each variable is measured in the chronological order that the model suggests (i.e., X is measured at timepoint 1, then M at timepoint 2, and finally Y at a third timepoint). However, mediation can be used with a cross-sectional design (Gelfand, et al., 2009), where the theory that has been used to establish the model, in turn dictates the temporal ordering of any effect between variables (Hayes, 2017; Kenny, 2024).

In this study all data is captured at the same timepoint, but each variable is theoretically placed in a temporal order comparative to one another: the X variable, ACEs, asks about the first 18 years of life. The M variables, attachment style in current relationship, experiences of financial threat, and experiences of economic hardship, all ask about experiences more recently, while the Y variables, coping styles, are measuring coping now in the present. Due to this theoretical ordering of variables, the moderated mediation model (see figure 2) can be viewed with clear directionality between variables (Hayes, 2017; Kenny, 2024).

To our knowledge there is no research that investigates the role of ACEs on coping skills in adulthood and the role of attachment within this relationship, or the psychological factors which may affect it along with the role of beliefs about emotions. This study aims to investigate the proposed moderated-mediation model (see figure 2) of the interactions between these variables:

Figure 2

Proposed moderated-mediation model.



Note: mediators all listed collectively in box "M" for convenience of graphical representation and overall readability.

This model hypothesises:

1. ACEs will be related to more insecure attachment patterns, more financial threat, and more economic hardship.
2. More insecure attachment patterns, financial threat, and economic hardship will be related to more maladaptive coping styles.
3. The link between ACEs and coping style will be mediated by attachment pattern, financial threat, and economic hardship.
4. The links between ACEs, financial threat, and economic hardship will be moderated by childhood family affluence.
5. The links between attachment pattern, financial threat, economic hardship, and coping style will be moderated by beliefs about emotions; with beliefs that emotions are unhelpful or dangerous strengthening the links to maladaptive coping styles (AFC and EFC).

2.4 Method

2.4.1 Design

A cross-sectional design was used to administer questionnaires to participants.

2.4.2 Participants

Participants were eligible to take part in the study if they were aged 18 years or over, no other inclusion, or exclusion, criteria were used. We aimed to recruit participants from all groups to minimise sampling bias and be inclusive of different mental health and financial experiences (posters emphasised that anyone could take part, regardless of their experiences of childhood, money problems, or financial security; see appendix L).

Posters were designed to target specific populations relevant to the research questions, these included: those who had good/difficult childhoods, good/difficult relationship with their parents, struggled with bills or debt, struggled with the cost of living crisis, those who had sought help for their wellbeing, and men (due to the interaction with gender seen in research on money and mental health, including an increase in suicide rates for men alone (Fountoulakis, 2020), see appendix L).

The study was advertised in four ways: placing the posters above across campus (in locations agreed with university administration), on social media (using professional accounts), via the university internal research participation platform "Sona", and using the online research participation platform "Prolific" (Palan & Schitter, 2018).

There was an issue with automated "Bots" attempting to access and complete the study, risking the integrity of the results. The researchers developed a systematic set of guidelines for identifying and excluding these participants from the dataset (see appendix O). This tool relied on patterns of responses, errors, and inconsistencies to make generalisable "rules of thumb" to try and balance the probabilities of falsely including, and excluding, a real human's responses. This decision making was completed without the input of the ethics committee, but with the agreement of the research team.

At the index of moderated mediation is a product of two regression coefficients, just as an indirect effect is (Hayes, 2017), the minimum sample size required for adequate power in this study can be taken from Fritz and MacKinnon's (2007) paper on the topic. By selecting the joint significance test, as the test of mediation with the best balance between chances of a type 1 error and statistical power (MacKinnon et al., 2002) and assuming a medium effect size (= 0.39)

of both the α path and the β path, due to a lack of prior research, a minimum of 74 participants is required to ensure statistical power of at least 0.80. In a study with a similar longitudinal design, a third of participants dropped out by the final timepoint (Frankham et al., 2020), so if a similar rate is assumed for this study, then a sample of 111 would allow for this and still meet the threshold for adequate power of 74.

A total of 387 participants were recruited, with 61.76% (n= 239) attempting all questionnaires and making up the final analytic sample. Figure 3 shows the recruitment flow diagram, and Table 4 shows participant demographics.

Figure 3

Recruitment flow diagram

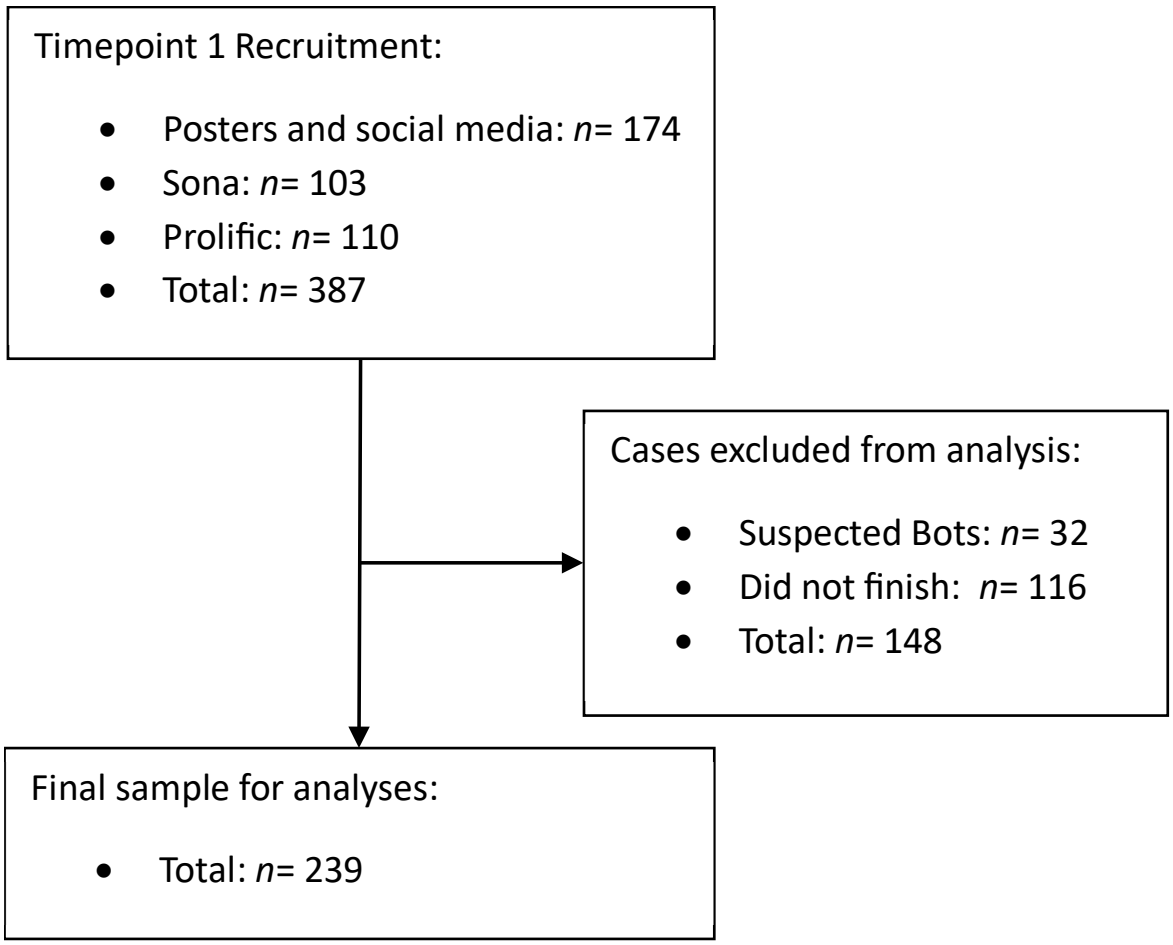


Table 4

Participant Demographics

Demographic	*n*	*%*	M	SD
Gender				
Male	62	25.9		
Female	159	66.5		
Genderfluid	1	0.4		

Non-Binary	4	1.7		
Not Stated	13	5.4		
Age			25.10	8.54
Ethnicity				
White	157	65.7		
Black	37	15.5		
Asian	21	8.8		
Mixed ethnic background	8	3.3		
Any other ethnic background	3	1.3		
Not Stated	13	5.4		
Country of Residence				
Afghanistan	1	0.4		
Angola	1	0.4		
Australia	4	1.7		
Czech Republic	1	0.4		
Estonia	2	0.8		
France	2	0.8		
Germany	2	0.8		
Greece	3	1.3		
Hong Kong (S.A.R.)	1	0.4		
Hungary	2	0.8		
India	1	0.4		
Indonesia	1	0.4		
Ireland	2	0.8		
Italy	7	2.9		
Nigeria	1	0.4		
Poland	20	8.4		
Portugal	8	3.3		
South Africa	30	12.6		
South Korea	1	0.4		
Spain	1	0.4		
United Kingdom of Great Britain and Northern Ireland	135	56.5		
Not Stated	13	5.4		
Marital status				
Married	25	10.5		
Living with Partner	34	14.2		
Single	164	68.6		
Separated	1	0.4		
Divorced	2	0.8		
Not Stated	13	5.4		
Education				
Did not complete secondary school	1	0.4		
Secondary school (GCSEs/O Levels)	17	7.1		
College (A Levels)	104	43.5		
Vocational/technical school	5	2.1		
Higher Education Certificate	14	5.9		
Diploma	25	10.5		
Master’s Degree	40	16.7		
Doctoral Level	5	2.1		
Professional Degree	15	6.3		
Not Stated	13	5.4		
Housing				
Home owned outright	14	5.9		
Homeowner with mortgage	21	8.8		
Social rented housing (including housing associations)	28	11.7		

Private rented housing	66	27.6		
Temporary council-provided housing	1	0.4		
Living with family or friends without paying rent	50	20.9		
Other	36	15.1		
Unsure	10	4.2		
Not Stated	13	5.4		
Occupation				
Working full-time (30 hours per week or more)	64	26.8		
Working part-time (less than 30 hours per week)	22	9.2		
Self-employed	8	3.3		
Full or part-time student	86	36.0		
Unemployed and looking for work	28	11.7		
Look after the home/caring for family	1	0.4		
Unable to work because of ill health or disability	2	0.8		
Other	15	6.3		
Not Stated	13	5.4		
Measures				
ACE-Q			2.4	2.35
BES			36.7	13.19
Brief-COPE (emotional)			22.5	5.6
Brief-COPE (problem)			14.7	4.3
Brief-COPE (avoidant)			20.4	5.5
EBQ			42.0	13.14
ECR-S			44.3	10.4
EHQ			9.6	6.6
FAS-III			6.5	3.0
FTS			15.4	5.3

Note: Acronyms are as follows: Adverse Childhood Experiences Questionnaire (ACE-Q), Beliefs about Emotion Scale (BES), Emotion Beliefs Questionnaire (EBQ), Experience of Close Relationships Scale – Short Form (ECR-S), Economic Hardship Questionnaire (EHQ), Family Affluence Scale – 3rd Version (FAS-III), Financial Threat Scale (FTS).

2.4.3 Measures

2.4.3.1 Demographic questionnaire

A set of questions asking about sociodemographic characteristics, including gender, ethnicity, country of residence, marital status, employment status, and housing situation. The full questionnaire can be seen in appendix A.

2.4.3.2 Adverse Childhood Experiences Questionnaire (ACE-Q; Felitti et al., 1998)

A 10-item questionnaire that aims to measure instances of child abuse, maltreatment, and household dysfunction in the first 18 years of life. Each question is answered with a "Yes" or "No" response. Each "Yes" is scored, out of a total of 10. This measure had acceptable internal consistency for the current sample at $\alpha = .77$. The full measure can be seen in appendix F.

2.4.3.3 Beliefs about Emotions Scale (BES; Rimes & Chadler, 2010)

A 12-item questionnaire that measures the beliefs about experiencing and expressing negative thoughts and feelings. Participants answer each question on a 7-point Likert scale, ranging from "Totally Agree" to "Totally Disagree". Higher scores (between 0-72) indicate more negative beliefs about negative thoughts and feelings. This measure had good internal consistency for the current sample at $\alpha = .89$. The full measure can be seen in appendix C.

2.4.3.4 Brief-COPE (Carver, 1997)

A 28-item questionnaire that measures the different coping styles that participants utilise to cope with a stressful life event. Participants answer how frequently they have been engaging in specific coping strategies on a 4-point Likert scale, ranging from "I haven't been doing this at all", to "I've been doing this a lot".

Only the three total subscales were captured for analysis: Problem-focused Coping (total score between 8-32), Emotion-focused Coping (total score between 12-48), and Avoidant Coping (total score between 8-32), with higher scores indicating more use of this specific coping style. This measure had good internal consistency for the current sample at $\alpha = .88$. The full measure can be seen in appendix G.

2.4.3.5 Economic Hardship Questionnaire (EHQ; Lempers et al., 1989)

A 12-item questionnaire that measures indicators of financial difficulty over the last 6 months. The first 10 questions are answered on a 4-point Likert scale from "Never" to "Very Often". Higher scores (between 0-30) suggest a greater perceived financial difficulty. This measure had good internal consistency for the current sample at $\alpha = .88$. The full measure can be seen in appendix D.

2.4.3.6 Emotions Belief Questionnaire (EBQ; Becerra et al., 2020)

A 16-item questionnaire that aims to assess beliefs about how useful and controllable emotions are. Participants answer on a 7-point Likert scale, ranging from "Strongly disagree" to "Strongly agree". Higher scores (between 16-112) indicate greater belief that emotions are uncontrollable and useless. This measure had good internal consistency for the current sample at $\alpha = .88$. The full measure can be seen in appendix B.

2.4.3.7 Experience of Close Relationships Scale, Short version (ECR-S; Wei, et al., 2007)

A 12-item questionnaire that measures attachment avoidance and attachment anxiety, to assess general adult romantic attachment. Bowlby (1973) theorised that early attachment would inform the development of a "trait" attachment pattern in adulthood, which overtime (and without intervention) will become more stable and resistant to change (Puetromonaco, & Beck, 2015) . Utilising a measure that assesses adult romantic relationships allows this variable to be temporally ordered after the X variable (ACE-Q score) despite the cross-sectional design of the study, as each measure asks about temporally distinct periods in life. The measure has been found to provide a reliable and valid measure of adult attachment (Wei, et al., 2007).

Participants answer on 7-point Likert scale, ranging from "Strongly disagree" to "Strongly agree". Lower scores of both can be understood as having a more secure attachment, with higher scores indicating more insecure attachment (between 21-126). This measure had acceptable internal consistency for the current sample at $\alpha = .76$. The full measure can be seen in appendix I.

2.4.3.8 Family Affluence Scale (FAS-III; Hartley et al., 2016)

A 6-item questionnaire regarding the participant's family material assets. The wording of the FAS-III has been amended for use in this study, as it is designed to be given to young people about their current family situation, and we asked adults. Participants choose a response that indicates if, and how many, of certain assets their family possessed when they were children. Higher scores indicate higher levels of family affluence (between 0-13). This measure had acceptable internal consistency for the current sample at $\alpha = .74$. The full measure can be seen in appendix H.

2.4.3.9 Financial Threat Scale (FTS; Marjanovic et al., 2013)

A 6-item questionnaire that measures the participant's perception of their financial situation. Participants answer questions on a 5-point Likert scale, from "Not at all" to "Extremely/A great deal", with higher scores indicating an increased perception of financial difficulty (between 6-30). This measure had good internal consistency for the current sample at $\alpha = .89$. The full measure can be seen in appendix E.

2.4.4 Procedure

Participants accessed the questionnaires via Qualtrics, an online survey website. For their time, participants who accessed via the QR code on the posters were informed that they would be

entered into a raffle to win one of five £25 retail vouchers; participants who accessed via the Sona university research participation system were awarded 8 credits; and participants who accessed via prolific were paid for their time at the rate of £9 an hour.

When accessing Qualtrics participants were shown the combined information sheet and consent form (appendix J). Informed consent was then collected from each participant.

After completing the full battery of questionnaires participants were shown the debriefing form (appendix K), which included information about accessing national and international mental health support services, as well as financial support services.

2.4.5 Ethical Approval

Ethical approval was granted by the University of Southampton Ethics Committee (see appendix M; ERGO ID: 80031). Further amendments were submitted as required as part of the research process (see appendix N).

2.4.6 Statistical Analyses

2.4.6.1 Missing Data

Many of those excluded from the dataset due to non-completion of the questionnaire battery disengaged before they completed the demographic questionnaires. Unfortunately, their reasons for disengagement were not able to be recorded, due to the self-report study design.

Within each completed questionnaire there was little data missing: the ACE-Q had 0.04% missing data points (n= 1), the EHQ had 0.03% missing data points (n= 1), and the EHQ had 0.07% missing data points (n= 1). In these cases, the data were substituted with the whole sample mean or median (depending on data type) value for that variable (Kang, 2013). One question in the demographic questionnaire had 7.5% missing data points (n= 18), as this was over 5% their responses were not replaced and were instead excluded from the dataset used in the analysis (Kang, 2013).

2.4.6.2 Tests of normality and skewness

All data was assessed for normality, with measures of skewness and kurtosis (between -2 and +2) for total scores, scatterplots of all associations, and histograms being used to investigate the distribution of the data. All variables were normally distributed, bar the ACE-Q which was non-normally distributed. All variables were seen to be linear, and without outliers.

2.4.6.3 Statistical Testing

SPSS v29.0.1.0 for Windows was used for all statistical analyses.

Bivariate, one-tailed Pearson's correlations were used to establish associations between variables. Variables that were significantly associated with one another were included in the moderated-mediation analysis. For the moderated-mediation analysis the Baron and Kenny (1986) model was not used, as their assumptions can limit the development of theoretical models (Hayes, 2009). Instead, the PROCESS macro for SPSS was chosen to explore the conditional indirect effects between variables, as this allows the exploration of more complex moderated mediation models while still giving easily interpretable results (unlike alternatives such as structural equation modelling).

2.5 Results

2.5.1 Participant Demographics

239 people participated in the study, table 4 contains the full demographic breakdown. 66.5% (*n*= 159) of the sample were female, with an average age of 25.10 years (*SD*= 8.54), 65.7% were White (*n*= 157), and 56.5% of participants living in the United Kingdom (*n*= 135). 68.6% of participants were single (*n*= 164), 43.5% had achieved at least A-Level qualifications (*n*= 104), 27.6% lived in privately rented housing (*n*= 66), and 36.0% were full or part-time students (*n*= 86).

2.5.2 Variable Correlations

Parametric, bivariate one-tailed Pearson's correlations between each variable are shown in Table 5. One-tailed tests of correlation were used as previously discussed research (see the introduction) would suggest the directionality of these variables, plus the variables measured are at least ordinal, the variables can be paired in their observation of each participant, and by reviewing scatterplots of the data the relationships between variables appear monotonic. However, as the ACE-Q measure was not normally distributed, Spearman's rank correlation (a non-parametric test) was used when correlating this measure with other variables.

The ACE-Q was significantly correlated with all mediating variables in the proposed model (see figure 2; table 5), so moderated mediation analyses were conducted.

Table 5

Bivariate Pearson's Correlations (n= 239)

	ACE-Q	BES	Brief-COPE (emotional)	Brief-Cope (problem)	Brief-Cope (avoidant)	EBQ	ECRS (anxious)	ECRS (avoidant)	ECRS (total)	EHQ	FAS-III	FTS
ACE-Q	**1**											
BES	**.065**	1										
Brief-COPE (emotional)	**.165****	-.142*	1									
Brief-Cope (problem)	**.078**	-.125*	.720**	1								
Brief-Cope (avoidant)	**.260****	.296**	.290**	.110*	1							
EBQ	**-.033**	.110*	-.040	-.072	.190**	1						
ECRS (anxious)	**.200****	.167**	-0.28	-.117*	.283**	.124*	1					
ECRS (avoidant)	**.106**	.309**	-.197**	-.201**	.265**	.160**	.200**	1				
ECRS (total)	**.166****	.309**	-.147*	-.206**	.353**	.184**	.764**	.784**	1			
EHQ	**.376****	-.017	.279**	.181**	.281**	.173**	.134*	.052	.120*	1		
FAS-III	**-.293****	.040	-.016	-.028	.024	-.192**	-.012	.049	.024	-.346**	1	
FTS	**.269****	.129*	.224**	.128*	.371**	.166**	.206**	.072	.178**	.536**	-.263**	1

Note: **Correlation is non-parametric***;* Correlation is parametric; *Correlation is significant at the 0.05 level (1-tailed); **Correlation is significant at the 0.01 level (1-tailed).

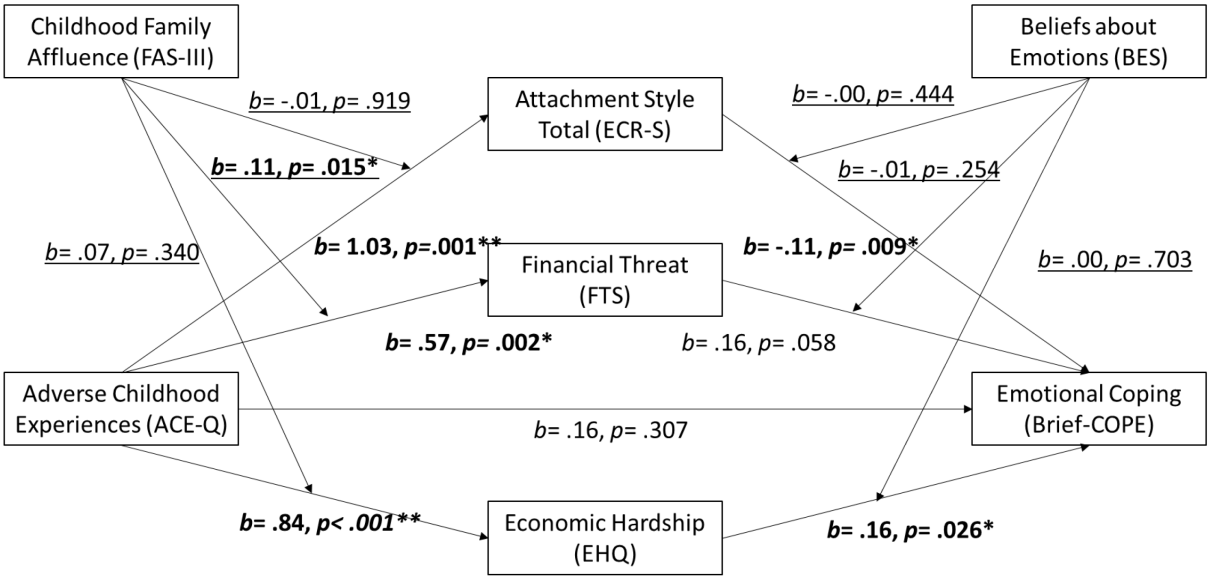
2.5.3 Moderated Mediation Analyses

To investigate the interactions between variables, moderated mediation analyses were conducted to explore the direct and indirect links between the significant relationships. Due to the limitations of the SPSS software package and the PROCESS macro, only models with a maximum of one outcome variable, and up to two moderator variables can be used. As the Brief-COPE does not have a usable total score, instead giving three outcome variables (AFC, PFC, and EFC scores), the proposed model must be split into three (one with each outcome of the Brief-COPE as the outcome variable). Using two different measures of emotional belief (BES and EBQ) to moderate the M→Y path, alongside the existing measure of family affluence (FAS-III) as the moderator of the X→M path, would be too many moderators for SPSS to manage.

Therefore, the proposed models were reconfigured to accommodate the proposed model (see figure 2) within these limitations. The following six revised models were constructed and tested independently using the PROCESS macro v4.1, model 21 (Hayes, 2017) , with bias-corrected 95% confidence intervals (n= 5000; for full results see Appendix P). For the purposes of highlighting the individual relationships between variables, mediators are presented in separate boxes in figures 3-9, unlike figure 2, in which the mediators are combined for readability.

Figure 4

Moderated mediation model 1: The impact of ACEs on Emotional Coping usage, with beliefs about emotion as the second moderator.



Note: Only non-repeated outcomes displayed. **Significant relationship**; moderation results; *relationship is significant at the 0.05 level; **relationship is significant at the 0.01 level.

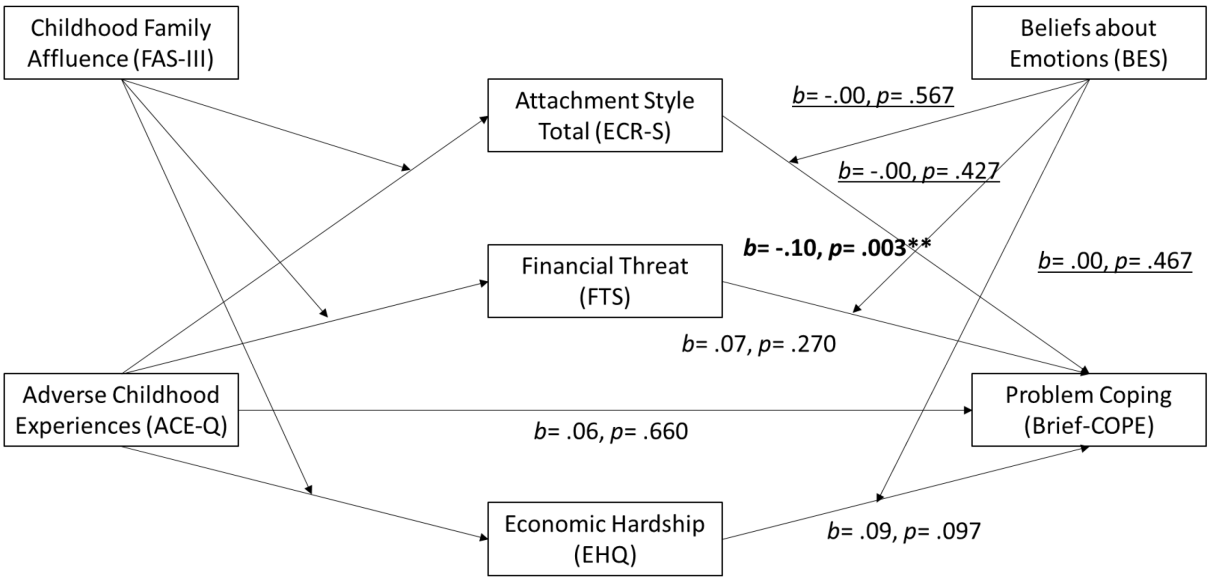
Figure 3 shows no significant direct effect between ACEs and EFC (X→Y: *b*= .16, SE= .15, *t*= 1.02, *p*= .307, CI: -.14; .46). EHQ scores were found to mediated the X→Y path (X→M: *b*= .84, SE= .19, *t*= 4.45, *p*< .001, CI: .47; 1.22; M→Y: *b*= .16, SE= .07, *t*= 2.24, *p*= .026, CI: .02; .30), suggesting that more ACE exposures in childhood are linked with more financial difficulties in adulthood, which in turn are linked with more frequent usage of EFC (maladaptive) approaches.

ECR-S scores were also seen to mediate the X→Y path (X→M: *b*= 1.03, SE= .31, *t*= 3.30, *p*= .001, CI: .42, 1.65; M→Y: *b*= -.11, SE= .04, *t*= -2.65, *p*= .015, CI: -.18, -.03), suggesting that more ACE exposures in childhood are linked with higher ECR-S scores (more insecure attachment patterns), which in turn is linked with lower EFC (maladaptive) approaches.

While not mediating the X→Y path, the significant X→M link between ACEs and financial threat (*b*= .57, SE= .18, *t*= 3.21, *p*= .002, CI: .22, .92) was moderated by FAS-III scores (*b*= .11, SE= .05, *t*= 2.45, *p*= .015, CI: .02, .20). This suggests that more ACE exposures in childhood are linked with more feelings of financial threat in adulthood, and the strength of this link is moderated by the affluence of their family in childhood (FAS-III scores); meaning that those exposed to more ACEs within more affluent families, have a greater sense of financial threat as an adult.

Figure 5

Moderated mediation model 2: The impact of ACEs on Problem Coping usage, with beliefs about emotion as the second moderator.



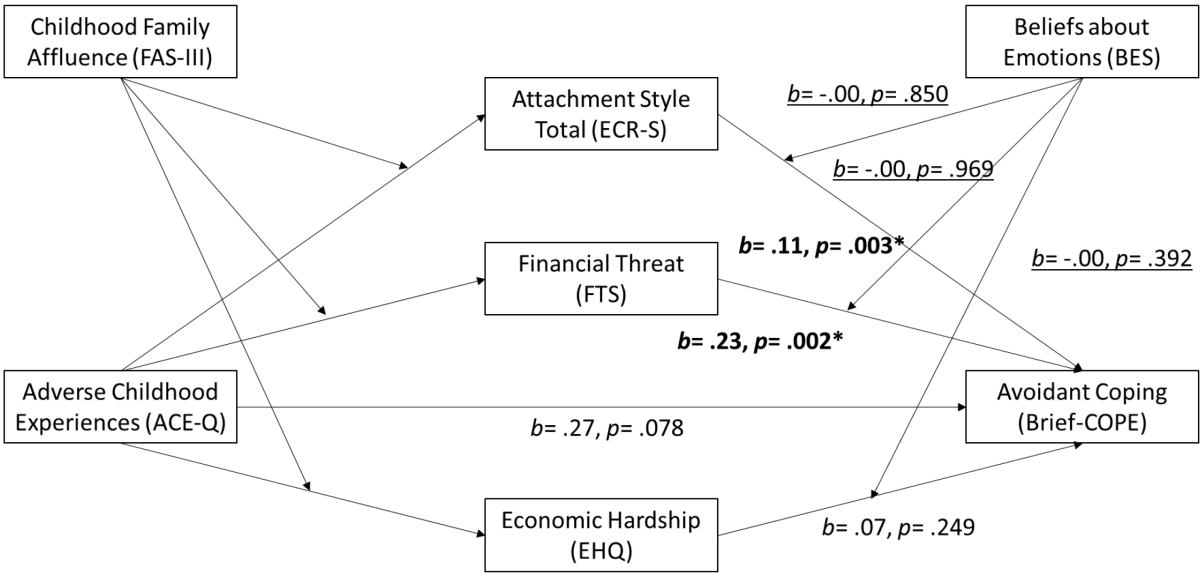
Note: Only non-repeated outcomes displayed. **Significant relationship**; moderation results; *relationship is significant at the 0.05 level; **relationship is significant at the 0.01 level.

Figure 4 shows no direct effect between ACEs and PFC (X→Y: *b*= .06, SE= .14, *t*= .44, *p*= .660, CI: -.21, .33). Only ECR-S scores were seen to mediate the X→Y path (X→M: *b*= 1.03, SE= .31, *t*= 3.30, *p*= .001, CI: .42, 1.65; M→Y: *b*= -.10, SE= .03, *t*= -2.99, *p*= .003, CI: -.16, -.03), suggesting

that more ACE exposures in childhood are linked with higher ECR-S scores (more insecure attachment patterns), which in turn is linked with lower PFC (adaptive) approaches.

Figure 6

Moderated mediation model 3: The impact of ACEs on Avoidant Coping usage, with beliefs about emotion as the second moderator.



Note: Only non-repeated outcomes displayed. **Significant relationship**; moderation results; *relationship is significant at the 0.05 level; **relationship is significant at the 0.01 level.

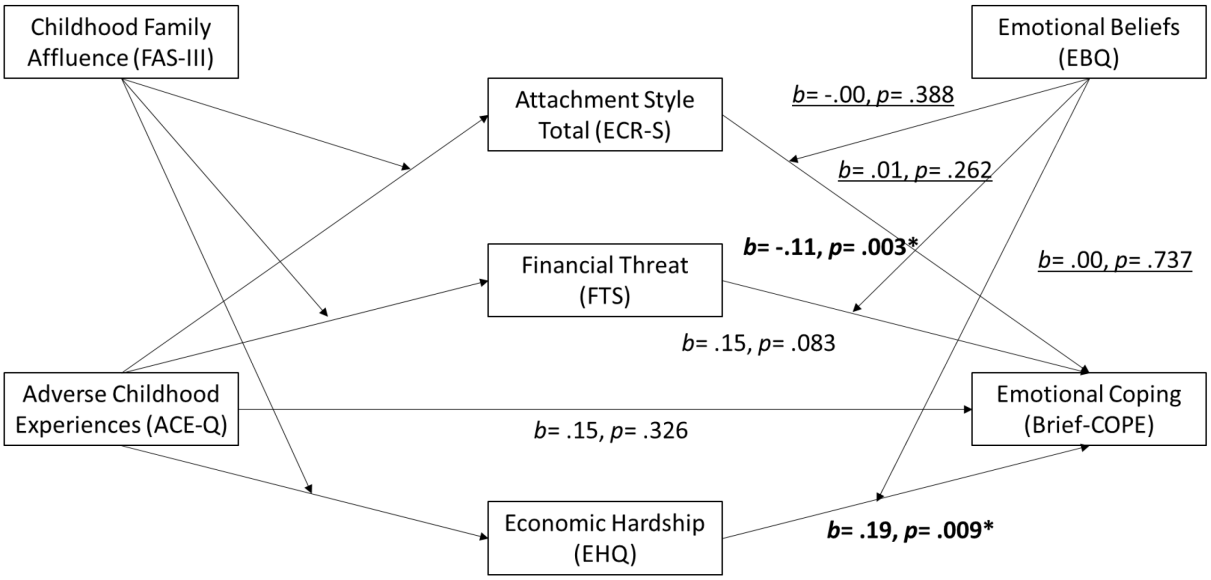
Figure 5 shows no direct effect between ACEs and AFC (X→Y: *b*= .27, SE= .15, *t*= 1.78, *p*= .078, CI: -.03, .56). ECR-S scores were seen to mediate the X→Y path (X→M: *b*= 1.03, SE= .31, *t*= 3.30, *p*= .001, CI: .42, 1.65; M→Y: *b*= .11, SE= .04, *t*= 3.04, *p*= .003, CI: .04, .08), suggesting that more ACE exposures in childhood are linked with higher ECR-S scores (more insecure attachment patterns), which in turn is linked with higher AFC (maladaptive) approaches.

FTS scores (feelings of financial threat) were also seen to mediate the X→Y path (X→M: *b*= .57, SE= .18, *t*= 3.21, *p*= .002, CI: .22, .92; M→Y: *b*= .23, SE= .07 *t*= 3.20, *p*= .002, CI: .09, .38), suggesting that more ACE exposures in childhood are linked with higher FTS scores (more feelings of financial threat in adulthood), which in turn is linked with higher AFC (maladaptive) approaches.

The index of conditional moderated mediation by the FAS-III demonstrates that moderated mediation occurs on the FTS X→M→Y path (FAS-III scores 1 SD above the mean: index= .03, SE: .02, CI: .00, .07; Mean FAS-III scores: index= .03, SE: .01, CI: .0046, .0547; FAS-III score 1 SD below the mean: index= .03, SE: .02, CI: .0004, .0619).

Figure 7

Moderated mediation model 4: The impact of ACEs on Emotional Coping usage, with emotional beliefs as the second moderator.



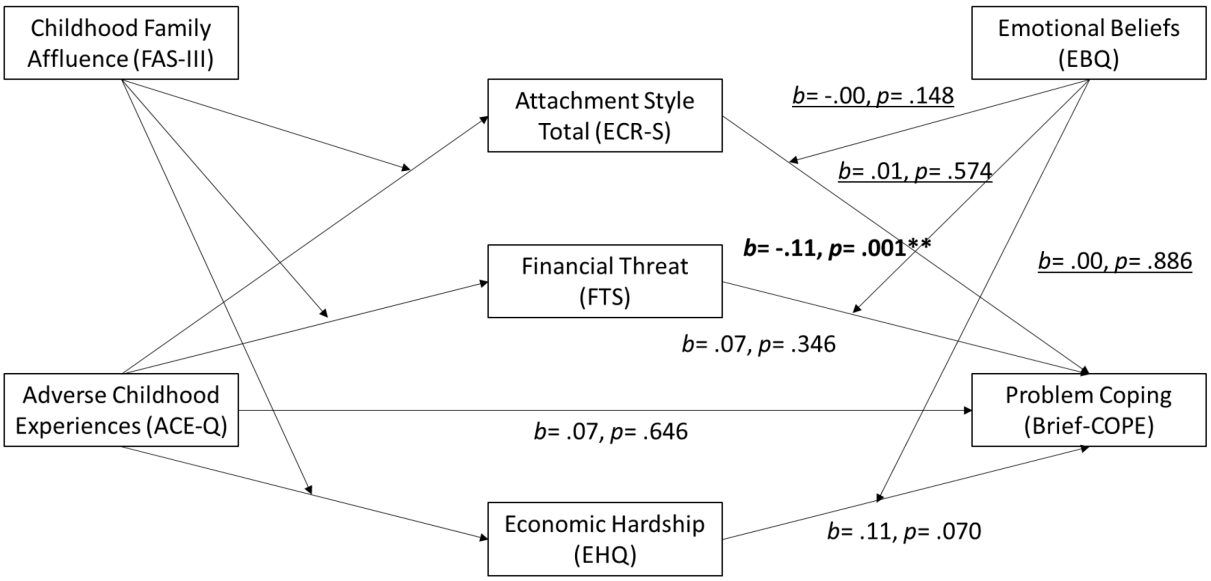
Note: Only non-repeated outcomes displayed. **Significant relationship**; moderation results; *relationship is significant at the 0.05 level; **relationship is significant at the 0.01 level.

Figure 6 shows no direct effect between ACEs and EFC (X→Y: *b*= .15, SE= .16, *t*= .98, *p*= .326, CI: -.16, .46). ECR-S scores were seen to mediate the X→Y path (X→M: *b*= 1.03, SE= .31, *t*= 3.30, *p*= .001, CI: .42, 1.65; M→Y: *b*= -.11, SE= .04, *t*= -3.00, *p*= .003, CI:-.19, -.04), suggesting that more ACE exposures in childhood are linked with higher ECR-S scores (more insecure attachment patterns), which in turn is linked with lower EFC (maladaptive) approaches.

EHQ scores were also seen to mediate the X→Y path (X→M: *b*= .84, SE= .19, *t*= 4.45, *p*< .001, CI: .47, 1.22; M→Y: *b*= .19, SE= .07, *t*= 2.65, *p*= .009, CI: .05, .33), suggesting that more ACE exposures in childhood are linked with higher EHQ scores (more financial difficulties in adulthood), which in turn is linked with higher EFC (maladaptive) approaches.

Figure 8

Moderated mediation model 5: The impact of ACEs on Problem Coping usage, with emotional beliefs as the second moderator.

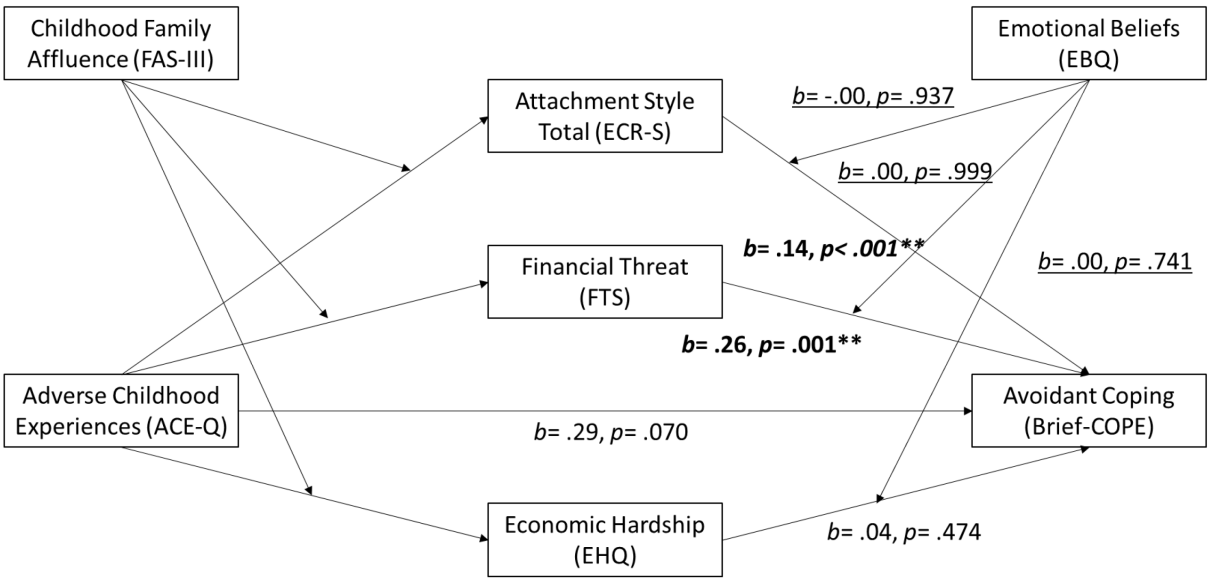


Note: Only non-repeated outcomes displayed. **Significant relationship**; moderation results; *relationship is significant at the 0.05 level; **relationship is significant at the 0.01 level.

Figure 7 shows no direct effect between ACEs and PFC (X→Y: *b*= .07, SE= .15, *t*= .46, *p*= .646, CI: -.23, .37). ECR-S scores were seen to mediate the X→Y path (X→M: *b*= 1.03, SE= .31, *t*= 3.30, *p*= .001, CI: .42, 1.65; M→Y: *b*= -.11, SE= .03, *t*= -3.53, *p*= .001, CI:-.17, -.05), suggesting that more ACE exposures in childhood are linked with higher ECR-S scores (more insecure attachment patterns), which in turn is linked with lower PFC (adaptive) approaches.

Figure 9

Moderated mediation model 6: The impact of ACEs on Avoidant Coping usage, with emotional beliefs as the second moderator.



Note: Only non-repeated outcomes displayed. **Significant relationship**; moderation results; *relationship is significant at the 0.05 level; **relationship is significant at the 0.01 level.

Figure 8 shows no direct effect between ACEs and AFC (X→Y: *b*= .29, SE= .16, *t*= 1.82, *p*= .070, CI: -.02, .60). ECR-S scores were seen to mediate the X→Y path (X→M: *b*= 1.03, SE= .31, *t*= 3.30, *p*= .001, CI: .42, 1.65; M→Y: *b*= .14, SE= .03, *t*= 3.76, *p*< .001, CI: .07, .21), suggesting that more ACE exposures in childhood are linked with higher ECR-S scores (more insecure attachment patterns), which in turn is linked with higher AFC (maladaptive) approaches.

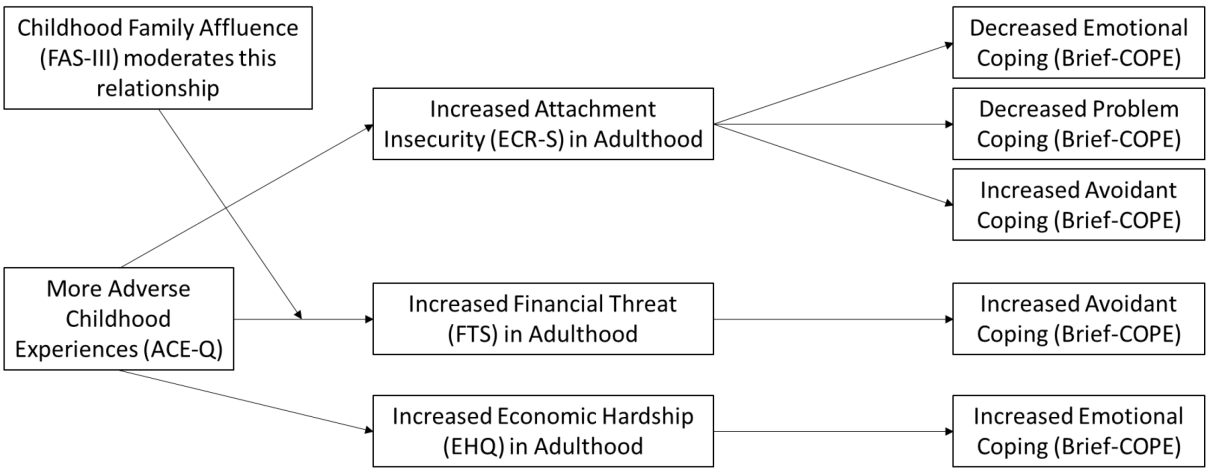
FTS scores (feelings of financial threat) were also seen to mediate the X→Y path (X→M: *b*= .57, SE= .18, *t*= 3.21, *p*= .002, CI: .22, .92; M→Y: *b*= .26, SE= .08 *t*= 3.25, *p*= .001, CI: .10, .41), suggesting that more ACE exposures in childhood are linked with higher FTS scores (more feelings of financial threat in adulthood), which in turn is linked with higher AFC (maladaptive) approaches.

The index of conditional moderated mediation by the FAS-III demonstrates that moderated mediation occurs on the FTS X→M→Y path (FAS-III scores 1 SD above the mean: index= .03, SE: .02, CI: .0029, .0681; Mean FAS-III scores: index= .03, SE: .01, CI: .01, .06; FAS-III score 1 SD below the mean: index= .03, SE: .02, CI: .0019, .0714).

A simplified representation of these results can be seen in figure 9.

Figure 10

Simplified overall moderated mediation model, showing significant moderating and mediating variables, and the outcomes of their interaction.



2.6 Discussion

2.6.1 Main Findings

This study aimed to investigate a proposed model of moderated mediation (see figure 2) between ACEs and coping style. Attachment style, experiences of financial threat and economic hardship, were all used as mediating variables. Childhood family affluence, and beliefs about emotions were used as moderating variables of the relationships between the independent, dependent, and mediating variables.

This model hypothesised that an increase in ACEs would predict more maladaptive coping styles (AFC, EFC), and that this relationship would be mediated by attachment patterns, and financial difficulties. Initial correlations showed relationships between these variables, and moderated mediation analysis explored these in more depth.

The moderated mediation analyses showed that ACEs and coping styles were not directly related, but instead were mediated via someone's attachment pattern. More exposure to ACEs predicted more insecure attachment patterns, and more insecure attachment patterns predicted increased use of AFC, and a reduction in the use of both EFC and PFC, in line with research (Gipple et al., 2006). These findings support research that suggested ACEs would reduce the breadth of coping resources available to an individual (Méndez-Méndez et al., 2021), as their attachment blueprint for responding to distress was developed based on the actions of an adult who was less able to do so themselves (Steele et al., 1996). It may be that those who developed an insecure attachment, alongside ACE exposure, learned that emotions were negative and uncontrollable, avoiding them for personal safety. This idea is reflected in the observed significant correlations between attachment insecurity and beliefs that emotions are uncontrollable and negative in nature in our sample. However, emotional belief (both BES and EBQ scores) did not moderate any of the observed relationships between variables. This suggests that the development of these beliefs may be unrelated, or the product of some other psychological process, unobserved by this investigation.

Family affluence in childhood and economic hardship in adulthood was seen to be significantly negatively correlated, showing how difficult it can be to escape poverty for those who are born into it (Diwakar & Shepherd, 2022). The moderated mediation of AFC on ACEs, through feelings of financial threat, by childhood family affluence suggests a more complex relationship between these variables. Interestingly, the link between exposure to ACEs and feelings of financial threat was strengthened by increasing affluence of their childhood family; this suggests that

experiences of abuse and household dysfunction lead to more worries around finances for those from wealthier families, rather than the increase in resources being a protective factor (Evans & Cassells, 2014).

Hypothesis one, that ACEs will be related to more insecure attachment patterns, more financial threat, and more economic hardship, can be accepted, as ACE-Q scores were significantly related to ECR-S, FTS, and EHQ scores. Hypothesis two, that more insecure attachment patterns, financial threat, and economic hardship will be related to more maladaptive coping styles, can be partially accepted, as ECR-S scores were significantly related to a decrease in adaptive PFC and an increase in maladaptive AFC, but a decrease in maladaptive EFC. Hypothesis three, that the link between ACEs and coping style will be mediated by attachment pattern, financial threat, and economic hardship, can be accepted. Hypothesis four, that the links between ACEs, financial threat, and economic hardship will be moderated by childhood family affluence, can be partially accepted, as FAS-III scores only moderated the ACE-Q→FTS relationship. Hypothesis five, that the links between attachment pattern, financial threat, economic hardship, and coping style will be moderated by beliefs about emotions, can be rejected, as emotional beliefs were not found to moderate any of the relationships.

2.6.2 Strengths and Limitations of the research

A strength of this research is that it shows an in-depth exploration of the relationships between variables observed in the research, offering explanations for these relationships in the forms of the mediational functions of attachment patterns and financial difficulties. Another strength is the sample size, as the total (*n*= 239) was more than double the estimated required sample (*n*= 74) for 0.80 power to be achieved. This means that the results can be held with some confidence in their validity. This study has contributed to the development of theory around coping, attachment, financial difficulties, and ACEs; the findings have shown the existence of relationships between these variables, and in particular exploring the role of economic hardship, something that ACE studies have been criticised for not doing enough previously (Braverman, et al., 2018).

However, the main limitation of this research comes in the analysis. By splitting the proposed model into six sub-models, the number of individual calculations increases; in doing so the potential for bias and type 1 error also increase. This means that the results should be considered with potential bias in mind. Another limitation would be the design of the study; though it is an appropriate method for theory development, by utilising a cross-sectional approach the predictive capability of the analysis is reduced, and the results should again be considered with their exploratory nature in mind. Another limitation would be the sample, as

while enough were recruited for power it remains a very narrow slice of the target population; majority White, female, and British in composition; therefore, applying these findings to other groups should be done so with caution, as they may not accurately describe their experiences.

2.6.3 Clinical implications

Where this study has highlighted the role of attachment patterns, and financial security, in the development of coping styles, the following clinical implications become apparent. Firstly, where the aim of clinical interventions is to reduce experienced distress, attachment style and financial situations should be considered; these may be barriers to recovery that are being missed, which could be mitigated. Secondly, more input to address financial difficulties should be explored within services, as this study saw that experiences of financial threat were significantly correlated with all other variables (bar avoidant attachment styles), and mediated the relationship between ACEs and AFC, and that economic hardship mediated the relationship between ACEs and EFC. Reducing the impact of financial difficulty maps onto the NHS England Long Term Plan (NHS England, 2019) and Five Year Forward View (NHS England, 2014), which both aim to improve access to employment support interventions and help those with mental health difficulties to find and retain work. The results of this study suggest that reducing the hardship and threat experienced may help people to better engage in PFC strategies. Finally, consider the use of attachment informed models of service delivery; insecure attachment patterns may be leading to less helpful methods of coping, which in turn act as barriers to recovery.

2.6.4 Recommendations for future research

A clear avenue for future research would be to undertake a similar study, but over a substantial amount of time so that attachment could be measured at multiple timepoints throughout its initial development in childhood and throughout adolescence. Doing so would allow for greater certainty in the predictive abilities of the findings recorded due to the longitudinal nature of the data collection allowing for certainty of the temporal organisation of the variables (Hayes, 2017), as well as the theoretical underpinning of the model itself. This model suggests that ACEs in the first eighteen years of life have contributed to the formation of adult attachment patterns, which suggests that attachment patterns themselves are not fixed. In a review of the research into attachment stability, McConnell and Moss (2011) highlight the importance of an individual's dynamic relationship and interactions with both their caregivers, and their environment, in the formation of a stable attachment. Measuring attachment across childhood and into adolescence would allow for a closer investigation of the role of these dynamic interactions, the

stability of early attachment relationships into adulthood, and the factors that impact stability and change in attachment patterns.

2.7 Conclusions

This research set out to explore the link between ACEs and coping styles, looking at the roles of attachment patterns, emotional beliefs, and financial difficulties. While emotional beliefs were not seen to play a significant role in the process, it can be said with confidence that both attachment patterns and financial difficulties were seen to play a role in the process. However, more work needs to be done to be able to say that these processes can be applied to more diverse populations within the United Kingdom or applied abroad in other cultures.

Appendix A Demographic Questionnaire

Q1 **What is your gender?**

- ○ Female
- ○ Male
- ○ Non-binary
- ○ I use another term to describe my gender, please state below:
_____
- ○ Prefer not to say

Q2 **How old are you?**

_____

Q3 **What is your ethnic group?**

- ○ White
- ○ Black
- ○ Asian
- ○ Mixed ethnic background
- ○ Any other ethnic group

Q3.1.1 Please select one of the following

- ○ White Welsh/English/Scottish/Northern Irish/British
- ○ White Irish
- ○ White Gypsy or Irish Traveller
- ○ Any other White background

Q3.1.2 Please select one of the following

- ○ Black British
- ○ Black African
- ○ Black Caribbean
- ○ Any other Black/African/Caribbean background

Q3.1.3 Please select one of the following

- ○ Asian/Asian British - Indian
- ○ Asian/Asian British - Pakistani
- ○ Asian/Asian British - Bangladeshi
- ○ Asian/Asian British - Chinese
- ○ Any other Asian background
- ○ Arab

Q3.1.4 Please select one of the following

- ○ White and Black Caribbean - Mixed/Multiple ethnic groups
- ○ White and Black African - Mixed/Multiple ethnic groups
- ○ White and Asian - Mixed/Multiple ethnic groups
- ○ Any other Mixed/Multiple ethnic background

Q3.1.5 Please state your ethnic group

_____

Q4 In which country do you currently reside?

▼ Afghanistan ... Zimbabwe

Q5 What is your current marital status?

- ○ Divorced
- ○ Living with partner
- ○ Married
- ○ Separated
- ○ Single
- ○ Widowed

Q6 What is the highest level of education you have completed?

- ○ Did not complete secondary school
- ○ Secondary school (GCSEs/O Levels)
- ○ College (A Levels)
- ○ Vocational/technical school
- ○ Higher Education Certificate
- ○ Diploma
- ○ Masters Degree
- ○ Doctoral Level
- ○ Professional Degree

Q7 How would you describe your housing situation?

- ○ Home owned outright
- ○ Home owner with mortgage
- ○ Social rented housing (including housing associations)
- ○ Private rented housing
- ○ Temporary council-provided housing
- ○ Permanent council-provided housing
- ○ Living with family or friends without paying rent
- ○ Sofa-surfing
- ○ Other, please describe: _____
- ○ Unsure

Q8 What is your employment status?

- ○ Working full-time (30 hours per week or more)
- ○ Working part-time (less than 30 hours per week)
- ○ Self-employed
- ○ Full or part-time student
- ○ Retired
- ○ Unemployed and looking for work
- ○ Look after the home/caring for family
- ○ Unable to work because of ill health or disability
- ○ Other, please describe: _____

Q9 If you are working, how would you describe your occupation?

- ○ Higher managerial, administrative, professional, e.g. Chief executive, senior civil servant, surgeon
- ○ Intermediate managerial, administrative, professional, e.g. bank manager, teacher
- ○ Supervisory, clerical, junior managerial, e.g. shop floor supervisor, bank clerk, sales person
- ○ Skilled manual workers, e.g. electrician, carpenter
- ○ Semi-skilled and unskilled manual workers, e.g. assembly line worker, refuse collector, messenger
- ○ Not applicable - unemployed/retired

Appendix B Emotion Beliefs Questionnaire (EBQ)

REDACTED

Appendix C Beliefs about Emotions Scale (BES)

REDACTED

Appendix D Economic Hardship Questionnaire (EHQ)

REDACTED

Appendix E Financial Threat Scale (FTS)

REDACTED

Appendix F Adverse Childhood Experiences Questionnaire (ACE-Q)

REDACTED

Appendix G Brief-COPE

REDACTED

Appendix H Family Affluence Scale (FAS-III)

REDACTED

Appendix I Experience of Close Relationships Scale – Short Form (ECR-S)

REDACTED

Appendix J Participant Information and Consent Form

Q2 Participant Information Sheet
Version 3.0, 19.06.23

Study Title: How do money problems and childhood experiences impact the ways in which we seek help and cope with problems in adulthood.
Researchers: David Hayward and Stella Pareas
ERGO number: 80031

You are being invited to take part in the above research study. To help you decide whether you would like to take part or not, it is important that you understand why the research is being done and what it will involve. Please read the information below carefully and ask questions if anything is not clear or you would like more information before you decide to take part in this research. You may like to discuss it with others but it is up to you to decide whether or not to take part. If you are happy to participate you will be asked to complete a consent form.

What is the research about?
David Hayward and Stella Pareas are Trainee Clinical Psychologists working towards their Doctorate in Clinical Psychology. These research projects are a core part of this qualification. Participants taking part in this single survey will contribute to both of the studies detailed below.

Study 1 by David Hayward: David is looking at how difficult experiences during childhood might influence the ways in which they cope as an adult. To help understand this link, the study will also look at the role of experiences of financial difficulties and the nature of a person's relationship with their main caregiver when they were growing up. It is hoped that in understanding the factors which affect how someone copes, we may be able to target support to those most in need during a crisis.

Study 2 by Stella Pareas: Stella is investigating how adult attachment style (the way we tend to respond in relationships impacted by our upbringing), trust for services and the perception that services have been supportive/not supportive in the past and mental health changes the relationship between worry about finances and help-seeking over time. Help-seeking can be understood through attitudes (the belief that specific means of formal support is helpful/not

helpful), intentions (the planned action to access support) and actual behaviour (e.g. self-referral to a service and/or access to appointments).

Data from the study may be used to look at other research questions such as the impact of gender on finances and mental health.

Why have I been asked to participate?

Adults aged 18 and over can take part regardless of the childhood you had, or your current financial or mental health situation. We are particularly interested in receiving responses from people who are struggling financially/to pay their bills and who are using mental health services.

What will happen to me if I take part?

You will complete a series of questionnaires that are online and confidential. These questionnaires will take approximately 20 to 40 minutes and you will be asked to complete them 3 times over a 6 month period, meaning a total time contribution of 60 to 120 minutes. You will be asked to share your first and last names, demographic information and email address, so that we can contact you about follow-up questionnaires. Contact information will be not be directly linked to data gathered from the survey and will only be used to make contact to request completion of follow-up questionnaires. We will contact you via email to ask you complete them again 3 months after the first time and again, another 3 months after that.

Participants will be entered into a prize draw on completion of the questionnaires. Students from the University of Southampton will have the option to receive 4 credits for their participation or enter into this prize draw.

Are there any benefits in my taking part?

Those who take part in this research will be put in a prize draw to win an Amazon voucher each time you complete the questionnaires to thank you for your participation. On completion on the questionnaires will have the opportunity to win one of five £25 Amazon vouchers at each timepoint. University of Southampton students will be able to earn 4 credits for their participation on the completion of their survey (12 for all 3 timepoints).

Your involvement in this research will develop our understanding of how financial difficulties affect mental health and can inform how services can support people who are experiencing these difficulties.

Whilst there may be no direct benefit in supporting participants with their current difficulties, we

will provide information of services in the UK that can provide support for both financial and mental health difficulties.

Are there any risks involved?

The questionnaires we are using will ask you about difficult childhood experiences, your emotional state and your financial difficulties which could cause psychological discomfort or distress for some participants. As mentioned above, information for services that participants can access will be made available in the debrief form and we encourage you to contact them if you feel this has affected you negatively either during or following the study.

Information for services that participants can access will be made available at the end of each set of questionnaires as well as in the debrief form at the end of the study. We encourage you to contact them if you feel this has affected you negatively either during or following the study.

What data will be collected?

Demographic information which is special category data under Data Protection will be collected from participants, namely information about age, gender identity, ethnicity, and other information.

Participants will be asked to provide their email addresses and first name so that researchers can contact them at follow-up data collection time-points. All contact information will be deleted at the end of our course in September 2024. Questionnaire data will be pseudonymised (non-identifiable by the information held on the data spreadsheet) and all data spreadsheets will be password encrypted.

Only the researchers will have access to the passwords and the digital files for the duration of our studies. Following May 2024, only our supervisors will have access to this data for storage purposes for 10 years.

Will my participation be confidential?

Yes: Your participation and the information we collect about you during the course of the research will be kept strictly confidential.

Only members of the research team and responsible members of the University of Southampton may be given access to data about you for monitoring purposes and/or to carry out an audit of the study to ensure that the research is complying with applicable regulations. Individuals from regulatory authorities (people who check that we are carrying out the study

correctly) may require access to your data. All of these people have a duty to keep your information, as a research participant, strictly confidential.

All identifiable information will be held on a separate spreadsheet to data. All spreadsheets will be encrypted using passwords and so will be accessible only by the researchers and their supervisors (contact details below). Collected information will be analysed using laptops provided by the University of Southampton which are security protected.

Do I have to take part?

No, it is entirely up to you to decide whether or not to take part. If you decide you want to take part, you will need to sign a consent form to show you have agreed to take part.

You can take part in the first time point and then change your mind if you don't want to continue in the future.

Participants can choose to click on the link to access the questionnaires for these studies. You will be asked whether you consent to taking part in this research and will only be directed to the questionnaires if you would like to, which you can indicate by clicking the tickbox that you consent to this.

What happens if I change my mind?

You have the right to change your mind and withdraw at any time without giving a reason and without your participant rights being affected.

You can contact the researchers via email on d.r.hayward@soton.ac.uk or s.r.pareas@soton.ac.uk to withdraw from the studies any time up until 2 weeks after the final data collection.

If you withdraw from the study, we will keep the information about you that we have already obtained for the purposes of achieving the objectives of the study only.

What will happen to the results of the research?

Your personal details will remain strictly confidential. Research findings made available in any reports or publications will not include information that can directly identify you without your specific consent.

The results will be analysed and written up as reports that contribute to our course. It is likely

that the findings will be written in the form of an article to be published in a peer-reviewed journal.

The anonymised data collected will be uploaded to a data suppository and will be publicly available for other researchers to access. This is to support transparency within research.

Where can I get more information?

If you have any further questions after reading this Participant Information Sheet, you can contact the researchers via email on d.r.hayward@soton.ac.uk or s.r.pareas@soton.ac.uk

What happens if there is a problem?

If you have a concern about any aspect of this study, you should speak to the researchers who will do their best to answer your questions. If you remain unhappy or have a complaint about any aspect of this study, please contact the University of Southampton Head of Ethics and Clinical Governance (023 8059 5058, rgoinfo@soton.ac.uk).

Researchers: David Hayward, d.r.hayward@soton.ac.uk; Stella Pareas, s.r.pareas@soton.ac.uk
Supervisors: Dr Thomas Richardson, t.h.richardson@soton.ac.uk; Dr Nick Maguire, nick.maguire@soton.ac.uk

Data Protection Privacy Notice

The University of Southampton conducts research to the highest standards of research integrity. As a publicly-funded organisation, the University has to ensure that it is in the public interest when we use personally-identifiable information about people who have agreed to take part in research. This means that when you agree to take part in a research study, we will use information about you in the ways needed, and for the purposes specified, to conduct and complete the research project. Under data protection law, 'Personal data' means any information that relates to and is capable of identifying a living individual. The University's data protection policy governing the use of personal data by the University can be found on its website (https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page).

This Participant Information Sheet tells you what data will be collected for this project and whether this includes any personal data. Please ask the research team if you have any questions or are unclear what data is being collected about you.

Our privacy notice for research participants provides more information on how the University of Southampton collects and uses your personal data when you take part in one of our research projects and can be found at http://www.southampton.ac.uk/assets/sharepoint/intranet/ls/Public/Research%20and%20Integrity%20Privacy%20Notice/Privacy%20Notice%20for%20Research%20Participants.pdf

Any personal data we collect in this study will be used only for the purposes of carrying out our research and will be handled according to the University's policies in line with data protection law. If any personal data is used from which you can be identified directly, it will not be disclosed to anyone else without your consent unless the University of Southampton is required by law to disclose it.

Data protection law requires us to have a valid legal reason ('lawful basis') to process and use your Personal data. The lawful basis for processing personal information in this research study is for the performance of a task carried out in the public interest. Personal data collected for research will not be used for any other purpose.

For the purposes of data protection law, the University of Southampton is the 'Data Controller' for this study, which means that we are responsible for looking after your information and using it properly. The University of Southampton will keep identifiable information about you for 10 years after the study has finished after which time any link between you and your information will be removed.

To safeguard your rights, we will use the minimum personal data necessary to achieve our research study objectives. Your data protection rights – such as to access, change, or transfer such information - may be limited, however, in order for the research output to be reliable and accurate. The University will not do anything with your personal data that you would not reasonably expect.

If you have any questions about how your personal data is used, or wish to exercise any of your rights, please consult the University's data protection webpage (https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page) where you can make a request using our online form. If you need further assistance, please contact the University's Data Protection Officer (data.protection@soton.ac.uk).

Thank you

Thank you for taking the time to read this information sheet and considering to take part in this research.

Q3 Do you consent to taking part in this study, having read the participant information sheet, with the awareness that your participation is voluntary and you can stop it at any time?

- ○ I consent
- ○ I do not consent

Appendix K Debriefing Form

Q1 **Ethics/ERGO number:** 80031

Researcher(s): David Hayward, Stella Pareas

University email(s): d.r.hayward@soton.ac.uk; s.r.pareas@soton.ac.uk

Further support

If taking part in this study has caused you discomfort or distress, you can contact the following organisations for support:

- Your local GP – they can talk to you about any distress you may be feeling and will be able to support a referral to a local and accessible mental health support service.
- Your local Improving Access to Psychological Therapies service – by searching for your local "IAPT" service online, you will be able to find your local mental health support service and guidance on how to access them. Also, you can speak with your GP about this too.
- Call 116 123 to talk to Samaritans, or email: jo@samaritans.org for a reply within 24 hours.
- Text "SHOUT" to 85258 to contact the Shout Crisis Text Line
- NHS 111 – you can call the non-emergency NHS number if you not able to speak to your local NHS mental health support team for guidance on who to contact in your area.
- In an emergency or if you feel as though you cannot keep yourself safe, call 999 or go to your local A&E department. You will not be wasting anyone's time by doing so and they will support you to stay safe in the short term.
- Current students of the University of Southampton can also access support and advice on the issues raised in this study, and others, via the Student Union Advice Centre. https://www.susu.org/support/ and advice@susu.org .

International support

If you are taking part in this study from outside of the UK and would like to seek support, please consider contacting the following organisations:

- CALM (The Campaign Against Living Miserably) maintain a list of mental health charities, organised by country: https://www.thecalmzone.net/international-mental-health-charities
- Find a Helpline maintains a list of hotlines for different difficulties for a variety of different countries: https://findahelpline.com/
- Help Guide maintains a list of international phone numbers and helplines, organised by country and difficulty: https://www.helpguide.org/find-help.htm

Financial support services include:

- Citizens Advice (for your local area) – they can provide information and support to navigate services and provide advice as to who you can contact and what you might need to do to manage a financial situation.
- Money and Mental Health Advice – this service offers advice around finances and mental health if you are finding your financial situation is affecting your mental health. They can be found at this website link: https://www.mentalhealthandmoneyadvice.org/en/
- StepChange Debt Charity – this organisation can provide free expert debt advice. You can contact them by calling 0800 138 1111 8am-8pm Monday to Friday, or 9am-2pm on Saturdays. You can also access their website here: https://www.stepchange.org/
- Money and Pensions Service – this government service can offer free guidance around money and pension. They can be accessed through their website: https://www.moneyhelper.org.uk/en
- National Debtline – this service provide free, expert advice on how to manage your finances and debt. They can be reached by calling 0808 808 4000 Monday to Friday 9am-8pm or Saturdays 9.30am-1pm, or by accessing their website: https://www.nationaldebtline.org/
- Turn2Us – this national charity provides practical help to people who are struggling financially. You can access their website using the link: https://www.turn2us.org.uk/About-Us By looking through their website, you can see the type of support they may be able to provide and you will be asked to register and provide some information about what kind of support you need.
- University of Southampton Student's Union for current students – Support can be accessed via The Advice Centre for free, independent, and confidential advice and support on a range of issues including finances, mental health and housing. https://www.susu.org/support/

Further information

If you have any concerns or questions about this study, please contact David Hayward and Stella Pareas at d.r.hayward@soton.ac.uk; s.r.pareas@soton.ac.uk who will do their best to help.

If you remain unhappy or would like to make a formal complaint, please contact the Head of Research Integrity and Governance, University of Southampton, by emailing: rgoinfo@soton.ac.uk, or calling: + 44 2380 595058.

Please quote the Ethics/ERGO number which can be found at the top of this form. Please note that if you participated in an anonymous survey, by making a complaint, you might be no longer anonymous.

Thank you again for your participation in this research.

We will contact you in 3 months' time to complete this survey again.

Appendix L Study Adverts

Version 1.1 28.09.2023
ERGO: 80031

University of Southampton

Researcher contact information:
David Hayward *d.r.hayward@soton.ac.uk*
Stella Pareas *s.r.pareas@soton.ac.uk*

Did you have a difficult childhood?

We are looking for people to take part in our research into how money, and childhood experiences, effect us in adulthood.

Anyone can take part, whether you had a good or bad childhood, money problems or financial security.

To find out more and sign up to take part, please scan the QR code and folow the link to our information sheet.

Everyone who takes part will be entered into a prize draw to win one of five £25 retail vouchers after each survey!

What will I have to do?
Completing an online survey now, in 3 months, and in 6 months time.

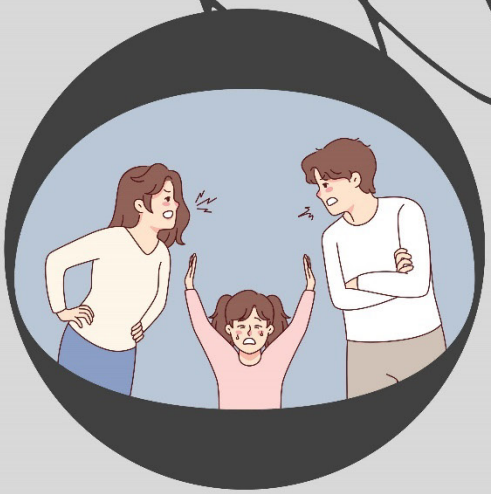
tinyurl.com/3hcmepxb

Version 1.1 28.09.2023
ERGO: 80031

University of Southampton

Researcher contact information:
David Hayward *d.r.hayward@soton.ac.uk*
Stella Pareas *s.r.pareas@soton.ac.uk*

Do you have a difficult relationship with your parents?



We are looking for people to take part in our research into how money, and childhood experiences, effect us in adulthood.

Anyone can take part, whether you had a good or bad childhood, money problems or financial security.

To find out more and sign up to take part, please scan the QR code and folow the link to our information sheet.

Everyone who takes part will be entered into a prize draw to win one of five £25 retail vouchers after each survey!

What will I have to do?
Completing an online survey now, in 3 months, and in 6 months time.

tinyurl.com/
3hcmepxb

Version 1.1 28.09.2023
ERGO: 80031

University of Southampton

Researcher contact information:
David Hayward *d.r.hayward@soton.ac.uk*
Stella Pareas *s.r.pareas@soton.ac.uk*

Do you have a good relationship with your parents?

We are looking for people to take part in our research into how money, and childhood experiences, effect us in adulthood.

Anyone can take part, whether you had a good or bad childhood, money problems or financial security.

To find out more and sign up to take part, please scan the QR code and folow the link to our information sheet.

Everyone who takes part will be entered into a prize draw to win one of five £25 retail vouchers after each survey!

What will I have to do?
Completing an online survey now, in 3 months, and in 6 months time.

tinyurl.com/3hcmepxb

Version 1.1 28.09.2023
ERGO: 80031

University of Southampton

Researcher contact information:
David Hayward *d.r.hayward@soton.ac.uk*
Stella Pareas *s.r.pareas@soton.ac.uk*

Did you have a happy childhood?

We are looking for people to take part in our research into how money, and childhood experiences, effect us in adulthood.

Anyone can take part, whether you had a good or bad childhood, money problems or financial security.

To find out more and sign up to take part, please scan the QR code and folow the link to our information sheet.

Everyone who takes part will be entered into a prize draw to win one of five £25 retail vouchers after each survey!

What will I have to do?
Completing an online survey now, in 3 months, and in 6 months time.

tinyurl.com/3hcmepxb

Version 3.1 28.09.2023
ERGO: 80031

University of Southampton

Researcher contact information:
David Hayward *d.r.hayward@soton.ac.uk*
Stella Pareas *s.r.pareas@soton.ac.uk*

Research Participants Wanted

We are looking for people to take part in our research into how money, and childhood experiences, effect us in adulthood.

Anyone can take part, whether you had a good or bad childhood, money problems or financial security.

To find out more and sign up to take part, please scan the QR code and follow the link to our information sheet.

Everyone who takes part will be entered into a prize draw to win one of five £25 retail vouchers after each survey!

What will I have to do?
Completing an online survey now, in 3 months, and in 6 months time.

tinyurl.com/3hcmepxb

Are you struggling with bills and debt?

University of Southampton

Take part in a psychology study about money and mental health
ERGO ID: 80031
Version 1.1, 28.09.23

Aim

To investigate how money and childhood experiences affect us in adulthood

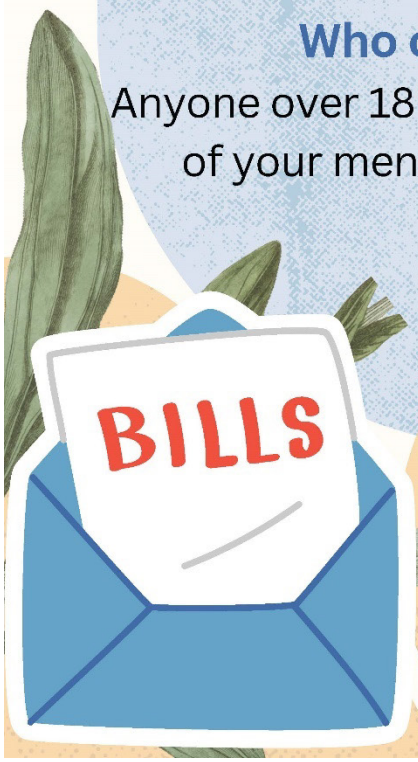
What does it involve?

Completing an online survey now, in 3 months and in 6 months. It should take 30-40 minutes.

Who can take part?

Anyone over 18 can take part, regardless of your mental health or financial situation

Each time you complete the survey, you could win one of five £25 retail vouchers



To access the survey please use the URL or QR code below:

https://tinyurl.com/3hcmepxb

If you have any questions please email David or Stella at D.R.Hayward@soton.ac.uk or S.R.Pareas@soton.ac.uk

Are you worrying about the cost of living crisis and paying your bills?

University of Southampton

Take part in a psychology study about money and mental health

ERGO ID: 80031

Version 1.1, 28.09.23

Aim

To investigate how money and childhood experiences affect us in adulthood

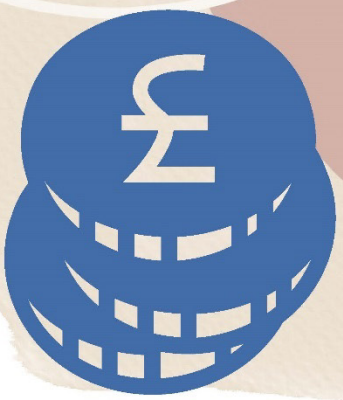
Who can take part?

Anyone over 18 can take part, regardless of your mental health or financial situation

What does it involve?

Completing an online survey now, in 3 months and in 6 months. It should take 30-40 minutes.

Each time you complete the survey, you could win one of five £25 retail vouchers



To access the survey please use the URL or QR code below:

https://tinyurl.com/3hcmepxb

If you have any questions please email David or Stella at D.R.Hayward@soton.ac.uk or S.R.Pareas@soton.ac.uk

Have you sought help from mental health services?

University of Southampton

Take part in a psychology study about money and mental health

ERGO ID: 80031

Version 1.1, 28.09.23

Aim

To investigate how money and childhood experiences affect us in adulthood

What does it involve?

Completing an online survey now, in 3 months and in 6 months. It should take 30-40 minutes.

Who can take part?

Anyone over 18 can take part, regardless of your mental health or financial situation

Each time you complete the survey, you could win one of five £25 retail vouchers

To access the survey please use the URL or QR code below:

https://tinyurl.com/3hcmepxb

If you have any questions please email Stella or David at S.R.Pareas@soton.ac.uk or D.R.Hayward@soton.ac.uk

Are you a man worried about your finances and your mental health?

University of Southampton

Take part in a psychology study about money and mental health

ERGO ID: 80031
Version 1.1, 28.09.23

What does it involve?

Completing an online survey now, in 3 months and in 6 months. It should take 30-40 minutes.

Aim

To investigate how money and childhood experiences affect us in adulthood

Anyone over 18 can take part, regardless of your mental health or financial situation

Each time you complete the survey, you could win one of five £25 retail vouchers

To access the survey please use the URL or QR code below:

https://tinyurl.com/3hcmepxb

If you have any questions please email Stella or David at S.R.Pareas@soton.ac.uk or D.R.Hayward@soton.ac.uk

Appendix M Ethical Approval

Latest Review Comments

17/07/2023 12:07:50 - RIG: Approved

Comments:

Dear Researcher

I am pleased to inform you that full Governance approval has now been granted by the Research Ethics and Governance Team. Please could you address to two very minor issues I found in the information sheet and update your copies of the document. Please also see my comments on the use of social media below:

PIS

Section: What will happen to me if I take part?

"You will complete a series of questionnaires that are online and confidential. These questionnaires will take approximately 20 to 30 minutes and you will be asked to complete them 3 times over a 6-month period (please see diagram explaining this below)"

- Please remove reference to removed diagram.
- The PIS states complaints can be made to the UoS Research Integrity & Governance Manager. This position no longer exists; please replace with title with Head of Ethics & Clinical Governance. All other details remain the same.

I note that you intend to recruit on social media, please see below for the limitations of its use in participant recruitment:

Personal accounts

- Researchers should not send direct messages to all their contacts list on their accounts.
- If the topic is sensitive in nature, comments should be turned off.
- It is better to set up a study specific groups/page stating that it is for research purposes.

Private accounts

- If recruiting via closed, private or restricted profiles, groups or forums the researcher must first seek permission of the moderator/Gatekeeper.

Use of the Hashtag

This is not advised because of the following:

- someone can be accessed through the hashtag.
- using a hashtag for an organisation such as a school or charity because this is recruiting without gatekeeper approval.

We wish you success with your study.

24/07/2023 10:55:20 - RIG: Approved

No comments

Appendix N Ethical Amendments

N.1 First Amendment

Summary of amendments 28.07.2023

The following amendments have been made to the participant information sheet and to the battery of measures on Qualtrics:

Participant information Sheet

Qualtrics estimates that the questionnaires may take slightly longer to complete than we originally estimated, therefore the following has been changed:

- Changed estimation of how long the questionnaires will take from 20 to 30 minutes to 20 to 40 minutes.
- Changed estimation of how long in total the questionnaires will take from 60 to 90 minutes to 60 to 120 minutes.

These changes were also made to the PIS on Qualtrics as well as the standalone document.

Battery of measures on Qualtrics

In reviewing the questionnaires entered into Qualtrics, we have made the following corrections and additions:

- Changes on the instructions on the Healthcare Provider Trust Scale in the form of the addition of two words; therapist and mental: "Listed below are a number of statements about patient and Health Care Provider (HCP) trust. Read each item and decide which of the following responses best describes how you feel about your HCP (the doctor, nurse practitioner, physician assistant, therapist or other primary care provider that managers the majority of your mental health care)."
- In the Financial Questions, addition of one option to question 12 of "None of the above"
- In the Financial Questions, addition of one option to question 19 of "I was never worried"
- Removal of "s" in controls in question 6 of the Emotion Beliefs Questionnaire so that the question reads: "6. People cannot learn techniques to effectively control their positive emotions."
- Changed “last year” in question 6 of the Family Affluence Scale to “a year”, so that the question reads: “When you were a child, how many times did you and your family travel out of the country you lived in for a holiday/vacation a year?”

N.2 Second Amendment

Summary of amendments 26.09.2023

The following amendments have been made:

Posters

Inclusion of eight more poster designs, each to target a more specific participant group associated with our studies:

- Difficult childhood experience.
- Happy childhood experience.
- Difficult relationship with parents.
- Good relationship with parents.
- Worry about cost of living.
- Worry about finances and mental health.
- Sought help from mental health services.
- Struggling with bills and debts.

N.3 Third Amendment

Summary of amendments 26.09.2023

Thank you for the considered, and prompt, feedback. The following amendments have been made in line with the guidance given:

Posters

The original poster and the eight new designs have been updated to ensure consistency and clarity of what is being asked of participants and what they stand to earn from their participation.

- 3 time points for data collection.
- A chance to win one of five £25 retail vouchers.
- A chance to win after each completion of the survey.

Ethics application form

Section 4.6 was updated in line with these changes and now reads:

Participants will have the choice of opting in to raffle prize draws for a £25 retail voucher after each data collection time point. Provision of vouchers of equal value was chosen following the advisement of the PPI group held on 03.04.23, who considered it important that the time of those who participate is compensated. Unfortunately, it is not feasible to do so for everyone on account of the budget and minimum number of participants needed, so this is chosen as a compromise.

N.3.1 Amended Ethical Application Form

ERGO II Ethics application form – Psychology Committee

1. Applicant Details

1.1 Applicant name	**David Hayward**
1.2 Supervisor	**Dr Thomas Richardson** **Dr Nick Maguire**
1.3 Other researchers / collaborators (if applicable): *Name, address, email*	**Stella Pareas (S.R.Pareas@soton.ac.uk) – Joint data collection for linked project.**

2. Study Details

2.1 Title of study	**How do money problems and childhood experiences impact the ways in which we seek help and cope with problems in adulthood.**
2.2 Type of project (e.g. undergraduate, Masters, Doctorate, staff)	**Doctorate Thesis (Doctorate in Clinical Psychology)**

2.3 Briefly describe the rationale for carrying out this project and its specific aims and objectives.
This project is a joint data-collection for two studies whose topics and target populations overlap. The rationale for each study is outlined below and comprise the rationale for the project as whole.

David's Study:

Adverse childhood experiences (ACEs) is a term used to describe the combined experience and exposure to specific abuse and household dysfunction in childhood (Felitti et al., 1998).

ACEs have been shown to increase the likelihood of a person experiencing difficulties with their physical (Bellis et al., 2013) and mental (Sahle et al., 2021) health in adulthood, with these links being mediating by their own emotional regulation skills (Cloitre et al., 2019).

Emotional regulation is a key part of coping with adversity and negative emotion, with Lazarus and Folkman (1984) explaining that coping is a transactional process between a person's internal state and the external world, to bring about a positive outcome to the individual.

There is little research into how ACEs affect coping in adulthood, with no research found that explores the mechanisms underlying it. This study aims to explore the mediating role of attachment in this process, as this is thought to be the basis of a person's beliefs about the external world (Bowlby, 1979) and therefore how to transact with it.

The inverse care law (Hart, 1971) would suggest that those who are in most need of support are the least likely to receive it, which would point to this mediation being moderated by financial security and deprivation (Evans & Cassells, 2014).

To our knowledge there is no research that investigates the impact of ACEs on coping skills in adulthood and the role of attachment within this relationship, or the psychological factors which may affect it along with the role of beliefs about emotions. This study would look to fill these gaps in the current literature.

Stella –

At times of economic hardship, individual mental health has been found to deteriorate (Funk et al., 2012). This relationship is affected by many factors, one of which is financial threat, defined as "an overall fear, uncertainty and preoccupation about the stability and security of one's finances" (p.72, Marjanovic et al., 2015).

Attachment theory predicts that when a situation deemed to be threatening occurs, a person will seek proximity with an attachment figure for support or comfort, safety or emotional regulation. This attachment figure may be a spouse or partner, friend, institution or religious figure (Mikulincer & Shaver, 2003). How this interaction within a relationship plays out will depend on a person's attachment style (Mikulincer & Shaver, 2003). In this context, proximity seeking could be understood as help-seeking. Help-seeking within mental health support is understood as "an adaptive coping process that is the attempt to obtain external assistance to deal with a mental health concern" (p6., Rickwood et al., 2012) and could be understood as attitudes (orientation), behavioural intentions, or current behaviour (Rickwood et al., 2012). A 2001 meta-analysis (Armitage & Connor) indicates that the Theory of Planned Behaviour (which can explain the relationship between attitudes, intentions and behaviour) explains 20% of the variance in actual behavioural outcomes. This leaves much of the variance unexplained so the distinction and measurement of these three processes are important within different populations.

Attachment has an influence on help-seeking behaviours and intentions. For example, avoidant and anxious attachment styles have been associated with different behaviours in help-seeking (Vogel & Wei, 2005). Attachment also affects how much a person might trust organisations to support them. Klest et al. (2019) found that attachment insecurity negatively affects trust in healthcare providers. Whilst trust with mental healthcare providers is complex and multifaceted, it plays a significant role in seeking support (Gaebel et al., 2014).

Evidence suggests disparities in different populations' help-seeking attempts in relation to their perception of helpfulness of mental health professionals. For example, greater perceived helpfulness of interactions with mental healthcare providers have been linked with an increased sense of subjective need yet fewer attempts to seek support in divorcees experiencing depression (Colman et al., 2014). Alternatively, Hooker et al. (2020) found that women experiencing post-partum depression who had previously experienced intimate

partner violence were more likely to perceive support as unhelpful, yet continue to actively seek support.

To our knowledge, no research to understand a co-moderated moderation relationship between these variables has been conducted. This would contribute towards our understanding of the links between attitudes, behavioural intentions and help-seeking behaviours with clinical implications for service outreach and supporting service users experiencing economic hardship and mental health difficulties to act upon behavioural intentions. Furthermore, developing a greater understanding around perceived helpfulness and help-seeking attitudes, intentions and behaviours for those experiencing economic hardship and mental health difficulties could provide findings that support services in engaging and improving service users' experiences.

2.4 Provide a brief outline of the basic study design. Outline what approach is being used and why.

Both studies are collecting data jointly due to the overlap in target population and research topics. Both will use a longitudinal design, in which the same data will be collected at three time points three months apart. The studies will give participants their questionnaires via an online system (Qualtrics), as this would allow for a wider breadth of participants to take part due to easier and less restricted access from a variety of locales and easier collection and secure storage of data.

David –

The study will examine the relationship between experience of ACEs and emotional coping. To what extent this relationship is mediated by attachment styles will be investigated and to what extent these relationships are moderated by experiences of financial deprivation and threat will be explored.

- IV – Experience of ACEs.
- Mediator – Attachment style.
- Moderator – Experiences of poverty.

DV – Coping Style.

Stella –

- This study will investigate the co-moderating impact of trust, perception of helpfulness of services and mental health on the relationship between perceived financial threat and help-seeking attitudes, intentions and behaviours (both past and current) over time. The co-moderators are expected to be moderated by attachment style.IV – Perceived financial threat.
- DVs – Help-seeking attitudes intentions and behaviours. Co-moderators – Attachment style current mental health, perceived helpfulness and trust.

2.5 What are the key research question(s)? Specify hypotheses if applicable.

David -

Main Research Questions:

- Does the experience of ACEs relate to coping skills in adulthood?
- To what extent is this interaction mediated by individual attachment patterns?
- To what extent is the interaction between ACEs and attachment moderated by experiences of financial deprivation?
- To what extent is the interaction between attachment pattern and coping skills moderated by experiences of financial deprivation?
- To what extent are the mediated interactions moderated by experiences of financial deprivation over a six-month period?

Secondary Research Questions:

- What is the relationship between copings skills and beliefs about emotion?
- Do beliefs about emotions, coping skills and their relationship change over a six-month period?

Stella –

This study aims to answer the following research questions:

1. Do financial difficulties and financial threat predict help-seeking attitudes, intentions and behaviours (Cross-sectionally and over time)?
2. When these relationships are significant (question 1) are they moderated by attachment style, level of trust and/or current mental health?
3. Is attachment style related to differences in perceived experience of helpfulness from financial and/or mental health services?

Hypothesis 1: Financial threat will be positively associated to change in help-seeking attitudes, intentions and behaviours over time.

Hypothesis 2: Trust in healthcare professionals/services moderates the association between financial threat and help-seeking attitudes, intentions and behaviours in those with anxious attachment styles. As financial threat increases, those with anxious attachment styles will increase in their help-seeking behaviours and attitudes regardless of trust levels. Lower levels of financial threat and trust will lead to less help-seeking behaviours and intentions and less favourable help-seeking attitudes.

Hypothesis 3: Trust in healthcare professionals/services moderates the association between financial threat and help-seeking attitudes, intentions and behaviours in those with avoidant attachment styles. As financial threat increases, those with avoidant attachment styles will decrease in their help-seeking behaviours, intentions and attitudes if trust for healthcare services is low. This will remain the same if financial threat reduces and if trust is high.

Hypothesis 4: Current mental health (general psychological distress and as impacted by money) will affect the moderated relationship between financial threat and help-seeking.

Hypothesis 5: There will be a difference in perceived helpfulness of mental health and/or financial services depending on attachment style.

3. Sample and setting

3.1 Who are the proposed participants and where are they from (e.g. fellow students, club members)? List inclusion / exclusion criteria if applicable.

Participants will be adults aged 18 years and over and may or may not have experience of financial difficulty (either presently or historically). The study will be advertised online, so it is likely participants will self-select from across the United Kingdom (due to the times at which adverts will be posted coinciding with wakeful hours in this area). However, there is the possibility that participants from other countries may take part. The researchers are aware that the support detailed in the debrief form will be tailored for those who live in and have access to support in the UK, so a selection of less country specific, international services will be included. Students from the University of Southampton will also be able to take part in exchange for research credits.

Inclusion criteria:

- Adult, aged 18 years and over.

Exclusion criteria:

- Those under the age of 18

3.2. How will the participants be identified and approached? Provide an indication of your sample size. If participants are under the responsibility of others (e.g., parents/carers, teachers) state if you have permission or how you will obtain permission from the third party).

The study will be advertised online via social media platforms and online groups/organisations relevant to the topic area (such as groups that offer support and advice for those experiencing financial difficulties, difficulties coping, etc.) to allow participants to self-select for more information. Initial information about the study (including how to take part, how to access further information, and the compensation offered) will be shared via specific recruitment posters (see appendix) that are aimed towards our target population. Dedicated accounts will be created for online platforms used for recruitment, to reduce the likelihood of personal relationships with the participants and to preserve ethical integrity. Students at the University of Southampton will be able to take part in exchange for research credits, and this will be advertised to them via posters on campus and the usual internal research participation routes used by the University.

Examples of services that will be approached would include:

- Money and Mental Health Institute
- Southampton Student's Union
- Citizens Advice
- WAVE Trust
- NSPCC
- NAPAC

3.3 Describe the relationship between researcher and sample. Describe any relationship e.g., teacher, friend, boss, clinician, etc.

No relationships between the researcher and participants are expected, however as the sample is self-selecting from the public this cannot be guaranteed. However, as the study is questionnaire based the only interaction between researcher and participants is expected to be emailing to invite for second and third data collection timepoints.

3.4 How will you obtain the consent of participants? (*please upload a copy of the consent form if obtaining written consent***) NB A separate consent form is not needed for online surveys where consent can be indicated by ticking/checking a consent box (normally at the end of the PIS). Other online study designs may still require a consent form or alternative procedure (for example, recorded verbal consent for online interviews).**

Participants will read and give their informed consent via the online platform after reading the participant information sheet, before being given access to the questionnaires themselves. They will not be directed to the questionnaires unless they provide their consent. Indicating that they do not give their consent will direct them away from the Qualtrics website.

3.5 Is there any reason to believe participants may not be able to give full informed consent? If yes, what steps do you propose to take to safeguard their interests?

No.

4. Research procedures, interventions and measurements

4.1 Give a brief account of the procedure as experienced by the participant. Make it clear who does what, how many times and in what order. Make clear the role of all assistants and collaborators. Make clear the total demands made on participants, including time and travel. *Upload copies of questionnaires and interview schedules to ERGO.*

–

- Advertisement for study publicised via social media (twitter, facebook, etc.), and organisations relating to trauma and poverty, as well as for undergraduate credit (SONA)
    - The following points were raised by the members of our PPI group held on 03.04.23 around advertising, that we are taking under consideration:
        - Posters to be made mobile friendly (included all necessary information and links), as some communities do not use social media as much and instead use chat-apps like WhatsApp instead. (We will not be approaching participants directly ourselves via WhatsApp, the PPI members said it would be helpful if our materials were easy to share via the platform.)
        - Approaching more community-based services/institutions and asking if they can share our posters. This is likely to include, but not be limited to:
            - GP Surgeries in the local area
            - Religious Centres
            - Professional teams, such as local authorities, mental health services, and charities (such as the money and mental health institute).
- Participants to sign up for study via link/QR code in advert. Then they complete the consent and demographic information questions (age, gender, exclusion/inclusion questions) and include personal email for follow up contact for confirmation of inclusion in the study, sending of initial questionnaires (including at final time point). Names and emails will be kept in an encrypted spreadsheet on a university laptop, separate from the data collected from the questionnaires.
- Responses are reviewed and suitable participants identified for follow up.
- Participants are contacted to either thank them for their interest and explain they were not suitable for the aims of the study or invited to partake in the study with briefing materials and consent form.

- Confirmation of partaking acknowledge upon receipt of signed consent form.
- Researchers will email a link to all questionnaires, to be administered electronically self-completion by participants. Participants will receive a debrief form at the end of each time they complete the questionnaires so that participants who choose not to re-engage will have awareness of the studies' objectives and expected aims.
- Results gathered from participants returning online forms and transferred by researchers to secure data storage.
- Confirmation of follow up dates sent by researchers to the participants via email, including reminders of ethical rights, etc.
- Second (3 months) and third (6 months) time points: repeat sending of questionnaires and collection of data. Reminder emails will be sent out a week before these data collection links are shared, to maximise continued engagement.
- Once all sets of data collected, send debrief materials and incentive process confirmation. Participants will then be thanked for their time and they will be informed that they have been entered into a prize draw and the possible sums of money in the form of Amazon Vouchers that they have the opportunity to win.
- Students of the University of Southampton will have the option to choose between inclusion in the prize draw or to be awarded the appropriate number of research credits for each time point at the end of the study.

<u>List of standardised questionnaires used:</u>

- Attitudes Toward Seeking Professional Psychological Help (ATSPPH-SF; Fischer & Farina, 1995)
    - The ATSPPH-SF measures *attitudes* toward seeking help for mental health needs.
- Brief-COPE (Carver, 1997)
    - To assess coping style of participants, focuses on trait coping rather than situational coping – more likely to be affected by past experiences.
    - Shorter version for suitability

- Experience of Close Relationships scale, short version (ECR-S) (Brennan et al., 1998; Wei et al., 2007)
    - To be used to assess attachment style of participants
    - Short version selected to reduce burden on participants and for ease of administration.
    - A 12-item questionnaire adapted from the original 36-item version.
    - Asks participants to agree or disagree on a scale with statements about their beliefs and thoughts on relationships.
- Economic Hardship Questionnaire (Lempers et al., 1989).
    - A 12-item questionnaire that looks at changes in spending and living over the last six months.
- Financial threat scale (FTS) (Marjanovic et al., 2013)
    - Included to explore the perceived experience of threat around finances – as some may have not experienced difficulties financially over the last six months, but due to increased anxiety about the threat of financial instability (leading to increased planning of finances, saving, reduced spending, etc.) instead of "not being in poverty".
- Family Affluence Scale (FAS-III) (Hartley et al., 2016).
    - To be used as a measure of childhood poverty.
    - Four item measure, asking participants about family habits linked with affluence.
    - FAS-III selected as it is the most recent version and takes into account the family consumption habits in Europe as well as the USA and Canada (Hartley et al., 2016).
    - The wording of the FAS-III has been amended for use in this study, as it is designed to be given to young people about their current family situation, and we are asking adults about their past experience, when they were young.
        - Each question has the following statement added to the start: "*When you were a child, …"*

- General Help-Seeking Questionnaire (GHSQ; Wilson et al., 2005)
    - The 20 item GHSQ measures *future* intentions to seek help and *past* help-seeking experiences.
- Healthcare Relationship (HCR) Trust Scale (Bova et al, 2006)
    - To measure patient trust in healthcare providers to support them.
    - Fifteen items in the form of Likert scales.
    - The instructions to this will be amended to request applicants to respond based on the professional they see most regularly for their mental healthcare.
- Help-Seeking Measure-State (HSM-S; Sood et al., 2021)
    - The 3-item HSM-S measures *current* help-seeking *intentions*.
- Emotions Beliefs Questionnaire (Becerra et al., 2020)
    - Measures beliefs about emotions in line with Ford and Gross's (2018) idea that emotional coping is impacted by held beliefs about emotions (such as controllability and usefulness of emotions).
- Beliefs about Emotions Scale (Rimes & Chalder, 2010)
    - Measures beliefs about emotions themselves – sensitive to belief changes
    - To be used in relation to BRIEF-COPE, which can be understood as problem/emotion focussed coping.
        - Those with problem focussed coping may hold different beliefs about emotions to those who use emotion focussed coping
- Money and Mental Health Scale (MMHS)
    - The nine item MMHS measures the impact of finances on mental health (see documents submitted with this application).
- ACEs Questionnaire (Felitti et al., 1998)
    - Measures instances of childhood abuse, maltreatment, and household dysfunction.

- Questions for Perceived Helpfulness of Support and Current Behaviours
    - Please see the documents submitted with this application for the questions addressing perceived helpfulness of support where there are 3 questions (1 yes/no, 1 will have options to choose from to act as prompts, including an "Other" box with free text, 1 Likert Scale) for financial services, and the same 3 questions adapted for mental health services. Some of these questions were based on those used by Karatekin (2019) in their empirical study.
- Recovering Quality of Life (ReQol-10)
    - The Reqol-10 (10 items) measures the development of quality of life rather and is actively being used within NHS services. It indicates clinical change by a 5-point change when completing at different timepoints. The Reqol-10 is not diagnostic-specific and can be completed by those with moderate to complex and enduring mental health.
    - This version is being used rather than the 20-item version to reduce the burden on participants. The Cronbach Alpha for the Reqol-10 is 0.92, and the correlation between the 10-item version and 20-item version is 0.98, meaning that they are measuring very similar dimensions (Keetharuth et al., 2018). Due to this, it was felt that the Reqol-10 with half the items would be of greater benefit.

<u>Author Constructed Questionnaires</u>

The authors have constructed questionnaires to capture information about their demographics and a more nuanced understanding of their financial experiences. These have been included with this application.

It is estimated to take 20 to 30 minutes to complete the questionnaires on Qualitrics at each time point.

4.2 Will the procedure involve deception of any sort? If yes, what is your justification?

No.

4.3. Detail any possible (psychological or physical) discomfort, inconvenience, or distress that participants may experience, including after the study, and what precautions will be taken to minimise these risks.

Psychological or physical harm or distress are not expected to happen as a direct result of the study itself. However, completion of questionnaires will require participants to reflect on their experiences of childhood, finances and wellbeing and there is a chance that this will bring up difficult and complex thoughts and feelings for them, which may lead to distress and discomfort in some. This could include guilt, shame, anxiety, or a reduction in mood.

The impact of the questionnaires will be mitigated by giving participants a debriefing form at each timepoint that will thank them for their time and participation, reiterate their right to withdraw and withhold data and to advise participants who are feeling discomfort or distress to seek support from an appropriate source. The debriefing form will include contact details for nationally available sources of support, including speaking to their GP for a referral to an IAPT service, the Samaritans, NHS 111, Citizens Advice and finally attendance to emergency services should they feel they are at immediate risk.

A list of financial services will also be provided to participants so that they have the option of managing their financial concerns with practical support if they feel this would be of benefit.

Inconvenience to participants, in particular the use of their time, will be mitigated by use of a PPI group prior to the study's start – in which issues around participant burden, recruitment and time will be discussed and explored to minimise their impact. Furthermore, utilising online solutions to data collection should reduce effort and inconvenience for participants.

4.4 Detail any possible (psychological or physical) discomfort, inconvenience, or distress that YOU as a researcher may experience, including after the study, and what precautions will be taken to minimise these risks. If the study involves lone working please state the risks and the procedures put in place to minimise these risks (please refer to the lone working policy).
No distress, inconvenience or discomfort is expected to be experienced by the researchers as the study is using existing questionnaires to gather data. The researchers have reviewed these materials already and they have support available through the university in the form of a personal academic tutor, research supervision and a counselling service.

4.5 Explain how you will care for any participants in 'special groups' e.g., those in a dependent relationship, are vulnerable or are lacking mental capacity), if applicable:
N/A

4.6 Please give details of any payments or incentives being used to recruit participants, if applicable:
Participants will have the choice of opting in to raffle prize draws for a £25 retail voucher after each data collection time point. Provision of vouchers of equal value was chosen following the advisement of the PPI group held on 03.04.23, who considered it important that the time of those who participate is compensated. Unfortunately, it is not feasible to do so for everyone on account of the budget and minimum number of participants needed, so this is chosen as a compromise.

5. Access and storage of data

5.1 How will participant confidentiality be maintained? Confidentiality is defined as non-disclosure of research information except to another authorised person. Confidential

information can be shared with those already party to it and may also be disclosed where the person providing the information provides explicit consent. Consider whether it is truly possible to maintain a participant's involvement in the study confidential, e.g. can people observe the participant taking part in the study? How will data be anonymised to ensure participants' confidentiality?
Suitable participants will be required to submit an email address to be sent the link to the questionnaires. This email address will act as the participant identifier to match responses at all three time periods. To ensure confidentiality, email addresses and data will be stored separately in accordance with university policy. All data entered onto the Qualtrics survey will be downloaded. This information will include the email address and names provided by participants. Such identifiable information will be immediately removed from the overall spreadsheet from Qualtrics and stored in a separate encrypted spreadsheet, used only for the purpose of contacting participants requesting completion of the survey at later timepoints. Only the researchers and supervisors will have access to the separate data and email repositories and they will only be accessed using encrypted university hardware.

5.2 How will personal data and study results be stored securely during and after the study. Who will have access to these data?
Before and during the analysis, data will be stored securely via Microsoft Sharepoint at the University of Southampton, in line with local policy. The anonymised data which would be required for independent substantiation of the project's claims will be kept at the end of the project and will be held via ePrints Soton for long term storage. Data will then be removed from the Microsoft Sharepoint location at the University of Southampton after 10 years. Analysis of the data will be carried out on a University of Southampton issued laptop, which should be equipped with BitLocker encryption software to ensure security. The account used

for this will utilised two factor authentication to minimise the risk of unauthorised entry to the device.

5.3 How will it be made clear to participants that they may withdraw consent to participate? Please note that anonymous data (e.g. anonymous questionnaires) cannot be withdrawn after they have been submitted. If there is a point up to which data can be withdrawn/destroyed e.g., up to interview data being transcribed please state this here.
A full and clear explanation of the participants right to withdraw from the research, with no negative consequences, will be included in the participant information sheet. This will include an explanation that within the two weeks proceeding the data collection being completed, participants can email to withhold their data as well. This will be explained again within the debriefing materials.

6. Additional Ethical considerations

6.1 Are there any additional ethical considerations or other information you feel may be relevant to this study?
A personal and public involvement (PPI) group was held on 3rd April 2023 held to discuss elements of the study and gather feedback about the methodology planned, participant burden and recruitment plans with people who have lived experience of financial and/or mental health difficulties. This feedback has been considered by the researchers and has guided amendments to ensure ease of access to participants.

Appendix O Tool To Standardise the Identification of Responses Made by Bots

Identifying Responses made by Bots (draft).

1. Email address follows the following format: firstnamelastnameyearmonthday@gmail.com
    a. i.e., JackSmith501020@gmail.com
    b. In this pattern, the first and last names in the email addresses entered are capitalised. This is not needed in email addresses and may indicate being copied and pasted from another database.
2. Giving both first and second name when asked only for their first name.
    a. It is likely that a bot would recognise the key term “name” and paste the full name from the database in error, or this is how the names are being stored in the database used.
    b. If not a bot, it could indicate that the participant has not read the question carefully/is not paying close attention to what is being asked of them.
3. The name given and name used in the email do not match.
    a. This often happens in combination with the first point, where a different full name is given (when asked for their first name only) than makes up their email address.
    b. While it is possible that these participants have all undergone name changes (to both first and last name), it seems more reasonable to assume that these are errors made by bots.
4. The questionnaire has been completed in under 10 minutes.
    a. The amount of reading should prohibit these kinds of times to humans, who are reading the questions and responses carefully.
5. The demographic information provided is extremely similar between participants who responded to the email at the same/similar start time.
    a. These patterns should only be used in conjunction with other evidence that the respondent could be a bot, as this alone is not sufficient.
6. IP addresses from same/similar region to other suspected/confirmed bots.
    a. To be used in consideration with other evidence, as is not concrete evidence in and of itself (IP spoofing is relatively easy to accomplish, VPNs are widespread nowadays, etc.)

Appendix P Full Moderated-Mediation Results Tables

P.1 Model 1 (BES/Emotional Coping)

Effect	Coeff	SE	*t*	*p*	LLCI	ULCI
ACEs on Attachment Style	**1.03**	**.31**	**3.30**	**.001**	**.42**	**1.65**
ACEs on Financial Threat	**.57**	**.18**	**3.21**	**.002**	**.22**	**.92**
ACEs on Economic Hardship	**.84**	**.19**	**4.45**	**.000**	**.47**	**1.22**
Family Affluence on Attachment Style	.34	.25	1.35	.177	-.15	.83
Family Affluence on Financial Threat	**-.37**	**.18**	**-3.15**	**.002**	**-60**	**-.14**
Family Affluence on Economic Hardship	**-.56**	**.15**	**-3.82**	**.000**	**-.85**	**-.27**
Moderation of Family Affluence on ACEs and Attachment Style	-.01	.12	-.10	.919	-.24	.22
Moderation of Family Affluence on ACEs and Financial Threat	**.11**	**.05**	**2.45**	**.015**	**.02**	**.20**
Moderation of Family Affluence on ACEs and Economic Hardship	.07	.07	.96	.340	-.07	.20
Attachment Style on Emotional Coping	**-.11**	**.04**	**-2.65**	**.009**	**-.18**	**-.03**
Financial Threat on Emotional Coping	.16	.08	1.90	.058	-.01	.32
Economic Hardship on Emotional Coping	**.16**	**.07**	**2.24**	**.026**	**.02**	**.30**
Beliefs about Emotion on Emotional Coping	-.05	.03	-1.51	.131	-.11	.01
Moderation of Beliefs about Emotion between Attachment and Emotional Coping	-.00	.00	-.78	.444	-.01	.00
Moderation of Beliefs about Emotion between Financial Threat and Emotional Coping	-.01	.01	-1.14	.254	-.02	.00
Moderation of Beliefs about Emotion between Economic Hardship and Emotional Coping	.00	.00	.38	.703	-.01	.01
Direct Effect of ACEs on Emotional Coping	.16	.15	1.02	.307	-.14	.46

Path						
ACEQ→ECRS→COPE (Emotional)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	-.08	.07	-.25	.01
	Low	**Medium**	**-.11**	**.06**	**-.24**	**-.02**
	Low	**High**	**-.14**	**.07**	**-.30**	**-.02**
	Medium	**Low**	**-.08**	**.06**	**-.22**	**-.01**
	Medium	**Medium**	**-.11**	**.05**	**-.23**	**-.03**

	Medium	**High**	**-.14**	**.07**	**-.28**	**-.03**
	High	Low	-.08	.07	-.25	.02
	High	Medium	-.11	.07	-.27	.00
	High	High	-.13	.09	-.34	.00
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.00	.01	-.02	.02
		Medium	.00	.01	-.02	.03
		High	.00	.02	-.03	.03
ACEQ→EHQ→COPE (Emotional)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	.09	.06	-.03	.23
	Low	**Medium**	**.10**	**.06**	**.01**	**.22**
	Low	High	.12	.07	-.00	.27
	Medium	Low	.12	.08	-.03	.29
	Medium	**Medium**	**.14**	**.07**	**.02**	**.28**
	Medium	High	.15	.08	-.00	.32
	High	Low	.14	.11	-.03	.40
	High	**Medium**	**.17**	**.09**	**.02**	**.37**
	High	High	.19	.11	-.00	.43
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.00	.01	-.01	.04
		Medium	.01	.01	-.01	.04
		High	.01	.01	-.01	.05
ACEQ→FTS→COPE (Emotional)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	.06	.06	-.03	.19
	Low	Medium	.04	.04	-.02	.12
	Low	High	.02	.03	-.03	.10
	Medium	**Low**	**.14**	**.08**	**.00**	**.32**
	Medium	Medium	.09	.06	-.00	.21

Medium	High	.04	.06	-.07	.18
High	**Low**	**.22**	**.12**	**.01**	**.19**
High	Medium	.14	.09	-.00	.34
High	High	.06	.10	-.011	.28

Index of Moderated Moderated Mediation	Index	SE	LLCI	ULCI
	-.00	.00	-.00	.00

Index of conditional Moderated Mediation by FAS-III	Index	SE	LLCI	ULCI
Low	**.03**	**.02**	**.00**	**.07**
Medium	.02	.01	-.00	.05
High	.01	.01	-.01	.04

P.2 Model 2 (BES/Problem Coping)

Effect	Coeff	SE	*t*	*p*	LLCI	ULCI
ACEs on Attachment Style	**1.03**	**.31**	**3.30**	**.001**	**.42**	**1.65**
ACEs on Financial Threat	**.57**	**.18**	**3.21**	**.002**	**.22**	**.92**
ACEs on Economic Hardship	**.84**	**.19**	**4.45**	**.000**	**.47**	**1.22**
Family Affluence on Attachment Style	.34	.25	1.35	.177	-.15	.83
Family Affluence on Financial Threat	**-.37**	**.18**	**-3.15**	**.002**	**-60**	**-.14**
Family Affluence on Economic Hardship	**-.56**	**.15**	**-3.82**	**.000**	**-.85**	**-.27**
Moderation of Family Affluence on ACEs and Attachment Style	-.01	.12	-.10	.919	-.24	.22
Moderation of Family Affluence on ACEs and Financial Threat	**.11**	**.05**	**2.45**	**.015**	**.02**	**.20**
Moderation of Family Affluence on ACEs and Economic Hardship	.07	.07	.96	.340	-.07	.20
Attachment Style on Problem Coping	**-.10**	**.03**	**-2.99**	**.003**	**-.16**	**-.03**
Financial Threat on Problem Coping	.07	.07	1.11	.270	-.06	.20
Economic Hardship on Problem Coping	.09	.06	1.67	.097	-.02	.21
Beliefs about Emotion on Problem Coping	-.02	.02	-.99	.321	-.07	.02
Moderation of Beliefs about Emotion between Attachment and Problem Coping	-.00	.00	-.57	.567	-.01	.00
Moderation of Beliefs about Emotion between Financial Threat and Problem Coping	-.00	.00	-.80	.427	-.01	.01
Moderation of Beliefs about Emotion between Economic Hardship and Problem Coping	.00	.00	.72	.467	-.01	.01
Direct Effect	.06	.14	.44	.660	-.21	.33

Path						
ACEQ→ECRS→COPE (Problem)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	-.08	.06	-.24	0..
	Low	**Medium**	**-.10**	**.05**	**-.23**	**-.02**
	Low	**High**	**-.12**	**.06**	**-.26**	**-.02**
	Medium	Low	-.08	.055	-.21	.00
	Medium	**Medium**	**-.10**	**.05**	**-.20**	**-.03**
	Medium	**High**	**-.12**	**.06**	**-.25**	**-.03**
	High	Low	-.08	.06	-.23	.01
	High	**Medium**	**-.10**	**.06**	**-.24**	**-.00**
	High	High	-.12	.07	-.29	.00
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.00	.01	-.02	.03
		Medium	.00	.01	-.02	.03
		High	.00	.01	-.03	.03
ACEQ→EHQ→COPE (Problem)						
	Low	Low	.04	.05	-.07	.14
	Low	Medium	.06	.04	-.01	.15
	Low	High	.09	.06	-.00	.21
	Medium	Low	.05	.07	-.08	.19
	Medium	Medium	.08	.05	-.01	.19
	Medium	High	.11	.06	-.00	.25
	High	Low	.06	.09	-.09	.25
	High	Medium	.10	.07	-.01	.25
	High	High	.14	.08	-.01	.32
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.00	.01	-.01	.03
		Medium	.01	.01	-.01	.03

		High	.01	.01	-.01	.03
ACEQ→FTS→COPE (Problem)						
	Low	Low	.03	.04	-.02	.12
	Low	Medium	.02	.02	-.02	.08
	Low	High	.01	.02	-.04	.06
	Medium	Low	.07	.06	-.04	.21
	Medium	Medium	.04	.04	-.03	.14
	Medium	High	.01	.05	-.08	.11
	High	Low	.11	.10	-.07	.33
	High	Medium	.07	.07	-.05	.22
	High	High	.02	.07	-.12	.17
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			-.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.01	.01	-.01	.04
		Medium	.01	.01	-.01	.03
		High	.00	.01	-.01	.02

P.3 Model 3 (BES/Avoidant Coping)

Effect	Coeff	SE	*t*	*p*	LLCI	ULCI
ACEs on Attachment Style	**1.03**	**.31**	**3.30**	**.001**	**.42**	**1.65**
ACEs on Financial Threat	**.57**	**.18**	**3.21**	**.002**	**.22**	**.92**
ACEs on Economic Hardship	**.84**	**.19**	**4.45**	**.000**	**.47**	**1.22**
Family Affluence on Attachment Style	.34	.25	1.35	.177	-.15	.83
Family Affluence on Financial Threat	**-.37**	**.18**	**-3.15**	**.002**	**-60**	**-.14**
Family Affluence on Economic Hardship	**-.56**	**.15**	**-3.82**	**.000**	**-.85**	**-.27**
Moderation of Family Affluence on ACEs and Attachment Style	-.01	.12	-.10	.919	-.24	.22
Moderation of Family Affluence on ACEs and Financial Threat	**.11**	**.05**	**2.45**	**.015**	**.02**	**.20**
Moderation of Family Affluence on ACEs and Economic Hardship	.07	.07	.96	.340	-.07	.20
Attachment Style on Avoidant Coping	**.11**	**.04**	**3.04**	**.003**	**.04**	**.18**
Financial Threat on Avoidant Coping	**.23**	**.07**	**3.20**	**.002**	**.09**	**.38**
Economic Hardship on Avoidant Coping	.07	.06	1.16	.249	-.05	.20

Beliefs about Emotion on Avoidant Coping			**.08**	**.03**	**2.50**	**.014**	**.02**	**.15**
Moderation of Beliefs about Emotion between Attachment and Avoidant Coping			-.00	.00	-.19	.850	-.01	.01
Moderation of Beliefs about Emotion between Financial Threat and Avoidant Coping			-.00	.01	-.04	.969	-.01	.01
Moderation of Beliefs about Emotion between Economic Hardship and Avoidant Coping			-.00	.01	-.86	.392	-.02	.01
Direct Effect			.27	.15	1.78	.078	-.03	.56
Path								
ACEQ→ECRS→COPE (Avoidant)	Family Affluence	Beliefs about Emotion	Effect	SE		LLCI		ULCI
	Low	**Low**	**.12**	**.07**		**.02**		**.27**
	Low	**Medium**	**.11**	**.06**		**.02**		**.24**
	Low	**High**	**.11**	**.07**		**.00**		**.26**
	Medium	**Low**	**.12**	**.05**		**.03**		**.24**
	Medium	**Medium**	**.11**	**.05**		**.03**		**.22**
	Medium	**High**	**.10**	**.06**		**.01**		**.25**
	High	**Low**	**.11**	**.07**		**.00**		**.26**
	High	**Medium**	**.11**	**.07**		**.00**		**.26**
	High	High	.10	.08		-.00		.30
Index of Moderated Moderated Mediation			Index	SE		LLCI		ULCI
			.00	.00		-.00		.00
Index of conditional Moderated Mediation by FAS-III			Index	SE		LLCI		ULCI
		Low	-.00	.01		-.03		.02
		Medium	-.00	.01		-.02		.03
		High	-.00	.01		-.02		.03
ACEQ→EHQ→COPE (Avoidant)	Family Affluence	Beliefs about Emotion	Effect	SE		LLCI		ULCI
	Low	Low	.09	.06		-.01		.23
	Low	Medium	.05	.04		-.02		.15
	Low	High	.01	.06		-.13		.13
	Medium	Low	.12	.07		-.01		.27
	Medium	Medium	.06	.05		-.03		.18
	Medium	High	.01	.08		-.14		.18

	High	Low	.14	.09	-.02	.34
	High	Medium	.08	.07	-.04	.23
	High	High	.01	.10	-.17	.24
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			-.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.01	.01	-.01	.04
		Medium	.00	.01	-.00	.02
		High	.00	.01	-.01	.02
ACEQ→FTS→COPE (Avoidant)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	.05	.05	-.03	.18
	Low	Medium	.05	.05	-.03	.16
	Low	High	.05	.05	-.03	.17
	Medium	**Low**	**.14**	**.08**	**.01**	**.30**
	Medium	**Medium**	**.13**	**.06**	**.04**	**.25**
	Medium	**High**	**.13**	**.07**	**.01**	**.30**
	High	**Low**	**.22**	**.12**	**.01**	**.46**
	High	**Medium**	**.21**	**.08**	**.06**	**.39**
	High	**High**	**.21**	**.11**	**.02**	**.47**
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	**.03**	**.02**	**.00**	**.06**
		Medium	**.03**	**.01**	**.00**	**.05**
		High	**.03**	**.02**	**.00**	**.07**

P.4 Model 4 (EBQ/Emotional Coping)

Effect	Coeff	SE	*t*	*p*	LLCI	ULCI
ACEs on Attachment Style	**1.03**	**.31**	**3.30**	**.001**	**.42**	**1.65**
ACEs on Financial Threat	**.57**	**.18**	**3.21**	**.002**	**.22**	**.92**
ACEs on Economic Hardship	**.84**	**.19**	**4.45**	**.000**	**.47**	**1.22**
Family Affluence on Attachment Style	.34	.25	1.35	.177	-.15	.83
Family Affluence on Financial Threat	**-.37**	**.18**	**-3.15**	**.002**	**-60**	**-.14**
Family Affluence on Economic Hardship	**-.56**	**.15**	**-3.82**	**.000**	**-.85**	**-.27**

Moderation of Family Affluence on ACEs and Attachment Style	-.01	.12	-.10	.919	-.24	.22
Moderation of Family Affluence on ACEs and Financial Threat	**.11**	**.05**	**2.45**	**.015**	**.02**	**.20**
Moderation of Family Affluence on ACEs and Economic Hardship	.07	.07	.96	.340	-.07	.20
Attachment Style on Emotional Coping	**-.11**	**.04**	**-3.00**	**.003**	**-.19**	**-.04**
Financial Threat on Emotional Coping	.15	.08	1.74	.083	-.02	.31
Economic Hardship on Emotional Coping	**.19**	**.07**	**2.65**	**.009**	**.05**	**.33**
Emotional Beliefs on Emotional Coping	-.04	.03	-1.11	.267	-.10	.03
Moderation of Emotional Beliefs between Attachment and Emotional Coping	-.00	.00	-.87	.388	-.01	.00
Moderation of Emotional Beliefs between Financial Threat and Emotional Coping	.01	.01	1.12	.262	-.01	.03
Moderation of Emotional Beliefs between Economic Hardship and Emotional Coping	.00	.01	.34	.737	-.02	.03
Direct Effect	.15	.16	.98	.326	-.16	.46

Path						
ACEQ→ECRS→COPE (Emotional)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	-.08	.06	-.22	.02
	Low	**Medium**	**-.12**	**.06**	**-.25**	**-.02**
	Low	**High**	**-.16**	**.08**	**-.35**	**-.02**
	Medium	Low	-.08	.06	-.21	.02
	Medium	**Medium**	**-.12**	**.05**	**-.23**	**-.03**
	Medium	**High**	**-.15**	**.07**	**-.31**	**-.03**
	High	Low	-.08	.07	-.24	02
	High	Medium	-.11	.07	-.26	00
	High	High	-.15	.09	-.35	00
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.00	.01	-.02	02
		Medium	.00	.01	-.02	09
		High	.00	.02	-.03	04
ACEQ→EHQ→COPE (Emotional)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	.09	.07	-.02	.26

	Low	**Medium**	**.12**	**.06**	**02**	**.25**
	Low	High	.15	.08	-.01	.31
	Medium	Low	.12	.08	-.02	.31
	Medium	**Medium**	**.16**	**.07**	**.04**	**.30**
	Medium	High	.20	.10	-.01	.38
	High	Low	.14	.11	-.02	.42
	High	**Medium**	**.19**	**.09**	**.04**	**.41**
	High	High	.25	.13	-.01	.52
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.01	.01	-.01	.04
		Medium	.01	.01	-.01	.05
		High	.02	.02	-.01	.06
ACEQ→FTS→COPE (Emotional)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	.00	.03	-.08	.07
	Low	Medium	.03	.04	-.02	.12
	Low	High	.07	.07	-.04	.24
	Medium	Low	.00	.07	-.16	.13
	Medium	Medium	.08	.05	-.01	.20
	Medium	**High**	**.17**	**.09**	**.04**	**.39**
	High	Low	.00	.11	-.26	.21
	High	Medium	.13	.08	-.01	.32
	High	**High**	**.27**	**.13**	**.01**	**.59**
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	**.00**	**.00**	**.00**
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.00	.01	-.03	.03
		Medium	.02	.01	-.00	.04
		High	**.03**	**.02**	**.01**	**.08**

P.5 Model 5 (EBQ/Problem Coping)

Effect	Coeff	SE	*t*	*p*	LLCI	ULCI
ACEs on Attachment Style	**1.03**	**.31**	**3.30**	**.001**	**.42**	**1.65**
ACEs on Financial Threat	**.57**	**.18**	**3.21**	**.002**	**.22**	**.92**

ACEs on Economic Hardship			**.84**	**.19**	**4.45**	**.000**	**.47**	**1.22**
Family Affluence on Attachment Style			.34	.25	1.35	.177	-.15	.83
Family Affluence on Financial Threat			**-.37**	**.18**	**-3.15**	**.002**	**-60**	**-.14**
Family Affluence on Economic Hardship			**-.56**	**.15**	**-3.82**	**.000**	**-.85**	**-.27**
Moderation of Family Affluence on ACEs and Attachment Style			-.01	.12	-.10	.919	-.24	.22
Moderation of Family Affluence on ACEs and Financial Threat			**.11**	**.05**	**2.45**	**.015**	**.02**	**.20**
Moderation of Family Affluence on ACEs and Economic Hardship			.07	.07	.96	.340	-.07	.20
Attachment Style on Problem Coping			**-.11**	**.03**	**-3.53**	**.001**	**-.17**	**-.05**
Financial Threat on Problem Coping			.07	.07	.95	.346	-.08	.04
Economic Hardship on Problem Coping			.11	.06	1.82	.070	-.01	.23
Emotional Beliefs on Problem Coping			-.02	.03	-.63	.529	-.08	.04
Moderation of Emotional Beliefs between Attachment and Problem Coping			-.00	.00	-1.45	.148	-.031	.00
Moderation of Emotional Beliefs between Financial Threat and Problem Coping			.01	.01	.56	.574	-.02	.03
Moderation of Emotional Beliefs between Economic Hardship and Problem Coping			.00	.01	.14	.886	-.02	.03
Direct Effect			.07	.15	.46	.646	-.23	.37
Path								
ACEQ→ECRS→COPE (Problem)	Family Affluence	Beliefs about Emotion	Effect	SE		LLCI		ULCI
	Low	Low	-.06	.06		-.19		.03
	Low	**Medium**	**-.12**	**.06**		**-.25**		**-.03**
	Low	**High**	**-.18**	**.08**		**-.36**		**-.04**
	Medium	Low	-.06	.05		-.17		.03
	Medium	**Medium**	**-.11**	**.05**		**-.22**		**-.04**
	Medium	**High**	**-.17**	**.07**		**-.31**		**-.06**
	High	Low	-.06	.06		-.19		.02
	High	**Medium**	**-.11**	**.06**		**-.25**		**-.00**
	High	**High**	**-.17**	**.09**		**-.37**		**-.01**
Index of Moderated Moderated Mediation			Index	SE		LLCI		ULCI
			.00	.00		-.00		.00
Index of conditional Moderated Mediation by FAS-III			Index	SE		LLCI		ULCI
		Low	.00	.01		-.01		.02

		Medium	.00	.01	-.02	.03
		High	.00	.02	-.03	.04
ACEQ→EHQ→COPE (Problem)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	.06	.07	-.04	.23
	Low	Medium	.07	.05	-.00	.17
	Low	High	.09	.06	-.05	.20
	Medium	Low	.07	.08	-.05	.27
	Medium	Medium	.09	.05	-.00	.20
	Medium	High	.11	.08	-.06	.24
	High	Low	.09	.10	-.06	.35
	High	Medium	.11	.07	-.00	.26
	High	High	.14	.10	-.08	.31
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.01	.01	-.01	.04
		Medium	.01	.01	-.01	.03
		High	.01	.01	-.01	.03
ACEQ→FTS→COPE (Problem)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	-.00	.03	-.08	.05
	Low	Medium	.02	.02	-.02	.07
	Low	High	.03	.04	-.02	.15
	Medium	Low	-.01	.06	-.14	.10
	Medium	Medium	.04	.04	-.03	.13
	Medium	High	.08	.07	-.01	.26
	High	Low	-.01	.09	-.21	.17
	High	Medium	.06	.06	-.04	.20
	High	High	.13	.11	-.02	.40
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	-.00	.01	-.03	.02

Medium	.01	.01	-.01	.03
High	.02	.01	-.00	.05

P.6 Model 6 (EBQ/Avoidant Coping)

Effect	Coeff	SE	*t*	*p*	LLCI	ULCI
ACEs on Attachment Style	**1.03**	**.31**	**3.30**	**.001**	**.42**	**1.65**
ACEs on Financial Threat	**.57**	**.18**	**3.21**	**.002**	**.22**	**.92**
ACEs on Economic Hardship	**.84**	**.19**	**4.45**	**.000**	**.47**	**1.22**
Family Affluence on Attachment Style	.34	.25	1.35	.177	-.15	.83
Family Affluence on Financial Threat	**-.37**	**.18**	**-3.15**	**.002**	**-60**	**-.14**
Family Affluence on Economic Hardship	**-.56**	**.15**	**-3.82**	**.000**	**-.85**	**-.27**
Moderation of Family Affluence on ACEs and Attachment Style	-.01	.12	-.10	.919	-.24	.22
Moderation of Family Affluence on ACEs and Financial Threat	**.11**	**.05**	**2.45**	**.015**	**.02**	**.20**
Moderation of Family Affluence on ACEs and Economic Hardship	.07	.07	.96	.340	-.07	.20
Attachment Style on Avoidant Coping	**.14**	**.04**	**3.76**	**.000**	**.07**	**.21**
Financial Threat on Avoidant Coping	**.26**	**.08**	**3.25**	**.001**	**.10**	**.41**
Economic Hardship on Avoidant Coping	.04	.06	.72	.474	-.08	.17
Emotional Beliefs on Avoidant Coping	.03	.03	1.18	.241	-.02	.09
Moderation of Emotional Beliefs between Attachment and Avoidant Coping	-.00	.00	-.08	.937	-.01	.01
Moderation of Emotional Beliefs between Financial Threat and Avoidant Coping	.00	.01	.00	.999	-.01	.01
Moderation of Emotional Beliefs between Economic Hardship and Avoidant Coping	.00	.00	.33	.741	-.01	.01
Direct Effect	.29	.16	1.82	.070	-.02	.60

Path

ACEQ→ECRS→COPE (Avoidant)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	**Low**	**.15**	**.07**	**.03**	**.32**
	Low	**Medium**	**.15**	**.07**	**.04**	**.30**
	Low	**High**	**.14**	**.09**	**.00**	**.37**
	Medium	**Low**	**.15**	**.06**	**.04**	**.28**
	Medium	**Medium**	**.14**	**.06**	**.04**	**.27**
	Medium	**High**	**.14**	**.09**	**.01**	**.35**
	High	**Low**	**.14**	**.08**	**.00**	**.34**

	High	**Medium**	**.14**	**.08**	**.00**	**.32**
	High	High	.13	.11	-.01	.42
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	-.00	.02	-.04	.03
		Medium	-.00	.02	-.03	.03
		High	-.00	.02	-.03	.04
ACEQ→EHQ→COPE (Avoidant)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	.02	.06	-.12	.15
	Low	Medium	.03	.04	-.02	.13
	Low	High	.04	.06	-.03	.17
	Medium	Low	.02	.08	-.14	.19
	Medium	Medium	.04	.05	-.06	.16
	Medium	High	.05	.07	-.07	.22
	High	Low	.03	.10	-.16	.24
	High	Medium	.05	.07	-.07	.20
	High	High	.07	.09	-.09	.29
Index of Moderated Moderated Mediation			Index	SE	LLCI	ULCI
			.00	.00	-.00	.00
Index of conditional Moderated Mediation by FAS-III			Index	SE	LLCI	ULCI
		Low	.00	.01	-.01	.02
		Medium	.00	.01	-.01	.02
		High	.00	.01	-.01	.03
ACEQ→FTS→COPE (Avoidant)	Family Affluence	Beliefs about Emotion	Effect	SE	LLCI	ULCI
	Low	Low	.06	.05	-.04	.18
	Low	Medium	.06	.05	-.03	.17
	Low	High	.06	.06	-.03	.21
	Medium	**Low**	**.015**	**.07**	**.02**	**.31**
	Medium	**Medium**	**.015**	**.06**	**.04**	**.29**
	Medium	**High**	**.15**	**.08**	**.02**	**.35**
	High	**Low**	**.23**	**.12**	**.03**	**.49**

High	**Medium**	**.23**	**.09**	**.08**	**.44**
High	**High**	**.23**	**.12**	**.04**	**.52**

Index of Moderated Moderated Mediation	Index	SE	LLCI	ULCI
	.00	.00	-.00	.00

Index of conditional Moderated Mediation by FAS-III	Index	SE	LLCI	ULCI
Low	**.03**	**.02**	**.00**	**.07**
Medium	**.03**	**.01**	**.01**	**.06**
High	**.03**	**.02**	**.00**	**.07**

Appendix Q Psychology and Psychotherapy Journal Author Guidelines

PAPTRAP AUTHOR GUIDELINES
Sections

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