The International Parenting Survey: 
Child, Parent and Family Experiences in the UK

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Doctor of Clinical Psychology (ClinPsyD) in the Faculty of 
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Thesis Abstract

This thesis forms part of the examination for the degree of Doctor of Clinical Psychology (ClinPsyD), in the Faculty of Medical and Human Sciences at the University of Manchester. The thesis has been written by Daniel Weisberg and submitted in July 2015 for examination in September 2015.

This thesis focuses on associations between child, parent and family emotional and behavioural adjustment and a variety of challenging experiences. The parenting role has a critical influence on child development and parenting outcomes and its importance is reflected in the content of many parenting interventions.

Paper 1 provides a comprehensive literature review of the available measures of parenting self-efficacy. The measures were quality rated for their psychometric and administrative properties. The findings indicated that large numbers of available measures were developed for specific research questions and may often be used in inappropriate circumstances. The measures were clarified so that the details of the sample, content and construct validity, responsiveness and interpretability, and administrative qualities were clear. The theoretical grounding of each of the measures was emphasized and, to overcome the inconsistent and confusing terminology within this paradigm, measures of parenting self-efficacy were distinguished from measures of parenting confidence, competence and self-esteem. The paper offers a timely and comprehensive summary for researchers, clinical psychologists and healthcare professionals.

Paper 2 details an investigation into the first use of an international measure in the UK. The International Parenting Survey was used to identify associations between child, parent and family adjustment difficulties, and challenging circumstances, such as childhood illness or disability, parental psychological distress or family socio-economic deprivation. A total of 696 parents, each of at least one child aged between 2- and 12-years-old, completed a series of questionnaires at one time point. The results identified that children’s difficulties are associated with greater emotional and behavioural adjustment difficulties in children, and also implicated certain aspects of the parenting role, including parental psychological distress. The discussion reflects on the use of this measure within a UK sample of parents. Additionally, the clinical implications of the study, its pitfalls and areas of future research are discussed.

Paper 3 provides a critical reflection of the research process as a whole and examines the strengths and limitations of Papers 1 and 2. Personal reflections are also provided.
Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Thanks also go to the parents who took part in the study. Without their participation, this thesis would not exist.

And thank you to my beautiful wife, Charlotte. She has given me so much needed support, care and praise over the past few years. Now that this thesis about parenting is complete, it is time for the real parenting to begin. Oh, and one more thing. I am also not sure that this will be the last time that I write a thesis…
1. Self-Report Measures of Parental Self-Efficacy:

A Systematic Review of the Current Literature

The following paper has been prepared for submission to the Journal of Child and Family Studies. The guidelines for authors can be found in Appendix A1. Formatting changes have been made to the current paper to aid readability: Tables and figures have been inserted within the text and the line spacing has been decreased to 1.5.

Word Count

Whole Text 15,224

Main Text 6,388

(Excluding abstract, tables, figures and references)
Abstract

Parenting self-efficacy (PSE) describes a parent’s belief in their ability to perform the parenting role successfully. Higher levels of PSE have consistently been shown to be correlated with a wide range of parenting and child outcomes. Consequently, many parenting interventions aim to improve PSE. PSE measurement has typically been via self-report measures. However, the wide range of available measures has resulted in their limited use, inconsistent terminology and ambiguous theoretical grounding. The purpose of this systematic review was to examine the psychometric and administrative qualities of the available PSE measures and offer clarity to the terminology and the theory underpinning their use so that the future use of PSE measures can be appropriate. Eleven electronic databases were searched. Articles were included if they introduced a new measure or were psychometric evaluations of an available measure of PSE for parents of children aged between newborn and 18 years. The database searches identified 4,926 papers. Following the strict application of the inclusion and exclusion criteria, a total of 52 studies referring to 33 measures were identified. Overall, the quality of the available measures was varied and specific details of the psychometric and administrative qualities are provided. The results suggest that choosing appropriate measures should be done with caution. The terminology of measures was updated to ensure accuracy. The theoretical grounding of each measure was also identified so that appropriate measures can be chosen under the relevant circumstances. The implications of refinement of the available measures are discussed and further research into improving PSE measurement is identified.

Keywords: parental; parenting; self-efficacy; measure; systematic review
1.1. Introduction
The term ‘self-efficacy’ describes an individual's belief in their ability to successfully perform a given task. Self-efficacy can inform how an individual may behave, indicating whether they attempt a task, how much effort they put into the task and how long they persist in the face of obstacles and aversive experiences (Bandura, 1997; 2006). Clinical and research attention has been drawn to parenting self-efficacy (PSE, e.g., Jones & Prinz, 2005). Parenting is often accompanied by physical, emotional and psychological challenges and the importance of the parenting role cannot be underestimated in the development of the child. As such, PSE has been a focus for many psychologists and health care professionals. The literature is saturated with PSE interventions for parents of children of all ages, disabilities, ethnicities and cultures. Thus, it is surprising to note that to date the only review of the measures used within these interventions (Črnčec, Barnett & Matthey, 2010) offers just brief descriptions of the measures. There is no systematic review of PSE measures that examines their psychometric properties, administrative ease and most importantly, identifies the theoretical grounding of the measures. The purpose of this paper is to fill this gap.

1.1.1. Theoretical Background of Self Efficacy
1.1.1.1. Terminology
PSE is often mislabelled as ‘parental confidence’, ‘parental competence’ and ‘parental self-esteem’ (Hess et al., 2004). The use of these concepts is inconsistent, with one concept being used when another would be more appropriate (e.g., Swick & Broadway, 1997). Terminology has also been used interchangeably (e.g., MacPhee, Fritz & Miller-Heyl, 1996) or novel terminology has been introduced, such as ‘parental self-regulation’ (Hamilton, Matthews & Crawford, 2014) and ‘parental self-agency’ (Dumka, Stoezinger, Jackson & Roosa, 1996). These terms have been defined by their authors but its distinction from PSE remains ambiguous.

Bandura (1997) argued that parental confidence refers to the strength of a belief about a task, but is not specific in what the strength of the belief is about, whereas PSE includes both strength of belief and an interpretation of capability based on that belief. Glidewell and Livert (1992) described parental confidence as stable over time; it is not situation-dependent or situation-specific. In contrast, they described PSE as situation-specific and variable according to the task and the
context. Additionally, PSE is a theoretically defined construct, whereas confidence is a colloquial term unrelated to a specific theory (Pennell, Whittingham, Boyd, Sanders & Colditz, 2012). Taking these ideas into account, de Montigny and Lacharité (2005) completed a conceptual analysis to demonstrate that parental confidence is indeed a separate concept to PSE. Similarly, they argued that parental self-esteem is a separate concept. Parental self-esteem is one’s judgement of worth as a parent, whereas PSE is one’s judgement of personal capability to fulfil the role of a parent (Bandura, 1997). Parental competence is also a separate concept to PSE. It refers to the ability to complete a task successfully and efficiently (Pearsall & Hanks, 1998), as does PSE, but it is based on others’ perspectives of how well the task will be completed, rather than a parent’s own judgement, as per PSE. The differences in concepts may be subtle, but they are important to consider as the correct terminology will ensure accuracy and consistency. An additional concept is parenting satisfaction. It is subjective rating of contentment derived from being a parent, which influences PSE (Coleman & Karraker, 2000; Rogers & White, 1998). Thus, to remove all ambiguity, measures within this review specify which concept (PSE, confidence, esteem, competence or satisfaction) was investigated.

Hamilton, Matthews and Crawford (2014) referred to the similarity between the above concepts and suggested that their combination results in ‘parenting self-regulation’. They argued that the term ‘self-regulation’ emphasised four distinct characteristics that encompass a general sense of parenting competence and confidence (self-efficacy, self-management, self-sufficiency and personal agency; Sanders, 2000; 2008). However, in de Montigny and Lacharité’s (2005) conceptual analysis, these aspects of parenting cognition and behaviour are regarded as PSE. Thus, measures of self-regulation are included in this review using PSE terminology.

1.1.1.2. Social Cognitive Theory (SCT, Bandura, 1986, 1997)

Bandura (1997) coined the term ‘self-efficacy’ following the development of SCT (Bandura, 1986). SCT offers an explanation for performance in certain tasks based on the reciprocity of (1) personal factors, such as cognitive, biological and affective events, (2) environmental events and (3) behaviour (Crothers, Hughes & Morine, 2008). These three aspects interact and determine each other, labelled as ‘reciprocal determinism’ (Bandura, 1986), and therapeutic input can be directed at any one of these factors. The theory is grounded in the notion that individuals possess abilities
that enable them to exercise a measure of control over these aspects. These abilities allow individuals to make sense of their experiences, explore their cognitions and beliefs, engage in self-evaluation and alter their thinking and behaviour accordingly (Schunk & Pajares, 2009).

1.1.1.3. A Model of Self-Efficacy

Based on SCT theory, Bandura (1997) hypothesized that individuals gauge their self-efficacy from four sources. The first is interpretations of their own performance. Successful performances are likely to raise self-efficacy, whereas less successful performances are likely to lower it. Secondly, individuals can obtain information about their own abilities by watching others perform a task (Schunk, 1995). A third source of information can be obtained as a result of social persuasion. Encouragement or praise from others may cultivate individuals’ self-efficacy. Similarly, criticism and negativity may reduce self-efficacy. Finally, physiological and emotional states offer additional sources of information. Confidence and happiness are more likely to instil a higher self-efficacy than anxiety and fear. Self-efficacy judgments are made as a result of individuals’ interpretations of these four sources of information (Pajares, 1996).

These four sources were incorporated into a model of the relationship between self-efficacy and performance developed by Gist and Mitchell (1992), grounded in the SCT approach. They provided evidence that Bandura’s (1997) four sources of information in addition to three core processes determine self-efficacy. Firstly, there is an assessment of task requirements, which encourages reflections on the skills needed so that the task can be completed successfully. Second, there is an analysis of previous performances and attributions as to why the previous performance occurred in the way that it did. Thirdly, a detailed analysis of personal and situational factors takes place to assess the resources and constraints required in order to complete a task. Bandura’s (1997) work supported the notion that these processes are integrated with the four sources of information to form self-efficacy. The performance of the task is fed back into these sources to update the individuals’ level of self-efficacy.
1.1.1.4. Parenting Self Efficacy (PSE)

There have been two major reviews of the role of PSE in parenting. Coleman and Karraker (1998) developed the meaning of the PSE construct, explored the relevant empirical findings and described the effect of PSE on parenting. The thorough review was the first of its kind and evoked public and clinical interest. Jones and Prinz’s (2005) updated review provided further evidence that PSE is strongly correlated with positive parent and child psychological functioning, child adjustment, parenting competence and parenting satisfaction.

Both reviews offer consistent evidence that higher levels of PSE are strongly associated with an adaptive, stimulating and nurturing child-rearing environment, which encourages social, academic and psychological wellbeing. The evident importance of PSE has led to the development of interventions that target PSE so that the child-rearing environment can be improved. Interventions such as group-based parenting programmes that target parental empowerment have positively influenced PSE (see Dowling, Smith & Wittkowski, under review., for a detailed review), and positive change has been demonstrated to continue for at least a further 12 months (e.g., Gross, 1995; Guimond, Wilcox & Lamorey, 2008; Tucker, Gross, Fogg, Delaney & Laporte, 1998). Worldwide parenting interventions, such as Triple-P (e.g., Adamson, Morawska & Sanders, 2013), the Incredible Years programme (e.g., Gross, Fogg & Tucker, 1995), ABCD Parenting Adolescents (Burke et al., 2012) and Signposts for Building Better Behaviour (Hudson et al., 2003) have been developed on this strong theoretical base and in the knowledge that PSE is an important modifiable factor for parenting interventions (Morawska & Sanders, 2007).

1.1.1.5. Measurement of PSE

Information on PSE has typically been obtained via self-report measures. Coleman and Karraker (2000) described four domains of self-report measures: general, domain-specific (also referred to as ‘task-related’), domain-general (also referred to as ‘global’) and narrow-domain (also referred to as ‘task-specific’). ‘General PSE’ measures assess overall self-efficacy in the parenting role and items are not linked to specific parenting tasks (e.g., “What I do has little effect on my child’s behaviour”; Campis, Lyman & Prentis-Dunn, 1986). Črnčec, Barnett and Bryanne (2010) identified that these measures were suitable to a wide range of child ages, but were
less sensitive to the tasks that face a parent of a child of a specific age. ‘Domain-specific’ PSE measures assess parents’ beliefs in their ability to complete specific tasks of the parenting role for a child of a specific age (e.g., “How good are you at getting your baby to have fun with you?”; Teti & Gelfand, 1991). These measures offer greater sensitivity to specific tasks and ages, leading to greater predictive validity than general PSE measures (e.g., Marsh, Ellis & Craven, 2002). Bandura (1997) argued that PSE measurement is most accurate when assessed with domain-specific measures. ‘Domain general’ measures refer to functioning within one area of daily life, but do not specify the tasks or activities within which they must be performed (e.g., “I know good parenting tips that I can share with others”; Freiberg, Homel & Branch, 2014). Finally, ‘narrow-domain’ focus on one very specific aspect of the parenting role, such as breastfeeding (Dennis & Faux, 1999) or childbirth (Lowe, 1993). The items are all task-, age- and situation-specific. During the preliminary searches for this review, a wide range of narrow-domain measures were identified and have not been included within this current review.

It is important to note that many available measures have been borne out of specific research applications and may not be grounded in any particular theory (Črnčec, Barnett & Bryanne, 2010). Consequently, the available measures risk poor construct validity.

This review aims to assist parenting interventions and research by offering a thorough assessment of the psychometric and administrative qualities of all available PSE measures. All measures included within this review were assigned a domain, based on Coleman and Karraker’s (2000) review and their theoretical grounding was identified, based on Gist and Mitchell’s (1992) model of self-efficacy. Finally, the terminology was clarified to remove any ambiguity around which construct was being measured.

1.2. Method

A systematic search of 11 online databases was conducted in December 2014: OVID Maternity and Infant Care, Medline, PsycBOOKS, PsycINFO, PsychARTICLES, Embase, Health and Psychosocial Instruments database, PubMed, Web of Science, CINAHL Plus and Google Scholar. The search strategy was based on the ‘Preferred Reporting Items for Systematic Reviews and Meta-Analyses’ (PRISMA) guidance (Moher et al., 2009), which were originally developed to help authors improve their
reporting of systematic reviews and meta-analyses. The PRISMA guidelines were chosen above other guidelines (e.g., ‘Consolidated Criteria for Reporting Qualitative Research’ (COREQ; Tong, Sainsbury & Craig, 2007) and ‘Meta-analysis of Observational Studies in Epidemiology’ (MOOSE; Stroup et al., 2000) guidelines) as they were more comprehensive and most up-to-date. The PRISMA authors (Moher et al., 2009) suggested that the guidance is most useful for systematic reviews of Randomised Controlled Trials (RCT), but can be used as a basis for other types of research. As there was no other published guidance for search strategies for outcome measures, the PRISMA flow diagram was used, as detailed in Figure 1.

The search strategy was developed to identify references relating to the development and psychometric properties of self-report measures of PSE. The earliest year of publication was restricted to 1970 to account for advances in our knowledge about PSE. The search terms were developed by combining terms specific to self-report PSE measures. The search terms used, either in isolation or in combination, were: “Questionnaire*”, “outcome”, “measure*”, “parent* AND (“self-efficacy” OR “confidence” OR “competence” OR “esteem” OR “satisfaction”) and “psychometric*”. The names of identified measures were used as terms for a further search of the above electronic databases. The reference lists from all identified papers were consulted and the most recent review of measures (Črnčec, Barnett & Bryanne, 20101) was also consulted. Additionally, references of retrieved articles were screened for additional relevant studies. The search strategy and its results are described in Figure 1.

1.2.1. Inclusion Criteria2
Measures were required to be self-report and developed in or translated to English with appropriate psychometric evaluation. Measures were also required to be completed by parents of at least one living child aged between the age of 0 (including pre-term neonates) and 18 years. Such a wide age range was chosen as the parenting role does not cease after childhood.

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1 This paper is discussed further in the Critical Reflection on page 102
2 The inclusion and exclusion criteria, and the limitations of the search process, are discussed further in the Critical Reflection on page 101
1.2.2. Exclusion Criteria
Measures that did not investigate PSE (or the ambiguous constructs of confidence, competence, efficacy, esteem or satisfaction) were excluded. Measures with PSE subscales as part of a larger measure were not included. Measures were also excluded if they were unpublished or had been published outside of peer-reviewed journals.
Figure 1. Schematic review of paper selection, based on the PRISMA guidance (2009)
1.2.3. Quality Assessment

Several articles offer criteria for an evaluation of outcome measures. The most comprehensive criteria seem to be those proposed by Terwee et al. (2007), who developed the criteria proposed by the Scientific Advisory Committee (SAC) of the Medical Outcomes Trust (SAC, 2002). Terwee et al. defined eight attributes of measure properties that are essential to consider in a thorough high-standard evaluation: (1) content validity, (2) internal consistency, (3), criterion validity, (4) construct validity, (5) reproducibility, (6) responsiveness, (7) floor and ceiling effects and (8) interpretability. As available checklists (e.g., McDowell & Jenkinson, 1996) used less explicit criteria, Terwee et al.’s criteria were chosen. A further four criteria regarding the administrative properties of the measures and indicators of change were added to this checklist: (9) time to administer, (10) ease of scoring, (11) readability and comprehension and (12) minimal clinically important difference (MCID). These additional criteria were included in Bot et al.’s (2004) ‘clinimetric checklist’ and offer practical information about the measures to which Terwee et al.’s checklist is not sensitive. The final 12-item checklist is outlined in Table 1.

Consistent with Terwee et al.’s (2007) approach, each criterion was assigned a rating of ‘+’ (clear description, above a specific threshold), ‘-’ (clear description, below a specific threshold), ‘?’ (description is lacking or is doubtful), or ‘0’ (information is missing). An overall rating for each measure was assigned. The above ratings were coded so that a ‘+’ achieved a score of 3, ‘-’ achieved a score of 2, ‘?’ achieved a score of 1 and ‘0’ achieved a score of 0. Thus, each measure achieved a total score ranging between 0 and 36, with a higher score indicating stronger psychometric and administrative qualities. This score should be treated with caution because it can incorrectly imply that all measurement properties are equally as important. It is recommended that readers also consider their choice of measure based on the presence of particular criteria. The author reviewed the psychometric properties of each measure and another researcher, independent to the research team, reviewed eight of the 33 measures (24%). The inter-rater correlation coefficient was found to be .91. Any discrepancies between the raters were discussed and a consensus was reached following further examination of each study.

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3 The quality assessment is discussed further in the Critical Reflection on Page 102-103
4 This coding system is discussed further in the Critical Reflection on Page 103-104
1.3. Results

The database searches identified 4,926 publications. Following the strict application of the inclusion and exclusion criteria, a total of 52 studies referring to 33 self-report PSE measures were included in this review (see Figure 2). For measures that received multiple investigations into its psychometric properties, the most up to date data were used. Table 1 details the criteria and thresholds for the quality assessment. Table 2 summarises the results of the quality assessment. Table 3 offers descriptive information about the measures. Supplementary information, presented in the supplementary tables of this paper, contains detailed information about construct and content validity (Table S1), responsiveness and interpretability (Table S2) and agreement and reliability (Table S3). Furthermore, descriptive detail about the study samples are also reported (Table S4).

1.3.1. Description of Questionnaires

1.3.1.1. Child’s Age

The majority of the measures were for parents of pre-term babies, infants (0-13 months) and toddlers (14 to 36 months) (n=18). There were no measures specifically for parents of pre-school (3 to 5 years), school-age children (6 to 12 years) or adolescents (13 to 18 years). Rather the measures were developed for a range of ages, as seen in Figure 2. Three measures (MaaP, C-G PSS and CPP) covered the widest range of ages.

1.3.1.2. Terminology

Revised constructs were assigned to each measure. The majority of measures investigated only PSE (n=22), whereas the remainder investigated a combination of constructs (n=11). Whilst only 12 measures investigated the same constructs that were proposed by their authors, the original constructs and revised constructs were significantly correlated, $r=.74$, $p<.001$, and highly reliable ($\alpha=.83$).

1.3.1.3. Theoretical Grounding

Although all measures were developed for a specific need, some authors did not discuss any relationship to the available PSE literature or its theoretical approaches.

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5 Aspects of the terminology and theoretical grounding are discussed further in the Critical Reflection on Pages 104-105
(e.g., BAP, KPSS). However, the theoretical grounding of all measures was identified and labelled, based on Gist and Mitchell’s (1992) model of self-efficacy (see Figure 3). All measures investigated PSE (n=33). Many of the measures identified part of the assessment prior to forming PSE: Analysis of task requirements (n=10), Attributional analysis of experience (n=16) and/or Assessment of personal and situation resources / constraints (n=18). Several measures were grounded in Bandura’s (1982) hierarchy of influence that forms PSE (n=9). In contrast, relatively fewer measures investigated the consequences of PSE (n=7), the performance based on the estimated PSE (n=8) and the feedback of the performance (n=2).

1.3.1.4. Measure Domain
This review placed each measure within one of the three domains: ‘general’ (n=2), ‘domain-specific (n=19)’ or ‘domain-general’ (n=12).

1.3.1.5. Number of Items and Scales
There was a range in their number of items (M=28.03, SD=20.55) on each measure. The KPSS had the fewest (n=3), whereas the TOPSE had the greatest (n=99). Many measures had just one subscale (n=14) but some measures included multiple subscales (n=17), ranging from two (e.g., BAP) to nine (TOPSE). The number of subscales on two measures (MSPC and SEPTI-TS) was unclear.

1.3.2. Psychometric Quality
1.3.2.1. Content Validity
The majority of measures received positive ratings for content validity (n=18), with only a small number offering no information about validity (n=5). These five measures were all included in articles in which the primary aim was experimental and required the use of a measure. In contrast, the 18 measures with positive ratings were in articles in which the primary aim was an investigation into the psychometric properties of a measure. Some measures did not offer a clear description of the purpose of the measure, the target population, the concepts that were being measured or the item selection procedure (n=10) and these did not receive full credit.
Table 1. Criteria for the quality rating of the psychometric and administrative properties of the included measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Definition</th>
<th>Quality Criteria</th>
</tr>
</thead>
</table>
| 1 Content validity        | The extent to which the domain of interest is comprehensively sampled by the items in the questionnaire | + A clear description is provided of the measurement aim, the target population, the concepts that are being measured and the item selection AND target population and (investigators OR experts) were involved in item selection and methods  
- No target population involvement  
0 No information found on target population involvement |
|                           |                                                                                | ? A clear description of above-mentioned aspects is lacking OR only target population involved OR doubtful design or methods |
|                           |                                                                                | - No target population involvement |
|                           |                                                                                | 0 No information found on target population involvement |
| 2 Internal consistency    | The extent to which items in a (sub)scale are inter-correlated, thus measuring the same construct | + Factor analyses performed on adequate sample size (7 * number of items and ≥ 100) AND Cronbach’s alpha(s) calculated per dimension AND Cronbach’s alpha between 0.70 and 0.95  
- Cronbach’s alpha(s) < 0.70 or > 0.95, despite adequate design and method |
|                           |                                                                                | ? No factor analysis OR doubtful design or method |
|                           |                                                                                | - Cronbach’s alpha(s) < 0.70 or > 0.95, despite adequate design and method |
|                           |                                                                                | 0 No information found on internal consistency |
| 3 Criterion validity      | The extent to which scores on a particular questionnaire related to a gold standard | + Convincing arguments that gold standard is “gold” AND correlation with gold standard ≥ 0.70  
- Correlation with gold standard < 0.70, despite adequate design or method |
|                           |                                                                                | ? No convincing arguments that gold standard is “gold” OR doubtful design or method |
|                           |                                                                                | - Correlation with gold standard < 0.70, despite adequate design or method |
|                           |                                                                                | 0 No information found on criterion validity |
| 4 Construct validity      | The extent to which scores on a particular questionnaire relate to other measures in a manner that is consistent with theoretically derived hypotheses concerning the measured concepts. | + Specific hypotheses were formulated AND at least 75% of the results are in accordance with these hypotheses  
- Confirmation of fewer than 75% of hypotheses, despite adequate design or method |
|                           |                                                                                | ? Doubtful design or method (e.g., no hypotheses) |
|                           |                                                                                | - Confirmation of fewer than 75% of hypotheses, despite adequate design or method |
|                           |                                                                                | 0 No information found on construct validity |
| 5 Reproducibility         |                                                                                   |                                                                                       |
| 5.1 Agreement            | The extent to which the scores on repeated measures are close to each other (absolute measurement error) | + Reliability agreement should be assessed (test-retest OR split-half) AND presentation of limits of agreement, Kappa or SEM OR MIC ≤ SDS OR MIC outside the LOA OR convincing arguments that agreement is acceptable  
- Doubtful design or method OR MIC not defined AND no convincing arguments that agreement is acceptable  
0 No information found on agreement |
|                           |                                                                                | ? Doubtful design or method OR MIC not defined AND no convincing arguments that agreement is acceptable |
|                           |                                                                                | - MIC ≤ SDC OR MIC equals inside LOA, despite adequate design and method |
|                           |                                                                                | 0 No information found on agreement |
| 5.2 Reliability           | The extent to which patients can be distinguished from each other, despite measurement errors (relative measurement error) | + ICC or weighted Kappa ≥ 0.70  
- Doubtful design or method (e.g., time interval not mentioned)  
0 No information found on reliability |
<p>|                           |                                                                                | ? Doubtful design or method (e.g., time interval not mentioned) |
|                           |                                                                                | - ICC or weighted Kappa ≤ 0.70 despite adequate design and method |
|                           |                                                                                | 0 No information found on reliability |</p>
<table>
<thead>
<tr>
<th>#</th>
<th>Component</th>
<th>Criteria</th>
<th>Result</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Responsiveness</td>
<td>The ability to detect important change over time in the concept being measured</td>
<td>+ SDC or SDC &lt; MIC OR MIC outside LOA OR RR &gt; 1.96 OR AUC ≥ 0.70</td>
<td>Doubtful design or method</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- SDC or SDC ≥ MIC OR MIC equals or inside LOA OR RR ≤ 1.96 OR AUC &lt; 0.70</td>
<td>Despite adequate design and methods</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>No information found on responsiveness</td>
</tr>
<tr>
<td>7</td>
<td>Floor and ceiling effects</td>
<td>The number of respondents who achieved the lowest or highest possible score</td>
<td>≤ 15% of the respondents achieved the highest or lowest possible scores</td>
<td>Doubtful design or method</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&gt; 15% of the respondents achieved the highest or lowest possible scores, despite adequate design and methods</td>
<td>No information found on floor and ceiling effects</td>
</tr>
<tr>
<td>8</td>
<td>Interpretability</td>
<td>The degree to which one can assign qualitative meaning to quantitative scores</td>
<td>At least two of: Mean and SD scores of multiple groups OR comparative data on distribution of scores OR information on the relationship of scores to other measures or clinical diagnoses OR MIC defined</td>
<td>Doubtful design or method OR fewer than two of above OR no MIC defined</td>
</tr>
<tr>
<td>9</td>
<td>Time to administer</td>
<td>The time needed to complete the measure</td>
<td>Completion of measure ≤ 10 minutes</td>
<td>N/A</td>
</tr>
<tr>
<td>10</td>
<td>Ease of scoring</td>
<td>The extent to which the measure can be scored by a trained investigator or expert</td>
<td>Items are summed OR a visual analogue scale or simple formula was used (e.g. reversal of specific items)</td>
<td>Doubtful design or method</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A visual analogue scale in combination with a formula or complex formula was used</td>
<td>No information found about ease of scoring</td>
</tr>
<tr>
<td>11</td>
<td>Readability and comprehension</td>
<td>The extent to which the measure is understandable for all patients</td>
<td>Readability tested using at least one of (a) Flesch Kincaid Reading Ease, (b) Flesch Kincaid Grade Level, (c) Gunning Fog Score, (d) Coleman Liau Index, or (e) Automated Readability Index AND result was good</td>
<td>Doubtful design or method</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Readability tested using at least one of the above methods AND result was inadequate</td>
<td>No information found about readability</td>
</tr>
<tr>
<td>12</td>
<td>Minimal clinically important difference (MCID)</td>
<td>The smallest difference in score in the domain of interest which patients perceive as beneficial and would mandate a change in patient’s management</td>
<td>MCID presented</td>
<td>Doubtful design or method</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>No information found about MCID</td>
</tr>
</tbody>
</table>
Note. AUC = Area Under Curve (ROC = Receiver Operating Characteristics); ICC = Intraclass correlation; LOA = limits of agreement; MIC = minimal important change; RR = Responsiveness Ratio; SD = Standard deviation; SDC = smallest detectable change

\(^a\) + = positive rating; ? = indeterminate rating; - = negative rating; 0 = no information available.

\(^b\) Doubtful design or method = lacking of a clear description of the design or methods of the study or analysis, or any important methodological weakness in the design or execution of the study.
Figure 2. Age ranges of children for each measure. The BAP and KPSS have been omitted as their age ranges were not identified. Measures are ordered by length of the age range, from shortest to longest.

1.3.2.2. Floor and Ceiling Effects
Only eight measures offered information on floor and ceiling effects. One measure did not offer sufficient information to determine the presence of floor or ceiling effects. The remaining measures (n=25) did not offer any information.

1.3.2.3. Internal Consistency
Many measures achieved positive ratings (n=14), with only a small number offering no information about internal consistency (n=7). Many measures did not complete a factor analysis or their methods were ambiguous (n=11). One measure (ICQ) reported on their internal consistency statistics, but they were inadequate (n=1).

1.3.2.4. Criterion Validity
Measures achieved positive ratings if they could provide convincing arguments that there was a ‘gold standard’ and their measure correlated well with this standard. This was the only subjective rating. One measure (WPBL(R)) was able to do so. The C-G
PSS and PSAM referred to a gold standard, but the authors did not offer convincing arguments of their standard being ‘gold’ (n=2).

1.3.2.5. Construct Validity
A small majority achieved positive ratings (n=13). Many of the remaining measures did not offer a clear assessment (n=11) or any information on construct validity (n=9).

1.3.2.6. Agreement
Many authors offered information about how comparable scores were on the same measure on separate occasions, using a specified reliability agreement assessment (n=16). Some measures offered information on agreement but the result was inadequate (n=4). Only three measures hinted at acceptable levels of agreement but did not offer sufficient information. The remaining measures (n=10) did not refer to agreement or absolute measurement error.

1.3.2.7. Reliability
With the exception of one measure (ICQ), no information was available on how parents could be distinguished from each other. The information provided by the ICQ suggested that the reliability was inadequate.

1.3.2.8. Responsiveness
There was consistent evidence that authors did not report on the responsiveness properties of the measures (n=29). Only four measures (BAM-13, KPCS and SEPTI-TS) reported the responsiveness characteristics. One measure (PSOC) referred to the responsiveness but did not offer sufficient information to warrant a positive rating.

1.3.2.9. Interpretability
The majority of the measures achieved a positive rating and offered details of how one can assign qualitative meaning to scores (n=13). Many measures tended to report some scores obtained by the samples, but did offer adequate information to obtain a positive rating (n=10). The remaining measures (n=10) did not offer any information on interpretability.
1.3.2.10. Minimally Clinically Important Difference (MCID)

Similarly to the responsiveness property, many authors did not report on the MCID (n=31). Only two measures (BaM-13 and KPCS) offered this information and achieved positive ratings.

1.3.3. Administrative Quality

1.3.3.1. Ease of Scoring

Most measures utilized a Likert scale from which responses were either summed or the mean score was calculated (n=20). The ICQ utilized a visual analogue scale and the MaMS and MBS utilized a semantic differential scale. However, these measures were scored by similar methods. Some measures (n=10) did not offer information on how to obtain a score. However, there was no evidence to suggest that calculating a score would be any different to other measures. Two measures (PCS and PSES) utilized both Likert scaled items and dichotomous items.

1.3.3.2. Time to Administer

Bot et al., (2004) suggested that measures that took longer than 10 minutes to complete were less desirable than measures that took less time. Their choice of time limit was arbitrary and has only been reproduced for consistency. Two measures (MaaS and TOPSE) included information about the time to administer but achieved a negative rating. Other measures (n=6) achieved a positive rating and two measures (KPCS and MCQ) did offer sufficient information for a positive rating to be assigned. The remaining measures (n=23) did not include any information about administration time.

1.3.3.3. Readability and Comprehension

Only four measures included reliability and comprehension information. Information for the CAPES and C-G PSS suggested that readability and comprehension levels were adequate, whereas the MCQ and PCS referred to readability and comprehension but did not offer sufficient detail to warrant a positive rating.
1.3.4. Overall Quality
The maximum quality rating score was 36. No measure achieved a perfect score and the scores were varied (M=12.7, median=14, SD=6.6). The maximum obtained score was 28, for the KPCS. The lowest score was 1 for the MPSC.
Table 2. Ratings achieved by each measure following the quality assessment

<table>
<thead>
<tr>
<th>Measure</th>
<th>Administrative Properties</th>
<th>Psychometric Properties</th>
<th>Overall Score (0-36)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ease of scoring</td>
<td>Time to administer</td>
<td>Readability and comprehension</td>
</tr>
<tr>
<td>BaM-13</td>
<td>+</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>BAP</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CAPES</td>
<td>+</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>C-G PSS</td>
<td>0</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>CPP</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>EPBES</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ICQ</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ICS</td>
<td>+</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>KPCS</td>
<td>+</td>
<td>?</td>
<td>0</td>
</tr>
<tr>
<td>KPSS</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MaMS</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MaaP</td>
<td>+</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>MBS</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MCQ</td>
<td>+</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>MSEQ</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>M/P SES</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MSPC</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PCS</td>
<td>+</td>
<td>0</td>
<td>?</td>
</tr>
<tr>
<td>PEEM</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PES</td>
<td>+</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>PMP S-E</td>
<td>+</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>PPSEC</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PSAM</td>
<td>+</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>PSES</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PSOC</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PTC</td>
<td>?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SEPTI</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SEPTI - TS</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SICS</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TCQ</td>
<td>+</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>TOPSE</td>
<td>+</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>WPBL(R)</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Note. BaM-13 = Being a Mother, Matthey (2011); BAP = Being a Parent (McMahon, Ungerer, Tennant & Saunders, 1997); CAPES = Child Adjustment and Parent Efficacy Scale (Morawska, Sanders, Haslam, Filus & Fletcher, 2014); C-G PSS = Cleminshaw-Guidubaldi Parenting Satisfaction Scale (Guidubaldi & Cleminshaw, 1988); CPP = Comfort with Parenting Performance (Ballenski & Cook, 1982); EIPSES = Early Intervention Parenting Self-Efficacy Scale (Guimond, Wilcox & Lamorey, 2008); ICQ = Infant Care Questionnaire (Secco, 2002); ICS = Infant Care Survey (Froman & Own, 1989); KPCS = Karitane Parenting Confidence Scale (Crnčec, Barnett & Matthey, 2008); KPSS = Kansas Parental Satisfaction Scale (James, Schumm, Kennedy, Grigsby, Selectman & Nichols, 1985); MaMS and MBS = Myself as a Mother Scale and My Baby Scale (Walker, Crain & Thompson, 1986); MaaP = Me as a Parent (Hamilton, Matthews & Crawford, 2014); MCQ = Maternal Confidence Questionnaire (Zahr, 1991); MSEQ = Maternal Self-Efficacy Questionnaire (Fish, Stifter & Belsky, 1991); M/P SES = Maternal / Paternal Self-Efficacy Scale (Teti & Gelfand, 1991); MIPS = Multicultural Inventory of Parenting Self-Efficacy (Dumka, Prost & Barrera, 2002); MSCP = Maternal Self-Confidence Paired Comparisons (Seashore, Leifer, Barnett & Leiderman, 1973); PCS = Perceived Competence Scale (Rutledge & Pridham, 1987); PEEM = Parent Empowerment and Efficacy Measure (Freiberg, Homel & Branch, 2014); PES = Parent Expectation Survey (Reece, 1992); PMP S-E = Perceived Maternal Parenting Self-Efficacy (Barnes & Adamson-Macedo, 2007); PPSEC = Preterm Parenting Self-Efficacy Checklist (Pennell, Whittingham, Boyd, Sanders & Colditz, 2012); PSAM = Parental Self-Agency Measure (Dumka, Stoertzinger, Jackson & Roosa, 1996); PSES = Parenting Self-Efficacy Scale (Purssell & While, 2013); PSOC = Parenting Sense of Competence Scale (Johnston & Mash, 1989); Ohan, Leung & Johnston, 2000); PTC = Parenting Tasks Checklist (Sanders & Wooley, 2005); SEPTI = Self-Efficacy for Parenting Tasks Indexes (Coleman & Karraker, 2000); SEPTI-TS = Self-Efficacy for Parenting Tasks Indexes – Toddler Scale (Van Rijen, Gasanova, Boonstra & Huijding, 2014); SICS = Self-Efficacy in Infant Care Scale (Prasopkittikun, Tilokskulchai, Sinsuksai & Sitthimongkol, 2006); TCQ = Toddler Care Questionnaire (Gross & Rocissano, 1988); TOPSE = Tool to Measure Parenting Self-Efficacy (Kendall & Bloomfield, 2005); WPBL(R) = What Being the Parent of a Baby is Like (Revised) (Pridham & Chang, 1989).

The meaning of the quality criteria are defined in Table 1.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Target population</th>
<th>Study population(s)</th>
<th>Domains cited by authors</th>
<th>Revised domains</th>
<th>Number of scales</th>
<th>Number of items</th>
<th>Number of response options</th>
<th>Range of scores</th>
<th>Theoretical grounding</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>BaM-13</td>
<td>0 to 5 years</td>
<td>630 Australian mothers</td>
<td>Satisfaction</td>
<td>Efficacy; Esteem; Satisfaction</td>
<td>3</td>
<td>13</td>
<td>4 (0 to 3)</td>
<td>0-39</td>
<td>2c, 3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>BAP</td>
<td>0</td>
<td>Australian</td>
<td>Competence; satisfaction</td>
<td>Efficacy; Satisfaction; Efficacy</td>
<td>2</td>
<td>46</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>General</td>
</tr>
<tr>
<td>CAPES</td>
<td>2 to 12 years</td>
<td>347 Australian parents</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>3</td>
<td>CAPEs: 30 Efficacy: 20 CAPES: 4 (0 to 3) Efficacy: 10 (1 to 10)</td>
<td>CAPEs: 0-90 Efficacy: 20-200</td>
<td>1, 2b, 3, 5</td>
<td>Domain-general</td>
<td></td>
</tr>
<tr>
<td>C-G PSS</td>
<td>0 to 18 years</td>
<td>130 parents</td>
<td>Satisfaction</td>
<td>Efficacy; Confidence; Satisfaction</td>
<td>5</td>
<td>50</td>
<td>4</td>
<td>0</td>
<td>2b, 2c, 3, 5</td>
<td>General</td>
</tr>
<tr>
<td>CPP</td>
<td>0 to 18 years</td>
<td>278 mothers</td>
<td>Competence</td>
<td>Efficacy</td>
<td>1</td>
<td>8 to 14</td>
<td>6 (1 to 6)</td>
<td>8-48 to 14-84</td>
<td>2a, 2b, 2c, 3, 5</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>EIPSES</td>
<td>3 to 34 months</td>
<td>112 USA mothers</td>
<td>Competence; Efficacy</td>
<td>Efficacy</td>
<td>1</td>
<td>20</td>
<td>7 (1 to 7)</td>
<td>1-5</td>
<td>3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>ICQ</td>
<td>0 to 6 weeks</td>
<td>264 Canadian mothers</td>
<td>Competence</td>
<td>Efficacy</td>
<td>3</td>
<td>38</td>
<td>6 (visual analogue) (0 to 5)</td>
<td>0-45</td>
<td>2b, 3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>ICS</td>
<td>0 to 12 months</td>
<td>142 parents</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>1</td>
<td>51</td>
<td>5 (A to E)</td>
<td>0</td>
<td>2b, 2c, 3</td>
<td>Global</td>
</tr>
<tr>
<td>KPCS</td>
<td>0 to 12 months</td>
<td>187 mothers</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>3</td>
<td>15</td>
<td>4 (0 to 3)</td>
<td>0</td>
<td>2a, 2c, 3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>KPSS</td>
<td>0</td>
<td>1980: 84 USA mothers 1984: 85 USA mothers, 52 USA fathers</td>
<td>Satisfaction</td>
<td>Efficacy; Satisfaction</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>3, 4, 5</td>
<td>Domain-general</td>
</tr>
<tr>
<td>MaMS</td>
<td>1 day to 6 weeks</td>
<td>122 mothers</td>
<td>Confidence</td>
<td>Efficacy</td>
<td>1</td>
<td>11</td>
<td>7 (semantic differential scale)</td>
<td>0</td>
<td>2b, 2c, 3, 4</td>
<td>Domain-general</td>
</tr>
<tr>
<td>MaaP</td>
<td>6 months to 15 years</td>
<td>300 Australian parents</td>
<td>Regulation</td>
<td>Efficacy</td>
<td>4</td>
<td>16</td>
<td>5 (1 to5)</td>
<td>16-80</td>
<td>2a, 3, 4, 5</td>
<td>Domain-general</td>
</tr>
<tr>
<td>MBS</td>
<td>1 day to 6 weeks</td>
<td>122 mothers</td>
<td>Confidence</td>
<td>Efficacy</td>
<td>1</td>
<td>6</td>
<td>7 (Semantic differential scale)</td>
<td>0</td>
<td>2b, 2c, 3, 4</td>
<td>Domain-general</td>
</tr>
<tr>
<td>MCQ</td>
<td>0 to 13 months</td>
<td>43 mothers</td>
<td>Confidence</td>
<td>Efficacy</td>
<td>1</td>
<td>14</td>
<td>5 (1 to 5)</td>
<td>70</td>
<td>1, 3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>MSEQ</td>
<td>0 to 5 months</td>
<td>83 USA mothers</td>
<td>Competence; Efficacy</td>
<td>Efficacy</td>
<td>3</td>
<td>9</td>
<td>6</td>
<td>0</td>
<td>2a, 2b, 2c, 3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>M/P SES</td>
<td>3 to 13 months</td>
<td>86 mothers (48 diagnosed with depression)</td>
<td>Competence; Efficacy</td>
<td>Efficacy</td>
<td>1</td>
<td>10</td>
<td>4</td>
<td>0</td>
<td>1, 2a, 2b, 2c, 3, 5</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>MIPS1</td>
<td>11 to 13 years</td>
<td>161 two-parent USA families</td>
<td>Competence; Efficacy</td>
<td>Efficacy</td>
<td>1</td>
<td>17</td>
<td>5</td>
<td>0</td>
<td>2b, 2c, 3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>MSPC</td>
<td>Birth to 21 months</td>
<td>32 mothers of premature infants</td>
<td>Competence</td>
<td>Efficacy</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2c, 3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>PCS</td>
<td>0 to 6 weeks</td>
<td>140 mothers</td>
<td>Competence</td>
<td>Efficacy</td>
<td>1</td>
<td>68</td>
<td>6 (1 to 6), Some</td>
<td>0</td>
<td>3</td>
<td>Domain-specific</td>
</tr>
<tr>
<td>Measure</td>
<td>Description</td>
<td>Participants</td>
<td>Measuring Points</td>
<td>Efficacy Levels</td>
<td>Domain</td>
<td>Notes</td>
<td></td>
<td></td>
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<tr>
<td>---------</td>
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<td>--------------</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEEM</td>
<td>Parent Empowerment and Efficacy Measure</td>
<td>866 Australian parents</td>
<td>5 to 12 years</td>
<td>Confidence</td>
<td>Efficacy</td>
<td>1</td>
<td>20</td>
<td>closed questions. 10 (1 to 10)</td>
<td>20 to 200</td>
<td>2a, 2b, 2c, 3</td>
</tr>
<tr>
<td>PES</td>
<td>Parent Expectation Survey</td>
<td>105 first-time mothers</td>
<td>1 to 3 months</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>1</td>
<td>20</td>
<td>11 (0 to 10)</td>
<td>0 to 20</td>
<td>1, 3, 4, 5, 6, 1, 2c</td>
</tr>
<tr>
<td>PMP S-E</td>
<td>Perceived Maternal Parenting Self-Efficacy</td>
<td>165 UK mothers</td>
<td>Preterm to 1 month</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>4</td>
<td>20</td>
<td>4 (1 to 4)</td>
<td>20 to 80</td>
<td>1, 2c</td>
</tr>
<tr>
<td>PPSEC</td>
<td>Preterm Parenting Self-Efficacy Checklist</td>
<td>155 Australian parents</td>
<td>Preterm to 24 months</td>
<td>Competence; Agency</td>
<td>Efficacy</td>
<td>3</td>
<td>36</td>
<td>7 (1 to 7)</td>
<td>36 to 252</td>
<td>1, 2b, 3</td>
</tr>
<tr>
<td>PSAM</td>
<td>Perceived Maternal Parenting Self-Efficacy</td>
<td>94 Spanish speaking &amp; 90 English speaking mothers, SW USA</td>
<td>3 to 12 years</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>10 (5 item available)</td>
<td>7 (1 to 7)</td>
<td>10 to 70</td>
<td>1</td>
<td>Domain-general</td>
</tr>
<tr>
<td>PSES</td>
<td>Perceived Maternal Parenting Self-Efficacy</td>
<td>152 UK parents of child during ill health</td>
<td>0 to 6 years</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>4</td>
<td>18</td>
<td>Likert 4; dichotomous</td>
<td>0</td>
<td>3</td>
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<tr>
<td>PSOC</td>
<td>Preterm Parenting Self-Efficacy Checklist</td>
<td>220 mothers and fathers</td>
<td>5 to 12 years</td>
<td>Competence; Efficacy; Esteem; Satisfaction</td>
<td>Efficacy; Satisfaction</td>
<td>2</td>
<td>17</td>
<td>17 to 102</td>
<td>2a, 2b, 2c, 3, 6</td>
<td>Domain-general</td>
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<td>PTC</td>
<td>Parenting Task Confidence</td>
<td>124 Australian mothers</td>
<td>2 to 8 years</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>2</td>
<td>28</td>
<td>101 (0 to 100)</td>
<td>?</td>
<td>3, 4</td>
</tr>
<tr>
<td>SEPTI</td>
<td>Parenting Task Confidence</td>
<td>145 mothers</td>
<td>6 to 12 years</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>5</td>
<td>36</td>
<td>6 (1 to 6)</td>
<td>1 to 6</td>
<td>1, 3</td>
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<tr>
<td>SEPTI - TS</td>
<td>Parenting Task Confidence</td>
<td>68 mothers from E USA</td>
<td>19 to 25 months</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>7</td>
<td>53</td>
<td>6 (1 to 6)</td>
<td>53 to 318</td>
<td>3, 4, 5</td>
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<tr>
<td>SICS</td>
<td>Infant Care Survey</td>
<td>532 Thai mothers</td>
<td>0 to 12 months</td>
<td>Efficacy</td>
<td>Efficacy</td>
<td>4</td>
<td>44</td>
<td>0</td>
<td>0</td>
<td>1, 2a, 2b, 2c, 3</td>
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<tr>
<td>TCQ</td>
<td>Infant Care Questionnaire</td>
<td>49 mothers</td>
<td>1 to 3 years</td>
<td>Confidence</td>
<td>Efficacy</td>
<td>1</td>
<td>36</td>
<td>5 (A to E)</td>
<td>0</td>
<td>2a, 2c, 3</td>
</tr>
<tr>
<td>TOPSE</td>
<td>Preterm Parenting Self-Efficacy Checklist</td>
<td>82 UK parents</td>
<td>0 to 6 years</td>
<td>Efficacy</td>
<td>Competence; Efficacy</td>
<td>9</td>
<td>82</td>
<td>11 (0 to 10)</td>
<td>0</td>
<td>2a, 2b, 2c, 3</td>
</tr>
<tr>
<td>WPBL(R)</td>
<td>Maternal Self-Efficacy Questionnaire</td>
<td>93 mothers</td>
<td>0 to 3 months</td>
<td>Satisfaction; Efficacy</td>
<td>Satisfaction; Efficacy</td>
<td>3</td>
<td>25</td>
<td>9 (1 to 9)</td>
<td>25 to 225</td>
<td>2b, 2c, 3</td>
</tr>
</tbody>
</table>

Note. A score of ‘0’ indicates that the information was not reported by the authors.

BaM-13 = Being a Mother, Matthey (2011); BAP = Being a Parent (McMahon, Ungerer, Tennant & Saunders, 1997); CAPES = Child Adjustment and Parent Efficacy Scale (Morawska, Sanders, Haslam, Filus & Fletcher, 2014); C-G PSS = Cleminshaw-Guidubaldi Parenting Satisfaction Scale (Guidubaldi & Cleminshaw, 1988); CPP = Comfort with Parenting Performance (Ballensi & Cook, 1982); EIPSES = Early Intervention Parenting Self-Efficacy Scale (Guimond, Wilcox & Lamorey, 2008); ICQ = Infant Care Questionnaire (Secco, 2002); ICS = Infant Care Survey (Froman & Own, 1989); KPCS = Karitane Parenting Confidence Scale (Črnčec, Barnett & Matthey, 2008); KPSS = Kansas Parental Satisfaction Scale (James, Schumm, Kennedy, Grigsby, Selectman & Nichols, 1985); MaMS and MBS = Myself as a Mother Scale and My Baby Scale (Walker, Crain & Thompson, 1986); MaaP = Me as a Parent (Hamilton, Matthews & Crawford, 2014); MCQ = Maternal Confidence Questionnaire (Zahr, 1991); MSEQ = Maternal Self-Efficacy Questionnaire (Fish, Strifer & Belsky, 1991); M/P SES = Maternal / Paternal Self-Efficacy Scale (Teti & Gelfand, 1991); MIPS = Multicultural Inventory of Parenting Self-Efficacy (Dumka, Prost & Barrera, 2002); MSPC = Maternal Self-Confidence Paired Comparisons (Seashore, Leifer, Barnett & Leiderman, 1973); PCS = Perceived Competence Scale (Rutledge & Pridham, 1987); PEEM = Parent Empowerment and Efficacy Measure (Freiberg, Homel & Branch, 2014); PES = Parent Expectation Survey (Rcece, 1992); PMP S-E = Perceived Maternal Parenting Self-Efficacy (Barnes & Adamson-Macedo, 2007); PPSEC = Preterm Parenting Self-Efficacy Checklist (Pennell, Whittingham,
Boyd, Sanders & Colditz, 2012); PSAM = Parental Self-Agency Measure (Dumka, Stoerzinger, Jackson & Roosa, 1996); PSES = Parenting Self-Efficacy Scale (Pursell & While, 2013); PSOC = Parenting Sense of Competence Scale (Johnston & Mash, 1989); Ohan, Leung & Johnston, 2000); PTC = Parenting Tasks Checklist (Sanders & Wooley, 2005); SEPTI = Self-Efficacy for Parenting Tasks Indexes (Coleman & Karraker, 2000); SEPTI-TS = Self-Efficacy for Parenting Tasks Indexes – Toddler Scale (Van Rijen, Gasanova, Boonstra & Huijding, 2014); SICS = Self-Efficacy in Infant Care Scale (Prasopkittikun, Tilokskulchai, Sinsuksai & Sithimongkol, 2006); TCQ = Toddler Care Questionnaire (Gross & Rocissano, 1988); TOPSE = Tool to Measure Parenting Self-Efficacy (Kendall & Bloomfield, 2005); WPBL(R) = What Being the Parent of a Baby is Like (Revised) (Pridham & Chang, 1989).
1.4. Discussion
This literature review offers a detailed and comprehensive review of the psychometric and administrative properties of the available PSE measures. Additionally, the review aimed to clarify inconsistent terminology within the PSE literature alongside the theoretical grounding on which the available measures of PSE are based. The review identified that since 1970, 33 measures of PSE have been developed yet none have been widely adopted, indicating that measures might have been developed for specific research applications. This finding supports the need for the current review, which has enabled users of PSE measures to identify the most appropriate theoretical and logistical measure for their needs.

In line with Črnčec, Barnett and Bryanne’s (2010) observation that the majority of the measures were developed for parents of children within their early years, relatively few measures examined efficacy in older children. This may be explained by the overwhelming majority of PSE research being with children younger than six years of age. Similarly, research on the factors that influence PSE have been investigated with families with children younger than six years of age. The requirements of parenting younger children are substantially more demanding physically, emotionally and psychologically, warranting greater research attention. Parents of older children tend to have higher levels of PSE, most likely due to the decline in constant and intensive parenting behaviour necessary for younger children. As children are able to tend to themselves more, parents may find more time and resources for accomplishing their other life goals, leading to elevated PSE levels. Coleman and Karraker (2000) offer some evidence to support this view; however, they only included a limited number of measures and interpretations should be cautious. Furthermore, it is important to recall that parenting does not stop once children start school, leave home, go to university or start a family. The parenting role may change, yet measurement of PSE under these different circumstances has received little attention.

All measures within the review investigated PSE and were labelled based on Gist and Mitchell’s (1992) model of self-efficacy, offering support for the model as an accurate theoretical framework for process of self-efficacy. Only a few measures included items that were at the very start of this theoretical process, based on Bandura’s (1997) four sources of information that form self-efficacy. This suggests that the majority of available measures work on the assumption that parents have
already attempted a task at hand, and perceptions of PSE have already been developed. Further evidence is seen in the relatively small number of measures included within the first of Gist and Mitchell’s (1992) three assessments following the initial formation of self-efficacy (‘Analysis of task requirements’). For example, “I know what to do when my baby cries” (KPCS; Črnčec, Barnett & Matthey, 2008) questions parents on their requirements in order to perform well. Gist and Mitchell (1992) suggest that an analysis of task requirements is only necessary when the task is novel or has not been attempted. If a task has been performed before, the individual is likely to rely on their interpretation of previous performance (‘Attributional analysis of experience’). As there were almost double the number of measures within this type of assessment in contrast to the analysis of task requirements, it is clear that the majority of measures in this review tend to investigate PSE after it has been initially formed.

Parents who attend structured parenting courses may be encouraged to develop their existing skills. However, parents may also be taught new skills. For professionals who wish to measure PSE for new tasks, this is most accurate when using measures that can be described by Bandura’s (1997) sources of information and Gist and Mitchell’s (1992) analysis of task requirements (e.g., CAPES, KPCS, M/P SES, SICS or MaaP).

The second of the three assessments is the attributional analysis involved in PSE judgements. This analysis involves an individual’s attributions as to why a particular performance level occurred. For example, “How good are you at praising [target adolescent] and giving him/her encouragement?” (MIPSI; Dumka, Prost & Barrera, 2002). Although an attributional analysis is necessary to estimate PSE, it is insufficient without an examination of a third assessment, the availability of specific resources and constraints so that a task can be performed. This assessment accounts for personal factors, such as skill level, anxiety and desire, and situational factors, such as competing demands and distraction. For example, “If anyone can find the answer to what is troubling my child, I am the one” (PSOC; Johnston & Mash, 1989). The result of this assessment is likely to determine future performance. Gist and Mitchell (1992) argued that any measure of one, two or all of these assessment processes will result in data that helps to identify levels of PSE. Therefore, every measure that is grounded in at least one of three assessments also offers an
estimation of PSE. Users of measures are encouraged to consider this causal link when interpreting their results.

Only a small number of measures were identified that regard the processes after an estimation of PSE is made, suggesting that measures within these theoretical areas have obtained less attention than the processes that help to determine PSE. Paradoxically, there is a great deal of consistent research on the consequences of PSE (as summarised in Coleman & Karraker, 2000), indicating that greater levels of PSE have beneficial and therapeutic consequences for individuals. This incongruity may be understood if one considers that there is no clinical or therapeutic need for additional measures within these areas as the benefits of higher PSE are already documented. This can be demonstrated in parenting interventions (e.g., Sanders & Woolley, 2005) which offer measurements of the change in PSE during the intervention (e.g., educating parents on how to better interact with their children), rather than measuring changes to the consequences of increased PSE (e.g., parenting levels of stress or improvements in the quality of parent-child interactions). This latter measurement is not necessary.

The fewest number of measures were categorised as ‘General PSE’. On these measures, items were not linked to specific parenting tasks and were less sensitive to the tasks that face a parent of a child of a specific age. Consequently, they are fewer occasions in which they will be utilised. ‘Domain-specific’ measures focus on parents’ beliefs in their ability to complete a range of specific tasks of the parenting role for a child of a specific age. Due to their specificity, there are a greater number of these measures, thus explaining why the majority of the measures within this review were domain-specific. Marsh, Ellis and Craven (2002) argued that these measures have greater predictive validity than general measures of PSE.

The current review found some evidence that the terminology used within the literature is inconsistent. Following a concept analysis (de Montig & Lacharité, 2005) the terminology was clarified and the subtle difference between concepts was clarified. The results identified that the terms ‘efficacy’, ‘esteem’, ‘competence’ and ‘confidence’ seemed to be used interchangeably, although there was no statistical difference between their original use and re-classification. It is relevant to note that some authors used incorrect terminology but provided a disclaimer. For example, Črnčec, Barnett, and Matthey (2010) referred to measures of PSE but explained that they preferred the term ‘confidence’ to ease the reader’s understanding. Whilst this
rationale was clear, it unintentionally re-introduced ambiguity into this area of research. The most striking observation of incorrect terminology was noted in measures that included an incorrect concept within their title. For example, the title ‘Maternal Confidence Questionnaire’ (MCQ; Zahr, 1991) informs the reader that confidence is under investigation, whereas PSE would have been more appropriate. Similarly, the ‘Parental Self-Agency Measure’ (PSAM, Dumka, Stoerzinger, Jackson & Roosa (1996) utilized an entirely new label for PSE. Although it is unlikely that incorrect terminology will cause any confusion, the terminology is inappropriate from a theoretical standpoint. The re-classification of concepts throughout this review will reintroduce clarity into the literature.

The review demonstrates that there are an adequate number of measures available with good psychometric and administrative properties and a selection of measures with very good properties. Researchers or healthcare professionals seeking to choose a measure of PSE are encouraged to read this article and the overall quality ratings in Table 1 and are strongly advised to consider additional factors, in particular the influence of the level of parent education. Parents with higher levels of education are more likely to experience higher ratings of PSE (Coleman & Karraker, 2000); they may have a broader knowledge of effective parenting strategies and child development, leading to an increased frequency of successful interactions with children, thus improving PSE. Additionally, higher levels of parenting education are often correlated with higher family income, which can allow parents to provide more material goods, learning and opportunities for the children as well as preventing various parenting stresses or difficulties. Therefore, consideration should be paid to the socio-economic biases of the wording of certain items in specific measures. Measures that were considered to be ‘domain-general’ are less likely to be related to parent education or income and less likely to be compromised by these biases.

Consideration should be paid to the construct of PSE, which is often viewed as either high or low. This dichotomous view has led to the possibly unhelpful comparisons of parents with higher PSE to parents with lower PSE. However, less is known about the parents who fall within the moderate range. This may be due to many measures including items that were linked to performance on specific tasks, which encourages an all-or-none estimation of efficacy. A further possibility, proposed by Coleman and Karraker (1997), is that individuals with moderate levels of self-efficacy do not perform as predictably on measures as individuals with more
extreme scores. Perhaps further investigation and interpretation is necessary into measures that are sensitive to moderate scores of PSE.

An older review of PSE measures (Črnčec, Barnett & Matthey, 2010) described 36 measures of PSE and summarised each measure and its psychometric qualities\(^6\). Only 18 of their 36 measures were included in the current review, which also investigated their psychometric qualities but in a more comprehensive, thorough and systematic manner. Additionally, their administrative qualities offer practical information. Many measures were not selected as they were subscales taken from larger PSE measures or outdated; six were published between 1978 and 1995.

A crucial difference between the older review and the current one is the use of a quality criteria assessment. Although our use of Terwee et al.’s (2007) criteria provided a framework for a thorough evaluation, some limitations have to be considered, including the subjective nature of identifying ‘gold standards’ and the seemingly arbitrary use of time-limits and specific thresholds between ‘adequate’ and ‘inadequate’. Additionally, the criteria do not seem to be sensitive to the difference between good and high quality measures. However, the framework has succeeded in facilitating an investigation into the most appropriate measures for PSE. It is highly recommended that these criteria are considered when selecting a measure outside of the PSE paradigm. A measure that performs well against these criteria is likely to be an appropriate and robust choice.

Whilst the current review includes measures suitable for mothers and fathers (e.g., BaP, MaaP & PSES) and mothers alone (e.g., BaM-13, MCQ & MSPC), there remains a paucity of measures developed specifically for fathers. Although there are limited measures available that have been validated after administration to fathers (e.g., PSOC, Johnston & Mash, 1989), the lack of such measures is no longer reflective of the modern parenting role. This review strongly encourages the development of such measures. These measures could have strengthened research findings around paternal PSE (e.g., Hudson, Campbell-Grossman, Fleck, Elek & Shipman, 2003) and can facilitate research into a better understanding of the difference in PSE between mothers and fathers.

The findings of this review have potential utility in research and clinical settings. Service providers and policy makers when planning to deliver evidence-
based parenting interventions may also benefit from these results as they offer evidence-based psychometric and administrative guidance for selecting an appropriate measure of PSE. From a research perspective, this review has prioritised accurate terminology, theoretical grounding in SCT and detailed psychometric properties of the available measures. Thus, the measures may be useful across a range of research efforts at better understanding PSE within diverse parent samples, and better understanding parent and child mental and behavioural outcomes. For clinicians, the review offers a choice of measures dependent upon the background of the service user. The detailed demographic information ensures that an appropriate choice can be made.

Based on the current review and after detailed examination of the quality assessment, psychometric and administrative properties and theoretical underpinning of the measures, several measures are recommended: PMP-SE (Barnes & Adamson-Macedo, 2007) for the parents of pre-term babies; KPCS (Črnčec et al., 2008), BaM-13 (Matthey, 2011), WPBL(R) (Pridham & Chang, 1989) and PMP-SE for the parents of infants (0 to 13 months); BaM-13, CAPES (Morawska, Sanders, Haslam, Filus & Fletcher, 2014), SEPTI-TS (van Rijen, Gasanova, Boonstra & Huijding, 2014) and WPBL(R) for the parents of toddlers (13 to 36 months); BaM, CAPES and PSAM (Pursell & While, 2013) for the parents of pre-school-aged children (3 to 5 years); CAPES, PSAM, PEEM (Freiberg, Homel & Branch, 2014) and SEPTI (Coleman & Karraker, 2000) for the parents of school-aged children (5 to 12 years); MaaP (Hamilton, Matthews & Crawford, 2014) and C-G PSS (Guidubaldi & Cleminshaw, 1988) for the parents of adolescents (12 years+). The latter is a general PSE measure, and is unlikely to be sensitive to the issues pertinent for parents of an adolescent child. However, it has adequate psychometric and administrative properties and should be considered when selecting a measure. On a related note, with the exception of the measure selected for pre-term babies, the recommended measures are a selection of domain-general and domain-specific measures, underpinned by different theoretical backgrounds. It is recommended that clinicians choose a measure guided by their research or clinical question.

PSE has been proven to be a strong predictor of parenting functioning. Its measurement should not be overlooked or assigned a minimal degree of importance in theoretical models of parenting or child development. Reliable, valid and efficient measurement of PSE permits individuals to document change in the parenting role
and the resulting improvements to quality of life. Measures can ensure that parents with lower levels of PSE are better identified and supported to improve their skills in parenting. Consequently, they can be encouraged to develop the skills in which they feel unprepared. Once parents have conviction and belief in their own abilities, the quality of parenting can be optimised and the role of being a parent can become as pleasurable as possible.
1.5. References


Dowling, H., Smith, D. & Wittkowski, A. (under review). Does engaging in a group-based intervention increase parental self-efficacy in parents of preschool


## Supplementary Table S1. Content and construct validity properties of the PSE measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Item development</th>
<th>Content validity</th>
<th>Floor / ceiling effects*</th>
<th>Level of reading examined</th>
<th>Hypotheses</th>
<th>Convergent validity</th>
<th>Discriminant validity</th>
<th>Divergent validity</th>
<th>Concurrent validity</th>
<th>Predictive validity</th>
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<td>✓</td>
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Note. BDI = Battelle Developmental Inventory, CBCL = Child Behavior Checklist, CRPR = Child Reading Practices Report; DAS = Dyadic Adjustment Scale; EPDS = Edinburgh Postnatal depression Scale; ITSEA = Infant-Toddler Social and Emotional Assessment; FES = Family Empowerment Scale; LSI =
Life Satisfaction Index; MSM = Marital Satisfaction Measure; MSRI = Maternal Self-Report Inventory, MPAS = Maternal Postnatal Attachment Scale; NET-HELP = measure of social support for women and infants; PPS = How Parents Problem-solve Regarding the Infant; PSCS = Pharis Self Confidence Scale; PSI(SF) = Parenting Stress Index (Short Form); PSQ = Postpartum Self-Evaluation Questionnaire; PSS = Perceived Stress Scale; SES = Rosenberg Self Esteem Scale; SELF-ES = Self-Efficacy Scale; WEMWBS = Warwick-Edinburgh Mental Wellbeing Scale.

A score of ‘0’ indicates that the information was not reported by the authors; ✓ = Information present and completed; ✗ = Information present but criterion not completed

* ✓ = Floor or ceiling effects were investigated and not present

** = Competence scale of the PSI
### Supplementary Table S2. Responsiveness and interpretability properties of the PSE measures

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<th>Comparative Data</th>
<th>Distribution of Scores</th>
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**Note.** Sensitivity = percentage of true cases correctly identified, Specificity = percentage of non-cases correctly identified, PPV = Positive Predictive Value (percentage of the sample scoring above the cut-off who were true cases), NPV = Negative Predictive Value (the percentage of the sample scoring below the cut-off who were true non-cases). CI = Confidence Intervals; M = Mean; SD = Standard Deviation

A score of ‘0’ indicates that the information was not reported by the authors; ✓ = Information present
### Supplementary Table S3. Agreement and reliability properties of the PSE measures

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*(55)*
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<td>Subscales: .26 to .71 (M = .43)</td>
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<td>.96 (Subscales: .86 to .93)</td>
<td>.41 Subscales: .44 to .56</td>
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*Note. A score of ‘0’ indicates that the information was not reported by the authors*
Supplementary Table S4. Descriptive properties of the PSE measures

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<th>Measure</th>
<th>Sample</th>
<th>Parent age range (years)</th>
<th>Child age range</th>
<th>Location</th>
<th>Language</th>
<th>Recruitment location</th>
<th>Ethnicity, other demographics</th>
<th>Marital</th>
<th>Highest level of parent education &amp; employment</th>
<th>Inclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>BaM-13</td>
<td>Mothers (n=630)</td>
<td>0</td>
<td>0</td>
<td>S.W Sydney (Australia)</td>
<td>English</td>
<td>Early childhood clinics (n=496), day-care (n=117), mental health services (n=17)</td>
<td>Caucasian (n=250), Aboriginal (n=7), Asian (n=5), Other (n=8)</td>
<td>Married (n=229)</td>
<td>University Degree (n=166), High school (n=76), College or trade (n=67), In employment (n=239)</td>
<td>0</td>
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<tr>
<td>BAP CAPES</td>
<td>Parents of 2-12-year-olds (n=347)</td>
<td>0</td>
<td>24-58 (M=39.49, SD=5.98)</td>
<td>Australia</td>
<td>English</td>
<td>Schools, day care centres, online forum, parenting newsletters</td>
<td>Caucasian (90.8%), Protestant (58.5%), natural parents (93.8%)</td>
<td>Married (n=8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-G PSS</td>
<td>Fathers (n=52), mothers (n=78)</td>
<td>21-71 (M=38.76, SD=10.57)</td>
<td>6 weeks to 38 years</td>
<td>USA</td>
<td>English</td>
<td>Educational, religious, community groups</td>
<td>Caucasian (90.8%), Hispanic (23.1%), other (11.1%)</td>
<td>Two-parent household (88.9%)</td>
<td>Higher degree (33%), College (27%), College degree (9.6%), High school (23.5%), &lt; high school (5.2%)</td>
<td>Years of education (n=15.92, SD=3.55)</td>
</tr>
<tr>
<td>CPP</td>
<td>Mothers (n=278)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>English</td>
<td>Private paediatric clinic</td>
<td>Caucasian (90%)</td>
<td>Married (90%)</td>
<td>High school (90%)</td>
<td>Child ≤ 18 years, no illness or disability</td>
</tr>
<tr>
<td>EIPSES</td>
<td>Biological mothers (n=112), adoptive mothers (n=5)</td>
<td>16-52 (M=31.11, SD=6.99)</td>
<td>3months – 34 months (n=17.28, SD=6.82)</td>
<td>Arizona, Utah, N.California (USA)</td>
<td>English, Spanish</td>
<td>Local agencies</td>
<td>White (65.8%), Hispanic / Latino (23.1%), other (11.1%)</td>
<td>Two-parent household (88.9%)</td>
<td>Higher degree (33%), College (27%), College degree (9.6%), High school (23.5%), &lt; high school (5.2%)</td>
<td>Infants of at least 37 weeks, no illness or disability*</td>
</tr>
<tr>
<td>ICQ</td>
<td>Mothers (n=264)</td>
<td>28</td>
<td>0</td>
<td>Manitoba, Canada</td>
<td>English</td>
<td>Postpartum unites at two teaching hospitals</td>
<td>Multiparous (n=48), Primparous (n=114), Caucasian (95%)</td>
<td>Married (88%)</td>
<td>Married ≥ High school</td>
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</tr>
<tr>
<td>ICS</td>
<td>Mothers and Fathers</td>
<td>15-40+</td>
<td>0</td>
<td>0</td>
<td>Hospitals, homes, classrooms</td>
<td>Caucasian, Black, Hispanic</td>
<td>0</td>
<td>Middle school to College Graduate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Participants</td>
<td>Location/Setting</td>
<td>Language</td>
<td>Education &amp; Employment</td>
<td>Outcome Measures</td>
<td>Notes</td>
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<tr>
<td>KPCS</td>
<td>(m=142) mothers (n=187)</td>
<td>Sydney, Australia</td>
<td>English</td>
<td>Community and Karitane, Caring for Families</td>
<td>Australian (63%), Number of children M=1.5 (SD=.8)</td>
<td>Completed university or vocational course (92%)</td>
<td></td>
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<tr>
<td>KPSS</td>
<td>84 mothers (1980)</td>
<td>Kansas</td>
<td>English</td>
<td>Random</td>
<td>Caucasian, Protestant, middle-class</td>
<td>1.76 children living at home (SD = .89)</td>
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<td></td>
<td>52 fathers, 85 mothers (1984)</td>
<td>Southern Baptist Church</td>
<td>English</td>
<td>Parents’ enrichment programme sponsored by Southern Baptist Convention</td>
<td>0</td>
<td></td>
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<tr>
<td>MaMS &amp; MBS</td>
<td>122 mothers</td>
<td>English Community hospital</td>
<td>White</td>
<td>Married, First time mothers (n=64)</td>
<td>College education</td>
<td>Medically uneventful pregnancy, full-term singletons, no illnesses or disability</td>
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<tr>
<td>MaaP</td>
<td>300 parents</td>
<td>Australia</td>
<td>English</td>
<td>Over telephone via Random Digit Dialling</td>
<td>Child with a disability (12%)</td>
<td>Married (77%)</td>
<td></td>
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<tr>
<td>MCQ</td>
<td>43 mothers</td>
<td>Inner city hospital</td>
<td>English</td>
<td>0</td>
<td>Caucasian (98%)</td>
<td>Married (87%)</td>
<td></td>
<td></td>
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<tr>
<td>MSEQ</td>
<td>83 mothers</td>
<td>Gestational age 36-43 weeks (M=39.78 weeks, SD 1.52)</td>
<td>English</td>
<td>0</td>
<td>Caucasian (98%)</td>
<td>Married (87%)</td>
<td></td>
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<tr>
<td>M/P SES</td>
<td>86 mothers (48 diagnosed with)</td>
<td>3-13 months (M=7.35 months)</td>
<td>English</td>
<td>0</td>
<td>White (97.35%), Black (2.6%), Hispanic (2.6%),</td>
<td>Single (16%), Married/Living with partner</td>
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</table>

Gestational age (m=30.32), birth weight (M=1.50kg) | 0 |

Birth weight ≤2kg, medically uneventful, no mother or child illness or disability | 0 |
<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Duration</th>
<th>Setting</th>
<th>Language</th>
<th>Education Level</th>
<th>Income</th>
<th>Occupation</th>
<th>Religion</th>
<th>Marital Status</th>
<th>Other Notes</th>
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</thead>
<tbody>
<tr>
<td>MIPS</td>
<td>161 two parent families (n=322)</td>
<td>0</td>
<td>SW USA</td>
<td>English, Spanish</td>
<td>Low income, inner city school rosters</td>
<td>European American Parents (n=93), Mexican American parents (English) (n=68), Mexican American parents (Spanish) (n=161)</td>
<td>Religion: Mormon (61.9%), Catholic (10.2%), Protestant (8.4%), Other (19.7%)</td>
<td>(84%)</td>
<td>Vocational (45.3%), High school (13.0%), &lt; High school (7.2%)</td>
<td></td>
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<tr>
<td>MSPC</td>
<td>43 mothers (21 denied physical contact with child)</td>
<td>0</td>
<td>English</td>
<td>Hospital</td>
<td>Two weeks premature to 1 month</td>
<td>European American (M=12.85 years of education), Mexican American (English) M=11.8, Mexican American (Spanish) M = 7.25 years</td>
<td>0</td>
<td>No previous history of premature births, newborn weighs 890-1,899g, no illness or disability, father present</td>
<td></td>
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<tr>
<td>PCS</td>
<td>140 mothers</td>
<td>M=28.3 (SD = 4.62)</td>
<td>Midwest USA</td>
<td>English</td>
<td>Postpartum unit of community hospital affiliated with university</td>
<td>Caucasian (94%), Religion: Protestant (39%), Catholic (33%), Other (26%).</td>
<td>Married (93%)</td>
<td>M=14.5 years of education (SD=2.57)</td>
<td>0</td>
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<tr>
<td>PEEM</td>
<td>866 parents and carers</td>
<td>5-12 years</td>
<td>Australia</td>
<td>English</td>
<td>Participating schools</td>
<td>High (n=290), medium (n=228), low (n=348) SES</td>
<td>Single parent (17.7%), grandparent / guardian (2%), 1.5 children living at home (SD=.70)</td>
<td>University qualification (35.1%), &lt; high school (11.6%), trade (53.2%)</td>
<td>0</td>
<td></td>
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<tr>
<td>PES</td>
<td>105 mothers</td>
<td>35 to 42 (M=37)</td>
<td>Boston, USA</td>
<td>English</td>
<td>Childbirth education programmes in hospitals</td>
<td>0</td>
<td>0</td>
<td>College educated (&quot;most&quot;)</td>
<td>First time parent</td>
<td></td>
</tr>
<tr>
<td>PMP S-E</td>
<td>160 mothers</td>
<td>0-28 days postnatal</td>
<td>UK</td>
<td>English</td>
<td></td>
<td>White (86%)</td>
<td>First time mother (56%)</td>
<td>English, no illness or disability, preterm baby (&lt;2.5kg, &lt;37 weeks)</td>
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<tr>
<td>Study</td>
<td>Sample Size</td>
<td>Age</td>
<td>Location</td>
<td>Language</td>
<td>Education</td>
<td>Family Structure</td>
<td>Additional Information</td>
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<tr>
<td>PPSEC</td>
<td>152 mothers, 3 fathers</td>
<td>M= 31.6, (SD =5.27)</td>
<td>14.08 months (SD (6.72)</td>
<td>Neonatal Unit, Royal Brisbane &amp; women’s Hospital</td>
<td>First time parent (n=78), single birth (n=134)</td>
<td>pregnancy (14%) weeks gestational</td>
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<tr>
<td>PSAM</td>
<td>94 Spanish (Mexican Immigrant) &amp; 90 English speaking families</td>
<td>Median=31-35 &amp; 36-40</td>
<td>USA</td>
<td>Spanish &amp; English</td>
<td>Married (68% &amp; 82%)</td>
<td>Median=&lt; 15 years &amp; bachelor’s degree</td>
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<tr>
<td>PSES</td>
<td>152 parents</td>
<td>0-6 years</td>
<td>London, UK</td>
<td>English</td>
<td>Parenting &amp; community organisations, online Posters in community centres and newspapers</td>
<td>White (83%), Black African (11%), Black Caribbean (3%)</td>
<td>2 (61%), 3 (22%), 4 (12%) children 1.4 additional siblings at home (SD = .76)</td>
<td></td>
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<tr>
<td>PSOC</td>
<td>110 couples</td>
<td>26-49 (M=36-6, SD=3.95)</td>
<td>5-12 years</td>
<td>Large urban</td>
<td>English</td>
<td>Community: child care centres, kindergartens Clinic: Triple P Positive Parenting Program at Parenting and Family Support Centre, University of Queensland</td>
<td>A-Level (24%), Graduate (56%), Post-graduate (20%)</td>
<td></td>
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<tr>
<td>PTC</td>
<td>124 mothers (79 community sample, 45 clinic sample)</td>
<td>M=34.31 (SD=5.66)</td>
<td>Brisbane, Australia</td>
<td>English</td>
<td>0</td>
<td>Single parent (n=22), Married (n=102) 1.16 siblings (SD=.33)</td>
<td>University degree (n=52), Trade (n=3), college (n=27), year 12 (24), &lt;year 11 (n=17)</td>
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<tr>
<td>SEPTI</td>
<td>145 mothers</td>
<td>5-12 years</td>
<td>West Virginia</td>
<td>English</td>
<td>White (95%)</td>
<td>Married (72%), Unemployed (35%, part-time (215), full time (43%)</td>
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<tr>
<td>SEPTI - TS</td>
<td>309 parents (282 normal sample, 27 clinical sample)</td>
<td>M=33.8, SD=5.1</td>
<td>17-48 months</td>
<td>Rotterdam &amp; Barendrecht (S Holland)</td>
<td>Dutch</td>
<td>Day care centres (normal sample), day treatment program for children with psychiatric problems (clinical sample)</td>
<td>Additional siblings 0 (n=103), 1 (n=162), 2 (n=32), 3+ (n=4) Educational attainment = Low (25.3%), Middle (37.2%), High (37.5%), Employed (86.4%)</td>
<td></td>
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<tr>
<td>SICS</td>
<td>235 mothers</td>
<td>15-44 (M=25.4, SD=5.98)</td>
<td>M=226.24 days (SD=60.38 days)</td>
<td>Samutsakorn Province, Bangkok, Thailand</td>
<td>Samutsakorn Hospital</td>
<td>First time mothers (65.5%) Education (M=10.01, SD=3.42), Employed (61.7%)</td>
<td>Mothers had to read and write, no illness or disability,</td>
<td></td>
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<tr>
<td>Study</td>
<td>Participants</td>
<td>Age (M=SD)</td>
<td>Language</td>
<td>Education</td>
<td>Employment</td>
<td>Children</td>
<td>Other Details</td>
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<tr>
<td>TCQ</td>
<td>49 mothers</td>
<td>25-48 (M=33)</td>
<td>0</td>
<td>English</td>
<td>0</td>
<td>0</td>
<td>Married (100%) M=8 years, 1st born (n=32), 2nd born (n=17)</td>
<td></td>
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<tr>
<td>TOPSE</td>
<td>82 parents</td>
<td>22-52 (M=35)</td>
<td>0</td>
<td>UK</td>
<td>Health visitor caseloads in 3 primary care trusts</td>
<td>White (n=56)</td>
<td>Female (n=58), married or living with partner (n=56), Education &gt; 16 years (n=29), Full or part-time employment (n=27)</td>
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<tr>
<td>WPBL(R)</td>
<td>93 mothers</td>
<td>27.4 (SD=4.3)</td>
<td>0</td>
<td>English</td>
<td>0</td>
<td>0</td>
<td>First time mothers (n=46), Education M=14.4 years</td>
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*Note. A score of ‘0’ indicates that the information was not reported by the authors

* Disabilities included Down syndrome (n=14), physical disability (n=23), epilepsy (n=8), vision impairment (n=18), cerebral palsy (n=11), speech/hearing impairment (n=11), chronic illness (n=4), mental retardation (n=9), developmental delay (n=75), other delay (n=24)

** Minor illnesses require no or very limited medical intervention
2. The International Parenting Survey-UK:

Child, Parent and Family Adjustment in Challenging Circumstances

The following paper has been prepared for submission to the journal, Parenting: Science and Practice. The guidelines for authors can be found in Appendix A2. Formatting changes have been made to the current paper to aid readability: Tables and figures have been inserted within the text and the line spacing has been decreased to 1.5.

Word Count

Whole Text 10,328

Main Text 5,274

(Excluding abstract, tables, figures and references)
Abstract

The International Parenting Survey-UK (IPS) is the United Kingdom (UK) arm of an international parenting project developed to better understand child, parenting and family outcomes and experiences. The IPS is made up of three parent report measures: Child Adjustment and Parent Efficacy Scale (CAPES), Parent and Family Adjustment Scales (PAFAS) and Kessler Psychological Distress Scale (K10). The current study aimed to identify how UK parents’ responses on these measures were associated with common child, parent and family difficulties including childhood difficulties or illness, parental psychological distress or household deprivation. Parents UK-wide (n=696) completed the IPS online. The results identified that children with a physical or mental health difficulty or a learning disability experienced poorer emotional and behavioural adjustment compared to children without such difficulties. Parents in families with a child with a mental health difficulty, learning or physical disability reported poorer parental teamwork. Unexpectedly, poorer parental teamwork was not reported in families with a child with a chronic illness. While the results showed that child, parent and family adjustment were not significantly associated with socio-economic status, they indicated that parental psychological distress predicted child and family emotional and behavioural adjustment, and strongly predicted parental emotional adjustment. The impact of these results and the efficacy of these measures for UK parents are discussed. The limitations and the possibilities of international comparisons are considered.

Keywords: child; parenting; International Parenting Survey; adjustment; family
2.1. Introduction

Poor parenting wellbeing and poor parenting practices leave children, parents and families at a higher risk of developing a wide range of difficulties (e.g., Department of Health, 2009; National Institute for Health Care and Excellence (NICE), 2013; World Health Organisation, 1999). One method of better understanding population and international differences in parenting wellbeing and practice is from data collected by standardised outcome measures. One relatively new international measure is the International Parenting Survey (IPS, Morawska, Heinrichs & Sanders, 2011), a survey made up of three smaller measures specifically developed to assess parents’ reports of their child, their own and their family adjustment to a wide range of difficult circumstances. The three parent-report outcome measures assess levels of family relationships and parenting practices, adjustment and teamwork using the Parenting and Family Adjustment Scale (PAFAS; Sanders, Morawska, Haslam, Filus & Fletcher, 2013), child emotional and behavioural adjustment using the Child Adjustment and Parenting Efficacy Scale (CAPES; Morawska, Sanders, Haslam, Filus & Fletcher, 2014) and parental psychological distress using the Kessler Psychological Distress scale (K10, Kessler et al., 2002).

The IPS was developed to provide international data to develop a better understanding of parents’ opinions of family life, their day-to-day needs and preferences for support (e.g., Lee et al., 2014; Perron et al., 2014; Sanders et al., 2013). To date, the IPS has contributed to a greater understanding of parenting needs, opinions and preferences in Australia (Sanders, Morawska, Haslam, Filus & Fletcher, 2013) and in Canada, parental preferences for support (Lee et al., 2014) and parental opinions of smacking (Perron et al., 2014). The IPS has also been undertaken in Germany, New Zealand and Hong Kong.

The literature offers a very consistent picture that there is an increased likelihood of adjustment difficulties following stressful circumstances, such as living in vulnerable conditions (e.g., Love, Sanders, Metzler, Prinz & Kast, 2013) or parenting children with disabilities (e.g., Bagner & Graziano, 2013; Benzies, Trute & Worthington, 2013). There is evidence to suggest that there are greater adjustment difficulties in families from diverse socio-demographic backgrounds. For example, parents of the same sex (Marks, 2002), in multi-lingual families (King & Fogle, 2013), in families from a deprived socio-economic background (e.g., Conger et al., 1992, Hatton, 2002; Lansford & Bornstein, 2011; McLoyd 1998), in families with
financial insecurity (e.g., Ponnet, Van Leeuwen, Wouters & Mortelmans, 2014; Weaver, Shaw, Crossan, Dishion & Wilson, 2014), and families from a Black or Minority Ethnic (BME) group (e.g., Franceschelli & O’Brien, 2014; McLoyd, 1990; Taylor & Wang, 2013). There is evidence to suggest that parenting pre-school aged children is a more stressful experience than parenting infants, toddlers and older children (Creasey & Reese, 1996; Crnic & Booth, 1991; Deater-Deckard & Scarr, 1996) and, consequently, parents of pre-school children may experience greater adjustment difficulties. Similarly, there are consistent reports that adjustment difficulties are more prevalent in families with many children, (e.g., Long & Marsland, 2011) and in families with poorer levels of parental education (e.g., Noble et al., 2015; Sonego, Llácer, Galán & Simón, 2013). The research has indicated that families who are caring for a child with a chronic illness (e.g., Grootenhuis & Last, 1997; Wanamaker & Glenwick, 1998), mental and physical disability (e.g., Bailey, Barton & Vignola, 1999; Miller, Gordon, Daniele & Diller, 1992; Heyes & Watson, 2013, Trute & Hiebert-Murphy, 2002) or learning disability (Dyson, 1996; Hall et al., 2012) are at an increased risk of adjustment difficulties. Additionally, increased levels of parental psychological distress are well known to be correlated with poorer child, parent and family adjustment (e.g., Barker, Jaffee, Uher & Maughan, 2011; Biederman et al., 2001; Goodman et al., 2011). The literature is consistent: children, parents and families who experience stressful or difficult circumstances are at a greater risk of emotional, behavioural, psychological and social adjustment difficulties.

Whilst the literature is consistent, consideration has to be paid to the lack of diversity within domain-general parenting research. Mothers, educated to university degree level, tend to participate. Additionally, the ethnicities of the samples tend to be predominantly of the majority from within that country. For example, in the UK, White British; in Australia, White Australian. This pattern has been observed within the parenting literature over many decades (e.g., Lee et al., 2014; Vincent, 1964). Therefore, unless the research directly recruits fathers, parents of low income or parents of an ethnic minority, conclusions drawn from the literature should consider this lack of diversity.

7 The diversity within the parenting literature is discussed further in the Critical Reflection on page 107-108
There is strong evidence to suggest that there are international, cross-cultural correlates of child, parent and family adjustment. The strongest evidence is based on the parental acceptance and rejection theory (PA RTheory, Rohner 1986, 2004). The theory postulates that parental warmth, acceptance and love is necessary for positive child, family and parenting outcomes, whereas parental hostility, aggression, rejection and unresponsiveness are likely to have far reaching consequences, including child, parent and family emotional and behavioural adjustment difficulties (e.g., Coleman & Karraker, 1998; Jones & Prinz, 2005; Rohner & Khaleque, 2010; Rohner, Khaleque & Cournoye, 2005). Almost every published study that has investigated parental acceptance and rejection, irrespective of cultural, linguistic and geographic variations, has reached the same or similar conclusion (e.g., Khaleque & Rohner, 2002; Rohner, Khaleque & Cournoye, 2005). It is, therefore, essential to better understand variations within families that can influence parental acceptance and rejection. As outlined above, there is a substantial body of evidence to suggest that such variations include children’s factors (chronic illness, physical and mental difficulties, and learning difficulties), family factors (socio-economic status (SES) and ethnicity) and parent factors (psychological distress). It also possible that parents of children with no known diagnoses, affluent SES and healthy wellbeing may also experience adjustment difficulties (Cummings & Cummings, 2002), yet these difficulties are likely to be substantially less problematic (Mazur, 2006).

2.1.1. Aims and Hypotheses

The study aimed to use the IPS to describe parenting in the UK to provide a comparison for other countries. As the IPS was new to the UK, the study aimed to investigate if the measures would be psychometrically sound and effective. The study also aimed to describe how the three measures, and therefore child, parent and family emotional and behavioural adjustment, were associated a range of common difficulties experienced by UK families.

It was hypothesised that (1) Parents of children with no known difficulties would to report fewer child, parenting and family adjustment difficulties than parents of children with (a) a chronic illness, (b) mental health difficulties, (c) learning disabilities and (d) physical health difficulties. (2) Parents of children who were from

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8 The hypotheses are discussed further in the Critical Reflection on Page 116
more diverse cultural, social and economic backgrounds would report greater child, parenting and family adjustment difficulties and (3) parents who reported higher levels of psychological distress would be predicted to experience more child, parenting and family adjustment difficulties.

2.2. Method
2.2.1. Ethics
The study received approval from the relevant university research ethics boards. The primary ethical issues emphasised in all contact with agencies and National Health Service (NHS) trusts was that parents could complete the IPS anonymously, choose whether to participate or not, omit any item with which they were uncomfortable (with exception of several parent and family background items) and exit the IPS at any point without consequence.

2.2.2. Recruitment
Consistent with studies by the IPS’s international collaborators, parents of 2- to 12-year-old children were recruited. Similarly to the recruitment procedures in Canada (Lee et al., 2014), investigators contacted parenting, family and child agencies across the UK. These agencies included children’s centres, primary schools and family resource organisations that work with children and parents and invited parental participation. A total of 131 agencies were contacted of which 33 agreed to disseminate advertisements and business cards and put up posters for the survey. They also agreed to refer to the IPS upon identifying possible participants. Additionally, small advertisements were placed in three local advertising publications across the North-West of England, and disseminated to residential addresses. Eighty-three UK-wide NHS trusts were contacted of which seven agreed to promote the IPS. The seven trusts placed advertisements, posters and business cards in child, adolescent and family-based facilities, and in e-bulletins, newsletters, waiting rooms, General Practitioner (GP) surgeries and in correspondence with patients. Information about the IPS was disseminated on research networks belonging to the universities affiliated with the investigators. Additionally, the IPS

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9 The ethics of the study are discussed further in the Critical Reflection on Page 113-115
10 Aspects of recruitment are discussed further in the Critical Reflection on Page 109-112
was promoted via dedicated pages and targeted advertising on the social media networks, Facebook and Twitter.

2.2.3. Measure\textsuperscript{11}

The IPS took 20 to 30 minutes to complete online via a dedicated website. Parents were required to complete the survey in one sitting. There was no option to save the survey and return at a later time. Parents with more than one child were asked to respond to the IPS in relation to their youngest child. There was no restriction on parents completing the IPS multiple times, each time referring to a different child.

2.2.3.1. Parent and Family Background

Parents were asked to provide information about their child’s age, sex and the presence of any health problems or disabilities. These were the only compulsory questions for international consistency. Parents were asked about the number of other children at home, their level of education and their ability to meet essential expenses. Parents were also asked to provide their full postcode as an indicator of social deprivation or affluence.

2.2.3.2. Child Adjustment and Parent Efficacy Scale (CAPES; Morawska et al., 2014)

The CAPES is a 30-item-scale, comprising of two subscales regarding children’s behavioural problems (e.g., ‘Takes too long to get dressed’) and emotional adjustment (e.g., ‘Seems unhappy or sad’). Parents were asked to rate their child’s behaviours and emotions on a four-point Likert scale from 0 (\textit{Not true of my child at all}) to 3 (\textit{True of my child very much or most of the time}). Higher scores indicated a greater number of difficulties. In a recent psychometric evaluation, Morawska et al. (2014) reported that the language used in the CAPES was easily understood and suitable at the 13- to 15-year-old level. The CAPES was reported to have excellent internal consistency for total adjustment (.90), behavioural adjustment (.90) and emotional adjustment (.74). In the current study, comparable alpha coefficients were obtained for total adjustment (.87), behavioural adjustment (.87) and emotional adjustment (.76). In the literature review of this thesis, the CAPES was reported to

\textsuperscript{11} The measures are discussed further in the Critical Reflection on Page 117-118
have good administrative and psychometric properties (Weisberg, Calam and Wittkowski, under review).

2.2.3.3. Parenting and Family Adjustment Scale (PAFAS; Sanders et al., 2014)
The PAFAS is a 40-item outcome measure for assessing changes in parental adjustment. The PAFAS has four subscales: the 28-item Parenting Practices subscale (e.g., ‘I praise my child when they behave well’), the five-item Parental Emotional Adjustment subscale (e.g., ‘I feel stressed or worried’), the three-item Parental Teamwork subscale (e.g., ‘I have a good relationship with my partner’), and the four-item Family Relationship subscale (e.g., ‘Our family members fight or argue’). Parents were asked to rate how true the statements were over the past four weeks on a four-point Likert scale from 0 (Not at all) to 3 (Very much or most of the time). Higher scores (after the reversal of 17 positively worded items) indicated greater levels of adjustment difficulties. Sanders et al. (2014) reported adequate internal consistency for Parenting Practices (.74), Parental Emotional Adjustment (.86), Parental Teamwork (.79) and Family Relationships (.79). In the current sample, internal consistency for three PAFAS subscales was adequate: Parental Emotional Adjustment (.72), Parental Teamwork (.73) Family Relationships (.75). For the fourth scale, Parenting Practices, internal consistency was weak (.40).

2.2.3.4. Kessler Psychological Distress Scale (K10, Kessler et al., 2002)
The K10 is a short 10-item-checklist developed to measure non-specific psychological distress. The 10 items are thought to represent the entire range of distress. Parents are asked to rate how often they have experienced a particular distressing experience (e.g., ‘feel nervous’, ‘feel restless or fidgety’ or ‘feel depressed’) over the past 30 days. Higher scores indicated greater levels of psychological distress. The scale utilised a five-point Likert scale from 1 (None of the time) to 5 (All of the time). Psychometric data collected from worldwide samples have been published. Across these studies, the K10 is regarded to have good internal consistency (≥.82) (e.g., Cornelius, Groothoff, van der Klink & Brouwe, 2013). In the current sample, the internal consistency was comparable to the literature (.93).
2.2.8. Statistical Analyses

All analyses were conducted using SPSS version 22. Following confirmation from a statistician, hypotheses were tested using parametric statistics. This approach was confirmed following tests of skewness and kurtosis. Within the statistics literature, the preferred formal test for normality test is Kolmogorov-Smirnov test, but there is a view that in large samples (n=300), this test is less reliable than using skewness and kurtosis of the data (Kim, 2013). Hypotheses were tested using one-way ANOVAs, controlling for four variables that have been reported in the literature as relevant: (1) child age, (2) the number of other children at home, (3) the level of parental education and (4) the ability to meet essential expenses at home. Bivariate analyses included Pearson correlations between the outcome measures and a linear regression was completed.

2.3. Results

2.3.1. Participants

Participants were 1,345 UK parents with at least one child aged between 2 to 12 years. Every participant completed the IPS electronically. Six hundred and ninety six participants (51.8%) pressed the ‘Finish’ button on the final page of the survey, indicating that the remaining parents did not complete the IPS in its entirety. Figure 1 shows the drop-outs and completion rates throughout completion of the IPS. In Table 1, information is presented regarding the demographic characteristics of the completed sample.

2.3.1.1. Children

Similarly to Lee et al. (2014), the majority of the sample (56.2%) completed the IPS in reference to a pre-school aged child. The sample was evenly balanced in terms of child gender. The majority of parents reported that their child did not have any health issues or disabilities (70%). Only small numbers reported physical, intellectual or mental health difficulty (12%), with the remaining parents reporting that their child had a chronic illness (18%).

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12 The data analyses are discussed further in the Critical Reflection on Page 119-120
Figure 1. Schematic review of drop-out and partial completion rates throughout the IPS
2.3.1.2. Parents
Parents were recruited from Scotland (51.6%), England (45.7%), Northern Ireland (2.4%) and Wales (0.3%). Twenty-seven parents (3.9%) did not provide a postcode. Similar to most parenting studies, the majority of the respondents were mothers (e.g., Costigan & Fox, 2001; Kvalevaag et al., 2013; Mitchell et al., 2007). The current study recruited some fathers, but they represented a minority of respondents (8.7%). The majority of parents were educated to at least university degree level (63.4%), with many of the remaining parents leaving education after high school (11.4%). The majority of the parents were working full or part-time (81.0%) or not working for pay (15.5%). The survey set out to recruit a culturally diverse population, but the large majority of parents were White British (95.6%). Due to the lack of diversity, planned analyses on ethnicity were abandoned.

2.3.1.3. Socio-Economic Status (SES)
The assessment for SES used ACORN (A Classification of Residential Neighbourhoods), a commercial geodemographic classification (CACI, 2013). ACORN was selected above other commercial classifications because it offers the most up-to-date SES information based on the unit-level postcode and has been used in recent similar nationwide surveys (e.g., Odgers, Donley, Caspi, Bates & Moffitt, 2015). The ACORN classification divides postcodes into six categories which divide into 18 Groups (see Table 2), and then into a further 62 Types which are not reported within this study due to its extensive level of detail. The names within the typology provide a broad description of the people who typically live within these areas. The range of ACORN classifications obtained in the current study was comparable to the UK population for category \( \alpha = .80 \) but there was weak agreement for group \( \alpha = .51 \) and type \( \alpha = .23 \).
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>M (SD)</th>
<th>%</th>
<th>N/n</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Child</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>5.63 (2.93)</td>
<td>696</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>49.4</td>
<td>344</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50.6</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td><strong>Parent</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>37.92 (6.74)</td>
<td>695</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>91.5</td>
<td>637</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>8.3</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td><strong>Additional children</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only child</td>
<td>31.2</td>
<td>217</td>
<td></td>
</tr>
<tr>
<td>2 children</td>
<td>48.7</td>
<td>339</td>
<td></td>
</tr>
<tr>
<td>3 children+</td>
<td>19.7</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td><strong>Relationship to child</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>91.2</td>
<td>635</td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>8.7</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td><strong>Household</strong></td>
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</tr>
<tr>
<td>Biological, foster or adoptive family</td>
<td>83.3</td>
<td>580</td>
<td></td>
</tr>
<tr>
<td>Step family</td>
<td>4.7</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Single parent</td>
<td>10.8</td>
<td>75</td>
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<tr>
<td><strong>Marital Status</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Married / Co-habiting / Civil Partnership</td>
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<td>607</td>
<td></td>
</tr>
<tr>
<td>Divorced / Separated</td>
<td>5.0</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>6.3</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Widow/widower</td>
<td>0.3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Level of Parental Education</strong></td>
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<tr>
<td>Postgraduate degree</td>
<td>26.0</td>
<td>181</td>
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</tr>
<tr>
<td>University degree</td>
<td>37.4</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>Completed high school</td>
<td>11.4</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>0.7</td>
<td>5</td>
<td></td>
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<tr>
<td><strong>Parental Employment</strong></td>
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<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>37.4</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>39.9</td>
<td>278</td>
<td></td>
</tr>
<tr>
<td>Home-based paid work</td>
<td>3.7</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Not working for pay</td>
<td>15.5</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>Looking for work</td>
<td>3.4</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>White</td>
<td>95.6</td>
<td>666</td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>1.1</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Asian / Asian British</td>
<td>1.6</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Black / Black British</td>
<td>0.7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Family Finances</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to meet essential expenses</td>
<td>23.3</td>
<td>162</td>
<td></td>
</tr>
<tr>
<td><strong>Child’s Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic illness</td>
<td>18.0</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Physical disability</td>
<td>2.6</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Intellectual disability</td>
<td>4.7</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Mental health difficulty</td>
<td>2.6</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Other disability</td>
<td>2.2</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>No illness or disability</td>
<td>69.9</td>
<td>487</td>
<td></td>
</tr>
</tbody>
</table>
2.3.1.4. Missing Data \(^{13}\)

The flow diagram in Figure 1 documents that at some point during the IPS, a total of 649 participants exited the survey (48.3%). Table 3 shows the large numbers of participants who continued with the survey but did not respond to multiple items. As there were large numbers of participants who missed multiple items, the data analysis for the measures that were not completed in their entirety excluded participants with missed responses.

\(^{13}\) Missing data are discussed further in the Critical Reflection on Page 118-119
2.3.2. Tests for Normality of Data
CAPES, PAFAS and K10 were subject to an assessment of normal distribution using skewness and Kurtosis. A skewness value of zero indicates a symmetric distribution and values of +/- 1 are acceptable for psychometric purposes. A skewness of +/- 2 is considered the point of substantial departure from normality (West, Finch & Curran, 1995). Similarly, a kurtosis value of near zero indicates a shape close to normal and values of +/- 1 are considered very good for most psychometric uses, but +/- 2 is usually acceptable (Mardia, 1970, Bai & Ng, 2005). A kurtosis of +/- 4 is considered the limit prior to substantial departure from normality (West, Finch & Curran, 1995).

2.3.2.1. CAPES
The CAPES subscales were normally distributed. CAPES emotional adjustment had a skewness of .65 (SE=.10) and Kurtosis of 1.26 (SE=.20). CAPES behavioural adjustment had a skewness of .66 (SE=.10) and Kurtosis of .42 (SE=.20).

2.3.2.2. PAFAS
The PAFAS subscales were normally distributed. PAFAS parental practices had a skewness of .25 (SE=.10) and Kurtosis of -.03 (SE=.20). PAFAS parental adjustment had a skewness of .82 (SE=.10) and Kurtosis of 65 (SE=.20). PAFAS family adjustment had a skewness of .97 (SE=.10) and Kurtosis of .78 (SE=.20). PAFAS parental teamwork was close to non-normal distribution, with a skewness of 1.10 (SE=.10) and Kurtosis of 1.34 (SE=.20).

2.3.2.3. K10
The K10 did not appear to be normally distributed with a skewness of 1.80 (SE=0.10) and Kurtosis of 3.64 (SE=0.20). However, the literature indicates that despite these raised levels, the distribution remains within the recommended limits (e.g., West, Finch & Curran, 1995). These statistics were reviewed with a statistician and it was agreed that parametric tests could be used. Additionally, this maintained consistency within the analysis. A similar debate was reported by Erceg-Hurn & Mirosevich (2008) who argued that under these circumstances, the strict application of statistics may indicate the use of non-parametric statistical tests but parametric statistics are substantially robust so that under similar circumstances a minor
violation of their assumptions in unlikely to affect the data. In addition, they reported that in a large majority of studies, adherence to this practice is rare.

2.3.3. Hypotheses Testing

2.3.3.1. Hypothesis 1
One-way between subjects ANOVAs were completed to compare the effect of having a child with a chronic illness, mental health difficulty, learning disability or physical health difficulty on child adjustment (subscales: emotional adjustment, behavioural adjustment and total adjustment as measured by CAPES), and on parenting and family adjustment (subscales: parenting practices, parental emotional adjustment, parental teamwork and family relationships, as measured by PAFAS). Results are presented in Table 4, along with post hoc comparisons indicating the mean outcome measure score and standard deviations for the significant associations. The results indicate that, for all three subscales, scores on the CAPES were significantly higher for parents of children with a chronic illness, mental health difficulty, intellectual disability and physical health difficulty compared to parents of children without such difficulties. This pattern was not replicated for the PAFAS. For three of the four subscales (parenting practices, parental emotional adjustment and family relationships), there was no significant difference between parents of children with and without difficulties. The exception was for parental teamwork, in which scores on the PAFAS were significantly higher for parents of children with a mental health difficulty, intellectual disability and physical disability compared to parents of children without these difficulties. On the same subscale, there was no significant difference between parents with and without a child with a chronic illness.

2.3.3.2. Hypothesis 2
A one-way between subjects ANOVA was undertaken to compare the ACORN postcode category on child adjustment, as measured by CAPES, but no significant effects were found. A one-way between subjects ANOVA was conducted to compare the ACORN postcode category on parenting and family adjustment, as measured by PAFAS, but no significant effects were found.
2.3.3.3. **Hypothesis 3**

A Pearson correlation co-efficient was computed to test predicted relationships between CAPES subscales and the K10 overall score. There was a positive correlation between emotional adjustment difficulties and scores on the K10, \(r=0.30, n=568, p<0.001\). There were also positive correlations between the K10 and behavioural adjustment \(r=0.31, n=568, p<0.001\) and total child adjustment \(r=0.34, n=568, p<0.001\). A further Pearson correlation was computed to assess the relationship between the PAFAS and K10. There were positive correlations between the K10 and parenting practices \(r=0.35, n=566, p<0.001\), family adjustment \(r=0.32, n=569, p<0.001\) and parental teamwork \(r=0.35, n=569, p<0.001\). There was a strong positive correlation between scores on the K10 and parental emotional adjustment \(r=0.71, n=569, p<0.001\). A linear regression was completed to predict PAFAS parental emotional adjustment score based on K10 score. A significant regression equation was found, \(F(1, 599)=578.12, p<0.001\), with an \(R^2\) of .49. Parents’ predicted adjustment was equal to -.55 + .25 (K10) points when K10 is also measured in points. Parents’ adjustment score increased (i.e. greater levels of adjustment difficulties) .25 points for each K10 point.

### Table 2. Sample and population demographics according to the ACORN Category, Group and Type categorisation (CACI, 2013)

<table>
<thead>
<tr>
<th>ACORN Category</th>
<th>% Sample (% UK)</th>
<th>ACORN Group</th>
<th>% Sample (% UK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affluent Achievers</td>
<td>27.50 (23.49)</td>
<td>Lavish Lifestyles</td>
<td>1.49 (1.67)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Executive Wealth</td>
<td>17.34 (12.25)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mature Money</td>
<td>8.67 (9.57)</td>
</tr>
<tr>
<td>Rising Prosperity</td>
<td>12.56 (6.38)</td>
<td>City Sophisticates</td>
<td>1.94 (2.22)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Career Climbers</td>
<td>10.76 (4.16)</td>
</tr>
<tr>
<td>Comfortable Communities</td>
<td>25.11 (24.89)</td>
<td>Countryside Communities</td>
<td>3.59 (9.48)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Successful Suburbs</td>
<td>5.08 (4.95)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steady Neighbourhoods</td>
<td>7.32 (5.14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comfortable Seniors</td>
<td>2.99 (2.43)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Starting Out</td>
<td>6.13 (2.88)</td>
</tr>
<tr>
<td>Financially Stretched</td>
<td>21.08 (18.12)</td>
<td>Student Life</td>
<td>1.35 (1.43)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modest Means</td>
<td>5.98 (6.06)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Striving Families</td>
<td>9.57 (6.34)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poorer Pensioners</td>
<td>4.19 (4.29)</td>
</tr>
<tr>
<td>Urban Adversity</td>
<td>11.66 (11.71)</td>
<td>Young Hardship</td>
<td>3.59 (4.39)</td>
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<tr>
<td></td>
<td></td>
<td>Struggling Estates</td>
<td>2.99 (4.08)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Difficulty Circumstances</td>
<td>4.93 (3.25)</td>
</tr>
<tr>
<td>Not Private Households</td>
<td>0.60 (15.41)</td>
<td>Not Private Households</td>
<td>0.60 (15.41)</td>
</tr>
<tr>
<td>Total</td>
<td>98.51 (100)</td>
<td>Total</td>
<td>98.51 (100)</td>
</tr>
</tbody>
</table>
Table 3. Frequencies of partially completed data per measure

<table>
<thead>
<tr>
<th></th>
<th>Demographics</th>
<th>CAPES</th>
<th>PAFAS</th>
<th>K10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Submission of partially completed section</td>
<td>21</td>
<td>100</td>
<td>292</td>
<td>100</td>
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<tr>
<td>Missed individual questions (1 question*)</td>
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<td>19.1</td>
<td>53</td>
<td>18.2</td>
</tr>
<tr>
<td>Missed cluster of questions (≥2 consecutive questions)</td>
<td>17</td>
<td>80.9</td>
<td>239</td>
<td>81.9</td>
</tr>
</tbody>
</table>

*Note.* = Only one occurrence per respondent per measure has been counted
Table 4. Results of one-way ANOVAs and post hoc comparisons indicating mean scores and standard deviations on CAPES and PAFAS

<table>
<thead>
<tr>
<th></th>
<th>Chronic illness</th>
<th>Mental health difficulty</th>
<th>Learning disability</th>
<th>Physical disability</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>With (n=105)</td>
<td>Without (n=464)</td>
<td>With (n=14)</td>
<td>Without (n=555)</td>
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<td>19.52 9.20</td>
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<td>PAFAS parenting practices</td>
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<td>31.29 5.60</td>
<td>31.42 4.91</td>
</tr>
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<td>PAFAS parental emotional</td>
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<td>4.43 2.41</td>
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<td>1.35 1.45</td>
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Note. * With refers to parents of children with the difficulty described
** Without refers to parents of children without the difficulty described
^ p < .05; ^^ p ≤ .01
2.4. Discussion

This study offers a unique addition to the literature. This is the first study to use the measures within the IPS to investigate how child, parent and family adjustment differs amongst a sample of UK parents. The measures current study identified factors that influence child, parent and family emotional and behavioural adjustment. Based on parents’ reports, the findings offer evidence that children who experience a chronic illness, mental health difficulty, learning disability and/or physical health difficulty are reported to have a poorer emotional and behavioural adjustment compared to children who do not experience these difficulties. Parents also reported poorer rates of parental teamwork if their child experienced a mental health difficulty, learning disability or physical disability, but not a chronic illness. A relationship between poorer parental emotional adjustment and having a child with a learning disability was close to significance. It was noted that parenting practices and family relationships were not associated with children’s difficulties using these measures. Families’ SES was not associated with child, parent and family adjustment. This study offers evidence that parental psychological distress predicted increases in child emotional and behavioural adjustment difficulties, and parental practices, parental teamwork and family relationships. Parents’ psychological distress was strongly associated with an increased level of parental emotional adjustment difficulties.

Consistent with the literature, the current study reported that UK parents regarded levels of child emotional and behavioural adjustment to be strongly influenced by children’s illness, disability or health and mental health difficulty (e.g., Bagner & Graziano, 2013; Benzies, Trute & Worthington, 2013; Hall et al., 2012; Heyes & Watson, 2013; Grootenhuis & Last, 1997; Miller, Gordon, Daniele & Diller, 1992; Trute & Hiebert-Murphy, 2002; Wanamaker & Glenwick, 1998). This finding is a necessary and timely addition to the literature, which has tended to prioritise parenting factors (e.g., marital conflict, parenting distress, financial stability) on child adjustment outcomes (e.g., Amato & Fowler, 2002; Ardelt & Eccles, 2001), rather than child factors (e.g., health, bullying, sleep deprivation). It is possible that attention to child factors is deemed to be unnecessary, as the child factors are likely to be managed by the parent, and thus become a parenting factor. For example, children with chronic health difficulties are cared for by the parent, which in turn may influence relevant parenting factors, such as parenting self-
efficacy. There are some large studies within the UK that have demonstrated the influence of child factors on children’s emotional and behavioural outcomes using the Strengths and Difficulties Questionnaire (e.g., Goodman & Goodman, 2011) and the Avon Longitudinal Study of Parents and Children (ALSPAC; 2001), or when considering controversial parenting issues, such as corporal punishment (Ferguson, 2013). The current study offers further support for this view that attention should be paid to child factors when considering child adjustment.

The results obtained using the PAFAS were less clear. There were many insignificant relationships between parenting and family emotional and behavioural adjustment, and children’s difficulties. In combination with the finding that the PAFAS scores were not influenced by socio-economic backgrounds, these results seem to suggest that parents may be more resilient to stressful and difficult circumstances. Perhaps this offers an indication that families are able to manage to care for children experiencing difficulties, even if the family has limited resources.

However, results of the PAFAS did indicate that poorer levels of parental teamwork were reported in families with a child with a mental health difficulty, learning disability or physical disability. Adaptive parental teamwork includes consistent implementation of agreed parenting behaviours (Arnold, O’Leary & Edwards, 1997; Frick, Christian & Wootton, 1999), support for the other parent (Bagner & Eyberg, 2003; Webster-Stratton, 1985) and agreement on child-related topics that often lead to a variety of opinions, such as punishment or education (Frank, Keown & Sanders, 2015). Positive parental teamwork is known to be associated with families’ positive emotional and behavioural adjustment (Teubert & Pinquart, 2010). The results of the PAFAS indicate that for UK parents, consistent with the literature, parenting children with common difficulties does influence parental teamwork, perhaps due to the disagreements in the ways that support for the child can be offered, the high demands placed on the parents or the parents lack of experience and skill in understanding or managing the child’s difficulty. What is not clear, however, is why this finding was not extended to parents of children with chronic illness. The evidence suggests that parents of children with chronic illnesses are particularly challenged, possibly due to the dependence of the child on the parents and the ‘constant vigilance’ required (Smaldone & Ritholz, 2011; Sullivan-Bolyai, Deatrick, Gruppso, Tamborlane & Grey, 2003), thus leading to the same far-reaching and possibly overwhelming strains on parental teamwork as discussed.
above. However, there is evidence that parental levels of teamwork are improved when caring for children with chronic illness (Appelbaum & Smolowitz, 2012), as parents report becoming closer together because they depended on each other for support (Kersh, Hedvat, Hauser-Cram & Warfield, 2006) and responsibilities for caring for the child tend to be shared between parents (Kieckherer & Trahms, 2000). Yet it remains unresolved why this would not be the case for caring for children with a mental health problem or a physical or learning disability. Similarly, an explanation of why parental emotional adjustment was close to significantly poorer in parents of children with learning disabilities, but not in children with chronic illness, mental health difficulties or physical disabilities, remains unclear.

These seemingly anomalous findings may be due to the lack of sensitivity of the PAFAS with a UK sample of parents. Further evidence for this lack of sensitivity may be seen in the weak internal consistency of the parenting practices subscale. Perhaps the measure may not be as effective in the UK as CAPES. There are several caveats to this interpretation, primarily the numbers of parents included. Of all the respondents, 18.5% were parents of a child with a chronic illness. In contrast, parents of children with a mental health difficulty (2.5%), learning disability (4.2%) or a physical disability (2.5%) were far fewer. It is possible that the significant associations with poorer parental teamwork were highlighted due to these small numbers. Also, it is important to note that responses in the current study were obtained via parent report. A more accurate assessment could be obtained via child-report measures. Parents’ recollections of their circumstances are subject to multiple biases, to the extent that researchers have questioned the validity of parental self-report measures (e.g., Perepletchikova & Kazdin, 2004). Parental reports have been identified as being influenced by biases and items on the PAFAS were not immune to these. For example, when having to make estimates of high-frequency behaviours (e.g., “I shout or get angry with my child…”) over long periods of time (e.g., weeks or months), Tourangeau, Rips and Rasinski (2000) argued that parents used imprecise estimation strategies. Similarly, there is ambiguity about the interpretation of certain parenting terms (e.g., “I send my child to time-out when they misbehave”), which can decrease accuracy. Additionally, many parents respond to items subject to a degree of social desirability (“I eat meals with my child”). Parents may offer inaccurate responses to avoid being perceived as practicing undesirable behaviours (Morsbach & Prinz, 2006). Thus, it is possible that these biases have influenced the
results. With the caution of bias in mind, the IPS offers evidence that parenting and family adjustment is not significantly disrupted in families with children experiencing difficulties.

The ACORN postcode system is a widely accepted framework for analysis of SES (Danesh, Gault, Semmence, Appleby & Peto, 1999). The six ACORN categories are the broadest of the three generalisations of the approximately two million UK postcodes. Previous research with ACORN used this broad analysis only, predominantly for ease (e.g., Muijs & Dunne, 2010). The use of just the broad analysis within the current study would not have identified the difference between the sample and the general population based on postcode type and group. This suggests that within the current sample, the range of SES was not representative of the UK population. It was possible that sixth ACORN category (‘not private households’) was redundant within postcode analysis because it referred to commercial or industrial addresses. The occurrence of this category within the current sample (0.6%) was substantially different to the UK population (15.41%). However, the repetition of the analyses with the exclusion of this category resulted in no difference to the results, most likely because there was an extremely small number of postcodes within this category (n=3).

Even at this broadest category level, no relationships between SES and CAPES or PAFAS were identified and further analysis was not necessary. This finding was rather surprising, considering the consistent evidence within the literature that increased socioeconomic difficulties are likely to negatively influence child outcomes (e.g., Bradley & Corwyn, 2002), parenting outcomes (e.g., Pinderhughes, Dodge, Bates, Pettit & Zelli, 2000) and family functioning (e.g., Conger, Conger & Martin, 2010). It is possible that the sample was not large or varied enough to be sensitive to such population-wide differences in socioeconomic status, the results are due to artefacts of the ACORN postcode system or the measures were not sensitive enough for a UK population. However, it is more likely that these non-significant results in combination with the strong evidence that children’s difficulties are a large influence on emotional and behavioural adjustment suggest that during challenging times, parents view economic hardship as less important than the child’s social, emotional or psychological factors (e.g., resilience, independence and misbehaviour). In light of global economic changes, it would be interesting to determine if this finding remains true over time. Similarly, it would be
a welcome addition to the literature to determine if there was any association between economic hardship and access to support. In the UK, many child, parent and family interventions are free to access. Thus, the availability of support may compensate for family financial insecurity offering a parsimonious explanation for the non-significant findings within the current study.

Consistent with the literature, the results identified that parental psychological distress had an influence on child emotional and behavioural adjustment, and parenting practices, parental teamwork and family relationships. Perhaps more significantly, parental psychological distress strongly predicted poorer levels of parental emotional adjustment. It is well documented that increases in levels of parents’ psychological distress is correlated with reductions in parenting self-efficacy (Coleman & Karraker, 1998; Jones & Prinz, 2005), which in turn are associated with more rejecting behaviours (e.g., Rohner, 2004) leading to potential catastrophic child outcomes, including maltreatment, poorer academic performance and even delays to physical, social, emotional, psychological and cognitive development (e.g., Coleman & Karraker, 1997; Jones & Prinz, 2005). Although parental psychological distress cannot account for all the variance, parents with reduced levels of psychological distress, and consequently greater parenting self-efficacy may be more likely to provide an appropriate environment for developing children. This finding is useful for clinical psychologists, researchers and future parenting intervention facilitators, who may wish to consider attempts to reduce parents’ psychological distress prior to strengthening parenting skills.

Following the Canadian IPS, Lee et al. (2014) proposed that the survey could be streamlined to reduce the burden on parents. Approximately 48% of participants did not complete the survey in its entirety. This figure may be conservative because it does not include the participants who did not provide answers to individual items but continued with the survey. Additionally, the IPS took at least 20 minutes to complete. Measures that take longer than 10 minutes to complete are often viewed as less desirable by respondents and healthcare professionals (Weisberg, Calam & Wittkowski, under review). The quality of information obtained by the IPS could not be obtained in a shorter length of time and the individual measures each took fewer than 10 minutes to complete. However, busy parents may not have had 20 minutes to spare, which may explain the low completion rates. It is also possible that parents who did not complete the IPS would have been unlikely to have passed it on to
others. Financial incentives are often used to encourage participation (Cobanoglu & Cobanoglu, 2003), but this was not possible due to the constraints of providing an approach for international consistency\textsuperscript{14}.

In Table 3, the term ‘partially completed’ has been subdivided: (1) missing an individual item, even if it was on multiple occasions, and (2), missing a cluster of items, defined as two or more consecutive items. It is evident that the majority of missed responses are in clusters. Clustered missed responses are a commonly experienced response pattern in online outcome measures and such respondents have been labelled as ‘item non-responders’ (Bosnjak & Tuten, 2001), that is, participants who view the entire questionnaire but only answer some of the questions. The reasons for this behaviour is not fully understood, but hypothesised to be because of the excessive use of open ended questions or tables (Knapp & Heidingsfelder, 1999), boredom (Bickart & Schmittlein, 1999) or the absence of knowing how much more time is needed to devote to the survey (Dillman, 2000). Participants were permitted to miss questions out for any reason, but missed questions for this reason typically apply to individual items with which the participant is not fully comfortable or unsure (Schafer & Graham, 2002). Thus, it remains unclear why participants did not complete large sections of the IPS, and perhaps more interestingly, why they still chose to continue with the survey rather than end their participation.

The IPS recruited a large number of UK parents of 2- to 12-year-old children, nationwide. Although the Canadian IPS (Lee et al., 2014) recruited more participants, the proportions of many demographics were comparable (age of parent and child, gender of parent and child, employment status, highest level of parental education, and household type). However, the sample was not a stratified random sample and it is important to consider the extent to which it is representative of the UK population. Despite efforts to recruit as diverse a sample as possible, there remained an over-representation of White British parents, who were mothers and were university-educated, similar to patterns seen within the parenting literature over many decades (e.g., Lee et al., 2014; Vincent, 1964). The IPS was only completed by parents who were likely to have had time available, able to concentrate for an extended period of time, believed that their completion of the survey was a useful experience and were aware that they might not receive a direct benefit from

\textsuperscript{14} Additional constraints due to international consistency are discussed throughout the Critical reflection
completion. Therefore, caution should be paid when interpreting these results. Nevertheless, the results offer information on child, parent and family emotional and behavioural adjustment and offers information for comparative studies in future, in the UK and internationally.

In conclusion, the current study identified information about UK parents as part of improving an understanding of parenting internationally. The results of the IPS also identified that children’s emotional and behavioural adjustment, and parenting practices, parental emotional adjustment, parental teamwork and family relationships were associated with a variety of child, parent and family difficulties. The CAPES was deemed to be more of an effective measure than the PAFAS for use with UK parents. The results of the study will be of interest to clinical psychologists, health and social care professionals and researchers internationally, who now have further reason to consider the importance of children’s, parents’ and families’ emotional and behavioural adjustment in difficult circumstances.
2.5. References


3. Critical Reflection

Word Count
Whole Text  11,775
Main Text  8,780
(Excluding tables, figures and references)
3.1. Introduction
The current paper is a critical review of many aspects of the research undertaken for this thesis. This paper offers critical reflections from the start of the research process, through to the development, completion and evaluation of the literature review and the empirical paper. The strengths and limitations of both papers are discussed as well as the challenges that were faced.

3.1.1. Choice of Research Area
In March 2013, the research project was an entirely different entity, under the supervision of a different research team. The aim of the research was to investigate the efficacy of two ‘treatment as usual’ sleep interventions for children and young people with learning disabilities, who had reported sleep problems. As children’s sleep problems are often accompanied by parenting and child distress (Hollway & Aman, 2011; Richdale & Schreck, 2009), the research was deemed to be important and timely, particularly for clinical psychologists, health and care professionals and the children and young people experiencing sleep difficulties. A research proposal for the project had been submitted and links with community paediatricians, group facilitators, statisticians, sleep experts and clinical psychologists had been made. Unfortunately, there were unexpected changes within the research team and the project was cancelled in September 2013.

Fortunately, the current project was identified and developed in the same month. A research team within the Parenting and Families Research Group (PFRG) was agreed and a contract and proposal were developed. The necessary documents were submitted to the school’s research sub-committee within the original deadline.

The research sub-committee experience was positive, constructive and motivating. It was agreed that the project aimed to gather information on UK parents’ opinions of the parenting role, children’s wellbeing and family adjustment and that parents’ responses could open the possibility to improve population-level involvement in clinical psychology services, prioritised by the Government policies ‘No Decision About Me Without Me’ (DH, 2012) and ‘No Health Without Mental Health’ (DH, 2011). As large numbers were expected to participate, their responses were thought to address the needs of diverse families. By addressing the needs of parents of children with disabilities, physical and mental health problems and from a range of ethnic backgrounds and cultures, the project would capture rich data that
permitted services to be tailored to better meet consumer preferences and extend the reach of evidence-based parenting programmes. Given the relevance and the potential implications of the project, the sub-committee authorised the research and there was enthusiasm and motivation for the project to begin.

3.2. Paper 1: Literature Review

The literature review was an opportunity to explore gaps in a research area related to the empirical study of this thesis. Although this approach was promising, there are many reviews, particularly of randomized controlled trials (RCTs), in this area. There are international, cross-cultural reviews of parenting (e.g., Forehand & Kotchick, 1996) and reviews of the parenting role from a wide variety of backgrounds (e.g., Anders, Prinz & Shapiro, 2009). There are reviews about the influence on parenting, considering the efficacy of fathers (e.g., Bunting & McAuley, 2004), grandparents (e.g., Hayslip & Kaminski, 2005), family socio-economic status (e.g., Bradley & Corwyn, 2005) and ethnicity (e.g., Hill, 2006). It was encouraging to know that so many variables that could influence the parenting role have been considered. Thus, a review of RCTs would have to be very specific to make a unique contribution to the literature. A viable alternative was to investigate parenting outcome measures, such as questionnaires that document a particular aspect of the parenting role. Following a preliminary search of the literature, no comprehensive reviews of parenting outcome measures were found and this became the topic for the review.

Outcome measures for the parenting role were too broad to consider. Measures were identified for parenting and co-parenting behaviours (e.g., Alabama Parenting Questionnaire, Dadds, Maujean & Fraser, 2003; Parenting Alliance Inventory, Abidin & Brunner, 1995), attitudes (e.g., Parental Attitude Research Instrument, Schaefer & Bell, 1958; Parental Attitudes Towards Childrearing, Holden & Edwards, 1989), satisfaction (e.g., Pleasure in Parenting Scale, Fagot, 1995; Kansas Parental Satisfaction Scale, James, Schumm, Kennedy, Grigsby, Selectman & Nichols, 1985), stress and coping (e.g., Parenting Stress Index, Abidin, 1990; Parenting Daily Hassles, Crnic & Greenberg, 1990) and self-efficacy (e.g., Parent Expectations Survey, Reece, 1992; Tool to Measure Parenting Self-Efficacy, Bloomfield & Kendal, 2007). A thorough search identified 152 outcome measures, which were too many for a literature review.
For the reasons presented in the literature review of this thesis, Parenting Self-Efficacy (PSE) was thought to have the most clinical relevance. Furthermore, many PSE outcome measures were quickly identified, hinting at the possibility that a review that summarized the wide range of measures developed since Bandura’s (1993) detailed descriptions of the terminology would be useful for clinicians, researchers and services.

3.2.1. Identification of Papers
Initial searches resulted in an abundance of PSE measures. Strict inclusion and exclusion criteria were applied to focus the review. Each criterion was discussed to resolve the debate about the inclusion of a specific measure. Discussions included the use of measures in different languages (e.g., Echelle Globale du Sentiment de Compétence Parentale (EGSCP; Meunier, Roskam & Browne, 2009) and measures that included a PSE sub-scale as part of a wider measure (e.g., the ‘parental efficacy’ sub-scale of the Parental Locus of Control: PLoC; Campis, Lyman & Prentice-Dunn, 1986). The advantages and disadvantages of including or excluding these measures were discussed with the research team and in supervision meetings in detail. Their inclusion would have allowed for an even more comprehensive review. Additionally, their inclusion would have allowed for greater exploration of measures for very specific samples, for example, the maternal efficacy of Korean mothers living in poverty (Seo, 2006). However, their inclusion may not have been logistically possible for a literature review.

The exclusion of unpublished papers was discussed in further detail. There is a debate about including academic work that is unpublished or published outside of peer-reviewed journals (e.g., doctoral theses, presentations at conferences or in a book). The inclusion of these measures may have increased the comprehensiveness of the review. Their inclusion may also have helped to overcome the risk of publication bias: It is possible that some measures have been developed but analysis of their internal consistency, for example, was inadequate thus resulting in rejection from publications, at the detriment of other well developed aspects of the measure. The exclusion of unpublished measures overcomes these limitations. However, it can be time-consuming and difficult to review these measures as the information is often incomplete (e.g., only the abstract is available), access to the work can be limited (Conn, Valentine, Cooper & Rantz, 2003), the quality assessment may not be
accurate (Hopewell, Clarke & Askie, 2006), and the work will not be peer-reviewed (Sacks, Reitman, Pagano & Kipelnick, 1996). Thus, their exclusion was the most appropriate decision.

3.2.2. Potential Conflict Resulting From Črnčec, Barnett and Matthey (2010)

The searches of the literature were thorough. They spanned 11 electronic databases, utilised combinations of appropriate key words and resulted in the identification of the majority of measures that were included in the review (the remainder were identified following reviews of reference lists). However, the detailed searches did not identify the most recent review of parenting confidence scales by Črnčec, Barnett and Matthey (2010). This review was identified following a search of Google Scholar, but was not recognised by any of the 10 other databases. As a result, the search terms were re-considered. However, no changes were made as it seemed the paper was not found due to its keywords and the indexing of the journal.

Close inspection showed several similarities and critical differences between Črnčec, Barnett and Matthey (2010) and the current review. Similarly to the current review, Črnčec, Barnett and Matthey (2010) identified that there was a large number of PSE measures available, but no comprehensive review had been completed to guide researchers and clinicians alike, who wanted to select the most appropriate measure. The conclusions were also fairly similar: The quality of available measures was varied and the majority of the measures were developed for mothers. However, whilst Črnčec, Barnett and Matthey (2010) provided detailed descriptions of the measures, their quality assessment lacked the rigour and high standards of the quality assessment offered in the current review. The current review also followed guidance for the completion of systematic reviews (PRISMA; Moher et al., 2009). Additionally, 24% of the measures were independently rated, whereas there was no independent rating within Črnčec, Barnett and Matthey’s (2010) review. The current review included a detailed evaluation of the psychometric and administrative properties of each measure and offered a description of each measure based on specific criteria rather than describing each measure in turn.

3.2.3. Quality Rating Assessment

Published reviews of outcome measures are far fewer than reviews of RCTs. Similarly, the guidance available for reviewing outcome measures was also limited.
The ‘Preferred Reporting Items for Systematic Reviews and Meta-Analyses’ (PRISMA; Moher et al., 2009), ‘Consolidated Criteria for Reporting Qualitative Research’ (COREQ; Tong, Sainsbury & Craig, 2007) and ‘Meta-analysis of Observational Studies in Epidemiology’ (MOOSE; Stroup et al., 2000) guidelines all include detailed information for RCTs, meta-analyses, trials and focus groups, but do not include outcome measures. Therefore, the process of reviewing outcome measures began with the identification of published systematic reviews of outcome measures.

Although published reviews of measures are still rare, some were identified in, for example, recovery from acute stroke (Duncan, Jorgensen & Wade, 2000), in palliative care in cancer (Hearn & Higginson, 1997), in quality of life measurement (Garratt, Schmidt, Mackintosh & Fitzpatrick, 2002) and in the experience of fibromyalgia (Mease, 2005). Several papers were identified that detailed the necessary criteria for a thorough review of the psychometric and administrative qualities of outcome measures (Bot et al., 2004; Terwee et al., 2007). To the author’s knowledge, none of these had been applied to the psychology literature, yet alone the PSE literature.

Terwee et al. (2007) provided the most appropriate framework and the most comprehensive criteria relevant to the psychology literature. Terwee et al. (2007) were chosen above other proposed criteria, such as Bombardier and Tugwell (1987), Andresen (2000) and McDowell and Jenkinson (1996), because they offered more explicit and specific detail including defined criteria rather than broad generalisations.

Once the criteria were chosen, further discussions considered the most appropriate methods to draw conclusions from the quality assessment tool. Terwee et al. (2007) suggested that each quality rating criteria should be assigned a ‘+’ (clear description, above a specific threshold), ‘-’ (clear description, below a specific threshold), ‘?’ (description is lacking or doubtful) or ‘0’ (information is missing) rating, based on clearly defined thresholds. This assignment offered specific criterion-based scores but not an overall score. It was considered that the scores should be re-coded so that an overall score was obtained. This suggestion led to two further considerations: (1) was an overall score appropriate and / or helpful? and (2) should ‘-’ be assigned a ‘2’ and ‘?’ be assigned ‘1’, or vice versa?
Firstly, recent guidance from the Cochrane Collaboration (Higgins et al., 2011) details the caution necessary if combining scores, as combinations of assessments is not sensitive to different aspects of quality and overall scores may be difficult to justify. Furthermore, an overall score may hide serious deficits in a measure if it obtains a high score in another area (Jüni, Witschi, Bloch & Egger, 1999). These pitfalls were also noted by Terwee et al. (2007) in their discussion. However, it was deemed useful to have an overall score as a quick reference despite its crude nature. Thus, an overall score was included to aid the reader with the disclaimers discussed above. Subsequent discussion included the use of assigning meaning to these qualitative results. For example, an overall score of ‘15 to 24’ was ‘adequate’, ‘25 to 30’ was ‘very good’, ‘31+’ was ‘excellent’. However, these interpretations were arbitrary and their use was likely to have undermined the pitfalls outlined above. It was agreed that interpretation of an overall score was the reader’s responsibility.

The second consideration regarded the scores for each rating. Whilst it was evident that a ‘+’ should be assigned the maximum score and ‘0’ be assigned the minimum score, it was more difficult to assign a score for the ‘-’ and ‘?’ ratings. It was difficult to determine which rating was preferred: a clear description but inadequate result or an ambiguous description. Following discussions, an inadequate result was the preferred outcome. This was because the authors were likely to have taken the decision to report the result, knowing that it was not ideal. This was deemed to be in the interest of the reader. Further, this appealed to the current author’s values: accurate reporting of results, albeit inadequate, reflects adherence to the scientific method. Additionally, it can overcome the ever-present risk of publication bias. Thus, a ‘-’ rating obtained a score of 2, whereas a ‘?’ rating only scored 1.

3.2.4. Theoretical Grounding

PSE is a theoretical construct, based on multiple sources of information (Bandura, 1997; Gist & Mitchell, 1992). PSE measures that adhere to the theoretical base are more likely to be used appropriately. It was expected, therefore, that measures of PSE were derived from PSE theory. The exploration of the theoretical grounding showed that that relatively few authors of measures referred to any underpinning theory. Perhaps this offered evidence that the measures were developed for specific
needs. Although outcome measures could be related to specific aspects of validated and accepted models of PSE, this was a retrospective approach which carried risks (Gearing, Mian, Barber & Ickowicz, 2006) including the possibility of inappropriately fitting data into existing categories. However, this method was the only one available so that the theoretical grounding could be considered.

Unfortunately, models of PSE have not been clearly stated in the literature. There were many descriptions of the properties of PSE (e.g., Coleman & Karraker, 1998; Jones & Prinz, 2005) but models were not identified. In the absence of models of PSE, a model of self-efficacy was deemed to be appropriate. The most cited model was developed by Gist and Mitchell (1992). This model was replicated in Paper 1 and the outcome measures mentioned in the review were associated with the individual elements of the model. Permission from the journal or authors was not necessary (Academy of Management Review, personal communication). The associations between the outcome measures and the model were identified following (a) a review of the text to determine if the author had identified the theoretical grounding, (b) a review of the text to identify unwritten associations and (c) wording of the individual items. It was thought that this process was sufficient to overcome the limitations of retrospective associations with the theoretical grounding.

3.2.5. Terminology
During the identification of PSE measures, the terms ‘esteem’, ‘confidence’, ‘competence’ and ‘efficacy’ were used interchangeably. Two measures introduced new terminology: ‘self-agency’ (Dumka, Stoerzinger, Jackson & Roosa, 1996) and ‘self-regulation’ (Hamilton, Matthews & Crawford, 2014). These concepts seemed to be no different to the self-efficacy concept, conceptualised by De Montigny and Lacharité (2005), as evidenced by the relatively few published papers using the agency and regulation terminology. However, it is likely that the authors of these concepts would disagree and an updated conceptual analysis is recommended. It is worth noting that the use of terminology in future should be carefully considered so as not to reintroduce confusion or inconsistency within the literature.

3.2.6. Limitations
Whilst the search terms were appropriate, they initially returned a large number of results (n=4,926). These were screened by hand, as described in Figure 1 (Paper 1).
It is possible that fewer results, rather than new papers, would have been returned with additional search terms, such as “properties”, “maternal”, “paternal”, “scales”, “nurture*” and “survey”.

The identification of papers by search terms could be replicated with relative ease whereas replication of the process of excluding papers by hand may be slightly more difficult. For example, results were excluded if PSE was not an outcome (n=201). This process was completed prior to the review of the terminology and it is possible that ambiguous terminology resulted in the exclusion of some results. Similarly, many measures were excluded if they were not completed by parents (n=333). On reflection, some papers may have been excluded if they used grandparents, non-relative care givers or details of participants were ambiguous. The exclusion of papers was completed in a systematic manner, relying on specifically developed databases and checklists. Thus, although there is the possibility that a replication of the exclusion of papers by hand may result in small discrepancies, it is unlikely that the final set of included measures would have been different.

The possibility of discrepancy suggests that the process could be improved. In future reviews of outcome measures, it may be useful to have an additional researcher facilitate the search process. This may offer some protection against the possibility of accidental exclusion of papers. Also, it may be useful to have another researcher replicate the search process, to demonstrate if the methodology was written in a clear and directive manner.

On reflection, the quality assessment tool was an appropriate choice. It strictly applies the quality criteria to detect shortcomings and gaps in measurement properties. Whilst this is a robust and effective process, it may not take into account some limitations placed on individual publications. For example, an investigation into the psychometric properties of a measure may have included information on floor and ceiling effects, but the word count for publication required the removal of words. The lack of information on floor effects is unlikely to have a large impact on the dissemination of a measure, but the removal of this information may have, unnecessarily, reduced the quality rating. Similarly, publications within the psychology and parenting literature tend not to report detailed information on criterion and construct validity as many authors do not specify the ‘gold standards’ or detailed hypotheses for the assessment. Thus, whilst many authors conclude that their measure is valid, the results of the quality assessment indicated that this may
not always have been the case. Additionally, the term ‘responsiveness’ is often poorly defined and is not well assessed (Terwee et al., 2003; Terwee et al., 2007). Further research into updating the quality assessment and overcoming these limitations is ongoing (e.g., Mokkink et al., 2010) but the identification of the current limitations should lead to a slightly more cautious interpretation of the quality assessment.

3.2.7. Clinical Implications
Several implications were identified at the end of Paper 1. One of the interesting findings was that a large number of PSE measures have been developed but have not been widely adopted. Over the years, this has led to the limited investigation into the measures’ psychometric and administrative properties. With the addition of clarifying terminology and identifying the theoretical base, the current review has updated our knowledge of PSE measures. Paper 1 offers a comprehensive summary for clinical psychologists, researchers, health professionals, service developers and commissioners to facilitate their attempts to select a PSE outcome measure.

3.3. Paper 2: Empirical Paper
3.3.1. Recruitment
At the start of the project, recruitment was identified to be the most challenging aspect of the study. Large numbers were initially discussed, based on similar studies. The Canadian arm of the IPS recruited 2,340 parents via similar methods to the current study (Lee et al., 2014). A similar-sized online survey was developed to better understand the expectations of parents towards structured aquatic baby programmers (known as ‘Water Babies’) and recruited 2,384 parents over a two-month period (Smith & Wittkowski, under review). In a recent ClinPsyD project, 662 parents were recruited via Water Babies (Dowling, 2014). Based on these numbers, a minimum of 1,000 and a maximum of 3,000 parents should be recruited into the study. Consultation with a statistician confirmed that a sample of this size would have given sufficient power. Based on the assumption that 10% of parents would have a child that fits into a diagnostic criteria relevant for the study (a chronic health difficulty, physical health difficulty, learning disability or mental health problem), or would experience psychological distress themselves, with 1,000
participants, the study had 80% power to detect an effect size of .3 using a two-tailed t-test (p<.05).

Despite large recruitment efforts across two universities, social media, NHS trusts and nationwide schools, there were fewer parents who completed the survey than expected. The survey recruited 1,345 parents across the UK, yet only 696 (51.8%) pressed the ‘Finish’ button on the final page. Comparisons of these data with the Canadian study were not possible, as they did not report on these data.

3.3.2. Overcoming the Lack of Diversity within the Literature
For many general parenting studies, the majority of the respondents are university-educated mothers from the largest ethnic group of the country (e.g., Costigan & Fox, 2001; Kvalevaag et al., 2013; Mitchell et al., 2007). For the current study, substantial effort was made to recruit fathers, parents from a diverse socio-economic background, diverse cultures and diverse employment status. Charitable organisations for fathers (e.g., ‘Fathers for Justice’ and ‘the Fatherhood Institute’) were contacted and asked to promote the survey. Similarly, 18 national Sure Start centres that advertised programmes tailored for parents from a wide range of socio-economic backgrounds and levels of employment were contacted. Furthermore, adverts were placed in three cultural specific magazines and advertisers in Manchester.

To evaluate the success of the efforts to overcome the lack of diversity within the literature, at the end of the survey, parents were asked to report where they had seen the survey. The frequencies of parents’ responses are reported in Figure 1. Social media was the most successful avenue of recruitment, accounting for 40% of all respondents who reported where they had seen the survey (n=550; 79% of the total sample). Recruitment from primary schools was relatively successful, accounting for 14% of all respondents. Using posters, adverts on television screens, business cards and leaflets, substantial effort was made to promote the survey in NHS trusts throughout the UK. This effort was to extend the promotion to child and adolescent mental services (CAMHS), in- and out-patient paediatric departments, GP surgery waiting rooms, walk-in centres and even in opticians and dental surgeries. Fewer parents were recruited via these methods than through word of mouth. Unfortunately, the efforts made to recruit a more diverse sample were relatively
unsuccessful and the overall demographic of the current sample was similar to that reported within the parenting literature.

**Figure 1. Frequencies of responses to the question, “Where did you hear about the survey?”**

UoM = University of Manchester; GCU = Glasgow Caledonian University

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### 3.3.3. Reflections on Recruitment

It was initially thought that promotion to parents via NHS services might recruit large numbers because thousands of parents pass through these NHS services on a daily basis (NHS England, 2015). In reality, the numbers recruited to the study via this method was relatively small. It may be that for many parents at NHS sites, participation in the survey was unlikely to be in their interests. For the parents who
were interested, after viewing the promotional material, they could only complete the survey when accessing a computer, at a later time. It is possible that parents who may have intended to participate at a more convenient time, no longer wished to participate or forgot about the survey. Further evidence for this is seen in the success of the promotion via social media. Parents who saw the IPS via social media on their computer may have clicked directly onto the survey link without having to hold any information in mind. Parents were able to complete the survey at the time it was promoted to them. This was a valuable learning point for future online surveys. This finding does not discourage the use of paper advertising, but does encourage consideration of the length of time between viewing the promotional material and completing the survey. Perhaps this could be done by offering tablets (iPads or similar technology) in the locations in which the survey is promoted, by encouraging participants to participate via their smartphone, or asking participant to leave their email address so that a link to survey could be sent to them at a later date.

Campaigns via social media tend to be very successful (e.g., Graham et al., 2008; Neiger et al., 2012), worldwide (e.g., Hamill, Turk, Murukutla & Ghamrawy, 2013). Their success is indicative of the pivotal role of social media in engagement of the wider public with topical issues (Hawn, 2009). With so many people engaged online, there is huge marketing opportunity. A very large body of research, outside the scope of this review, indicates that targeted advertising via social media is extremely effective, mostly due to its lucrative returns and cost-effective nature (Hanna, Rohm & Crittenden, 2011; Tuten, 2008). It is likely that the current study inadvertently discovered the power of this advertising potential as comparative efforts were made between promotion via social media and promotion via NHS trusts.

Promotion via primary schools and parenting message boards proved to have some success. Perhaps similarly to the success seen in promotion via social media, upon reading the promotional material, parents were swiftly able to complete the survey. However, the success of promotion via Facebook may also be due to the numbers involved. Five adverts were placed on Facebook between 17/09/2014 and 19/03/2015. Three adverts encouraged potential participants to click a link (‘click to survey’) directly to the survey. Two adverts encouraged potential participants to ‘like’ the Facebook IPS page (‘page likes’), which would be shared within Facebook users’ personal networks. This was a strategy recommended by Facebook to achieve
a wider audience rather than just encouraging completion of the IPS. According to
the author’s Facebook metrics, retrieved from a personal Facebook account
(Facebook, 2015), the three ‘click to survey’ adverts were viewed by 47,272 male
and female Facebook users aged between 18 and 65+, with interests in at least one of
‘child’, ‘LGBT parenting’, ‘adoption’, or ‘family’. Of this large number, 986 clicked
through to the survey (2.1%), at a cost of £0.22 per website click. The two ‘page
likes’ adverts were viewed by 15,607 Facebook users with the same demographic
details as above. This resulted in the generation of 490 page likes (3.1%) at a cost of
£0.23 per page like. The adverts posted on Facebook can be seen in Appendix F. For
this 2-3% uptake on Facebook adverts, 62,879 Facebook users were necessary. It
was impossible to achieve comparable numbers via schools and message boards.
Interestingly, fairly similar statistics have been reported in other surveys advertised
via Facebook (e.g., Batterham, 2014).

The IPS reported a 51.5% completion rate. Over the 10 months that the IPS
was active, this completion rate was very consistent (M=53.99%, SD=1.05),
indicative of a high likelihood that certain factors were causal of the low completion
rate. Although there was not sufficient evidence to conclude why there was a large
attrition rate, possible explanations included an excessive number of open ended
questions or tables (Knapp & Heidingsfelder, 1999), boredom with the survey
(Bickart & Schmittlein, 1999), experiencing many competing demands with the
possibility of being too busy to prioritise this research (Heinrichs, Bertram, Kuschel
& Hahlweg, 2005), the absence of knowing how much more time is needed to
devote to the survey (Dillman, 2000) and the lack of incentive (Manfreda, Batagelj
& Vehovar, 2002; Kalantar & Talley, 1999). The latter two points were of particular
interest and will be discussed further below.

Many journal articles, books and guides consider effective strategies for
higher completion rates in online surveys (e.g., Deutskens, De Ruyter, Wetzels &
Oosterveld, 2004; De Vaus, 2002; Eysenbach & Wyatt, 2002; Streiner, Norman &
Cairney, 2014). One such strategy is to document progress throughout a survey. This
has been shown to encourage completion even during fatigue (Couper, Traugott &
Lamias, 2001; Dillman, 2000). There are many ways that respondents may be kept
informed of their progress. Prior to the promotion of the IPS, this was discussed with
the developers of the IPS (personal communication, 2014). It was discussed that a
‘scrolling’ approach rather than a ‘screen-by-screen’ approach may be more user-friendly because it instantly reveals one’s progress, either by noticing the location of the computer screen scroll bar, or by scrolling to the end of the IPS to determine how much further one needs to progress. Due to the size of the IPS, this method was not possible and would have resulted in a long loading time, or running the risk of submission difficulties as web pages often reset and ‘time out’ if information is not submitted within a short space of time. It was also discussed that a ‘progress bar’ on the screen might benefit participants, as it will visually demonstrate one’s progress. It was agreed that a progress bar would be useful, but its inclusion would render the IPS inconsistent with the variations of the IPS worldwide.

The IPS used another method, periodically reporting how much of the questionnaire was complete, with a message of praise (e.g., “Thank you for taking the time to complete this survey, you are now halfway through”). Although the presence of this progress note was helpful, the note was text-based rather than a colourful illustration or figure, and offered no respite from the textual demands of the IPS.

Throughout the project, discussions were held with the IPS Australia and UK teams regarding an incentive for participating in the survey. Similarly to the progress bar discussion, it was agreed that any incentive would render the survey inconsistent with its international counterparts. Consequently, when a budget was developed for the project, there was no money allocated for an incentive. However, even if an incentive had been agreed by the international collaborators, the limited resources available throughout this project may have prevented the use of a financial incentive.

3.3.4. Public and Patient Involvement (PPI)

Prior to the project, there was a consultation with the ClinPsyD programme’s Community Liaison Group (CLG). This group comprised of patients, carers and community members. It was thought that their consultation would be useful in discussing the utility of the survey, where to promote the survey and an opportunity to discuss their queries about the survey itself. The CLG deemed the IPS to be of value to the wider public. They suggested that the IPS offered a platform for parents to share their views of their child’s, their family’s and their own levels of adjustment to challenging circumstances. The CLG argued that parents’ responses may be able to influence partner agencies, who could adapt their services and interventions in
light of parents’ responses. They added that increasing the relevance of parenting interventions is likely to help improve relationships between parents and their children, which in turn could lead to economic benefits, as children are less likely to engage in criminal or high risk taking behaviour (Sutton et al., 2004; Webster-Stratton & Taylor, 2001), have improved physical and mental health (Baydar et al., 2003) and achieve greater employment opportunities (Allen, 2011). The CLG offered this novel perspective on the study and its possible benefits not just on an individual level, but also on a wider societal level.

In a short consultation exercise, the IPS was reviewed with a convenience sample of four UK parents of 2- to 8-year-old children. These parents were asked to read through the IPS and comment on the wording or difficulties that they encountered. Their responses highlighted that with the exception of a couple of items, the IPS was readable and they would feel comfortable completing it. Their suggestions included adding some UK-specific services, language and cultural practices. One parent commented that some questions were very personal and unless the purpose of the IPS was made clear, parents might feel unsure about responding. Another parent commented that the questionnaire was not sensitive to other influences on parenting, such as books or friends, and it may be of interest to capture this information. Consequently, adaptations to the text of the IPS were made accordingly and approved by the IPS research team to ensure international comparability. As a result of this consultation process, the purpose of the IPS, including the confidentiality protocols, was made explicit before parents began the survey. This consultation exercise highlighted the importance of patient and public involvement in the development of online surveys and indicated that such feedback can influence the methodology and other processes, so that the experience of participation can be as positive as possible.

3.3.5. Ethics

Although all members of the research team agreed that there were no major ethical issues, there were two factors worthy of further consideration. Firstly, the nature of participation; participation was deemed to be optional, via the internet, at one time point only. Secondly, ethical approval: potential participants could not be identified by their responses and there was no treatment offered or investigated. Recruitment was not due to current or previous involvement of NHS services but rather due to
participants’ role as a parent, not a patient. Similarly, no research procedures were carried out on NHS sites, and no input was required from NHS trusts or its staff. Thus, submission to an NHS Research Ethics Committee (NHS REC) was deemed to be unnecessary. This position was confirmed by the research practice coordinator at the University of Manchester in February 2014, replicated in Appendix B. The UREC ethical approval letter is provided in Appendix C.

It was noted that promotion via NHS trusts would likely require authorization from each trusts’ R&D office, but this was thought to be a straightforward process. The reality was that authorization from NHS R&D trusts was a challenge. The contact details of each R&D department were obtained via an NHS centralized website (http://www.nhs.uk/ServiceDirectories/Pages/AcuteTrustListing.aspx). Of the 160 UK-wide acute NHS trusts, 83 were contacted. These 83 were the only trusts with readily available email contact details for the R&D departments. Had there been more time to devote to the project, it is possible that all 160 would have been contacted. The trust R&D departments were contacted by email (as seen in Appendix B), copying in an information sheet and a .pdf version of a poster (Appendix F). Only seven trusts agreed to promote the IPS (8.4%). The process is described in Figure 3.

The biggest learning point was that nationwide R&D protocols varied. This experience was in contrast to the guidance that the process of gaining NHS ethical approval should be centralized, standardized and consistent (All Wales Primary Care Research Management and Governance Office (AWPC), 2008; National Institute for Health Research (NIHR), 2009). The NHS research system seemed to be inconsistent and due to the many layers of R&D policy, it remains bureaucratic and time-consuming (Fudge, Redfern, Wolfe & McKeivitt, 2010; Haynes, Bowman, Rahimi & Armitage, 2010; Thompson & France, 2010). Some trusts offered immediate approval whereas others asked for further information. One trust requested that a ‘non-review application form’ needed to be completed. This was a trust-specific application form when an NHS REC has not been consulted. The information within this application was identical to the information offered in the University of Manchester ethical application process, with the exception of trust-specific terminology. This seemed to offer support for the view that R&D approval is bureaucratic and time-consuming.
The decision to bypass an NHS ethical review was appropriate under the circumstances, but the decision could have been different. The IPS was seeking ‘parental opinions’, which could be classed as sensitive. Even if NHS ethics was not required, evidence that an appropriate NHS ethics committee had been consulted could have been helpful. If an ethics opinion was not required, written confirmation from an ethics committee could have been in place. An ethics committee may have identified potential issues around parents answering some of the questions around low mood and psychological distress. Parental admission to psychological distress may have generated negative reactions. On an NHS Integrated Research Application System (IRAS) application, question A23 may have been relevant here and a ‘yes’ answer may have triggered an ethics review.
3.3.6. Hypothesis Selection

Parents’ responses from the four largest sections of the IPS were analysed: demographic details, CAPES, PAFAS and the K10. The IPS included an additional four sections, which were not incorporated into the analysis. These included (1) parenting behaviours, (2) the support available for parents, (3) preferences for this support and (4) parenting attitudes towards discipline. These circumstances resulted from key discussions about the hypotheses in question. Due to the rich data collected by the IPS, a seemingly infinite number of hypotheses could be made. The compelling literature strongly influenced the hypotheses selection, using the core measures and the decision to choose specific variables to investigate.

Within the second paper of this thesis, there is reference to the large, consistent literature about the social, emotional, behavioural and psychological associations with child, family and parenting adjustment difficulties. It was hypothesised that understanding the levels of adjustment and psychological distress within individual family members and the wider family could facilitate a psychological formulation of family’s difficulties (Vanderbilt-Adriance, Shaw, Brennan, Dishion, Gardner & Wilson, 2015). Therefore, should research findings indicate that certain circumstances were associated with greater levels of adjustment and/or psychological distress, parenting interventions could be tailored so that positive change for families becomes more likely.

It was less clear why specific family factors, such as socio-economic status and ethnicity, were chosen. Many family factors, such as single-parent status, family religiosity or satisfaction with social support could have been chosen because they have all been evidenced as having importance in predicting child and family outcomes (Gardner, Shaw, Dishion, Supplee & Burton, 2007; Jaffee, Caspi, Moffitt, Polo-Tomas & Taylor, 2007). Social support is of particular interest. The quality of maternal social support within and outside of the family has been associated with improvements to child, parenting and family outcomes (Crnic, Greenberg, Ragozin, Robinson & Basham, 1983; Shaw, Bell & Gilliom, 2000). There was also some evidence that community-level factors related to the quality of the surrounding environment (e.g., ethnic diversity, social cohesion and levels of crime) contribute to multiple child outcomes, ranging from readiness for school and academic attainment to behavioural difficulties (Leventhal & Brooks-Gunn, 2000). Therefore, research
has consistently linked the quality of the environment to multiple child, parenting and family outcomes (Leventhal & Brooks-Gunn, 2000), particularly in high-risk settings, such as the most deprived areas of the country (Brooks-Gunn, Duncan, Klebanov & Sealand, 1993; Supplee, Unikel & Shaw, 2007). Following consideration of these factors, it was agreed that whilst the IPS gathered this information, socio-economic status and ethnicity were appropriate superordinate factors that accounted for this diversity of experiences.

It was considered that if the investigation into specific hypotheses was to take place, certain aspects of the IPS would not be included within the analysis. These aspects were questions on (1) parenting behaviours, (2) the support available for parents, (3) preferences for this support and (4) parenting attitudes towards discipline. The international nature of the measure was made clear to participants and that further research will be undertaken at a later stage. A line in the participant information sheet, prior to commencement of the IPS (seen in Appendix E) stated that, “The data will be stored for international comparison purposes for later studies completed by the IPS research teams in the UK and Australia”. This process was similar in the two papers published from the Canadian IPS. Lee et al. (2014) investigated support for parents and the barriers to doing so, yet did not include any information collected from CAPES, PAFAS or the K10. Later, the same research team utilized the same data set to only investigate parenting opinions of smacking (Perron et al., 2015).

3.3.7. Measures
During the recruitment to the IPS, the PAFAS was the original unpublished 40-item measure. The Canadian IPS (Lee et al., 2014; Perron et al., 2015) used this 40-item measure. Despite the fact that further validation resulted in a 30-item measure (Sanders et al. 2013), guidance from the IPS Australia team was to use all 40 items (Morawska, personal communication)

Consideration was paid to using the 30-item measure, but its use would be inconsistent with the international collaborators. Further validation of the PAFAS on a UK sample of parents, similarly to Sanders et al. (2013), could offer a resolution.

The preferred measure of psychological distress within the IPS is the K10 (Kessler et al., 2000). In the UK, the preferred brief measures of psychological
distress are the PHQ-9, the nine-item Patient Health Questionnaire (Kroenke, Spitzer & Williams, 2001) and the GAD-7 (Spitzer, Kroenke, Williams & Löwe, 2006), the seven-item Generalised Anxiety Disorder scale. The UK’s Improving Access to Psychological Therapies (IAPT) programme bases the rates of recovery from depression and anxiety on reductions in scores on these measures, respectively (Clark, 2011). The PHQ-9, GAD-7 and K10 are all similar in brevity and worldwide popularity, including in developing countries (Adewuya, Ola & Afolabi, 2006; Andersen et al., 2011; Sidik, Arroll & Goodyear-Smith, 2013). Additionally, Patel et al. (2008) reported that any differences between the PHQ and K10 were negligible. However, the K10 has been designed to encompass a wide variety of psychological distress, rather than function as a screening and diagnostic tool for specific mental health difficulties. Consequently, it is the preferred choice for worldwide mental health surveys (Andrews & Slade, 2001; Kessler et al. 2002; Furukawa, Kessler, Slade & Andrews, 2003).

The CAPES, PAFAS and K10 are freely available. The IPS is reproduced in Appendix D.

3.3.8. IPS Design
A limitation of the study was that there was no method of ensuring that only parents who fulfilled the inclusion criteria undertook the IPS. Equally, it was possible that the same person could complete the data numerous times with different answers. However, to maintain international consistency, these possibilities could not be avoided (These limitations of the IPS design were not highlighted by the Canadian study (Lee et al., 2014; Perron et al., 2014)). Although these possibilities were extremely unlikely, the IPS had no method of monitoring the quality and accuracy of the data, and who has submitted the data. Thus, there was the real possibility that the validity of the data was undermined. It must be noted that this situation is a pitfall for every online survey, unless participants have been monitored, selected or invited to participate. Therefore, although it is an unlikely set of circumstances, it did lead to a more cautious interpretation of the results.

3.3.9. Missing Data
The appropriate analysis for missed responses was considered. Schafer and Graham (2002) recommended that missing data should be included in analyses based on
specific likelihood-based procedures. Due to time limitations, these detailed analyses were not possible and alternative analyses had to be sought. One possibility was to replace missing data with a score obtained from the average of all other parents. However, due to the large numbers of missed items, this was thought to impact upon the accuracy of the data set. Other, similar suggestions were dismissed because of the large numbers of missed data. It was eventually agreed that participants who submitted partially completed measures (See Table 3, Paper 2) but did complete the IPS-UK were not included in the data analysis for the measures that were not completed in their entirety.

3.3.10. Data Analysis

Due to multiple comparisons, there was an increased risk of Type I error (Perneger, 1998). Bonferroni corrections were considered to define a more conservative p-value, by dividing the critical p-value (.05) by the number of tests being performed on a single data set. In consultation with the statistician, adjustment of all analyses to p=.01 would provide a suitably conservative adjustment in this study, although this approach has been described as being too conservative (Perneger, 1998). However, as most results were approaching p = <.001, no adjustments were included within the study.

The current study did not include any effect sizes. This was agreed in consultation with a statistician. Field (2013) suggested that omega squared (ω²), an estimate of the degree of association in the population should be used when reporting effect sizes in ANCOVA. However, the statistician argued that this approach is not used when the group sizes are uneven, which was the case in this study. The use of Cohen’s d was considered, but this would only indicate an effect size compared to a control group, rather than determining an overall effect size. Thus, it was not included and reporting the ANCOVA results in a table was deemed to be the most appropriate method for this study.

In further consultation with the statistician, the possible analyses were discussed. Despite fewer completed surveys than expected and differently sized groups, the analyses were appropriate, robust and relevant for the hypotheses investigated. Future and more detailed analyses are possible, such as developing models of child, parent and family adjustment and investigating their predictions using structural equational modelling or path analyses. Based on the specific nature
of the current study’s hypotheses, these analyses were not appropriate. Future research would be recommended.

Several co-variates were included within the study. These were the age of the child, the number of other children at home, the level of parental education and the ability to meet essential expenses at home. The rationale for including these co-variates is included within the empirical paper. Their inclusion was based on the strongest evidence-base for their association with child, parent and family adjustment. One could argue that there could be many more co-variates, such as parental age. As reported in the literature review, parents of older children tend to have higher levels of PSE, most likely due to the decline in constant and intensive parenting behaviour necessary for younger children (Weisberg, Calam & Wittkowski, under review). As children are able to tend to themselves more, parents may find more time and resources for accomplishing their other life goals, leading to elevated PSE levels (Coleman & Karraker, 2000). However, there is some research to support the opposite view that younger parents report increased parental efficacy (Bryanton, Gagnon, Hatem & Johnston, 2008; Tarkka, 2003), possibly due to the increased levels of infant contentment or the ‘honeymoon period’ of parenting. Thus, due to the inconsistency within the literature, this variable was not included. It was possible to identify many more covariates, from the wide ranging such as family religiosity (Carothers, Borkowski, Lefever & Whitman, 2005) to the extremely niche, such as the involvement of grandparents in families with a deaf child (Nybo, Scherman & Freeman, 1998). Due to the time constraints on the study, the literature review of all these factors was not possible and for the ease of the analysis, they were not included. Thus, interpretations of the results should consider the dynamic nature of families and the involvement of a wide range of possible covariates.

3.4. Resources
The current study was completed within the boundaries of the research process for the degree of Doctorate in Clinical Psychology. These boundaries provided a framework for the research so that it could be completed within a relatively short time frame and under the supervision of experts within the field. However, these boundaries also limited the available resources for the study. One limiting resource was the finances available. With the limited finances, the study was unable to promote on radio, within national newspapers or magazines, within widely-
disseminated charitable publications or for any further time on social media. Additionally, the study was unable to translate promotional material into foreign languages for parents with a limited understanding of English or to publish the survey for completion via pen and paper. These limitations reduced the possible reach of the survey. A further resourcing limitation was time. The primary investigator was only able to devote two days per week to the study with very limited support from research assistants. During this limited time, attempts were made to promote the survey as widely as possible with some consideration paid to accessing hard-to-reach groups. On reflection, if further time was available, more time could have been devoted to develop a partnership with national parent, child and family organisations, such as Sure Start or Puddle Ducks, and local parenting organisations, such as the Child and Parenting Service (CAPS) that offers parenting support and interventions. By overcoming these financial and timing limitations, recruitment strategies may have been more effective and, perhaps more importantly, the study may have overcome the limitations of accessing underrepresented and difficult to access groups.

3.5. Clinical Implications
The clinical implications are outlined in Paper 2. It is useful to reiterate that the results can be of benefit for researchers, clinical psychologists and facilitators of parenting interventions. The results identified that parenting psychological distress can have far reaching consequences: An increase in children’s emotional and behavioural adjustment difficulties, and an increase in difficulties with parenting practices, teamwork, family adjustment and emotional adjustment. Consideration of these consequences can inform a psychological formulation and understanding of a child’s, parent’s or family’s difficulties. Similarly, children’ mental health difficulty, learning disability or physical disability are known to be associated with poorer child adjustment. Perhaps this indicates the necessity of considering the issues around acceptance of difficulties prior to working through any secondary distress.

Given the findings, it remains important to continue to study child, parent and family adjustment so that individuals within a family can make informed decisions as to the interventions that could help overcome difficulties that they may experience. Additionally, the current results and continued further research will benefit healthcare professionals, who may recommend particular interventions, and
service commissioners, who may consider the importance of child, parent and family adjustment in their guidance for evidence-based interventions.

### 3.6. Personal Reflections

I had developed an interest in parenting during my child clinical psychology training placement, but I had no experience in this area. In my current specialist placement, the Paediatric Psychosocial department at the Royal Manchester Children’s Hospital, I have been lucky enough to work with parents and my interest in the research around the parenting role has grown. The current study highlighted the importance of the parenting role, particularly in the early years, and how parental wellbeing, mental health and self-efficacy can be extremely influential on parenting and, as a consequence, the quality of children’s life. It is an area in which clinical psychologists can have a large impact.

I have been motivated and enthusiastic about the study. I believe that the literature review offers a timely and comprehensive addition to the parenting self-efficacy literature, and the empirical paper reinforces our knowledge about the association of parental psychological distress on the parenting role and the influence of childhood difficulties on child adjustment. Despite the motivation and enthusiasm for the study, the process of research has been challenging. Issues of recruitment management of large databases on information and the analyses of such large datasets felt, at times, overwhelming. The study provided a steep learning curve and helped me to identify my research strengths and weaknesses.

A further consideration is necessary here. The nature of my involvement with future work that builds on the UK IPS data set should be considered. It is with great pride that 1,345 parents were recruited to the study. The recruitment strategy demanded a lot of time and effort. I considered the lengthy and cumbersome nature of the IPS and I developed recruitment strategies to compensate for this. This included designing and using professional standard business cards (matt, laminated, 400gsm), gloss advertisements with information tabs that potential participants could remove so that they could complete the study at a later time and dissemination of these nationwide, in schools, NHS trusts, via social media and with agencies and organisations. I developed large databases and maintained them so that I was aware of the nature, progress and outcome of each contact made. Additionally, every contact was followed up during the study and upon completion of the study. As
described previously, it was agreed that the data collected from the current study is likely to add to newly collected data. In future work, consideration of my efforts made towards recruitment would be appreciated.

3.7. Dissemination
Both the literature review and the empirical paper have been submitted for publication and are currently under review.

3.8. Conclusions
The overall aim of this thesis was to explore the outcome measures used in parenting self-efficacy and associations of child, parent and family adjustment with a variety of circumstances. The literature review offered a relevant and detailed systematic review of the parenting self-efficacy outcome measures available, which could be used for researchers, clinical psychologists and service developers alike. The empirical paper offered detailed analysis of the CAPES, PAFAS and K10, offering evidence that child adjustment and aspects of parental adjustment, is strongly associated with childhood difficulties, and parental psychological distress is associated with childhood and parental wellbeing. This study offers a substantial contribution from the UK towards an international dataset. It has offered a unique addition to the literature and has been an exciting insight into the large world of parenting research.
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Appendix A1

Instructions for Authors – Guidelines for Submission to *The Journal of Child and Family Studies*

**General**

In general, the journal follows the recommendations of the 2010 *Publication Manual of the American Psychological Association* (Sixth Edition), and it is suggested that contributors refer to this publication. The research described in the manuscripts should be consistent with generally accepted standards of ethical practice. The anonymity of subjects and participants must be protected and identifying information omitted from the manuscript.

**Manuscript Submission**

The Journal uses Editorial Manager™ as its submission and peer review tracking system. All authors are required to register as a new user with Editorial Manager the first time they login in to the system. Straightforward login, registration procedures and step-by-step instructions for submitting manuscripts can be found on the website. Authors can use the Editorial Manager to track the review of their manuscripts in real time.

All authors should submit their manuscripts online. Manuscript submissions to the Journal should be prepared electronically and submitted in a standard word processing format. Microsoft Word® is preferred. Electronic submission substantially reduces the editorial processing and reviewing times, and shortens overall publication times. Please connect directly to the site: http://jcfs.edmgr.com and upload all of your manuscript files following the instructions given on the screen.

**Suggested Reviewers**

Authors of research and review papers, excluding editorial and book review submissions, should provide the names and contact information for four possible reviewers of their paper. The suggested reviewers should be authorities in the research field of the submission who can provide unbiased and fair evaluation of the authors’ work. The authors may also request that a particular researcher may not be considered a reviewer because of a conflict of interest. Colleagues from the authors’ institution(s) may not be included as possible reviewers. One or more of these suggested reviewers may be selected by the Journal as reviewers, but the final choice of reviewers for any submission remains the prerogative of the Editor-in-Chief and the Associate Editors of the Journal.

- [http://jcfs.edmgr.com](http://jcfs.edmgr.com)

**Publication Policies**

The Journal considers manuscripts for publication with the understanding that they represent original material and have not been published, submitted or accepted elsewhere, either in whole or in any substantial part. Each manuscript should report sufficient new data that makes a significant contribution to its field of research; thus, the submission of small amounts of data from a larger study or research project for divided publications would be inappropriate. A statement transferring copyright from the authors (or their employers, if they hold the copyright) to Springer Science+Business Media, Inc. will be required before the manuscript can be accepted for publication. Such a written transfer of copyright, which previously was assumed to be implicit in the act of submitting a manuscript, is necessary under the U.S. Copyright Law in order for the publisher to carry through the dissemination of research results and reviews as widely and effectively as possible.

Authors can expect a decision usually within 8 to 10 weeks. Reviewers comments are sent with the decision. Accepted papers are subject to editorial revisions and copyediting. However, the contents of the paper remain the responsibility of the author.

**Double-Blind Peer Review**

All submissions are subject to double-blind peer review. In general, experimental/research studies are judged in terms of the following criteria: originality, contribution to the existing research literature, methodological soundness, and readability.

When you are ready to submit a manuscript to JCFS, please be sure to upload these 2 separate files to the Editorial Manager site to ensure timely processing and review of your paper:

- A title page with no running head, manuscript title, and complete author information. Followed by the Abstract page with keywords and the corresponding author e-mail information.
The blinded manuscript containing no author information (no name, no affiliation, and so forth)

**Manuscript Style**
All manuscripts should be formatted to print out double-spaced at standard 8” x 11” paper dimensions, using a 10 pt. font size and a default typeface (recommended fonts are Times, Times New Roman, Calibri and Arial). Set all margins at one inch, and do not justify the right margin. Double-space the entire manuscript, including title page, abstract, list of references, tables, and figure captions. After the title page, number pages consecutively throughout including the reference pages, tables, and figure legends. The average article length is approximately 30 manuscript pages. For manuscripts exceeding the standard 30 pages, authors should contact the Editor in Chief, Nirbhay N. Singh directly at nirbsingh52@aol.com.

The Journal encourages the publication of research that is virtually jargon-free and easy to read. Thus, a personalized manuscript, written in active tense, is preferred. For example, “This study examined . . .” could be stated as, “We examined . . .” The Journal encourages a conversational rather than an impersonal tone in the manuscripts. Hypotheses should be written as a part of the last paragraph of the Introduction and not in bullet form. All reference to the study being reported should be consolidated in the last (or, if necessary, the last and penultimate) paragraph of the Introduction and not scattered throughout the introductory section.

**Title Page**
A title page is to be provided and should include: (1) the title (maximum of 15 words); (2) full names of the authors (without degree), with a bullet between the names of the authors; (3) brief running head; and, at the bottom of the title page, (4) the corresponding author's initials and last name (without degree), affiliation, mailing address, and e-mail address. The initials and last name of all authors should be listed as well. All authors from the same institution should be listed together, with a bullet separating the names. For all, but the corresponding author, list the affiliation, city and state only.

**Abstract**
The abstract should be between 200 and 250 words. It should be concise and complete in itself without reference to the body of the paper. In addition to a general statement about the field of research as the first sentence, abstracts of experimental/research papers should contain a brief summary of the paper’s purpose, method (design of the study, main outcome measures, and age range of subjects), results (major findings), and clinical significance. Abstracts of review papers should include a general statement about research area being reviewed as the first sentence, it should contain a brief summary of the review’s purpose, method (data sources, study selection process), results (methods of data synthesis and key findings), and conclusions (summary statement of what is known, including potential applications and research needs). Do not use sub-headings and do not cite data or references in the abstract.

**Key Words**
A list of 5 key words is to be provided directly below the abstract. Key words should express the precise content of the manuscript, as they are used for indexing purposes.

**Text**
Text should begin on the second numbered page. Authors are advised to spell out all abbreviations (other than units of measure) the first time they are used. Do not use footnotes to the text. When using direct quotations from another publication, cite the page number for the quotation in the text, immediately after the quotation. When reporting statistically significant results, include the statistical test used, the value of the test statistic, degrees of freedom, and p values. In the discussion include an evaluation of implications (clinical, policy, training or otherwise) of the study when appropriate. Also, discuss limitations in study design or execution that may limit interpretation of the data and generalizability of the findings. Do not use any sub-headings in the Introduction or Discussion sections.

**Footnotes**
No footnotes are to be used.

**References Cited Within the Text**
Cite references in alphabetical order within the text.

**References**
The accuracy of the references is the responsibility of the authors.

List references alphabetically at the end of the paper and refer to them in the text by name and year in parentheses. References should include (in this order):

- last names and initials of all authors
Appendix A2

Instructions for Authors – Guidelines for Submission to Parenting: Science and Practice

This journal uses ScholarOne Manuscripts (previously Manuscript Central) to peer review manuscript submissions. Please read the guide for ScholarOne authors before making a submission. Complete guidelines for preparing and submitting your manuscript to this journal are provided below.

MANUSCRIPT SUBMISSION

Cover Letter.
(1) Include a brief statement that indicates what the study will tell the readership of the journal and indicate the intended department. (2) If submitting an empirical report, warrant that the study was conducted in accordance with the ethical standards of the American Psychological Association (APA). (3) Affirm that all authors are in agreement with the contents of the manuscript.

Submission.
Parenting: Science and Practice receives all manuscript submissions electronically via their ScholarOne Manuscripts website: http://mc.manuscriptcentral.com/hpar. ScholarOne Manuscripts allows for rapid submission of original and revised manuscripts, as well as facilitating the review process and internal communication between authors, editors and reviewers via a web-based platform. For ScholarOne Manuscripts technical support, you may contact them by e-mail or phone support via http://scholarone.com/services/support/. If you have any other requests please contact the journal editor at Marc_H_Bornstein@nih.gov.

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8404 Irvington Avenue
Bethesda, MD 20817-3838 U.S.A.
TEL: 301-656-1642
FAX: 301-480-4039

EMAIL: Marc_H_Bornstein@nih.gov

Please note that Parenting: Science and Practice uses CrossCheck™ software to screen papers for unoriginal material. By submitting your paper to Parenting: Science and Practice you are agreeing to any necessary originality checks your paper may have to undergo during the peer review and production processes.

Review.
Manuscripts are reviewed by the Editor, members of the Board of Editors, and invited reviewers with expertise in the area(s) represented by the manuscript. Submissions must be appropriate and of moment to the readership of Parenting: Science and Practice and should meet a high level of scientific acceptability. A first level of review determines the appropriateness, import, and scientific merit for the journal; on this basis, the Editor reserves the right to review the manuscript further. The Editor also retains the right to decline manuscripts that do not meet established ethical standards. A system of blind reviewing is used; however, it is the author’s responsibility to remove information about the identity of author(s) and affiliation(s) from the body of the manuscript. Such information should appear on the cover sheet. The Editor will have the discretion to integrate solicited reviews into a determinative response.

Each manuscript must be accompanied by a statement that it has not been published elsewhere and that it has not been submitted simultaneously for publication elsewhere. Authors are responsible for obtaining permission to reproduce copyrighted material from other sources and are required to sign an agreement for the transfer of copyright to the publisher. Authors are required to secure permission to reproduce any figure, table, or extract from the text of another source. This applies to direct reproduction as well as “derivative reproduction” (where you have created a new figure or table which derives substantially from a copyrighted source). All accepted manuscripts, artwork, and photographs become the property of the publisher.
All parts of the manuscript should be word-processed, double-spaced, with margins of at least one inch on all sides. Number manuscript pages consecutively throughout the paper. Authors should also supply a shortened version of the title suitable for the running head, not exceeding 50 character spaces. Each article should be summarized in a brief Synopsis. Avoid abbreviations, diagrams, and reference to the text in the Synopsis. Please see the Style Guide for reference.

References.
Cite in the text by author and date (Smith, 2010). Prepare the reference list in accordance with the APA Publication Manual, 6th ed. Examples:

Journal

Book


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Illustrations submitted should be clean originals or digital files. Digital files are recommended for highest quality reproduction and should follow these guidelines:

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- EPS, TIFF, or PSD format only
- Submitted as separate files, not embedded in text files
- Included at the end of the manuscript

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Tables and Figures.
A short descriptive title should appear above each table with a clear legend and any footnotes suitably identified below. All units must be included. Figures should be completely labeled, taking into account necessary size reduction. Captions should be typed, double-spaced, on a separate sheet.

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Page proofs are sent to the corresponding author using Taylor & Francis’ Central Article Tracking System (CATS). They must be carefully checked and returned within 48 hours of receipt. Authors from whom a valid email address is received will be provided an opportunity to purchase reprints of individual articles, or copies of the complete print issue. These authors will also be given complimentary access to their final article on Taylor & Francis Online. Reprints of individual articles are available for order at the time authors review page proofs. A discount on reprints is available to authors who order before print publication.

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Search Engine Optimization.
Search Engine Optimization (SEO) is a means of making your article more visible to anyone who might be looking for it. Please consult our guide here.
Visit our Author Services website for further resources and guides to the complete publication process and beyond.
Appendix B1

University Email Correspondence Regarding Ethical Approval

From: Lynne Macrae <Lynne.K.Macrae@manchester.ac.uk>
Sent: 07 February 2014 16:40
To: Daniel Weisberg
Cc: Timothy Stibbs, MHS Ethics Applications
Subject: ethics

Hi Dan

Many thanks for calling me yesterday to discuss the study. As mentioned, I spoke to Tim Stibbs about your study and said that I would copy Tim in to this summary email. The aim of this email is to summarise the study and recent conversations and outline the approvals required for the study to go ahead. Sorry for the length of the email, I just wanted to make sure everything was included.

Study

- This study involves the collection of anonymous data from parents via an online survey. The online survey, the International Parenting Survey (IPS), was developed by the University of Queensland. The survey is being completed in numerous countries but within the UK, the survey is hosted at GCU and available, under licence, to the University of Manchester (UoM) and Glasgow Caledonian University (GCU).

- The anonymous data collected will be held on servers in the US. The data collected will be pooled with all other data collected internationally via the IPS but both GCU and UoM will receive a copy of the data collected via the GCU hosted website for separate research studies. Therefore there is a collaboration between GCU and UoM but it is limited to the collection of the data (shared website).

- GCU has ethical approval from their University REC which covers the hosting of the website and presumably the use of the anonymous data within a specific project. The current ethical approval does not cover the use of the anonymised data in Manchester; however, can you confirm if it covers the University of Manchester having access to the anonymised data for research purposes subject to ethical approval being in place? GCU access to the data will expire soon (presumably ties in with the end of the licence period?).

- You want to set up a study using the anonymised data but also, you want to advertise the survey in as many locations as possible including NHS sites. Just to be clear, even though you will advertise on NHS premises, you are specifically targeting parents, not patients. You will also advertise in community locations.

Issues

- As you are collecting data anonymously, consent is implied based on the completion of the survey. As you share the survey with GCU, you are limited to the information that is contained on the front page i.e. the participant information. At the moment it is quite generic but it does state that the data collected will be used by both UoM and GCU – both institutions using the site means that the information has to be applicable to both.

- Ethical approval has been given by the GCU ethics committee. The ethics approval covers the hosting of the website and presumably the research that is going to be carried out in GCU with the data. It does not cover the research in Manchester.
You do not have ethical approval for your study yet but, given that there is ethical approval for the hosting of the website and collection of the data and the respondents are informed that their data will be used for research by GCU and UoM. I would hope that UREC approval would include approval for the use of previously collected anonymous data which means that you would be able to use the data collected to date. Tim, maybe you could advise?

**Approvals**

- **Ethical approval:**
  - As discussed, I don't think that you need NHS REC approval for this study. You are going to be advertising the study on NHS premises but as you are not going to be able to identify potential participants, you are not recruiting them due to their current or previous use of NHS services or due to carer status and you will not be requesting any identifiable data. If you want to be sure that NRES REC approval is not required, you can use the decision tool (http://www.hra-decisiontools.org.uk/ethics/) or contact the NRES query line (nres.queries@nhs.net) — you can send a one page summary of the research and ask for an opinion mentioning that the sponsor thinks that it is not required.
  - You will need UREC approval. I would suggest that you include everything in the application i.e. advertising the study both in the community and on NHS premises, collecting the data, analysing the data collected, including the data already collected as per responder consent.
  - I know that you have the UREC already completed. You just need finalise making sure all aspects are covered and then send your application to the ethics office (see: http://www.staffnet.manchester.ac.uk/services/bsc/governance/ethics/obtaining-ethics-approval/)

- **Site approval:**
  - NHS Trusts need to know what is happening on their site and so you need to assume that you will need NHS R&D approval for advertising at each site. Saying that, the involvement of the site is minimal — you will just be putting up adverts, no research procedures will be carried out at the site and there is no input required from the Trust. As such, I would expect that at the most you will have to make an application for the Trust to give approval as a PIC (Participant Identification Centre). This would involve sending a copy of the study documents and a copy of the R&D form from IRAS (which have already completed) to the Trust R&D office. One of the benefits is that you don't have to complete an SSI for the individual sites.
  - I would suggest that before you do anything more on the IRAS/R&D approval, you speak to the Trusts and ask what approvals would be required. It may be that they have a streamlined process for low-risk studies like yours.
  - Non-NHS/ community sites — you need to ensure that you have site management approval for the non-NHS sites i.e. you need permission from those responsible for the area that you want to advertise the study. This also includes the University. Your study will automatically be registered with the University's insurance office when you submit your application for review. You just need to outline in your ethics application that you will advertise at the University and quote the UREC reference on all advertisements.

**Next steps**

- Finalise UREC application and submit for review
- Contact R&D office and check what approvals are required

I hope this makes it clear but let me know if you are not sure about something.

**BW**

Lynne

Lynne Macfie
Research Practice Coordinator
Faculty of Medical & Human Sciences
University of Manchester
Room 3.53 Simon Building
Brunswick Street
Manchester M13 9PL
0161 275 5436

IRAS username: lynne.macfie@manchester.ac.uk

Website: JMHs Research Governance Website
Twitter: @JMHs_ethics
Appendix B2

NHS R&D Email Correspondence Requesting Ethical Approval

<table>
<thead>
<tr>
<th>From:</th>
<th>Daniel Weisberg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sent:</td>
<td>10 September 2014 16:57</td>
</tr>
<tr>
<td>To:</td>
<td>Request for promotion of the International Parenting Survey-UK</td>
</tr>
<tr>
<td>Subject:</td>
<td>IPS Info to NHS v.1 (04.08.14.docx) IPS Manchester Advert with Tabs v.4 (20.08.14) - pdf version.pdf</td>
</tr>
</tbody>
</table>

Dear [Name]

The International Parenting Survey is the world's largest parenting survey. I am part of a group researchers from the University of Manchester and Glasgow Caledonian University who have the licence to run the survey in the UK. I am emailing in the hope that you can help us to promote the survey.

We are looking for parents from the UK and Northern Ireland with at least one child aged between 2 and 12 years old, All parents have to do is to follow a link to a website where they can fill out the survey. The survey is designed to give parents from the UK and Northern Ireland their say about important issues including parenting needs, parenting practices and available support.

We would like your support in encouraging parents to complete the survey through any of the following means:

- Permission to place an advert in waiting rooms in GP surgeries, Child and Adolescent Mental Health services, paediatric departments or maternity / neonatal departments.
- Permission to place adverts in trust communication bulletins or newsletters
- Permission to place adverts on your website
- If possible, facilitate the above recruitment strategies

The survey is only recruiting parents - not patients. It just so happens that we would like to advertise on NHS sites, for which we are asking permission. Therefore, an IHS ethics form via IRAS has not been completed. However, the survey has gained ethical approval from the University of Manchester (ethics ref: 14064) and Glasgow Caledonian University (ethics ref: FAH13/05 and FA13/11). This set-up was advised by Lynne MacRae, the research practice co-ordinator at the University of Manchester in collaboration with IHS research and ethics staff.

An information sheet telling you more about the survey is attached to this email. I have also attached a .pdf version of the advert that we would want to place (A4 size) on notice boards. Adverts for magazines, websites or other communications can be sent separately. You can also browse our websites for more information: www.psych-sci.manchester.ac.uk/ipsr and www.gcu.ac.uk/ipsuk or contact us by return of this email. We also have information and links on Twitter (@IPSurveyUK) and Facebook (IPSurveyUK).

The survey is available here: www.bit.ly/ipsuk

We are looking to recruit from as many locations throughout the country with as much access to parents as possible and we hope that you will be able to help. Thank you very much in advance for helping us to gain valuable data.

Daniel Weisberg

Dr. Daniel Weisberg
Trainee Clinical Psychologist

International Parenting Survey

Appendix C1

Confirmation of Approval from the Research Sub-Committee

Daniel Weisberg
Apartment 4, Chemies
8-10 St Paul’s Road
Salford
M7 3NY

17th December 2013

Dear Daniel

LSRP

Thank you for your revised research proposal which was considered by Chair’s Action, who was satisfied that the revisions made were appropriate and in accordance with the feedback from the meeting of 7th October 2013 and you may now proceed with your research as set out in your revised proposal.

For the purposes of ethical scrutiny by relevant NHS and/or University bodies, this letter may be taken as confirmation that your research proposal has been independently reviewed and that it is considered to meet necessary scientific and methodological standards.

On behalf of the Research Subcommittee, we wish you good luck with your research work.

Yours sincerely

[Signature]

Dr Dougal Julian Hare
Research Director
Chair of Research Sub-Committee (Panel A)
Appendix C2

Confirmation of Ethical Approval from the University of Manchester

Dr Daniel Weisberg
Trainee Clinical Psychologist
School of Psychological Sciences
Faculty of Medical and Human Sciences
University of Manchester
M13 9PL

Daniel.weisberg@postgrad.manchester.ac.uk

ref: ethics/14064

1 April 2014

Dear Dr Weisberg

Research Ethics Committee 1

Weisberg, Wittkowski, Calam, McPherson: Parenting experiences based on the UK version of the International Parenting Survey (IPS-UK) (ref 14064)

I write to confirm that the amendments to the participant information sheet and the advert, and the provision of a copy of the questionnaire, satisfy the concerns of the Committee and that the above project therefore has ethical approval.

The general conditions remain as stated in the letter of 31st March 2014.

Finally, I would be grateful if you could complete and return the attached form at the end of the project or by March 2015, whichever is earlier. When completing this form, please reference your project as:

‘Weisberg, Wittkowski, Calam, McPherson: Parenting experiences based on the UK version of the International Parenting Survey (IPS-UK) (ref 14064)’

Yours sincerely,

Katy Boyle
Secretary to University Research Ethics Committee
Appendix C3

Confirmation of Ethical Approval from NHS Trusts (Central Manchester Foundation Trust and Shrewsbury and Telford Hospital Trust)

Central Manchester University Hospitals NHS Foundation Trust

Research Office
1st Floor (rear) NOWGEN Building
29 Grafton Street
Manchester M13 9WU
Tel: 0161-276-3555
Fax: 0161-276-5766

Dr Daniel Weisberg
Trainee Clinical Psychologist
Division of Clinical Psychology
University of Manchester
Brunswick Street
Manchester
M13 9PL

Ref: R03821-Ltr 24a-Daniel Weisberg

Dear Dr Weisberg,

PIN: R03821 (Please quote this number in all future correspondence)
Research Study: Parenting Experiences Based on the UK Version of the International Parenting Survey

Further to the above study being registered with Central Manchester University Hospitals NHS Foundation Trust, I can confirm that the study documentation received and listed in the table below, has now been reviewed and ethical approval is not required in accordance with the new GAFREC guidelines.

We acknowledge that the University of Manchester has accepted the role of Research Governance Sponsor for this study.

I am pleased to confirm that the Trust Director of Research & Innovation has given approval for the project to be undertaken.

The Trust aims for its research projects to recruit their first participant within 30 days of the recruitment start date. If you do not tell us your actual recruitment start date, we will use this approval date. This information is important for monitoring Trust recruitment performance for internal and external assessment. I would like to take this opportunity to wish you well with your research.

Yours sincerely,

Lorraine Broadfoot
Research Operations Manager
11th December 2014

Date:.................................

cc: Alison Robinson
05/12/2014

Dear Dr Daniel Weisberg,

Re: International Parenting Survey – UK (IPS-UK)

The study listed above has been reviewed by the R&D Committee. I am pleased to confirm that the Trust agrees to support the study.

It is important that you inform our R&D Department when the study is closing so that all posters and adverts can be removed appropriately. Please forward any resulting publications for our records.

Yours sincerely,

Dr Nigel Capps
Director of Research and Development

cc: Trust Lead Research Nurse, Sister Helen Moore

Documents received:

IPS Info to NHS V.1 04/08/2014
IPS Manchester Advert with Tabs v.4 20/08/2014
Appendix D
The International Parenting Survey

Please select your language in the top right corner.

The survey is for parents of children between the ages of 2-12. If you have more than one child aged 2-12 years, please answer the questions in relation to your youngest child in the age range.

If you have made an error or wish to go back, do not click the Windows Explorer back button, please use the << button at the bottom of the page.

What country do you live in? (Type in the box to find your country)

___________________

Child’s age today (in years, slide the bar) (2) ______ (12) Child’s Age

Child’s gender

☐ Male
☐ Female

Does your child experience any of the following problems (please select yes or no for each).

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A chronic illness e.g., asthma, eczema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A physical disability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>An intellectual/learning disability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A mental health difficulty e.g., anxiety, depression</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Your relationship to this child

☐ Mother (biological or adoptive)
☐ Step-mother
☐ Foster mother
☐ Father (biological or adoptive)
☐ Step-father
☐ Foster father
☐ Other (please describe): ____________________________
Your current marital status

- Married
- Cohabiting/Common-law
- Divorced/separated
- Single
- Widow/er
- Other (please describe): ____________________

Which best describes the household in which your child is presently living?

- Original family (both biological or both adoptive parents present)
- Step-family (two parents, one being a step parent)
- Single parent family
- Other (please describe): ____________________

Child Adjustment and Parent Efficacy Scale (CAPES)

Please read each statement and select a statement that indicates how true the behaviour was of your child (aged 2-12) **over the past four (4) weeks**. Then, using the scale provided, select a number between 1 and 10 next to each item that best describes how confident you are that you can successfully deal with your child’s behaviour, even if it is a behaviour that rarely occurs or does not concern you.

There are no right or wrong answers. Do not spend too much time on any statement.

Example:

<table>
<thead>
<tr>
<th>My Child</th>
<th>Not true of my child at all</th>
<th>True of my child a little or some of the time</th>
<th>True of my child quite a lot or a good part of the time</th>
<th>True of my child very much or most of the time</th>
<th>Rate your confidence from 1 (Certain I can’t do it) to 10 (Certain I can do it)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gets upset or angry when they don’t get their own way</td>
<td>★ ★ ★ ★</td>
<td>★ ★ ★ ★</td>
<td>★ ★ ★ ★</td>
<td>★ ★ ★ ★</td>
<td>9</td>
</tr>
</tbody>
</table>

150
# My Child

<table>
<thead>
<tr>
<th>Intensity</th>
<th>Rate your confidence from 1 (Certain I can’t do it) to 10 (Certain I can do it)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not true of my child at all</td>
<td>True of my child a little, or some of the time</td>
</tr>
<tr>
<td></td>
<td>True of my child quite a lot, or a good part of the time</td>
</tr>
<tr>
<td></td>
<td>True of my child very much, or most of the time</td>
</tr>
<tr>
<td>Gets upset or angry when they don’t get their own way</td>
<td></td>
</tr>
<tr>
<td>Refuses to do jobs around the house when asked</td>
<td></td>
</tr>
<tr>
<td>Worries</td>
<td></td>
</tr>
<tr>
<td>Loses their temper</td>
<td></td>
</tr>
<tr>
<td>Misbehaves at mealtimes</td>
<td></td>
</tr>
<tr>
<td>Argues or fights with other children, brothers or sisters</td>
<td></td>
</tr>
<tr>
<td>Refuses to eat food made for them</td>
<td></td>
</tr>
<tr>
<td>Takes too long getting dressed</td>
<td></td>
</tr>
<tr>
<td>Hurts me or others (e.g., hits, pushes, scratches, bites)</td>
<td></td>
</tr>
<tr>
<td>Interrupts when I am speaking to others</td>
<td></td>
</tr>
<tr>
<td>Seems fearful and scared</td>
<td></td>
</tr>
<tr>
<td>Misbehaves at school or daycare</td>
<td></td>
</tr>
<tr>
<td>Has trouble keeping busy without adult attention</td>
<td></td>
</tr>
<tr>
<td>Yells, shouts or screams</td>
<td></td>
</tr>
<tr>
<td>Whines or complains (whinges)</td>
<td></td>
</tr>
<tr>
<td>Acts defiant when asked to do something</td>
<td></td>
</tr>
<tr>
<td>Cries more than other children their age</td>
<td></td>
</tr>
<tr>
<td>Behavior</td>
<td>Yes</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Rudely answers back to me</td>
<td></td>
</tr>
<tr>
<td>Seems unhappy or sad</td>
<td></td>
</tr>
<tr>
<td>Has trouble organizing tasks and activities</td>
<td></td>
</tr>
<tr>
<td>Follows rules and limits</td>
<td></td>
</tr>
<tr>
<td>Gets on well with family members</td>
<td></td>
</tr>
<tr>
<td>Is kind and helpful to others</td>
<td></td>
</tr>
<tr>
<td>Can keep busy without constant adult attention</td>
<td></td>
</tr>
<tr>
<td>Cooperates at bedtime</td>
<td></td>
</tr>
<tr>
<td>Seem to feel good about themselves</td>
<td></td>
</tr>
<tr>
<td>Gets on well with other children</td>
<td></td>
</tr>
<tr>
<td>Talks about their views, ideas and needs appropriately</td>
<td></td>
</tr>
<tr>
<td>Can do age appropriate tasks by themselves</td>
<td></td>
</tr>
<tr>
<td>Does what they are told to do by adults</td>
<td></td>
</tr>
</tbody>
</table>

Thank you for telling us about your child’s behavior, now we would like to know about your parenting experience.
Parenting and Family Adjustment Scale (PAFAS)

Please read each statement and select a rating that indicates how true the statement was of you over the past four (4) weeks. There are no right or wrong answers. Do not spend too much time on any statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not true of me at all</th>
<th>True of me a little, or some of the time</th>
<th>True of me quite a lot, or a good part of the time</th>
<th>True of me very much, or most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>I make my child apologize for misbehaving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I tell my child to stop as soon as I notice them misbehaving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I give in and do a task myself if my child does not do as I ask</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I deliberately ignore my child’s minor misbehaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I give my child a treat, reward or fun activity for behaving well</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I follow through with a planned consequence (e.g. take away a toy) when my child misbehaves</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I send my child to time out (e.g. sit alone in a quiet place) when they misbehave</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I threaten something (e.g. to turn off TV) when my child misbehaves but I don’t follow through</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I shout or get angry with my child when they misbehave</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I praise my child when they behave well</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>I nag my child, or have a long talk about why their behaviour is not acceptable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior</td>
<td>Yes</td>
<td>No</td>
<td>Maybe</td>
<td>Unknown</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>I try to make my child feel bad (e.g., guilt or shame) for misbehaving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to teach them a lesson</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I give my child attention such as a hug, wink, smile or kiss when they</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>behave well</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I spank (smack) my child when they misbehave</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I argue with my child about their behaviour or attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I deal with my child’s misbehaviour the same way all the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I give my child what they want when they get angry or upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I play or read books with my child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I get annoyed with my child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I chat/talk with my child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I encourage my child to be physically active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy giving my child hugs, kisses and cuddles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I worry about how my child will turn out in the future</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am proud of my child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy spending time with my child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I teach my child to do things by themselves</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I eat meals with my child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a good relationship with my child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel stressed or worried</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>I feel happy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel sad or depressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel satisfied with my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I cope with the emotional demands of being a parent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I work as a team with my partner in parenting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I disagree with my partner about parenting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a good relationship with my partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our family members help and support each another</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our family members get on well with each other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our family members fight or argue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our family members criticize or put each other down</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Thank you for taking the time to complete this survey, you are now half way through.*
Kessler Psychological Distress Scale (K10)

The following questions ask about how you have been feeling during the past 30 days. For each question, please select the option that best describes how often you had this feeling.

During that month, how often did you feel…

<table>
<thead>
<tr>
<th>Feeling</th>
<th>None of the time</th>
<th>A little of the time</th>
<th>Some of the time</th>
<th>Most of the time</th>
<th>All of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>… tired out for no good reason?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… nervous?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… so nervous that nothing could calm you down?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… hopeless?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… restless or fidgety?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… so restless that you could not sit still?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… depressed?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… so depressed that nothing could cheer you up?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… that everything was an effort?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>… worthless?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Your age ______

Your gender

☐ Male
☐ Female

Your partner's age ______

Your partner's gender

☐ Male
☐ Female

Your country of birth ____________________________
Which ethnic or cultural group do you most strongly identify with?

- White
- Mixed
- Asian or Asian British
- Black or Black British
- Other (please specify) ____________________

Your highest level of education

- Primary school or less
- Some high school
- Completed high school
- Trade/technical college qualification
- University degree
- Postgraduate degree

Are you working for pay right now?

- Yes, full time
- Yes, part time
- Not working, but looking for a job
- Home based paid work (child care, sewing, internet or phone based work, etc)
- Not working for pay (includes stay at home parents, retired)

During the past 12 months, has there been a time when your household could not meet its essential expenses? By essential expenses, we mean things like food, the mortgage or rent payment, utility bills, child care, or important medical care.

- Yes
- No
- Don't know

After you have paid for your essential expenses like food, housing, utilities, child care, and medical care, how much money is left over?

- Enough that I/we can comfortably purchase most of the things we really want
- Enough that I/we can purchase only some of the things we really want
- Not enough to purchase much of anything I/we really want

How many children are in your household? ________
Your children’s age and gender

<table>
<thead>
<tr>
<th>Child age (years)</th>
<th>Child Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
</tbody>
</table>

Child 1
Child 2
...
Child 14

Do you have easy access to the internet?

☐ No
☐ Yes, dial up
☐ Yes, broadband/ wireless/ mobile phone

Please write your postcode here

_________________________

Please click the forward >> button to submit

We appreciate you filling out this survey.
Appendix E
Participation Information, Presented Prior to the Survey

Your Views on Parenting

Are you a parent of a child aged between 2 and 12? If so, we want to hear from you!

Introduction
You are being invited to take part in an International online Parenting Survey designed to give parents from the UK a say about being a parent and the support available.

Who can take part in this survey?
Parents of children aged between 2 to 12 years.

Who is conducting the survey?
The survey is being conducted by a team from Glasgow Caledonian University and the University of Manchester. Beth Casey and Kari McPherson are the key contacts for the team at Glasgow Caledonian University and Daniel Weisberg and Anja Wittkowski are the key contacts for the team at the University of Manchester.

International Investigators
The study is the UK arm of an International project. At the University of Manchester, the person responsible for the data will be Anja Wittkowski. The International project lead, Professor Matthew Sanders, is a visiting professor to the University of Manchester. Professor Sanders is the director of Parenting and Family Support Centre and Professor of Clinical Psychology at the University of Queensland. Other International collaborators are Professor Nina Heinrich (University of Bielefeld) and Dr. Alina Morawska (Parenting and Family Support Centre, University of Queensland).

What does participation involve?
If you choose to participate you will be asked to complete a set of questions about your child, the way you parent, your family and your preferences for parenting support. It will take you between 20 and 30 minutes to complete all of the questions online.

Your completion of the survey indicates to us that you are giving your consent to participate in this study.

Will participating in the survey cause me any harm?
We do not think that completing the survey will result in any physical or mental discomfort and there are no risks beyond those of everyday living. If, however, you should find any question or procedure to be invasive or offensive, you are free to leave the answer blank with the exception of the first few questions about your circumstances. This is so we can ensure the accuracy of our data analysis. Participation in this study is completely voluntary and you are able to withdraw at any time.

Will participating in the survey be confidential?
When you participate, you do not need to provide your name or any other personal details. All information provided will be held in strict confidence and used for statistical purposes only. You will not be identifiable in any publications that emerge from this study. When you complete the survey, your responses will be stored on servers based in the USA. Only the IFS research teams at the University of Manchester, Glasgow Caledonian University and the University of Queensland have access to the data. This is approximately 10 people. The data will be stored for International comparison purposes for later studies completed by the IFS research teams in the UK and Australia.

Who can I contact to ask questions?
If you would like more information please contact us: lpsuk.help@gmail.com.

Thank you for your time.

Start Survey

Spread the word for us. Tell your friends and family. Every opinion counts!

Please visit our Facebook page or follow us on Twitter to hear more about the result of this survey.
Appendix F1
Promotional Material - Poster

Are you a parent of a child aged between 2 and 12?
If so, we want to hear from you!

It has been said that being a parent is one of the hardest jobs in the world. Every day, we strive to
protect and keep our children safe from harm, to teach them about life and ensure that they are healthy
and happy.

Parents are master jugglers, but even the ‘super parents’
among us look for support from time to time. Sometimes,
we are not sure where to look for support or the support
available is not appropriate.

The International Parenting Survey-UK (IPS-UK) is an
online survey designed to give parents from the UK their
say about these important issues. This is your chance to
tell us what support you want and how you want to get it.

The IPS-UK gathers vital information on topics such as:

- Your child’s behaviour
- Your confidence in responding to your child’s
  needs
- The types of challenges that parenting brings
- The type of support that you want and how you want to access it

We need parents who are living in the UK and who have a child aged between 2 and
12 to give us 20 to 30 minutes of their time to fill in the survey. If you would like to
participate in the survey, please visit our website: www.gcu.ac.uk/ipsuk, scan the barcode or take a tab
below.
Appendix F2
Promotional Material – Messages Posted in Online Forums

Are you the parent of a child aged 2-12 years?

We want to hear from you!

Have your say by taking part in the International Parenting Survey-UK

The International Parenting Survey-UK has been designed to get input from parents just like you. By completing the survey, you can help organisations in your local community design support to meet your needs. The survey will ask you questions about your child’s behaviour, your confidence in responding to problems your child experiences, and how you manage your child’s behaviour. The survey will also ask you what support you want in your important role as a parent and how you would like to get this support. To complete the survey, go to: www.bit.ly/ipsuk/

For more information, please contact Daniel Weisberg:
daniel.weisberg@postgrad.manchester.ac.uk

More details about the survey can be found here: [www.psych-sci.manchester.ac.uk/pfrg/parents/projectsandstudies/theinternationalparentingsurveyuk/](http://www.psych-sci.manchester.ac.uk/pfrg/parents/projectsandstudies/theinternationalparentingsurveyuk/)

and here:
www.gcu.ac.uk/ipsuk

Follow us on Twitter: @IPsurveyUK
Follow us on Facebook: IPSurveyUK
Appendix F3
Promotional Material – Business Cards

Calling all parents with a 2- to 12-year-old
Be part of the world’s largest parenting survey.
Give your views on parenting, life at home,
available support and discipline.
www.gcu.ac.uk/ipsuk

The International Parenting Survey is anonymous and the results will help shape parenting services in the UK and worldwide.
Appendix F4
Promotional Material – Facebook Advertisements

Facebook Advert (Desktop newsfeed)

[Image of Facebook advert for the International Parenting Survey - UK]

Facebook Advert (Mobile newsfeed)

[Image of Facebook advert for the International Parenting Survey - UK]
Appendix F5
Promotional Material – Study Information Sheet for Children’s Organizations

As an agency that provides support for parents, we are asking for your help to encourage parents to complete the International Parenting Survey-UK.

We are a group of researchers from Glasgow Caledonian University and the University of Manchester. We are working together to find out more about parents in the UK. Our findings will add to information collected from parents across the globe. The International Parenting Survey-UK is an online survey designed to give parents from the UK their say about important issues including parenting needs, parenting practices and support that is offered.

We are asking parents who have children between the ages of 2 and 12 to complete the survey. We realize that you are experts in engaging parents and we would really appreciate your help. We would like your support in encouraging parents to complete the survey.

This might be achieved in any of the following ways:

- Talking to potential participants about the study (this might include colleagues in addition to parents who use services)
- Allowing access to a computer at the service for use by parents
- Promoting the survey within team meetings and via email to staff members and/or parents
- Posting an advert about the IPS-UK on agency websites, Facebook and Twitter, newsletters and in emails

The survey can be promoted to parents, colleagues, friends and family members.

An information sheet telling you more about the survey is attached to this email. We have also attached an advert for use in an online newsletter, social media and publications.

We will be in touch over the next few weeks to discuss your support. In the meantime, please feel free to browse our websites (www.gcu.ac.uk/ipsuk and www.psych-sci.manchester.ac.uk/pfrg) or contact us:

Dr. Beth Casey: Beth.Casey@gcu.ac.uk
Dr. Daniel Weisberg: Daniel.Weisberg@postgrad.manchester.ac.uk

Thank you very much in advance for helping us to gain valuable data.
Appendix F6
Promotional Material – Study Information Sheet for Schools

International Parenting Survey - UK (IPS-UK)

We need your help to encourage parents to complete the International Parenting Survey - UK!

The survey
The International Parenting Survey - UK (IPS-UK) is an online survey designed to give parents from the UK their say about important issues.

This is a chance for parents to tell us what support they want and how they want to get it (e.g., online or in person). The IPS-UK gathers vital information from parents, on topics such as:

- Child behaviours
- Confidence in responding to children’s needs
- The types of challenges that parenting brings
- What type of support parents want and how they want to access this support

Understanding the challenges that parents face and the support that they want will give service providers a chance to design support that meets parents’ needs.

We need parents who are living in the UK and who have children aged between 2 and 12 to give us 20 to 30 minutes of their time to fill in the survey. We want to hear about your views, your experiences and the challenges that they face. If parents would like to participate in the survey, they can visit our website: www.gcu.ac.uk/ipsuk.

Who is conducting the survey?
The survey is being conducted by a team from Glasgow Caledonian University and the University of Manchester. Beth Casey and Ken McPherson are the key contacts for the team at Glasgow Caledonian University and Daniel Weissberg and Anja Wittkowski are the key contacts for the team at the University of Manchester.

International Investigators
The study is the UK arm of an international project. At the University of Manchester, the person responsible for the data will be Anja Wittkowski. The international project lead, Professor Matthew Sanders, is a visiting professor to the University of Manchester. Professor Sanders is the director of Parenting and Family Support Centre and Professor of Clinical Psychology at the University of Queensland. Other international collaborators are Professor Nina Heinrichs (University of Bielefeld) and Dr. Alina Morawska (Parenting and Family Support Centre, University of Queensland).
What is this research about?
We are carrying out this survey to investigate the needs of parents and the types of parenting support that would be helpful to them. We are interested in the kinds of difficulties that parents experience in their role as a parent, the parenting strategies that they use, and also what preferences they have for accessing parenting support. Information about the project and links to other helpful websites and organisations are available at www.gcu.ac.uk/ipsuk and www.psych-sci.manchester.ac.uk/ptrg.

The research has been approved by the Glasgow Caledonian Ethics Committee (PA13/05 and PA13/11), the Clinical Psychology Programme sub-committee at the University of Manchester and the School of Psychological Sciences Ethics Committee (14064).

What does participation involve?
If parents choose to participate, they will be asked to complete a set of questions about their child, the way they parent, their family and their preferences for parenting support. It will take them between 20 and 30 minutes to complete all of the questions online.

Their completion of the survey indicates that they are giving their consent to participate in the study.

Will participating in the survey cause any harm?
We do not think that completing the survey will result in any physical or mental discomfort and there are no risks beyond those of everyday living. If, however, parents should find any question or procedure to be invasive or offensive, they are free to leave the answer blank. Participation in the study is completely voluntary and parents are able to withdraw at any time.

Will participating in the survey be confidential?
When parents participate, they do not need to provide their name or any other personal details. All information provided will be held in strict confidence and used for statistical purposes only. Parents will not be identifiable in any publications that emerge from this study. When parents complete the survey, their responses will be stored on servers based in the USA. Only the IPS research teams at the University of Manchester, Glasgow Caledonian University and the University of Queensland have access to the data. This is approximately 10 people. The data will be stored for international comparison purposes for later studies completed by the IPS research teams in the UK and Australia.

Who can I contact to ask questions?
If you have any questions regarding the survey and/or parent participation please contact:

Dr. Beth Casey: Beth.Casey@gcu.ac.uk
Dr. Daniel Welsberg: Daniel.Welsberg@postgrad.manchester.ac.uk