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Table 1

*Results of Confirmatory Factor Analyses*

| Model | Number of<br>items and<br>factors | $\chi^2/\text{df}$ | CFI | RMSEA | RMSEA<br>90% CI | SRMR |
|-------|-----------------------------------|--------------------|-----|-------|-----------------|------|
| 1     | 4 factors; 32<br>items            | 1.60               | .79 | .09   | [.081, .090]    | .10  |
| 2     | 4 factors; 20<br>items            | 3.43               | .89 | .08   | [.073, .087]    | .07  |
| 3     | 4 factors; 20<br>items            | 2.91               | .92 | .07   | [.062, .077]    | .06  |
| 4     | 3 factors; 24<br>items            | 3.79               | .82 | .09   | [.064, .077]    | .07  |
| 5     | 3 factors; 15<br>items            | 4.70               | .87 | .10   | [.088, .108]    | .07  |
| 6     | 3 factors; 15<br>items            | 3.67               | .91 | .08   | [.071, .092]    | .06  |
| 7     | 1 factor; 32<br>items             | 4.60               | .71 | .10   | [.092, .101]    | .10  |

*Note.* CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = confidence interval; SRMR = standardized root-mean-square residual.

Table 2

*Convergent and Discriminant Validity*

| Construct                                               | PC                    | C      | A      | M      |
|---------------------------------------------------------|-----------------------|--------|--------|--------|
|                                                         | Convergent validity   |        |        |        |
| Child behavioural and emotional intensity ( $N = 349$ ) | -.23**                | .45**  | .30**  | .47**  |
| Perceived self-efficacy ( $N = 349$ )                   | .19**                 | -.39** | -.26** | -.41** |
| Lax parenting ( $N = 225$ )                             | .02                   | .16*   | .10    | .22**  |
| Overreactive parenting ( $N = 225$ )                    | -.07                  | .29**  | .21**  | .35**  |
| Hostile parenting ( $N = 225$ )                         | .24**                 | .02    | -.03   | .05    |
| Readiness algorithm ( $N = 366$ )                       | -.42**                | .47**  | .56**  | .37**  |
|                                                         | Discriminant validity |        |        |        |
| Impression management ( $N = 155$ )                     | .024                  | -.17*  | -.03   | -.17*  |

*Note.* PC = Precontemplation; C = Contemplation; A = Action; M = Maintenance.

\* $p < .05$ . \*\* $p < .01$ .

Manuscript One Appendix A

*Ethics Approval Certificate for Study One*

File Number: 02-13-33

Date (mm/dd/yyyy): 03/20/2013



**Université d'Ottawa** **University of Ottawa**  
Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

**Ethics Approval Notice**  
**Social Science and Humanities REB**

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

| <u>First Name</u> | <u>Last Name</u> | <u>Affiliation</u>           | <u>Role</u>        |
|-------------------|------------------|------------------------------|--------------------|
| Catherine M.      | Lee              | Social Sciences / Psychology | Supervisor         |
| Jeffrey           | Perron           | Social Sciences / Psychology | Student Researcher |

**File Number:** 02-13-33

**Type of Project:** Independent Student Project

**Title:** Expert Consultation for a New Measure Assessing Readiness to Change Parenting Behaviours

| <b>Approval Date (mm/dd/yyyy)</b> | <b>Expiry Date (mm/dd/yyyy)</b> | <b>Approval Type</b> |
|-----------------------------------|---------------------------------|----------------------|
| 03/20/2013                        | 03/19/2014                      | Ia                   |

(Ia: Approval, Ib: Approval for initial stage only)

**Special Conditions / Comments:**  
N/A

Manuscript One Appendix B

*Ethics Approval Certificate for Study Two*

File Number: H10-13-08



Date (mm/dd/yyyy): 11/13/2013

**Université d'Ottawa** **University of Ottawa**  
Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

**Ethics Approval Notice**  
**Health Sciences and Science REB**

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

| <u>First Name</u> | <u>Last Name</u> | <u>Affiliation</u>           | <u>Role</u>        |
|-------------------|------------------|------------------------------|--------------------|
| Catherine M.      | Lee              | Social Sciences / Psychology | Supervisor         |
| Jeffrey           | Perron           | Social Sciences / Psychology | Student Researcher |

**File Number:** H10-13-08

**Type of Project:** Independent Student Project

**Title:** Assessing the comprehensibility of a new measure, the assessment of readiness to change Parenting Behaviours (ARC-PB)

| <b>Approval Date (mm/dd/yyyy)</b> | <b>Expiry Date (mm/dd/yyyy)</b> | <b>Approval Type</b> |
|-----------------------------------|---------------------------------|----------------------|
| 11/13/2013                        | 11/12/2014                      | Ia                   |

(Ia: Approval, Ib: Approval for initial stage only)

**Special Conditions / Comments:**  
N/A

Manuscript One Appendix C

*Ethics Approval Certificate for Study Three*

File Number: H03-16-06

Date (mm/dd/yyyy): 04/15/2016



**Université d'Ottawa**  
Bureau d'éthique et d'intégrité de la recherche

**University of Ottawa**  
Office of Research Ethics and Integrity

**Ethics Approval Notice**  
**Health Sciences and Science REB**

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

| <u>First Name</u> | <u>Last Name</u> | <u>Affiliation</u>           | <u>Role</u>        |
|-------------------|------------------|------------------------------|--------------------|
| Catherine M.      | Lee              | Social Sciences / Psychology | Supervisor         |
| Jeffrey           | Perron           | Social Sciences / Psychology | Student Researcher |

**File Number:** H03-16-06

**Type of Project:** PhD Thesis

**Title:** Psychometric testing for a new measure, the Parent Assessment of Readiness to Change (PARC)

| <b>Approval Date (mm/dd/yyyy)</b> | <b>Expiry Date (mm/dd/yyyy)</b> | <b>Approval Type</b> |
|-----------------------------------|---------------------------------|----------------------|
| 04/15/2016                        | 04/14/2017                      | Approved             |

**Special Conditions / Comments:**  
N/A

Manuscript One Appendix D

*PARC Items From 32- and 20-item Versions*

| <u>Item Label</u> | <u>Item wording</u>                                                                                                                                      | <u>Source</u> | <u>Included in 20-item PARC?</u> |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------|
| PC1               | As far as I'm concerned, I don't need to change the way I parent.                                                                                        | URICA         | Yes                              |
| PC2               | I don't need an expert telling me how to parent my children.                                                                                             | New           | Yes                              |
| PC3               | Trying to change the way I parent is pretty much a waste of time for me because it won't change my child's                                               | URICA         | Yes                              |
| PC4               | I guess I have challenges as a parent, but there's nothing that I really need to change.                                                                 | URICA         | No                               |
| PC5               | I have worries about the way I parent but so does every parent. Why spend time thinking about it?                                                        | URICA         | No                               |
| PC6               | I would rather accept that my child is not perfect than change the way I parent.                                                                         | URICA         | Yes                              |
| PC7               | It would be a waste of time to try to learn about better ways to parent.                                                                                 | New           | Yes                              |
| PC8               | Parenting programs are only useful for people who are having major problems with parenting, not me.                                                      | New           | No                               |
| C1                | I think I might be ready to find ways to improve my parenting.                                                                                           | URICA         | No                               |
| C2                | I'm hoping I can get help to be a better parent.                                                                                                         | URICA         | Yes                              |
| C3                | I've been thinking about changing the way I parent.                                                                                                      | URICA         | Yes                              |
| C4                | I wish I had more ideas on how to be a better parent.                                                                                                    | URICA         | No                               |
| C5                | Maybe I can learn to be a better parent.                                                                                                                 | URICA         | Yes                              |
| C6                | I have parenting challenges and I really think I should work on them.                                                                                    | URICA         | Yes                              |
| C7                | I think some advice on parenting would be helpful.                                                                                                       | New           | No                               |
| C8                | I'd like to change some things about the way I parent.                                                                                                   | URICA         | Yes                              |
| A1                | I am working hard to learn new ways to parent.                                                                                                           | URICA         | Yes                              |
| A2                | I am finally working on the way I parent.                                                                                                                | URICA         | Yes                              |
| A3                | At times, it is difficult to be a good parent but I'm working on it.                                                                                     | URICA         | No                               |
| A4                | Even though I'm not always successful in changing the way I parent, I am at least working on it.                                                         | URICA         | Yes                              |
| A5                | I have started working on the way I parent but I could use some help.                                                                                    | URICA         | Yes                              |
| A6                | I am actively working to become a better parent.                                                                                                         | URICA         | No                               |
| A7                | I am trying out new ways to parent.                                                                                                                      | New           | Yes                              |
| A8                | I've been making an effort to learn things that will help me be the best parent I can be.                                                                | New           | No                               |
| M1                | I have worked hard to be a better parent to help my child, but every now and then, I slip into old habits so I need help to stay on track.               | URICA         | No                               |
| M2                | I'm not following through with the way I parent as well as I had hoped, and I want to make sure I don't slip back into old habits.                       | URICA         | Yes                              |
| M3                | I thought once I had learned to parent in a positive way, the problems would be solved, but sometimes I still find myself slipping back into old habits. | URICA         | Yes                              |
| M4                | I may need a boost right now to help me maintain the changes I've already made in the way I parent my child.                                             | URICA         | Yes                              |
| M5                | I need to prevent myself from slipping back into my old ways of parenting.                                                                               | URICA         | Yes                              |
| M6                | Sometimes I feel like I might be slipping back into my old ways of parenting.                                                                            | New           | Yes                              |
| M7                | I try to find ways to use the parenting tips I've learned in new situations with my children.                                                            | New           | Yes                              |
| M8                | I've learned a lot about becoming a better parent and I want to keep learning more.                                                                      | New           | No                               |

*Note.* PARC = Parent Assessment of Readiness to Change; URICA = University of Rhode Island Change Assessment Scale; PC = Precontemplation; C = Contemplation; A = Action; M = Maintenance.

Manuscript Two

Factor Analytic Replication and Norms of the Parent Assessment of Readiness to Change Scale

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Compliance with Ethical Standards

All procedures performed in studies involving human participants were in compliance with Canadian Psychological Association and American Psychological Association ethical standards and both authors declare that they have no conflict of interest.

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### Abstract

The Parent Assessment of Readiness to Change Scale (PARC) is a 20-item measure adapted from the University of Rhode Island Change Assessment Scale (URICA). Previous research on the PARC revealed a four-factor Precontemplation-Contemplation-Action-Maintenance structure and evidence of internal consistency, convergent validity, and discriminant validity. In this study, we attempted to replicate the Precontemplation-Contemplation-Action-Maintenance structure in a new sample. We used confirmatory factor analyses with data from a sample of 384 Canadian parents of 2-to-12-year-old children. Our analyses replicated the original four-factor structure. We also further assessed the PARC's factor structure by conducting analyses with a combined sample that included data from this study and a previous study (combined  $N = 765$ ). Additional confirmatory factor analyses demonstrated that the four-factor structure was consistent across parent gender and child age categories. In this sample, internal consistency was adequate, good, or excellent for scores on all subscales for both mothers and fathers. Correlations with a staging algorithm and PARC subscale scores were significant and in the expected directions and magnitudes. Mothers rated themselves as more ready to change parenting behaviours than did fathers. Replication of the PARC's factor structure in new samples and across parent gender and child age categories provides support for its potential utility as a measure of parents' readiness to change parenting behaviours.

*Keywords: parenting, readiness to change, stages of change, transtheoretical model, confirmatory factor analysis*

## Introduction

Parenting supports based on social learning principles produce positive changes in parenting that enhance the social and emotional development of children (Sanders, 2012; World Health Organization, 2009). Efforts now focus on identifying ways to extend their reach (e.g., Enebrink, Danneman, Mattsson, Ulfsdotter, Jalling, & Lindberg, 2015; Fives, Pursell, Heary, Nic, Gabhainn, & Canavan, 2014). This has included the adoption of a public health approach in which support is offered to all parents, not only those experiencing clinical-level difficulties (Doyle, Hegerty & Owens, 2018; Sanders, 2012). Interventions delivered through a public health approach may include media campaigns, talks, discussion groups, and brief consultations designed to prevent parenting-related child developmental behavioural and emotional difficulties (e.g., Enebrink et al., 2015; Sanders, 2012). Research studying their implementation is ongoing (e.g., Charest, Gagné, & Goulet, 2017; Delawarde-Saías, Gagné, Brunson, & Drapeau, 2018).

A challenge associated with the evaluation of parenting supports offered at a population level is the selection of a suitable measure of their outcomes (Enebrink et al., 2015). For example, media campaigns designed to normalize parenting challenges and destigmatize help-seeking may not result in changes in problematic parent or child behaviour but may influence the extent to which parents are ready to change their parenting. Several researchers have studied parents' readiness to change in recent years (e.g., Jones, Putt, Rabinovitch, & Hubbard, 2017; Niec, Barnett, Gering, Triemstra, & Solomon, 2015; Nock & Photos, 2006; Proctor, Brestan-Knight, Fan, & Zlomke, 2018; Wade & Andrade, 2015). Most recently, the relevance of readiness to engage in parenting-related behaviour change has been studied in relation to community parent populations (Perron & Lee, 2018; Proctor et al., 2018).

Readiness involves a willingness to seek support or to modify a behaviour that is not helpful (DiClemente, Schlundt, & Gemmell, 2004). Effective parenting requires continuous adaptation as both the child and parent change and mature (Baker, *in press*; Grusec, 2011; Sanders & Mazzucchelli, 2018). Since it was proposed 35 years ago, the construct of readiness to change has been shown to play a key role in engaging in health-related behaviour change (Norcross, Krebs, & Prochaska, 2011). The most prominent model of readiness to change health-related behaviour is the Transtheoretical Model of Change (TTM; DiClemente & Prochaska, 1983), which identifies the Stages of Change (SOC) that individuals are hypothesized to move through as part of the process of behaviour change.

There have been attempts to apply the TTM to parenting behaviours (Littell & Girvin, 2005; Wade & Andrade, 2015). Efforts to assess the applicability of the SOC to parenting behaviours have suggested that the Precontemplation, Contemplation, and Action stages may not apply to changing parenting behaviours for parents who are receiving remedial services related to child abuse (Littell & Girvin, 2005) but may apply to parents whose children are receiving services to address clinical-level behaviour difficulties (Wade & Andrade, 2015).

The Parent Assessment of Readiness to Change (PARC; Perron & Lee, 2018) is a 20-item measure designed to assess parents' readiness to change parenting behaviours. Derived from a common TTM-based measure of change readiness, the University of Rhode Island Change Assessment (URICA; McConaughy, DiClemente, Prochaska, & Velicer, 1989), the PARC assesses the four stages of Precontemplation, Contemplation, Action, and Maintenance in relation to parenting behaviours. Following best practice guidelines in scale construction (Streiner, Norman, & Cairney, 2008) an item pool was generated, expert consultation was conducted, instructions and items were piloted, and psychometric properties – including initial

evidence of internal consistency, convergent validity, discriminant validity, and factor structure – were assessed (Perron & Lee, 2018).

Confirmatory factor analysis (CFA) in a community sample of Canadian parents ( $N = 381$ ) supported the hypothesized four-factor Precontemplation-Contemplation-Action-Maintenance structure for the PARC. Scores on each of the PARC's subscales demonstrated adequate or better internal consistency for both mothers and fathers. The majority of PARC scores correlated significantly and in the expected directions with measures of child behavioural and emotional intensity, perceived parental self-efficacy, parental laxness, parental over-reactivity, hostility in parenting, impression management, and a readiness algorithm.

In the first application of the full four-factor SOC model to parenting behaviours, Perron and Lee (2018) reported goodness-of-fit indices in the adequate range. Although their results are encouraging, it is important to further assess the factor structure of the PARC in a new sample. The present manuscript is divided into two parts. In Study 1 we describe an attempt to replicate the initial CFA of the PARC conducted by Perron and Lee (2018) in a new community sample of 384 Canadian parents. In Study 2 we further examined the consistency of the PARC's factor structure across parent gender and child age categories. These categories were selected as previous research has identified important differences in the way mothers and fathers – respectively – parent and that the tasks of parenting differ between preschool years and school age years (Russell et al., 1998). We hypothesized that the Precontemplation-Contemplation-Action-Maintenance structure for the PARC would be consistent across these categories. In Study 2 we also provide normative data for the PARC based on a composite community sample ( $N = 765$ ) that includes the sample described in Study 1 ( $n = 384$ ) and the sample previously reported by Perron and Lee (2018).

## Study 1

The purpose of this study is to replicate the CFA results for the PARC reported by Perron and Lee (2018) in a separate community sample of Canadian parents. Our analyses address model consistency. We also further assessed convergent validity of the PARC by assessing the differences in PARC subscale scores based on responses to a staging algorithm created by Perron and Lee (2018). The staging algorithm is a 4-item questionnaire with each item representing one of the 4 SOC. We hypothesized that PARC subscale scores would differ significantly based on readiness algorithm group.

### Method

**Participants and procedure.** The study's protocol was approved by the authors' institutional research ethics board (see Manuscript Two Appendix A). A community sample of 384 Canadian parents with at least one child between the ages of 2 and 12 years was recruited through social media (e.g., through Facebook messages to generic [i.e. not explicitly related to parenting] Facebook groups located in Canada inviting individuals with a child between 2-12 years old to complete a survey online).

Of the 384 participants, 224 were mothers (58.3%), 159 were fathers (41.4%), and 1 (0.3%) did not identify a gender. The majority of participants (61.8%) were between the ages of 30-39, 25.3% were between the ages of 40-49, 9.1% were between the ages of 19-29, and 2.8% were above age 50. As responses from members of parent dyads (partners) may be nonindependent (Kenny, 1996) only one member from the same parent dyad was recruited. This was ensured through recruitment scripts that screened for parents who had a partner who had already completed the survey.

In response to an item related to family income, 0.3% of participants reported annual family income between \$0-10,000CDN, 4.7% reported annual family income between \$10,001-30,000CDN, 9.2% reported annual family income between \$30,001-50,000CDN, 10.8% reported annual family income between \$50,001-70,000CDN, 15.6% reported annual family income between \$70,001-90,000CDN, 33.2% reported annual family income between \$90,001-150,000CDN, and 26.1% reported annual family income of over \$150,000CDN. The sample under-represents families whose income is below the median family income for Canadian families of \$78,870CDN (Statistics Canada, 2016). Data were missing for the annual family income item for 1.6% of participants.

In response to an item related to marital status, 86.7% of participants reported their marital status as married, 5.2% reported their marital status as single, 3.1% reported their marital status as divorced, 4.7% reported their marital status separated, and one participant did not respond to the item related to marital status. The sample over-represents married families, as Statistics Canada (2017a) reported that 69.7% of Canadian children under age 14 live with two parents. The sample under-represents lone-parent families, which form 19.2% of Canadian families with children aged under 14 years (Statistics Canada, 2017a). Marital status data specific to families with children aged 2-12 is not available from Statistics Canada.

In response to an item related to education, 0.3% of participants reported that the highest level of education they had attended was elementary or middle school, 11.7% reported that it was high school, 29.4% reported that it was college or trade school, 36.2% reported that it was a university undergraduate degree, and 22.4% reported that it was a university graduate degree. In comparison to Statistics Canada (2017b) data showing that 56.3% of Canadians over the age of

15 had completed a post-secondary education program, our sample over-represents parents who have completed a post-secondary education program.

The majority of participants reported being born in Canada (77.9%). The 22.1% of the sample who reported being born outside of Canada is comparable to the 21.9% of the Canadian population that is born outside of Canada (Statistics Canada, 2017c).

### **Measures.**

***Readiness to change parenting behaviours.*** In addition to demographic questions, parents completed two measures assessing readiness to change parenting behaviours. The PARC<sup>1</sup> (Perron & Lee, 2018) is a 20-item measure of readiness to change parenting behaviours that has 4 subscales: Precontemplation, Contemplation, Action, and Maintenance. Manuscript Two Appendix B lists PARC item labels used in the present manuscript and presents the full wording for each item.

According to Hunsley and Mash's (2008) criteria for internal consistency, *adequate* internal consistency is associated with  $\alpha$  values of .70–.79; *good* internal consistency is associated with  $\alpha$  values of .80–.89; *excellent* internal consistency is associated with  $\alpha$  values of  $\geq .90$ . In an initial development sample, scores on the PARC were found to have adequate internal consistency for Precontemplation ( $\alpha = .71$  for mothers and .78 for fathers) and Action ( $\alpha = .77$  for both mothers and fathers). Good internal consistency was found for scores on Contemplation ( $\alpha = .80$  for mothers and .87 for fathers) and Maintenance ( $\alpha = .85$ ) for mothers. Excellent internal consistency was found for scores on the Maintenance subscale for fathers ( $\alpha = .90$ ; Perron & Lee, 2018).

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<sup>1</sup> A copy of the PARC can be obtained by contacting the corresponding author.

**Readiness algorithm.** A modified version of a four-item staging algorithm that was developed by Perron and Lee (2018) was included in the study battery. Each item approximated one of the stages in the SOC model: Precontemplation (“*I don’t think that I will try to improve my parenting in the next 6 months*”), Contemplation (“*I want to learn new ways of parenting in the next 6 months*”), Action (“*I am learning new ways of parenting and want to keep learning about parenting*”), or Maintenance (“*In the past 6 months I have started to use new ways of parenting*”). We predicted that parents who selected *I don’t think that I will try to improve my parenting in the next 6 months* would have higher PARC Precontemplation scores and lower PARC Contemplation, PARC Action, and PARC Maintenance scores than would parents who selected one of the other 3 algorithm items.

### Data analyses and results

**Data cleaning.** Data were cleaned according to the guidelines proposed by Tabachnick and Fidell (2016). Data were deleted listwise for any respondent who had 2 or more (10% or more) missing items on the PARC (Bennett, 2001). This resulted in the deletion of data from 9 participants. Screening for impossible values did not identify any such values. Following this initial review of the data, there remained a total of 0.0013% missing data on the PARC. These remaining missing values were imputed through expectation maximization (Roth, 1994).

**Factor structure.** A CFA using AMOS 23.0 (IBM SPSS, 2014) was conducted to determine whether the PARC data map onto the hypothesized four-factor Precontemplation-Contemplation-Action-Maintenance structure. Schweizer’s (2010) guidelines for assessing and reporting model fit were followed. Accordingly, we assessed goodness of fit against criterion values in the range of comparative fit index (CFI) > .90-.95 (where values above .95 indicate good fit and values between .90 and .95 indicate acceptable fit), root mean square error of

approximation (RMSEA) < .05-.08 (where values below .05 indicate good fit and values between .05-.08 indicate acceptable fit), standardized root mean square residual (SRMR) < .10, and normed  $\chi^2/df < 3$  (where values below 2 indicate good fit and values between 2-3 indicate acceptable fit). These criteria were also used in Perron and Lee (2018) to evaluate the PARC's factor structure.

The model (Model 1) was estimated using maximum likelihood estimation with the 20 items as indicators of the four factors. This CFA yielded fit indices of: RMSEA = .09, SRMR = .07, CFI = .89, and normed  $\chi^2/df = 3.74$ , suggesting an inadequate fit. Consequently, the modification indices were consulted to determine whether the model fit could be improved by allowing the correlation of specific error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC1 and PC3; PC3 and PC7; PC6 and PC7; A1 and A4; A1 and A7; A4 and A7; A1 and A2; A2 and A4. The correlation of error terms for these pairs of items was theoretically sound given the similar wording and concepts covered in each of the pairs. For example, items PC3 and PC7 both refer to changing parenting behaviours as being a “waste” of time, items PC6 and PC7 both make reference to reasons for not changing parenting behaviours, items A1 and A4 refer to “working” on parenting, and items A1 and A7 refer to “new ways to parent.” In addition, the suggested modifications are similar to those performed by Perron and Lee (2018). Specifically, 4 of the 8 suggested modifications are modifications that were also performed by Perron and Lee (2018). Despite the potential for chance capitalization (MacCallum, Roznowski, & Necowitz, 1992), the suggested modifications were performed (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Note that the theoretical rationale described in this section as it relates to following modification

indices to correlate certain error terms is the same rationale followed for other CFAs described in this manuscript.

After making model specifications based on modification indices, a CFA was conducted on the updated model (Model 2). This CFA yielded fit indices of: RMSEA = .07, SRMR = .05, CFI = .93, and normed  $\chi^2/df = 2.77$ , suggesting an acceptable model fit. Although further modifications to the model might lead to minor improvements in the model fit, none were made as there was no clear theoretical rationale for doing so. The correlations between the factors were as follows: Precontemplation and Contemplation = -.89; Precontemplation and Action = -.82; Precontemplation and Maintenance = -.67; Contemplation and Action = .95; Contemplation and Maintenance = .81; Action and Maintenance = .82. These analyses support the hypothesized four-factor model underlying the PARC. Table 1 presents factor loadings for Models 1 and 2. Table 2 presents goodness of fit statistics for the CFAs on Models 1 and 2.

**One-factor model.** Given the size of the correlations between factors in Model 2, the possibility that a single factor model in which the 20 items represent a theoretical continuum of Readiness (with Precontemplation items reverse scored) was assessed. The model (Model 3) was estimated using maximum likelihood estimation with the 20 items as indicators of the single factor. This CFA yielded fit indices of: RMSEA = .11, SRMR = .08, CFI = .80, and  $\chi^2/df = 5.74$ , suggesting an inadequate fit. Consequently, the modification indices were consulted to determine whether the model fit could be improved by allowing the correlation of specific error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC3 and PC7; PC6 and PC7; A1 and A2; A1 and A4; A1 and A7; A4 and A7; A1 and A2; A2 and A4; M5 and M6; M3 and M6; M3 and M5. After making these specifications, a CFA was conducted on this model (Model 4). This CFA yielded fit indices of:

RMSEA = .08, SRMR = .06, CFI = .90, and normed  $\chi^2/df = 3.45$ , suggesting an improved but marginally inadequate fit.

**Additional models.** Conducting further analyses by splitting the sample randomly and by splitting the sample into mothers and fathers was considered. However, these analyses were not performed due to inadequate sample size for split samples or for a sub-sample of fathers.

**Internal consistency.** A reliability analysis was undertaken following the CFA to evaluate the reliability of scores from this sample. Subscale  $\alpha$  values were marginally inadequate for scores on the Precontemplation subscale for mothers (.67) and fathers (.67) and good for Contemplation for mothers (.85) and fathers (.83), Action for mothers (.83) and fathers (.85), and Maintenance for mothers (.88). Excellent internal consistency was obtained for scores on Maintenance for fathers (.92).

**Convergent validity.** One-way ANOVAs yielded statistically significant differences for each PARC subscale, meaning that PARC subscale scores were different according to algorithm grouping. Mean scores on PARC subscales for each respective algorithm group are displayed in Table 3.

Specifically, Precontemplation scores were significantly different for different levels of the algorithm,  $F(3, 379) = 35.86, p < .001$ . Tukey post hoc analysis revealed that mean Precontemplation scores for those in the algorithm Precontemplation group ( $M = 2.92, SD = .51$ ) were significantly higher than for those in the Contemplation ( $M = 2.32, 95\% \text{ CI } [2.19, 2.45], p < .001$ ), Action ( $M = 2.36, 95\% \text{ CI } [2.19, 2.33], p < .001$ ), and Maintenance ( $M = 2.20, 95\% \text{ CI } [2.02, 2.37], p < .001$ ) groups.

Contemplation scores were significantly different for different levels of the algorithm,  $F(3, 379) = 94.08, p < .001$ . Tukey post hoc analysis revealed that mean

Contemplation scores for those in the algorithm Contemplation group ( $M = 3.82$ ,  $SD = .49$ ) were significantly higher than for those in the Precontemplation ( $M = 2.64$ , 95% CI [2.54, 2.75],  $p < .001$ ) and Action ( $M = 3.58$ , 95% CI [3.51, 3.67],  $p < .001$ ) groups.

Action scores were significantly different for different levels of the algorithm,  $F(3, 379) = 81.16$ ,  $p < .001$ . Tukey post hoc analysis revealed that mean Action scores for those in the algorithm Action group ( $M = 3.66$ ,  $SD = .52$ ) were higher than for those in the Precontemplation ( $M = 2.67$ , 95% CI [2.58, 2.76],  $p < .001$ ) group.

Maintenance scores were significantly different for different levels of the algorithm,  $F(3, 379) = 39.74$ ,  $p < .001$ . Tukey post hoc analysis revealed that mean Maintenance scores for those in the algorithm Maintenance group ( $M = 2.97$ ,  $SD = .90$ ) were higher than for those in the Precontemplation ( $M = 1.98$ , 95% CI [1.84, 2.13],  $p < .001$ ) group.

## Discussion

In a large community sample of Canadian parents, the four-factor (Precontemplation-Contemplation-Action-Maintenance) solution of the PARC that was identified by Perron and Lee (2018) was replicated in a CFA. With the exception of the Precontemplation subscale (for which scores demonstrated marginally inadequate internal consistency) scores on the PARC's subscales demonstrated predominantly good internal consistency for both mothers and fathers. Overall, PARC subscale scores had significant relationships in the expected directions with a readiness algorithm, providing evidence of convergent validity.

## Study 2

In Study 2 we examined whether the PARC's factor structure was consistent for mothers, fathers, parents with a preschool aged child, and parents with a school aged child in a combined sample that included the sample reported in Perron and Lee (2018) and the sample described in

Study 1. These analyses were performed in order to examine the consistency of the PARC's factor structure across demographic groups. We hypothesized that our findings would further support the PARC's underlying Precontemplation-Contemplation-Action-Maintenance structure. Following a description of these analyses, we report normative data for the PARC.

## Method

**Participants and procedure.** Participants were 765 Canadian parents with at least one child between the ages of 2 and 12 years. Participants were derived from two large Canadian community samples: Perron and Lee's (2018) sample of 381 parents and the sample of 384 parents described in Study 1. The participants from Perron and Lee (2018) were recruited from a variety of sources, including social media (e.g., through Facebook messages to generic [i.e. not explicitly related to parenting] Facebook groups located in Canada inviting individuals with a child between 2-12 years old to complete a survey online;  $n = 201$ ), from an arena in Ottawa, Ontario ( $n = 58$ ), from public locations (e.g., public parks) in Ottawa, Ontario ( $n = 79$ ), from a site offering multiple health and parenting services in Calgary, Alberta ( $n = 15$ ), from a child care center in Ottawa, Ontario ( $n = 10$ ), and from a child care center in Gatineau, Quebec ( $n = 8$ ). Demographics for the combined sample are shown in Table 4.

**Measure.** Parents completed a number of demographic questions and the 20-item PARC.

## Data analyses and results.

**PARC scores.** Scores for PARC subscales (Precontemplation, Contemplation, Action, and Maintenance) were calculated by determining the mean score for items in each respective subscale. Table 5 presents means and standard deviations for PARC subscale scores across key demographic categories.

**Sample differences.**

**PARC differences.** Independent samples *t*-tests were used to assess mean differences for PARC subscale scores between participants from Perron and Lee (2018) and those described in Study 1. No differences were found except for scores on the Maintenance subscale. Independent samples *t*-tests indicated that Maintenance scores were significantly higher for participants from Perron and Lee (2018) than they were for participants described in Study 1:  $t(756.09)=2.90, p < 0.01$ .

**Gender differences.** Of the 765 participants, 484 (63.3%) were mothers and 280 (36.6%) were fathers. One participant did not identify a gender so this participant's data were excluded from gender-based analyses. Independent samples *t*-tests were used to assess mean differences for PARC subscale scores between mothers and fathers. Levene's test was significant for Contemplation and Maintenance, suggesting that variances were not equal between mothers and fathers for those subscales. Therefore, Welch's *t*-test was used for *t*-tests on those subscales (Ruxton, 2006). Precontemplation scores were significantly higher for fathers than for mothers:  $t(762)=3.89, p < .001$ . Contemplation scores were significantly higher for mothers than for fathers:  $t(547.32)=-2.01, p = .05$ . Action scores were significantly higher for mothers than for fathers:  $t(762) = -2.12, p = .03$ . The *t*-test on mothers' and fathers' Maintenance scores was not significant  $t(527.60)=-1.86, p = .065$ .

**Child age differences.** Of the 765 participants, 340 (44.4%) responded with regards to a preschool aged child (a child aged 2-4 years) and 419 (54.8%) responded with regards to a school aged child (a child aged 5-12 years). Six participants did not indicate a target child age so their data were excluded from child age-based analyses. Independent samples *t*-tests were used to assess mean differences for PARC subscale scores between parents who responded with regards

to a pre-school aged child and those who responded with regards to a school aged child.

Variances were equal for all PARC subscale scores. Independent samples *t*-tests indicated that there were no significant child age-related differences on PARC subscale scores.

### **Factor structure.**

***Factor structure for mothers.*** A CFA was conducted to determine whether the PARC maps onto the hypothesized four-factor solution among mothers ( $N = 484$ ). The model (Model 5) was estimated using maximum likelihood estimation with the 20 items as indicators of the four factors. This CFA yielded fit indices of: RMSEA = .08, SRMR = .07, CFI = .89, and normed  $\chi^2/\text{df} = 4.03$ , suggesting an inadequate fit.

A review of modification indices revealed that the model fit could be improved by allowing the correlation of some error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC1 and PC3; PC3 and PC7; PC6 and PC7; PC7 and PC1; A1 and A4; A1 and A7; A4 and A7; A4 and A5; A7 and A5. After making these specifications, a CFA was conducted on this model (Model 6). This CFA yielded fit indices of: RMSEA = .06, SRMR = .05, CFI = .93, and normed  $\chi^2/\text{df} = 3.00$ , suggesting an acceptable model fit.

Further modifications to the model could lead to minor improvements in the model fit but these were not made as there was no clear rationale for doing so. The correlations between the factors were as follows: Precontemplation and Contemplation = -.84; Precontemplation and Action = -.71; Precontemplation and Maintenance = -.57; Contemplation and Action = .93; Contemplation and Maintenance = .88; Action and Maintenance = .84.

***One-factor model.*** Given the size of the correlations between factors in Model 6, The possibility that a single factor model in which the 20 items represent a theoretical continuum of

Readiness (with Precontemplation items reverse scored) was assessed. The model (Model 7) was estimated using maximum likelihood estimation with the 20 items as indicators of the single factor. This CFA yielded fit indices of: RMSEA = .10, SRMR = .08, CFI = .82, and  $\chi^2/df = 5.91$ , suggesting an inadequate fit. Consequently, the modification indices were consulted to determine whether the model fit could be improved by allowing the correlation of specific error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC3 and PC7; PC6 and PC7; A1 and A2; A1 and A4; A2 and A4; A1 and A7; M5 and M6; M3 and M5; M3 and M6. After making these specifications, a CFA was conducted on this model (Model 8). This CFA yielded fit indices of: RMSEA = .08, SRMR = .06, CFI = .90, and normed  $\chi^2/df = 3.71$ , suggesting an improved but marginally inadequate fit.

***Factor structure for fathers.*** A CFA was conducted to determine whether the PARC maps onto the hypothesized four-factor solution among fathers ( $n = 280$ ). The model (Model 9) was estimated using maximum likelihood estimation with the 20 items as indicators of the four factors. This CFA yielded fit indices of: RMSEA = .09, SRMR = .07, CFI = .88, and normed  $\chi^2/df = 3.30$ , suggesting an inadequate fit. A review of modification indices revealed that the model fit could be improved by allowing the correlation of some error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC3 and PC7; A1 and A4; A1 and A5. After making these specifications, a CFA was conducted on this model (Model 10). This CFA yielded fit indices of: RMSEA = .08, SRMR = .06, CFI = .90, and normed  $\chi^2/df = 2.95$ , suggesting an acceptable model fit.

Further modifications to the model could lead to minor improvements in the model fit but these were not made as there was no clear rationale for doing so. The correlations between the factors were as follows: Precontemplation and Contemplation = -.89; Precontemplation and

Action = -.77; Precontemplation and Maintenance = -.67; Contemplation and Action = .90; Contemplation and Maintenance = .82; Action and Maintenance = .77.

***One-factor model.*** Given the size of the correlations between factors in Model 10, the possibility that a single factor model in which the 20 items represent a theoretical continuum of Readiness (with Precontemplation items reverse scored) was assessed. The model (Model 11) was estimated using maximum likelihood estimation with the 20 items as indicators of the single factor. This CFA yielded fit indices of: RMSEA = .12, SRMR = .08, CFI = .78, and  $\chi^2/df = 4.98$ , suggesting an inadequate fit. Consequently, the modification indices were consulted to determine whether the model fit could be improved by allowing the correlation of specific error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC3 and PC7; PC6 and PC7; A1 and A2; A1 and A4; A1 and A7; A4 and A7; A1 and A2; M5 and M6; M3 and M6; M3 and M5. After making these specifications, a CFA was conducted on this model (Model 12). This CFA yielded fit indices of: RMSEA = .10, SRMR = .07, CFI = .87, and normed  $\chi^2/df = 3.53$ , suggesting an inadequate fit.

***Factor structure for parents responding in reference to a pre-school aged child.*** A CFA was conducted to determine whether the PARC maps onto the hypothesized four-factor solution among parents responding in reference to a pre-school-age child ( $n = 340$ ). The model (Model 13) was estimated using maximum likelihood estimation with the 20 items as indicators of the four factors. This CFA yielded fit indices of: RMSEA = .08, SRMR = .07, CFI = .89, and normed  $\chi^2/df = 3.16$ , suggesting an inadequate fit. A review of modification indices revealed that the model fit could be improved by allowing the correlation of certain error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC1 and PC3; PC1 and PC7; PC3 and PC7; A1 and A4; A4 and A5; A1 and A7; A4

and A7. After making these specifications, a CFA was conducted on this model (Model 14). This CFA yielded fit indices of: RMSEA = .07, SRMR = .06, CFI = .92, and normed  $\chi^2/\text{df} = 2.57$ , suggesting an acceptable model fit. Further modifications to the model could lead to minor improvements in the model fit but these were not made as there was no clear rationale for doing so. The correlations between the factors were as follows: Precontemplation and Contemplation = -.79; Precontemplation and Action = -.76; Precontemplation and Maintenance = -.49; Contemplation and Action = .98; Contemplation and Maintenance = .81; Action and Maintenance = .81.

**One-factor model.** Given the size of the correlations between factors in Model 14, the possibility that a single factor model in which the 20 items represent a theoretical continuum of Readiness (with Precontemplation items reverse scored) was assessed. The model (Model 15) was estimated using maximum likelihood estimation with the 20 items as indicators of the single factor. This CFA yielded fit indices of: RMSEA = .11, SRMR = .08, CFI = .80, and  $\chi^2/\text{df} = 5.74$ , suggesting an inadequate fit. Consequently, the modification indices were consulted to determine whether the model fit could be improved by allowing the correlation of certain error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC3 and PC7; PC6 and PC7; A1 and A2; A1 and A4; A1 and A7; A4 and A7; M5 and M6; M3 and M6; M5 and M6. After making these specifications, a CFA was conducted on this model (Model 16). This CFA yielded fit indices of: RMSEA = .08, SRMR = .07, CFI = .88, and normed  $\chi^2/\text{df} = 3.34$ , suggesting an inadequate fit.

**Factor structure for parents responding in reference to a school aged child.** A CFA was conducted to determine whether the PARC maps onto the hypothesized four-factor model among parents who responded to the PARC in reference to a school-age child ( $n = 419$ ). The

model (Model 17) was estimated using maximum likelihood estimation with the 20 items as indicators of the four factors. This CFA yielded fit indices of: RMSEA = .08, SRMR = .07, CFI = .89, and normed  $\chi^2/df = 3.88$ , suggesting an inadequate fit. A review of modification indices revealed that the model fit could be improved by allowing the correlation of certain error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the following pairs of items: PC3 and PC7; A1 and A4; A1 and A5. The suggested modifications were performed.

After making these specifications, a CFA was conducted on this model (Model 18). This CFA yielded fit indices of: RMSEA = .07, SRMR = .05, CFI = .93, and normed  $\chi^2/df = 2.97$ , suggesting an acceptable model fit. Further modifications to the model could lead to minor improvements in the model fit but these were not made as there was no clear rationale for doing so. The correlations between the factors were as follows: Precontemplation and Contemplation = -.84; Precontemplation and Action = -.68; Precontemplation and Maintenance = -.65; Contemplation and Action = .88; Contemplation and Maintenance = .88; Action and Maintenance = .81.

**One-factor model.** Given the size of the correlations between factors in Model 18, the possibility that a single factor model in which the 20 items represent a theoretical continuum of Readiness (with Precontemplation items reverse scored) was assessed. The model (Model 19) was estimated using maximum likelihood estimation with the 20 items as indicators of the single factor. This CFA yielded fit indices of: RMSEA = .11, SRMR = .08, CFI = .80, and  $\chi^2/df = 5.74$ , suggesting an inadequate fit. Consequently, the modification indices were consulted to determine whether the model fit could be improved by allowing the correlation of specific error terms (Kline, 2011). The modification indices suggested allowing the correlation of error terms for the

following pairs of items: PC3 and PC7; A1 and A2; A1 and A4; A1 and A7; A4 and A7; M5 and M6; M3 and M6. After making these specifications, a CFA was conducted on this model (Model 20). This CFA yielded fit indices of: RMSEA = .08, SRMR = .06, CFI = .91, and normed  $\chi^2/\text{df}$  = 3.46, suggesting a marginally inadequate fit.

**Internal consistency.** A reliability analysis was undertaken following the CFA to establish internal consistency for scores on each subscale. We followed Hunsley and Mash's (2008) criteria for internal consistency. For the combined sample ( $n = 765$ ), subscale  $\alpha$  values were adequate for scores on the Precontemplation subscale for mothers (.70) and fathers (.72) and good for Contemplation for mothers (.83) and fathers (.85), Action for mothers (.81) and fathers (.82), and Maintenance for mothers (.86). Excellent internal consistency was obtained for scores on Maintenance for fathers (.91).

## Discussion

We have presented preliminary Canadian norms for the PARC and we have found at least adequate internal consistency for all subscales for both mothers and fathers, with the majority of subscales demonstrating good internal consistency. We also found the PARC's Precontemplation-Contemplation-Action-Maintenance factor structure to be consistent across parent gender categories and child age categories.

### General Discussion

We replicated the four-factor (Precontemplation-Contemplation-Action-Maintenance) solution of the PARC identified by Perron and Lee (2018) in a new sample. Further evidence related to the PARC's convergent validity was also found. PARC subscale scores were significantly different for different levels of the four-item staging algorithm. In addition, analyses of a combined sample with data from this study and from Perron and Lee (2018) found this

factor structure to be consistent across parent gender and child age categories. The majority of PARC subscales demonstrated good internal consistency for scores on all subscales for mothers and fathers.

Gender-based analyses of mean scores from the combined sample provided preliminary normative information that may be useful for future applications of the PARC. These analyses also highlighted relevant differences in PARC scores between mothers and fathers: Precontemplation scores were significantly higher for fathers compared with mothers, suggesting that more fathers than mothers were not thinking about changing their parenting. Mothers scored higher than did fathers for both Contemplation and Action. This provides support for the interpretation that more mothers than fathers were considering changing parenting behaviours and had begun to make change. These findings suggest that researchers and clinicians who use the PARC should use separate norms for mothers and fathers. In addition, future research into differences in response patterns between mothers and fathers will be important to informing the interpretation of PARC results.

Although differences in PARC scores were identified between mothers and fathers, there were no significant child age-related differences on PARC subscale scores. Parents of preschool children and parents of school age children generally responded to the PARC in the same manner. Our results suggest that separate norms may not be needed for parents of children of different ages.

Early applications of the URICA to parenting (e.g., Brestan et al., 1999; Littell & Girvin, 2005; Wade & Andrade, 2015) included only three stages and did not attempt to address the Maintenance factor. Perron and Lee (2018) reported support for the Maintenance factor. We found further support for the Maintenance factor given that it was replicated in a new sample and

confirmed in the combined sample across parent gender and child age categories. This lends further support to the notion that the Maintenance factor taps a unique element of parents' readiness to change parenting behaviours. The Maintenance factor is important because parenting is an iterative and evolving process in which parents may continuously learn and implement new parenting behaviours. They may also be flexible in adapting parenting behaviours and strategies that are effective during certain situations or timepoints, but that are less effective at others.

There are some similarities between maintaining new, effective parenting practices and the concept of relapse prevention that the Maintenance factor tapped in early TTM research. The PARC Maintenance factor may tap parents' ability to maintain the use of effective parenting behaviours that they have learned in the past or refrain from using behaviours they have learned are ineffective. The Maintenance factor should be included in future research examining parents' readiness to change parenting behaviours. Related, further research should be conducted to assess the PARC's applicability to parents of children with clinical-level difficulties and, more specifically, to ascertain whether the Maintenance factor applies to this population.

Taken together, the present results and those presented by Perron and Lee (2018) provide evidence in support of the PARC's underlying factor structure as well as the PARC scores' internal consistency, convergent validity, and discriminant validity. As a measure that may be useful in measuring parents' readiness to change their parenting behaviours, there are important areas of research and clinical work to which the PARC could be applied.

Specifically, the PARC may warrant further research for its potential use as an outcome measure for media campaigns that are conducted as part of population-level parenting support programs. A key target of such campaigns is to increase parents' readiness to change their

parenting behaviours. Research into the clinical utility and feasibility of the PARC may also be useful in understanding the applicability of the PARC in assessing parents' readiness to change prior to starting a parenting program.

Although our findings are promising in suggesting that scores on the PARC could provide valid and useful information about parents' stage of readiness to change their parenting behaviours, there are a number of limitations associated with the research conducted to date. Our research examining the psychometric properties of the PARC was conducted with convenience community samples. The majority of parents taking part in PARC-related research were recruited online from Facebook groups. Although some research has determined that data collected via Facebook is equivalent to data collected offline (Grieve, Witteveen, & Tolan, 2014), the parents who participated our studies under-represent parents with low incomes and those who are not married. These factors have implications for the generalizability of the PARC and, ultimately, underscore that our sample was not fully representative of the population for which the PARC is intended to be used. Future research examining the PARC's properties among parents with low family incomes and among single parents would be useful in better-understanding the generalizability of the PARC.

The staging algorithm used in the present study had been developed for the study described in Perron and Lee (2018). Comparisons between the PARC and this staging algorithm form only part of the convergent validity evidence for the PARC, but the algorithm itself lacks validity data beyond face validity.

Across all factor analyses the PARC's goodness-of-fit statistics fall in the acceptable range rather than the good range. This is consistent with CFA results from Perron and Lee (2018). Adequate goodness-of-fit statistics were also obtained after correlating certain error

terms. Though it is reasonable to expect some shared variance between similarly worded items, it will be important for future research to assess whether modifications to the model may lead to improved goodness-of-fit statistics. Such research may be useful in further identifying items that should be dropped or modified. Future research should also investigate psychometric properties of the PARC such as temporal stability or predictive validity.

In addition, goodness-of-fit statistics were nearly adequate in certain instances for CFAs on a single-factor model. Therefore, our findings do not necessarily support an outright rejection of the notion of a single-factor model of readiness. However, these results came after correlating a relatively high number of error terms and, overall, the 4-factor model of the PARC offers a superior fit to the data.

Although scores on the majority of PARC subscales exhibited good or excellent internal consistency for both mothers and fathers, internal consistency for scores on Precontemplation was marginal. This could be associated with the low factor loadings of the PC6 item reported in Study 1. This item (*“I would rather accept that my child is not perfect than change the way I parent”*) is positively worded in contrast to all the other Precontemplation items, which are worded in a negative or hostile manner (e.g., PC7: *“It would be a waste of time to try to learn about better ways to parent”*). Given that internal consistency for the Precontemplation scale data generally meets the criterion for adequacy and that keeping the item ensures that each subscale has five items, future research may explore alternate wordings for this item (for example, *“My child will never be perfect so there’s no point changing my parenting”*) that better represent the negative wording of the other Precontemplation items.

Despite these limitations, the PARC may serve as a useful tool in the assessment of parents’ readiness to change parenting behaviours. Researchers and clinicians may wish to

consult mean subscale scores in Table 5 to inform their interpretations of a PARC respondent's level of readiness. In the relative absence of other well-validated means of measuring this construct, the PARC merits further study of its psychometric properties and its utility in clinical and research settings.

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Table 1

*PARC Factor Loadings for Models 1 and 2 (N = 384).*

| Item | PC  | <u>Model 1</u> |     |     | PC  | <u>Model 2</u> |     |     |
|------|-----|----------------|-----|-----|-----|----------------|-----|-----|
|      |     | C              | A   | M   |     | C              | A   | M   |
| PC1  | .68 |                |     |     | .72 |                |     |     |
| PC2  | .62 |                |     |     | .60 |                |     |     |
| PC3  | .48 |                |     |     | .41 |                |     |     |
| PC6  | .30 |                |     |     | .24 |                |     |     |
| PC7  | .58 |                |     |     | .50 |                |     |     |
| C2   |     | .70            |     |     |     | .70            |     |     |
| C3   |     | .79            |     |     |     | .79            |     |     |
| C5   |     | .66            |     |     |     | .66            |     |     |
| C6   |     | .74            |     |     |     | .74            |     |     |
| C8   |     | .72            |     |     |     | .72            |     |     |
| A1   |     |                | .65 |     |     |                | .54 |     |
| A2   |     |                | .68 |     |     |                | .61 |     |
| A4   |     |                | .70 |     |     |                | .61 |     |
| A5   |     |                | .76 |     |     |                | .82 |     |
| A7   |     |                | .79 |     |     |                | .71 |     |
| M2   |     |                |     | .71 |     |                |     | .71 |
| M3   |     |                |     | .79 |     |                |     | .79 |
| M4   |     |                |     | .80 |     |                |     | .80 |
| M5   |     |                |     | .86 |     |                |     | .86 |
| M6   |     |                |     | .84 |     |                |     | .84 |

*Note.* PARC = Parent Assessment of Readiness to Change; PC = Precontemplation; C = Contemplation; A = Action; M = Maintenance.

Table 2

*Results of Confirmatory Factor Analyses Conducted in Study 1 (N = 384).*

| Model   | $\chi^2/\text{df}^2$ | CFI | RMSEA | RMSEA<br>90% CI | SRMR |
|---------|----------------------|-----|-------|-----------------|------|
| Model 1 | 3.74                 | .89 | .09   | [.077, .092]    | .07  |
| Model 2 | 2.77                 | .93 | .07   | [.060, .076]    | .05  |

*Note.* CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = confidence interval; SRMR = standardized root-mean-square residual.

Table 3

*PARC Subscale Scores as a Function of Algorithm Scores (N = 383)*

| <u>Response to Algorithm</u>                                                                    | <u>Precontemplation</u> | <u>Contemplation</u> | <u>Action</u> | <u>Maintenance</u> |
|-------------------------------------------------------------------------------------------------|-------------------------|----------------------|---------------|--------------------|
|                                                                                                 | <u>M (SD)</u>           |                      |               |                    |
| I don't think that I will try to improve my parenting in the next 6 months ( <i>n</i> = 64)     | 2.92 (.51)              | 2.64 (.49)           | 2.67 (.42)    | 1.98 (.68)         |
| I want to learn new ways of parenting in the next 6 months ( <i>n</i> = 68)                     | 2.32 (.55)              | 3.82 (.49)           | 3.57 (.48)    | 3.31 (.76)         |
| I am learning new ways of parenting and want to keep learning about parenting ( <i>n</i> = 188) | 2.26 (.49)              | 3.59 (.55)           | 3.66 (.52)    | 2.91 (.85)         |
| In the past 6 months I have started to use new ways of parenting ( <i>n</i> = 43)               | 2.19 (.58)              | 3.68 (.59)           | 3.81 (.49)    | 2.97 (.90)         |

*Note.* PC = Precontemplation; C = Contemplation; A = Action; M = Maintenance.

Table 4

*Demographics for the Combined Sample*

|                                           | Combined<br>Sample<br>( <i>N</i> = 765) | Mothers<br>( <i>n</i> = 484) | Fathers<br>( <i>n</i> = 280) |
|-------------------------------------------|-----------------------------------------|------------------------------|------------------------------|
|                                           |                                         | %                            |                              |
| <u>Gender</u>                             |                                         |                              |                              |
| Female                                    | 63.3                                    | -                            | -                            |
| Male                                      | 36.6                                    | -                            | -                            |
| <u>Do you have a child older than 12?</u> |                                         |                              |                              |
| Yes                                       | 17.4                                    | 11.7                         | 27.1                         |
| <u>Child age</u>                          |                                         |                              |                              |
| 2-4                                       | 44.8                                    | 49.9                         | 35.6                         |
| 5-12                                      | 55.1                                    | 50.1                         | 64.3                         |
| <u>Parent Age</u>                         |                                         |                              |                              |
| 19-29                                     | 10.5                                    | 13.0                         | 6.1                          |
| 30-39                                     | 60.5                                    | 77.8                         | 47.9                         |
| 40-49                                     | 25.9                                    | 18.8                         | 38.2                         |
| Over 50                                   | 3.2                                     | 0.4                          | 7.9                          |
| <u>Annual Family Income</u>               |                                         |                              |                              |
| 0-\$30,000CDN                             | 7.3                                     | 6.2                          | 9.4                          |
| \$30,001-50,000CDN                        | 7.8                                     | 8.0                          | 7.6                          |
| \$50,001-70,000CDN                        | 10.9                                    | 13.1                         | 7.2                          |
| \$70,001-90,000CDN                        | 13.7                                    | 15.6                         | 10.5                         |
| \$90,001-150,000CDN                       | 33.7                                    | 36.4                         | 29.2                         |
| Over \$150,000CDN                         | 26.6                                    | 20.8                         | 36.1                         |

Table 5

*PARC Scores for the Combined Sample (N = 765)*

|                  | Mothers<br>( <i>n</i> = 484) | Fathers<br>( <i>n</i> = 280) | Parents of<br>Preschool-<br>Aged Child<br>( <i>n</i> = 340) | Parents of<br>School-<br>Aged Child<br>( <i>n</i> = 419) | Parents with<br>family<br>income<br>below<br>\$90,000<br>( <i>n</i> = 299) | Parents with<br>family<br>income<br>above<br>\$90,000<br>( <i>n</i> = 454) |
|------------------|------------------------------|------------------------------|-------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
|                  | <i>M (SD)</i>                |                              |                                                             |                                                          |                                                                            |                                                                            |
| Precontemplation | 2.30 (0.55)                  | 2.47 (0.60)                  | 2.37 (0.60)                                                 | 2.38 (0.58)                                              | 2.40 (0.62)                                                                | 2.35 (0.56)                                                                |
| Contemplation    | 3.40 (0.62)                  | 3.50 (0.66)                  | 3.46 (0.65)                                                 | 3.44 (0.67)                                              | 3.44 (0.69)                                                                | 3.45 (0.65)                                                                |
| Action           | 3.54 (0.57)                  | 3.44 (0.56)                  | 3.51 (0.63)                                                 | 3.45 (0.62)                                              | 3.54 (0.62)                                                                | 3.44 (0.62)                                                                |
| Maintenance      | 2.92 (0.84)                  | 2.80 (0.94)                  | 2.85 (0.87)                                                 | 2.90 (0.89)                                              | 2.92 (0.92)                                                                | 2.84 (0.85)                                                                |

Manuscript Two Appendix A

*Certificate of Ethics Approval*

File Number: H03-16-06

Date (mm/dd/yyyy): 04/15/2016



**Université d'Ottawa**  
Bureau d'éthique et d'intégrité de la recherche

**University of Ottawa**  
Office of Research Ethics and Integrity

**Ethics Approval Notice**

**Health Sciences and Science REB**

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

| <u>First Name</u> | <u>Last Name</u> | <u>Affiliation</u>           | <u>Role</u>        |
|-------------------|------------------|------------------------------|--------------------|
| Catherine M.      | Lee              | Social Sciences / Psychology | Supervisor         |
| Jeffrey           | Perron           | Social Sciences / Psychology | Student Researcher |

**File Number:** H03-16-06

**Type of Project:** PhD Thesis

**Title:** Psychometric testing for a new measure, the Parent Assessment of Readiness to Change (PARC)

| <b>Approval Date (mm/dd/yyyy)</b> | <b>Expiry Date (mm/dd/yyyy)</b> | <b>Approval Type</b> |
|-----------------------------------|---------------------------------|----------------------|
| 04/15/2016                        | 04/14/2017                      | Approved             |

**Special Conditions / Comments:**

N/A

Manuscript Two Appendix B

*PARC Items*

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| <u>Item Label</u> | <u>Item wording</u>                                                                         |
|-------------------|---------------------------------------------------------------------------------------------|
| PC1               | As far as I'm concerned, I don't need to change the way I parent.                           |
| PC2               | I don't need an expert telling me how to parent my children.                                |
| PC3               | Trying to change the way I parent is pretty much a waste of time for me because it won't    |
| PC6               | I would rather accept that my child is not perfect than change the way I parent.            |
| PC7               | It would be a waste of time to try to learn about better ways to parent.                    |
| C2                | I'm hoping I can get help to be a better parent.                                            |
| C3                | I've been thinking about changing the way I parent.                                         |
| C5                | Maybe I can learn to be a better parent.                                                    |
| C6                | I have parenting challenges and I really think I should work on them.                       |
| C8                | I'd like to change some things about the way I parent.                                      |
| A1                | I am working hard to learn new ways to parent.                                              |
| A2                | I am finally working on the way I parent.                                                   |
| A4                | Even though I'm not always successful in changing the way I parent, I am at least working   |
| A5                | I have started working on the way I parent but I could use some help.                       |
| A7                | I am trying out new ways to parent.                                                         |
| M2                | I'm not following through with the way I parent as well as I had hoped, and I want to make  |
| M3                | I thought once I had learned to parent in a positive way, the problems would be solved, but |
| M4                | I may need a boost right now to help me maintain the changes I've already made in the way   |
| M5                | I need to prevent myself from slipping back into my old ways of parenting.                  |
| M6                | Sometimes I feel like I might be slipping back into my old ways of parenting.               |

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*Note.* PC = Precontemplation; C = Contemplation; A = Action; M = Maintenance.

### **Integrated Discussion**

This dissertation entailed a series of studies designed to assess the applicability of the stages of readiness to change construct to parenting behaviours. The primary focus of this line of research was the development and testing of a measure of stage of readiness to change parenting behaviours labelled the PARC. A measure of stage of change readiness would serve as a useful outcome measurement to evaluate the impact of media campaigns designed to provide parents with information about parenting. Such a measure could capture the subtle changes that may result in parents' level of readiness to learn more about parenting, even in the absence of overt changes in parenting behaviours. The PARC is designed to be used with community parents and includes items designed to assess the change readiness stages of Precontemplation, Contemplation, Action, and Maintenance. Items addressing the Maintenance stage were included because a critical part of parenting entails integrating new techniques into the iterative, day-to-day process of parenting.

The development of the PARC drew upon established guidelines for developing and testing new measures, with particular attention given to Hunsley and Mash's (2018) criteria for evidence-based assessments. The psychometric properties of the PARC that were assessed included its scores' reliability (by examination of internal consistency), content validity (achieved through defining the construct being measured, expert consultation, and pilot testing), construct validity (via assessment of convergent validity, discriminant validity, and factor structure), and the development of preliminary norms.

The two manuscripts included in this dissertation outlined the studies that were conducted to develop and assess the PARC. In this discussion section I highlight primary findings in an integrated manner and discuss the implications of these findings. I have organized this discussion

according to the following sub-headings: Findings, Limitations, Degree of Fit with Previous Research, Implications for Theory, Implications for Practice, Future Research, and Conclusion.

## **Findings**

The initial step in the development of the PARC was the generation of an item pool. The development of the PARC item pool included, primarily, items adapted from the URICA as well some new items that were created to capture relevant parenting tasks and concepts that were not covered in the URICA-adapted items. Expert consultation with individuals with experience in one or more areas of readiness to change, evidence-based parenting interventions, or psychological assessment provided valuable feedback on items, instructions, and the approach taken to assess readiness to change parenting behaviours. Overall the experts consulted were very positive about the potential usefulness of the PARC. Items with the lowest level of support from experts were removed and the suggested edits to items and instructions were made. The expert consultation showed that measuring stages of readiness to change among community parents was considered a worthwhile endeavour. It also suggested that a URICA adaptation was an appropriate starting point for a measure of stage of change readiness among parents.

Because it is essential that any measure of stage of change readiness for parents can be used broadly with parents who have limited literacy, I assessed the PARC's readability and clarity. Following expert consultation and making the suggested modifications to the PARC, two standardized tests of reading level were applied to the PARC. These tests suggested that the PARC had a reading level acceptable for its intended use with community parents.

Next, I conducted a pilot test with community parents to determine whether the wording and instructions of the PARC were clear to parents. Participating parents made minor suggestions on ways that comprehensibility could be enhanced. Changes that could be made without altering

the meaning of items were made. At this stage the PARC was also reduced from 40 to 32 items, taking into account feedback from the expert consultation and the pilot test. Overall, the pilot test confirmed that community parents seemed to find the PARC both clear and relevant.

Following initial item development, expert consultation, and pilot testing, the PARC was assessed in a large community sample of Canadian parents. One of the main goals at this point was to assess whether its items mapped onto the Precontemplation-Contemplation-Action-Maintenance structure that has been identified in other SOC research. This structure was confirmed with a CFA and represented the first validation of the four-factor Precontemplation-Contemplation-Action-Maintenance SOC solution with regards to parenting behaviours. Alternate three-factor and one-factor models were not supported. This suggests that a multi-factor-based conceptualization of parents' readiness is appropriate and that the Maintenance factor may tap an important component of parents' readiness to change not captured in a three-factor Precontemplation-Contemplation-Action model. It also suggests that parents' readiness to change parenting behaviours is better-explained by a multi-factor model as opposed to a one-factor model representing a continuum of readiness.

In addition to assessing factor structure, additional goals at this stage of research were to assess the PARC for other important qualities of evidence-based measures. In this initial sample, scores on each of the PARC's subscales demonstrated acceptable internal consistency for both mothers and fathers. This means that items that were intended to measure a given stage produced similar scores. Also, PARC subscale scores generally had significant correlations with measures of child behavioural and emotional problems, perceived parental self-efficacy, laxness, overreactivity, and hostility in parenting, impression management, and a readiness algorithm.

As predicted, high Precontemplation scores were associated with lower levels of parent-reported child behavioural and emotional difficulties and higher perceived self-efficacy in managing those difficulties when they occur. This suggests that parents who thought their child had few problems and who felt confident in their ability to manage problems did not see a need to change the way they parent.

Higher scores on Contemplation and Action were associated with higher levels of parent-reported child emotional and behavioural difficulties and lower perceived self-efficacy in managing those difficulties. This suggests that a perception of child behavioural and emotional difficulties could be an important precursor of readiness to change parenting behaviours. Parents who perceived their child to engage in more problematic behaviours and emotions endorsed higher levels of readiness to change than did those who did not perceive these problems. This suggests that accurate feedback from others (e.g., teachers, child care workers) could be important in relation to parents' readiness to change.

I also found an unexpected positive relationship between both Action and Maintenance and parental self-reports of over-reactivity as well as an unexpected positive relationship between Maintenance and parental self-reports of laxness. These findings were unexpected because I had hypothesized that higher scores on Action and Maintenance would be associated with more effective parenting behaviours. However, it is possible that parents who have begun to change their parenting behaviours (i.e., those who score higher on Action or Maintenance) may evaluate their own parenting behaviours more critically than they would have prior to making changes, but this hypothesis requires empirical testing. It would seem reasonable to hypothesize that as parents learn more about positive parenting – or simply gain experience as parents – they more readily recognize when their parenting is inconsistent with positive parenting.

Overall, the results of analyses conducted with my initial large sample provide important support that the PARC measures what it is intended to measure (and that it does not measure what it is not intended to measure). In straightforward terms, the results show that PARC items map onto the intended constructs and that items intended to measure a given stage generally produced similar scores. Also, parents' responses to measures of non-PARC constructs (like child behavioural difficulties and perceived parental self-efficacy) generally correlated with Precontemplation, Contemplation, Action, and Maintenance scores in a theoretically sound manner.

Despite finding evidence to support key psychometric properties of the PARC in my first large sample, replication of certain findings was necessary for the PARC to be taken seriously by researchers and clinicians. Specifically, testing the PARC with another large sample was an important step in verifying whether what was found with the first large sample was due to chance or, perhaps, due to characteristics unique to the sample. Therefore, a second large community sample of Canadian parents was recruited. In this sample, the four-factor solution of the PARC was replicated with a CFA. With the exception of the Precontemplation subscale (for which scores demonstrated marginally inadequate internal consistency), the PARC's subscale scores demonstrated predominantly good internal consistency for both mothers and fathers. PARC subscale scores were significantly different for different levels of a four-item staging algorithm, adding to the evidence of its convergent validity.

In addition, by combining data from the first sample and second sample, I had data from a sufficiently large sample of mothers, fathers, parents of pre-school aged children, and parents of school-aged children to test the consistency of the PARC's factor structure across parent gender categories and child age categories. By conducting additional CFAs, I found the PARC's

Precontemplation-Contemplation-Action-Maintenance factor structure to be consistent across each of these categories. The combined sample also allowed for establishment of preliminary Canadian norms for the PARC.

Gender-based analyses conducted with the combined sample highlighted a number of relevant differences in PARC scores between mothers and fathers: Precontemplation scores were significantly higher for fathers than for mothers, suggesting that more fathers than mothers were not thinking about changing their parenting. Mothers scored higher than did fathers on both Contemplation and Action. This suggests that more mothers than fathers were considering changing parenting behaviours and had begun to make change. These findings are consistent with research demonstrating that men attend fewer healthcare appointments than do women (including for their own healthcare) and that fathers are less likely to be responsible for taking their children to healthcare appointments. Mothers also spend more time with the child than do fathers (Lee, 2006). It is therefore possible that fathers' perception of which tasks of parenting that are being referred to in the PARC influence their response patterns. Fathers may also feel that because of the fact that they spend less time with children, that changing parenting behaviours is less relevant or impactful than, perhaps, mothers feel that it would be. If this is the case, we would reasonably expect fathers' level of readiness to change parenting behaviours to be lower than mothers'.

Although differences in PARC scores were identified between mothers and fathers in the combined sample, there were no significant child age-related differences on PARC subscale scores. Parents of preschool children and parents of school age children generally responded to the PARC in the same manner.

The results from the second sample and the combined sample are important because they add to the body of evidence that suggests that the PARC's items map on to the four-factor structure they are intended to map on to. They also suggest that the PARC's structure is consistent across important demographic categories relevant to parenting. In addition, the fact that parents generally responded to the PARC in the expected way based on their algorithm response is important in building upon the evidence base that shows that the PARC measures what it is intended to measure. Finally, the preliminary norms yielded with the combined sample are important to have before other researchers or clinicians use or assess the PARC. They provide a necessary point of reference that will help interpret results and situate them in the context of the research I have conducted.

### **Limitations**

Despite the evidence found in support of key psychometric properties of the PARC and subsequent replication of some of the findings, there are a number of limitations associated with the research conducted as part of this dissertation. For example, my results are drawn exclusively from self-report data. My assessment of the convergent and discriminant validity could have been strengthened by the inclusion of observational assessment of problematic parenting behaviours.

Also, the two large samples collected are convenience community samples. The majority of parents taking part in PARC-related research were recruited online from Facebook groups. Although some research has determined that data collected via Facebook is equivalent to data collected offline (Grieve, Witteveen, & Tolan, 2014), the parents who participated under-represent parents with low incomes and those who are not married. Therefore, caution is urged in applying the norms for the PARC to parents who are single parents or who have low incomes.

Further, although my findings about parents' readiness to change are consistent with a stage model, they do not address whether parents actually progress through stages over time nor whether it is possible to "skip" stages. Such evidence would be necessary in order to assert that parents' readiness to change parenting behaviours truly occurs according to distinct stages.

The staging algorithm itself lacks validity data beyond face validity. Despite the significant positive association between staging algorithm scores and parent-reported child behavioural and emotional difficulties, all other correlations with convergent validity measures were nonsignificant. I obtained superior convergent validity evidence for the PARC. Therefore, until further research is conducted on the staging algorithm it appears reasonable to assert that the PARC has greater explanatory value than does the algorithm.

Finally, it must be stated that although my findings are promising, there is more work to be done on the PARC before it is ready to be actively used in some of the research and clinical endeavours proposed in this discussion section. There are many ways in which additional assessment of the PARC could be done to bolster the evidence in support of its psychometric properties or to challenge some of the evidence identified to date. Many of the ways in which the PARC could be further studied – and the evidence associated with its psychometrics enhanced – are outlined in the Future Research section.

### **Degree of Fit with Previous Research**

My research expands on earlier applications of the URICA to parenting (e.g., Littell & Girvin, 2005; Wade & Andrade, 2015) that included only three stages and did not attempt to address the Maintenance factor. My findings are consistent with Wade and Andrade (2015) in that Precontemplation, Contemplation, and Action were identified as component stages of parents' readiness to change parenting behaviours. My research expands this work by providing

support for a Maintenance factor, suggesting that the URICA's full Precontemplation-Contemplation-Action-Maintenance structure applies to readiness to change parenting behaviours. Of note, my work is the first application of the SOC model to parenting behaviours among community parents.

Adding to the findings reported by Wade and Andrade (2015) the findings reported in this dissertation provide are consistent with a stage-based conceptualization applies to parents' readiness to change parenting behaviours. The findings are contradictory to those reported by Littell and Girvin's (2005) who found a two-factor Intention to Change-Problem Recognition structure for their URICA adaptation.

It is possible that the findings reported by Littell and Girvin are explained by having conducted principal axis factoring (rather than a CFA) despite the existence of a theory to guide their analyses. It is unknown whether a CFA conducted on their data would have yielded results comparable to those reported by Wade and Andrade (2015) or myself.

Littell and Girvin (2005) found that cluster analysis produced groups that did not correspond to the stages of change. They indicated that the specific results that lead them to this conclusion had been submitted for publication elsewhere however a literature search did not identify the article in which these results were published. It would be informative to see these results. Of course, it is also possible that the discrepancies are related to sample differences: Littell and Girvin's (2005) sample was of parents who had been receiving services related to child maltreatment, not a clinical sample (like that of Wade & Andrade, 2005) nor a community sample (like the participants in my research).

The findings reported in this dissertation are consistent with the findings reported by Proctor et al. (2018) in a community sample. Although Proctor et al.'s (2018) measure is neither

a URICA adaptation nor a stage-based measure, they identified a multiple-factor structure associated with parents' readiness to change.

In contrast to a stage-based conceptualization of parents' readiness to change parenting behaviours, a theoretical continuum of readiness has also been proposed. For example, Nock and Photos' (2006) PCA on the PMI yielded a one component solution. However, their findings should be interpreted with caution given the small sample size and the debate over the appropriateness of PCA over factor analysis. In addition, Wade and Andrade (2015) identified a second-order readiness factor for the PFRCS. Importantly, they specified that the best-fitting model was one in which the first-order Precontemplation, Contemplation, and Action factors were specified first, followed by a second-order factor representing readiness.

Although assessment of a second-order factor was outside the scope of this dissertation, I assessed the fit of a one-factor model representing a theoretical continuum of readiness. Across multiple CFAs – including those with a combined sample, with fathers only, with mothers only, with parents of pre-school aged children only, and with parents of school-aged children only – no single-factor model met all of Schweizer's (2010) four criteria of adequacy for model fit. Therefore, my findings did not support the notion that parents' readiness to change exists on a continuum of readiness. Neither my findings nor Wade and Andrade's (2015) support conceptualizing readiness as a first-order factor. However, given that goodness-of-fit statistics were nearly adequate in certain instances (for CFAs on the single-factor model), my research does not necessarily support an outright rejection of the notion of a single-factor model of readiness. It does suggest, however, that a multi-factor conceptualization of readiness (e.g., the 4-factor model of the PARC) offers a superior fit to the data.

Wade and Andrade's work was published in 2015, so I was not aware of their testing of the PFRCS when I commenced my line of research in 2012. In addition, the expert consultation (conducted in 2013) asked participants to indicate whether they were aware of similar or related lines of work. No similar or related lines of work were identified. Had I been aware of similar or related lines of research at that time, I would have certainly considered including the relevant measures as part of research. My goal was to create a measure with the same number of items per construct, with the related aim of capturing each of the 4 well-validated SOC suggested by other lines of TTM research.

Taken together, the majority of research on parents' readiness to change parenting behaviours suggests that the construct comprises several factors. Further, there are now multiple studies – my research included – which have suggested that the Precontemplation, Contemplation, and Action factors apply to parents' readiness to change. My research adds to this body of knowledge by finding support for the Maintenance factor as well. This suggests that the full four-factor structure of the URICA applies to parents' readiness to change parenting behaviours. These findings are important not only in terms of acknowledging that parents' readiness to change parenting behaviours comprises multiple factors, but also in acknowledging that it likely occurs in a manner consistent with well-established stages of change. However, further research demonstrating that parents progress through stages will need to be conducted to establish whether parents' readiness to change parenting behaviours is truly stage-based in nature.

### **Implications for Theory**

My research expands understanding of the applicability and generalizability of the SOC construct and the URICA to parenting. The Precontemplation-Contemplation-Action-

Maintenance structure – a structure that has been shown to apply to a wide-range of health-related behaviours – also applies to parents’ readiness to change parenting behaviours.

As noted above, the element of my findings that is particularly novel is the support found for the Maintenance factor as it relates to parents’ readiness to change parenting behaviours. It is noteworthy that I found support for the Maintenance factor in each of my first, second, and combined samples. Support for the Maintenance factor was also replicated in analyses across parent gender and child age categories. This lends further support to the notion that the Maintenance factor taps a unique element of parents’ readiness to change parenting behaviours.

The Maintenance factor is important because parenting is an iterative and evolving process in which parents may continuously learn and implement new parenting behaviours. They may also be flexible in adapting parenting behaviours and strategies that are effective during certain situations or timepoints, but that are less effective at others. There are some similarities between maintaining new, effective parenting practices and the concept of relapse prevention that the Maintenance factor tapped in early TTM research. The PARC Maintenance factor may tap parents’ ability to maintain the use of effective parenting behaviours that they have learned in the past or refrain from using behaviours they have learned are ineffective.

### **Implications for Practice**

The area of practice in which the PARC may most readily intersect with evidence-based parenting support is in the evaluation of universal media campaigns. A range of media (such as brochures, newspaper articles, billboards, or television content) are used to communicate positive parenting information and messages and normalize help-seeking with regards to parenting (Sanders et al., 2014). Measuring changes in parents’ readiness to change parenting behaviours

(e.g., with the PARC) may prove to be a target variable particularly germane to the evaluation of these campaigns.

Another area of practice to which the PARC may be relevant is assessing – in the context of a parenting intervention – the extent to which parents integrate newly-learned parenting behaviours into their lives. My identification of a Maintenance component to parents’ readiness to change parenting behaviours could serve useful in understanding long-term outcomes associated with parenting interventions.

To date, the vast majority of research into the development and assessment of parenting programs has focused on parents who have a perceived (or mandated) immediate need for support. Less research has examined how parents maintain changes and generalize knowledge and skills to new areas within their parenting. The Maintenance factor may be useful in evaluating the longitudinal impacts of parenting interventions and helping understand how best to instill long-term sustainable change in parents accessing parenting supports.

### **Future Research**

Future research extending the line of research that I have pursued in this dissertation falls into two categories: a) studies that could be conducted in the short- and immediate-term aimed at further assessing the PARC’s psychometric properties and b) studies that could be conducted in the long-term aimed at the more aspirational applications of the PARC alluded to in the section above on implications for practice. These two categories are not necessarily mutually exclusive.

There are a number of other issues that should be addressed as part of continued assessment of the PARC’s psychometric properties. For example, although the majority of PARC subscale scores exhibited good or excellent internal consistency for both mothers and fathers, internal consistency for Precontemplation scores was marginally inadequate in the

second sample for both mothers and fathers. This could be associated with the relatively low factor loading of the PC6 item in both the first and second samples. This item (“*I would rather accept that my child is not perfect than change the way I parent*”) is positively worded in contrast to all the other Precontemplation items, which are worded in a negative or hostile manner (e.g., PC7: “*It would be a waste of time to try to learn about better ways to parent*”). Given that internal consistency for the Precontemplation scale scores generally meets the criterion for adequacy and that keeping the item ensures that each subscale has five items, future research may explore alternative wordings for this item (for example, “*My child will never be perfect so there’s no point changing my parenting*”) that better represent the negative wording of the other Precontemplation items. Overall, the PARC may benefit from research that explores whether wording for any other items could be improved. This is particularly true given that across each of the models tested, adequate goodness-of-fit statistics were obtained after making modifications to the model by correlating certain error terms. It is reasonable to expect some shared variance between similarly worded items and there is overlap between the error terms correlated in analyses on the first sample and those on the second sample. However, the amount of shared variance between certain items suggests that the items and the model can be refined and enhanced.

In addition, future research should explore optimal wording for PARC Maintenance items. Because children are consistently growing and changing, even the most competent parents must change parenting practices over time to meet the context-specific needs of the child. Although parenting is iterative, evolving, and context-dependent, parents do not necessarily need to be working to prevent “slipping” (as items M5 and M6 refer to) or “relapsing” (as the original URICA Maintenance items target) in order to endorse PARC Maintenance items. Refinements to

the wording of Maintenance items that better-capture the spirit of the construct – which, in the context of the PARC, refers to maintaining gains over time and consistently applying skills that have been found effective – may prove to enhance model fit and/or internal consistency.

Further assessment of the PARC's convergent validity may entail observational studies. For example, an observational measure of parenting behaviours such as the Dyadic Parent-Child Interaction Scale (DPICS-II; Eyberg, Bessmer, Newcomb, Edwards, & Robinson, 1994) could be compared to PARC scores as well as self-report parenting measures, such as those used in my studies.

Part of continued evaluation of the PARC should also include investigation of a number of important criteria relevant to evidence-based assessments that have not yet been explored. Next steps in the evaluation of the PARC's psychometric properties may include study of its scores' test-retest reliability (e.g., by administering the PARC to the same participants on more than one occasion), predictive validity (e.g., by examining a parent's likelihood of accessing parenting supports based on their PARC score), and clinical utility (e.g., by studying administration of the PARC by clinicians before or during a parenting intervention).

The PARC scores' reliability and validity in diverse cultural and social groups should also be further examined. Family income and parent ethnicity has been found to moderate the relationship between parenting and important child outcomes (Hill, 2001). In my studies I did not collect data on participant ethnicity, therefore no clear understanding exists of how participant ethnicity relates to PARC responses. In terms of income, my samples over-represent families with above-median incomes. Therefore, it will be important to determine the applicability of the PARC to families with below-median incomes.

As alluded to in the section describing links between my research and other research in the area of parents' readiness to change parenting behaviours, it will also be useful for future research to examine the PARC in clinical samples. This may include parents whose children have diagnosed behaviour disorders or parents who have been identified as requiring intervention for problematic parenting behaviours, such as abuse. No data on the PARC exist specific to parents with these characteristics. Examining PARC responses for parents in these group will be important in understanding the generalizability of the PARC. Related, it would be informative to examine how the data I have collected thus far compare to those for parents who have enrolled in parenting supports voluntarily. In addition to having implications for understanding the PARC's generalizability, these data would be relevant to the PARC's convergent validity.

Additional short- and intermediate-term research that supports and provides enhanced evidence of the PARC's psychometric properties could pave the way for innovative research that utilizes the PARC as an outcome measure. Such studies could possibly use the PARC as an evaluation tool to assess the impact of universal media campaigns for parents. For example, parents' PARC scores could be assessed before and after being exposed to public education campaigns related to parenting. Positive changes in PARC subscale scores could be taken as evidence that the campaign is effective in enhancing parents' readiness to address their parenting behaviours. A more complex study design would include tracking which, if any, parenting resources or interventions are accessed by those exposed to the media campaign. These data could then be analyzed in relation to PARC scores at multiple time points. Ideally, such a study would also include a longitudinal examination of the likelihood that parents seek additional parenting support and how, if at all, they apply newly-learned parenting strategies in their lives.

Despite the potential for the PARC to be used in evaluations of the impact of broad, public parenting interventions such as media campaigns, there is much immediate practical work to be done to better-understand the nature of parents' readiness to change and, more specifically, the PARC's psychometric properties. Future efforts to understand the nature of parents' readiness to change parenting behaviours will be necessary to consolidate my findings and to determine whether the Precontemplation-Contemplation-Action-Maintenance structure I have identified and replicated is the optimal conceptualization or whether a more optimal model exists.

It would be useful to conduct research in which responses to multiple measures of parents' readiness to change – namely the PARC, the Parent Readiness for Change Scale (Brestan et al., 1999b), and the Readiness, Efficacy, Attributions, Defensiveness, and Importance Scale – Short Form (Proctor et al., 2018) – are assessed in one or more large samples that include both community parents as well as parents of children with clinical-level child behavioural and emotional difficulties. This would allow for the factor structures of each respective measure to be re-assessed for both clinical and community parents. In addition to attempting to replicate the factor structures identified to date for each respective measure, it would be useful to understand how scores on each measure and their component subscales converge.

## **Conclusion**

Best practice guidelines were followed in the development of the PARC. Psychometric testing produced evidence in support of key components of the PARC scores' reliability, content and construct validity, as well as preliminary Canadian norms.

My research adds to the body of research concerning the applicability and

generalizability of the SOC construct. Findings from my first large community sample of Canadian parents represented the first replication of the URICA's Precontemplation-Contemplation-Action-Maintenance structure in the context of a measure of readiness to change parenting behaviours. Subsequently, I replicated this finding with data from a second large community sample of Canadian parents. In addition to extending a staged-based conceptualization of readiness to change to community parents, my research was the first to assess the Maintenance factor as it relates to parents' readiness to change.

This dissertation ultimately provides support for a multi-stage conceptualization of parents' readiness to change which includes a Maintenance stage. By adhering to established guidelines for the development of evidence-based assessments, this dissertation has resulted in the development of a measure with relatively sound psychometric properties. In the absence of well-validated means of measuring parents' readiness to change parenting behaviours, the PARC merits further study of its psychometric properties and its utility in clinical and research settings.

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## Appendix A

### *Recruitment Email Used in Manuscript One Study One*

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Dear (Expert),

We are writing to invite you to participate in an expert consultation on the content validation stage for a new measure, adapted from the 32-item University of Rhode Island Change Assessment Scale (URICA; McConaughy, DiClemente, Prochaska, & Velicer, 1989).

As an expert in *(to be modified to read either Stages of Change, Parenting Interventions, Change Readiness, or Psychological Measurement, depending on the expert)* research, we are seeking, and highly value, your feedback on this new measure.

Our measure – the Assessment of Readiness to Change Parenting Behaviours (ARC-PB)\* – is informed by Stages of Change research. It is designed to assess a parent's readiness to make changes in her or his parenting.

Despite what is known about the importance of matching behaviour change interventions to participants' readiness to change, we are not aware of any measure of parents' readiness to change parenting behaviours. Our goal is to provide researchers and clinicians with a tool that will allow them to assess readiness to change among individual parents. We hope this measure would also be sensitive to changes after different types of interventions.

Given your knowledge in this area, we welcome your expert feedback on whether the items of the ARC-PB capture the respective constructs of the Stages of Change model that the URICA is designed to capture.

The link below will take you to a survey with questions about the content validity of the ARC-PB that will take no more than 20 minutes of your time. If you are willing and able to participate in this survey, please click the link below.

Please note that by completing the survey you are giving consent and that your responses will be entirely anonymous.

[http://fluidsurveys.com/s/ARC-PB\\_EXPERT\\_CONSULTATION/](http://fluidsurveys.com/s/ARC-PB_EXPERT_CONSULTATION/)

In addition to having the ARC-PB items for you to read in the online survey, we have attached a sample to provide you with an idea of how the ARC-PB would be presented to parents.

We have worked to ensure that ARC-PB items capture the constructs they are designed to capture in the URICA while making adaptations that reflect the fact that parenting behaviours are not inherently problematic. To this end, you will likely note that of all items, those related to the Maintenance stage are the least like their URICA cousins. This reflects a de-emphasis on relapse prevention.

Please do not hesitate to contact either of us with any questions regarding this survey or ethical concerns. Please note that this project has been approved by the University of Ottawa Research Ethics Board.

We thank you very much for taking the time to share your expert feedback with us and will work diligently to incorporate it with the ultimate goal of enhancing the content and spread of parent training interventions.

Sincerely,

Jeffrey Perron, MBA

Doctoral Student in Clinical Psychology

Catherine M. Lee, PhD., C.Psych

Professor

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\*Note: The PARC was originally entitled the Assessment of Readiness to Change Parenting Behaviours (ARC-PB).

## Appendix B

*List of Experts Contacted in Manuscript One Study One*

|                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Readiness to Change</b>                                                                                                                    |
| John Norcross, PhD, Distinguished Professor of Psychology, University of Scranton                                                             |
| James Prochaska, PhD, Professor of Clinical and Health Psychology, University of Rhode Island                                                 |
| Carlo DiClemente, PhD, Professor, Department of Psychology, University of Maryland                                                            |
| Sharon Kennedy, PhD, Part Time Professor, Department of Psychology, University of Ottawa                                                      |
| Henny Westra, PhD, Associate Professor, Department of Psychology, York University                                                             |
| Josie Geller, PhD, Associate Professor, Department of Psychiatry, University of British Columbia                                              |
| <b>Parenting Interventions</b>                                                                                                                |
| Nina Heinrichs, PhD, Professor, Clinical Child and Adolescent Psychology and Psychotherapy, Department of Psychology, University of Bielefeld |
| Divna Haslam, PhD, Senior Research Fellow, School of Psychology, University of Queensland                                                     |
| Graham Reid, PhD, Associate Professor, Clinical Science and Psychopathology, Western University                                               |
| Patrick McGrath, PhD, Canada Research Chair and Professor of Psychology, Pediatrics, and Psychiatry, Dalhousie University                     |
| Ron Prinz, PhD, Professor, School of Psychology, University of South Carolina                                                                 |
| Charlotte Johnston, PhD, Professor, Department of Psychology, University of British Columbia                                                  |
| Greg Fabiano, PhD, Associate Dean, Interdisciplinary Research, University at Buffalo                                                          |
| Matthew Sanders, PhD, Director, Parenting and Family Support Centre, University of Queensland                                                 |
| Susan Stern, PhD, Associate Professor, Faculty of Nursing, University of Toronto                                                              |
| Rachel Calam, PhD, Emeritus Professor, Child and Family Psychology, The University of Manchester                                              |
| Louise Keown, PhD, Senior Lecturer, Faculty of Education and Social Work, University of Auckland                                              |
| Karen Blasé, PhD, Senior Scientist Emerita, Child Development Institute, University of North Carolina at Chapel Hill                          |
| Steven Feldgaier, PhD, Director, Parenting Initiatives at Healthy Child Manitoba                                                              |
| Sylvie Normandeau, PhD, Professor, School of Psycho-Education, Université de Montréal                                                         |
| <b>Psychological Assessment</b>                                                                                                               |
| John Hunsley, PhD, Professor, School of Psychology, University of Ottawa                                                                      |
| Eric Mash, PhD, Professor Emeritus, School of Psychology, University of Calgary                                                               |
| David Dozois, PhD, Professor, Department of Psychology, Western University                                                                    |
| Dennis Embry, PhD, Senior Scientist, PAXIS Institute                                                                                          |

## Appendix C

### *Consent Form and Questions from the PARC Expert Consultation*

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#### **Consent Information**

**Principal Investigator:** Jeffrey Perron, MBA, University of Ottawa, School of Psychology

**Supervisor:** Dr. Catherine Lee, C.Psych., University of Ottawa, School of Psychology

**Study Overview:** You are invited to participate in an expert consultation on the content validation stage for an adapted version of the University of Rhode Island Change Assessment Scale, entitled the Assessment of Readiness to Change Parenting Behaviours (ARC-PB).

Through this consultation we are seeking answers to the following research questions:

- To what extent do the ARC-PB's items capture the constructs (i.e. pre-Contemplation, Contemplation, Action, or Maintenance) that they are intended to capture?
- Are there additional items that need to be created, or items that need to be modified?

**Participation:** If you agree to participate in this study, please complete the survey below. The survey should take you approximately 15-20 minutes.

**Risks:** There are no risks associated with your participation (or decision to not participate).

**Confidentiality and anonymity:** The information you share will remain strictly confidential and anonymous. Anonymity will be protected by virtue of the fact that when responses are downloaded from this website, no identifying information will be downloaded with the responses.

**Conservation of Data:** The data collected (i.e. responses submitted electronically via the online survey) will be stored on a secure server at the University of Ottawa. Only Jeffrey Perron and Dr. Catherine Lee will have access to the data. Data will be conserved on the secure server at the University of Ottawa for 5 years following the publication of the study, at which time all data will be destroyed.

**Voluntary Participation:** You are under no obligation to participate and if you choose to participate, you may refuse to answer questions that you do not want to answer. Completion and return of this survey by you implies consent. Should you choose to withdraw from the study (which you may do at any point), your response data may still be used given the anonymous nature of the study and the impossibility of retracing individual datasets.

This project has been approved by the University of Ottawa Research Ethics Board.

If you have any questions with regards to the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5, tel.: (613) 562-5387 or [ethics@uottawa.ca](mailto:ethics@uottawa.ca).

Please print this information for your records.

Thank you for your time and consideration.

**Intro Question:** Do you feel that any additional modifications should be made to the instructions (below) for the ARC-PB?

Instructions (note that these appear at the start of the ARC-PB):

Each statement below describes how a parent might feel when thinking about parenting. Please indicate the extent to which you agree or disagree with each statement. In each case, make your choice in terms of how you feel *right now*, not what you have felt in the past or would like to feel. For all statements that refer to challenges in parenting, answer in terms of any changes you might want to make in the way you parent.

**General instructions for this survey:**

The remainder of this survey allows you to provide a rating of how well each adapted ARC-PB item captures the Stage of Change it is intended to capture. For each item-related question you will see the following:

**-Column 1:** The original University of Rhode Island Change Assessment Scale (URICA; McConaughy, DiClemente, Prochaska, & Velicer, 1989) item, if applicable.

**-Column 2:** The adapted item of the Assessment of Readiness to Change Parenting Behaviours Scale (ARC-PB).

**-Column 3:** The Stages of Change (Norcross, Krebs, & Prochaska, 2011) construct that the ARC-PB item is intended to measure.

**-A Drop-Down Menu:** This is a Likert scale where you indicate how well you feel the ARC-PB item captures the item it is intended to measure. Note: 1=does not capture and 7=completely captures.

On the last page of this survey you will have the opportunity to provide any general comments regarding the items or the survey itself.

You will also note that items are organized by stage: Precontemplation, Contemplation, Action, and Maintenance. Prior to questions from each stage, a definition of that stage from

Norcross et. al, 2011 is provided.

Precontemplation is the stage in which there is no intention to change behaviour in the foreseeable future. Most people in this stage are unaware or underaware of their problems. Families, friends, neighbours or employees, however, are often well aware that the precontemplators suffer from the problems.

|                                                                                                            |                                                                                                                               |                  |                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. As far as I'm concerned, I don't have any problems that need changing.                                  | As far as I'm concerned, I don't need to change the way I parent.                                                             | Precontemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures. |
| 1a. NEW ITEM                                                                                               | As far as I'm concerned, my child is doing fine.                                                                              | Precontemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures. |
| 11. Trying to change is pretty much a waste of time for me because the problem doesn't have to do with me. | Trying to change the way I parent is pretty much a waste of time for me because my child's problems don't have to do with me. | Precontemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures. |

|                                                                                                  |                                                                                                |                  |                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13. I guess I have faults, but there's nothing that I really need to change.                     | I guess I have faults as a parent, but there's nothing that I really need to change.           | Precontemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 23. I may be part of the problem, but I don't really think I am.                                 | I may be part of the problem my child is having but I don't really think I am.                 | Precontemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 26. All this talk about psychology is boring. Why can't people just forget about their problems? | All this talk about parenting is boring. Why can't people just forget about their problems?    | Precontemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 29. I have worries but so does the next person. Why spend time thinking about them?              | I have worries about my child but so does the next person. Why spend time thinking about them? | Precontemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p>                                                                |

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|                                                                 |                                                                                               |                  | Note: 1 = does not capture and 7 = completely captures.                                                                                                                                                                  |
| 31. I would rather cope with my faults than try to change them. | I would rather accept I am not a perfect parent than try to change the way I parent my child. | Precontemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 31a. NEW ITEM                                                   | I would rather accept that my child is not perfect than try to change the way I parent.       | Precontemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| NEW ITEM                                                        | It would be a waste of time to spend time learning about how to be a better parent.           | Precontemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |

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| NEW ITEM | Things like parenting classes are only useful for people who are having major problems with parenting, not me. | Precontemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures. |
| NEW ITEM | I don't need some expert telling me how to parent my children.                                                 | Precontemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures. |

Contemplation is the stage in which people are aware that a problem exists and are seriously thinking about overcoming it but have not yet made a commitment to take Action.

Contemplators struggle with their positive evaluations of their dysfunctional behaviour and the amount of effort, energy, and loss it will cost to overcome it.

|                                                        |                                                                   |               |                                                                                                                                                                                                                   |
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| 2. I think I might be ready for some self-improvement. | I think I might be ready to look at ways to improve my parenting. | Contemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures. |
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|                                                                           |                                                                                           |               |                                                                                                                                                                                                                          |
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| 2a. NEW ITEM                                                              | I think my child needs me to look at ways to improve my parenting.                        | Contemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 4. It might be worthwhile to work on my problem.                          | It might be worthwhile to work on my parenting to help my child.                          | Contemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 8. I've been thinking that I might want to change something about myself. | I've been thinking that I might want to change something about the way I parent my child. | Contemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 12. I'm hoping this place will help me to better understand myself.       | I'm hoping I can get help to better understand how to help my child.                      | Contemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p>                                                                |

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|                                                                 |                                                       |               | Note: 1 = does not capture and 7 = completely captures.                                                                                                                                                                  |
| 19. I wish I had more ideas on how to solve my problem.         | I wish I had more ideas on how to be a better parent. | Contemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 21. Maybe this place will be able to help me.                   | Maybe I can learn to be a better parent.              | Contemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 24. I hope that someone here will have some good advice for me. | I hope that I can get help to be a better parent.     | Contemplation | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
|                                                                 | I have parenting challenges and I                     | Contemplation | Please use the drop-down 1-7 Likert scale below to rate the extent                                                                                                                                                       |

|                                                              |                                                                                    |               |                                                                                                                                                                                                                   |
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| 15. I have a problem and I really think I should work on it. | really think I should work on them.                                                |               | to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures.                                                                    |
| NEW ITEM                                                     | I think I need to look at ways to learn about how to be a better parent.           | Contemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures. |
| NEW ITEM                                                     | I think that advice on certain aspects of parenting would be helpful.              | Contemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not capture and 7 = completely captures. |
| NEW ITEM                                                     | There are certain things about the way I parent my child that I'd like to improve. | Contemplation | Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.<br><br>Note: 1 = does not                                      |

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|  |  |  | capture and 7 = completely captures. |
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Action is the stage in which individuals modify their behaviour, experiences, and/or environment to overcome their problems. Action involves the most overt behavioural changes and requires considerable commitment of time and energy. Individuals are classified in the Action stage if they have successfully altered the dysfunctional behaviour for a period from 1 day to 6 months.

|                                                                        |                                                                                        |        |                                                                                                                                                                                                                          |
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| 14. I am really working hard to change.                                | I am really working hard to change the way I parent.                                   | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 3. I am doing something about the problems that had been bothering me. | I am concerned about my child's problems and am doing something to make things better. | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 3a. NEW ITEM                                                           | I am concerned about the way I                                                         | Action | <p>Please use the drop-down 1-7 Likert scale below to rate</p>                                                                                                                                                           |

|                                                              |                                                                      |        |                                                                                                                                                                                                                          |
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|                                                              | parent and am doing something to be a better parent.                 |        | <p>the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p>                                                         |
| 7. I am finally doing some work on my problems.              | I am finally working on my parenting in order to help my child.      | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 10. At times my problem is difficult, but I'm working on it. | At times it is difficult to be a good parent, but I'm working on it. | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |

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| 17. Even though I'm not always successful in changing, I am at least working on my problem. | Even though I'm not always successful in changing the way I parent, I am at least working on being a better parent. | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 20. I have started working on my problems but I would like help.                            | I have started working on improving my parenting but I would like help.                                             | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 25. Anyone can talk about changing; I'm actually doing something about it.                  | Anyone can talk about changing the way they parent; I'm actually doing something about it.                          | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 =</p>                      |

|                                          |                                                                                           |        |                                                                                                                                                                                                                          |
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|                                          |                                                                                           |        | completely captures.                                                                                                                                                                                                     |
| 30. I am actively working on my problem. | I am actively working to become a better parent.                                          | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| NEW ITEM                                 | I am trying out new ways to parent.                                                       | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| NEW ITEM                                 | I've been making an effort to learn things that will help me be the best parent I can be. | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p>                                                                |

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|          |                                                                                                                |        | Note: 1 = does not capture and 7 = completely captures.                                                                                                                                                                  |
| NEW ITEM | After I try something that is ineffective, I look into more effective ways of addressing my child's behaviour. | Action | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |

Maintenance is the stage in which people work to prevent relapse and consolidate the gains attained during Action. This stage extends from 6 months to an indeterminate period past the initial Action. Remaining free of the problem and/or consistently engaging in a new incompatible behaviour for more than 6 months are the criteria for the Maintenance stage.

|                                                                                                      |                                                                                                                                      |             |                                                                                                                                                                                                                          |
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| 32. After all I had done to try and change my problem, every now and then it comes back to haunt me. | I worked hard to be a better parent to help my child, but every now and then, I slip into old habits so I need help to stay on track | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
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| 6. It worries me that I might slip back on a problem I have already changed, so I am here to seek help.                                 | I worry that I might slip back into old parenting habits, so I am looking for help.                                                  | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 9. I have been successful in working on my problem but I'm not sure I can keep up the effort on my own.                                 | I have been successful in improving my parenting but I'm not sure I can keep up the effort on my own.                                | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 16. I'm not following through with what I had already changed as well as I had hoped, and I'm here to prevent a relapse of the problem. | I'm not following through with positive parenting as well as I had hoped, and I want to make sure I don't slip back into old habits. | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 =</p>                      |

|                                                                                                                            |                                                                                                                                                         |             |                                                                                                                                                                                                                          |
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|                                                                                                                            |                                                                                                                                                         |             | completely captures.                                                                                                                                                                                                     |
| 18. I thought once I had resolved the problem I would be free of it, but sometimes I still find myself struggling with it. | I thought once I had learned to parent in a positive way, the problems would be solved, but sometimes I still find myself slipping back into old habits | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 22. I may need a boost right now to help me maintain the changes I've already made.                                        | I may need a boost right now to help me maintain the changes I've already made in the way I parent my child.                                            | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| 27. I'm here to prevent myself from having a relapse of my problem.                                                        | I need to prevent myself from going back to ineffective parenting methods I have used in the past.                                                      | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p>                                                                |

|                                                                                                         |                                                                                                           |             |                                                                                                                                                                                                                          |
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|                                                                                                         |                                                                                                           |             | Note: 1 = does not capture and 7 = completely captures.                                                                                                                                                                  |
| 28. It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved. | It is frustrating, but I feel I might be slipping back into old parenting habits I thought I had changed. | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| NEW ITEM                                                                                                | When I feel stuck I go back to what I have learned about parenting                                        | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| NEW ITEM                                                                                                | I try to find ways to use the parenting tips I've learned in new situations with my children.             | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its</p>                                                                                            |

|          |                                                                                                                         |             |                                                                                                                                                                                                                          |
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|          |                                                                                                                         |             | <p>associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p>                                                                                                                        |
| NEW ITEM | <p>I've learned a lot about becoming a better parent and I want to keep learning more.</p>                              | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |
| NEW ITEM | <p>Sometimes I have the urge to do things that I know are ineffective, but I use more effective techniques instead.</p> | Maintenance | <p>Please use the drop-down 1-7 Likert scale below to rate the extent to which the adapted ARC-PB item above captures its associated Stage of Change.</p> <p>Note: 1 = does not capture and 7 = completely captures.</p> |

Do you feel that any additional modifications should be made to the instructions for the ARC-PB?

Are there additional items that need to be created, or items that need to be modified?

If you are aware of any parental change readiness scales, that we have overlooked, we would be grateful for the reference.

## Appendix D

*PARC Expert Consultation Results*

## Precontemplation

| Original item                                                                                              | ARC-PB                                                                                                                        | Status   | Qualitative Feedback                                                                                                                                                                                                                                                                                     | Changes Made in Response to Feedback                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. As far as I'm concerned, I don't have any problems that need changing.                                  | As far as I'm concerned, I don't need to change the way I parent.                                                             | Adequate |                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                              |
| 1a. NEW ITEM                                                                                               | As far as I'm concerned, my child is doing fine.                                                                              | Moderate |                                                                                                                                                                                                                                                                                                          | Item deleted.                                                                                                                                                                                                                                                                                                                |
| 11. Trying to change is pretty much a waste of time for me because the problem doesn't have to do with me. | Trying to change the way I parent is pretty much a waste of time for me because my child's problems don't have to do with me. | Moderate | <p>The item parallels the original item, but I think that the word "anything" should be inserted so that it reads "don't have anything to do with me."</p> <p>Trying to change the way I parent is pretty much a waste of time for me because my child's problems don't have anything to do with me.</p> | <p>Changed to: Trying to change the way I parent is pretty much a waste of time for me because it won't change my child's problems.</p> <p>Because the changes took emphasis away from the problematic "to do with me" component of the original item, it was felt that it was not necessary to add the word "anything."</p> |

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| 13. I guess I have faults, but there's nothing that I really need to change.                     | I guess I have faults as a parent, but there's nothing that I really need to change.           | Moderate |                                                                                                                                                                                              |                                                                                                             |
| 23. I may be part of the problem, but I don't really think I am.                                 | I may be part of the problem my child is having but I don't really think I am.                 | Adequate | Although item includes parental ownership for child behaviour issues I think this could be sampled a little more in the pre-Contemplation phase and perhaps even in the Contemplation phase. | Changed to: The way I parent may be part of the problem my child is having but I don't really think it is.  |
| 26. All this talk about psychology is boring. Why can't people just forget about their problems? | All this talk about parenting is boring. Why can't people just forget about their problems?    | Moderate |                                                                                                                                                                                              | Item deleted.                                                                                               |
| 29. I have worries but so does the next person. Why spend time thinking about them?              | I have worries about my child but so does the next person. Why spend time thinking about them? | Moderate | should read "I have worries about my child but so does every parent..."                                                                                                                      | Changed to: I have worries about my parenting but so does every parent. Why spend time thinking about them? |
| 31. I would rather cope with my faults than                                                      | I would rather accept I am not a perfect parent than try to change the way I parent my child.  | Moderate | The items about "rather accepting I'm not a perfect parent" and the similar child one may                                                                                                    |                                                                                                             |

|                     |                                                                                         |          |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                           |
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| try to change them. |                                                                                         |          | require slight modification. In an Action phase many interventions would encourage parents to accept that they are not perfect but they can try so this two part premise might not factor that well. For example a parent may want to accept that they are not the perfect parent but still aim to improve.                                                                                           | It was decided that the item should be kept in its original form and that it would be deleted if it does not factor well. |
| 31a. NEW ITEM       | I would rather accept that my child is not perfect than try to change the way I parent. | Moderate | The items about "rather accepting I'm not a perfect parent" and the similar child one may require slight modification. In an Action phase many interventions would encourage parents to accept that they are not perfect but they can try so this two part premise might not factor that well. For example a parent may want to accept that they are not the perfect parent but still aim to improve. |                                                                                                                           |
| NEW ITEM            | It would be a waste of time to spend time learning about how to be a better parent.     | Adequate |                                                                                                                                                                                                                                                                                                                                                                                                       | Changed to: It would be a waste of time to try to learn about how to be a better parent.                                  |

|          |                                                                                                                |          |                                                                                                             |                                                                                                                 |
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| NEW ITEM | Things like parenting classes are only useful for people who are having major problems with parenting, not me. | Adequate |                                                                                                             | Changed to: Parenting programs are only useful for people who are having major problems with parenting, not me. |
| NEW ITEM | I don't need some expert telling me how to parent my children.                                                 | Moderate | The item "I don't need some expert..." sounds rather confrontational. I suggestion changing "some" to "an." | Changed to: I don't need an expert telling me how to parent my children.                                        |

### Contemplation

|                                                        |                                                                    |          |                                                                                                                                                                                                                               |                                                                            |
|--------------------------------------------------------|--------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 2. I think I might be ready for some self-improvement. | I think I might be ready to look at ways to improve my parenting.  | Adequate |                                                                                                                                                                                                                               | Changed to: I think I might be ready to find ways to improve my parenting. |
| 2a. NEW ITEM                                           | I think my child needs me to look at ways to improve my parenting. | Adequate | The item may have a low base rate too. Softening it like "My child would benefit from me looking at ways" might increase the variation on the scale although I'm sure you will be looking at item spread etc when validating. | Item deleted.                                                              |

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| 4. It might be worthwhile to work on my problem.                          | It might be worthwhile to work on my parenting to help my child.                          | Adequate | But one major concern: All of the items (or phrases) that stipulate "to help my child" should be eliminated. Such items potentially conflate what the parent thinks he/she should do about parenting with what a parent might do for a troubled child                                                            | Item deleted.                                                |
| 8. I've been thinking that I might want to change something about myself. | I've been thinking that I might want to change something about the way I parent my child. | Adequate |                                                                                                                                                                                                                                                                                                                  |                                                              |
| 12. I'm hoping this place will help me to better understand myself.       | I'm hoping I can get help to better understand how to help my child.                      | Adequate | <p>A few items capture the stage well but are not parallel items though may not matter- e.g., I'm hoping this place will help me better understand myself.</p> <p>The last part of the question "I'm hoping I can get help to better understand how to help my child" could be changed to "parent my child."</p> | Changed to: I'm hoping I can get help to be a better parent. |
| 19. I wish I had more ideas on how                                        | I wish I had more ideas on how to be a better parent.                                     | Adequate |                                                                                                                                                                                                                                                                                                                  |                                                              |

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| to solve my problem.                                            |                                                                                    |          |  |                                                                     |
| 21. Maybe this place will be able to help me.                   | Maybe I can learn to be a better parent.                                           | Adequate |  |                                                                     |
| 24. I hope that someone here will have some good advice for me. | I hope that I can get help to be a better parent.                                  | Moderate |  |                                                                     |
| 15. I have a problem and I really think I should work on it.    | I have parenting challenges and I really think I should work on them.              | Adequate |  |                                                                     |
| NEW ITEM                                                        | I think I need to look at ways to learn about how to be a better parent.           | Adequate |  | Changed to: I think I need to find out how to be a better parent.   |
| NEW ITEM                                                        | I think that advice on certain aspects of parenting would be helpful.              | Adequate |  | Changed to: I think that some advice on parenting would be helpful. |
| NEW ITEM                                                        | There are certain things about the way I parent my child that I'd like to improve. | Adequate |  | Changed to: I'd like to change some things about the way I parent   |

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## Action

|                                                                        |                                                                                        |          |                                                                                                                                                                           |                                                   |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 14. I am really working hard to change.                                | I am really working hard to change the way I parent.                                   | Adequate |                                                                                                                                                                           |                                                   |
| 3. I am doing something about the problems that had been bothering me. | I am concerned about my child's problems and am doing something to make things better. | Moderate | The question "I am concerned about my child's problems and am doing something to make things better" could be changed to "am changing my parenting to make things better" | Item deleted.                                     |
| 3a. NEW ITEM                                                           | I am concerned about the way I parent and am doing something to be a better parent.    | Adequate |                                                                                                                                                                           |                                                   |
| 7. I am finally doing some work on my problems.                        | I am finally working on my parenting in order to help my child.                        | Adequate |                                                                                                                                                                           | Changed to: I am finally working on my parenting. |
| 10. At times my problem is difficult, but I'm working on it.           | At times it is difficult to be a good parent, but I'm working on it.                   | Adequate |                                                                                                                                                                           |                                                   |
| 17. Even though I'm not always                                         | Even though I'm not always successful in changing the way I parent, I am at least      | Adequate |                                                                                                                                                                           |                                                   |

|                                                                            |                                                                                                                |          |  |                                                                                                              |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------|--|--------------------------------------------------------------------------------------------------------------|
| successful in changing, I am at least working on my problem.               | working on being a better parent.                                                                              |          |  | Changed to: Even though I'm not always successful in changing the way I parent, I am at least working on it. |
| 20. I have started working on my problems but I would like help.           | I have started working on improving my parenting but I would like help.                                        | Adequate |  | Changed to: I have started working on my parenting but I would like help.                                    |
| 25. Anyone can talk about changing; I'm actually doing something about it. | Anyone can talk about changing the way they parent; I'm actually doing something about it.                     | Adequate |  |                                                                                                              |
| 30. I am actively working on my problem.                                   | I am actively working to become a better parent.                                                               | Adequate |  |                                                                                                              |
| NEW ITEM                                                                   | I am trying out new ways to parent.                                                                            | Adequate |  |                                                                                                              |
| NEW ITEM                                                                   | I've been making an effort to learn things that will help me be the best parent I can be.                      | Adequate |  |                                                                                                              |
| NEW ITEM                                                                   | After I try something that is ineffective, I look into more effective ways of addressing my child's behaviour. | Moderate |  | Item deleted.                                                                                                |

## Maintenance

|                                                                                                         |                                                                                                                                      |          |                                                                                                                  |                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 32. After all I had done to try and change my problem, every now and then it comes back to haunt me.    | I worked hard to be a better parent to help my child, but every now and then, I slip into old habits so I need help to stay on track | Moderate | A few items capture the stage well but are not parallel items though may not matter- e.g., Item 32 not parallel. | Changed to: I have worked hard to be a better parent but every now and then, I slip into old habits so I need help to stay on track. |
| 6. It worries me that I might slip back on a problem I have already changed, so I am here to seek help. | I worry that I might slip back into old parenting habits, so I am looking for help.                                                  | Moderate |                                                                                                                  | Item deleted.                                                                                                                        |
| 9. I have been successful in working on my problem but I'm not sure I can keep up the effort on my own. | I have been successful in improving my parenting but I'm not sure I can keep up the effort on my own.                                | Moderate |                                                                                                                  |                                                                                                                                      |
| 16. I'm not following though with what I had already changed as well as I had hoped, and I'm here to    | I'm not following through with positive parenting as well as I had hoped, and I want to make sure I don't slip back into old habits. | Adequate |                                                                                                                  |                                                                                                                                      |

|                                                                                                                            |                                                                                                                                                         |          |  |                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--|--------------------------------------------------------------------------------------------|
| prevent a relapse of the problem.                                                                                          |                                                                                                                                                         |          |  |                                                                                            |
| 18. I thought once I had resolved the problem I would be free of it, but sometimes I still find myself struggling with it. | I thought once I had learned to parent in a positive way, the problems would be solved, but sometimes I still find myself slipping back into old habits | Adequate |  |                                                                                            |
| 22. I may need a boost right now to help me maintain the changes I've already made.                                        | I may need a boost right now to help me maintain the changes I've already made in the way I parent my child.                                            | Adequate |  |                                                                                            |
| 27. I'm here to prevent myself from having a relapse of my problem.                                                        | I need to prevent myself from going back to ineffective parenting methods I have used in the past.                                                      | Adequate |  |                                                                                            |
| 28. It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved.                    | It is frustrating, but I feel I might be slipping back into old parenting habits I thought I had changed.                                               | Adequate |  | Changed to: I need to prevent myself from slipping back into ineffective parenting habits. |

|          |                                                                                                                  |          |                                                                                              |                                                                                                             |
|----------|------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| NEW ITEM | When I feel stuck I go back to what I have learned about parenting                                               | Moderate | When I feel stuck with a parenting problem I go back to what I have learned about parenting. | Changed to: When I feel stuck in parenting I try to remember the new things I have learned about parenting. |
| NEW ITEM | I try to find ways to use the parenting tips I've learned in new situations with my children.                    | Adequate |                                                                                              |                                                                                                             |
| NEW ITEM | I've learned a lot about becoming a better parent and I want to keep learning more.                              | Adequate |                                                                                              |                                                                                                             |
| NEW ITEM | Sometimes I have the urge to do things that I know are ineffective, but I use more effective techniques instead. | Moderate |                                                                                              | Item deleted.                                                                                               |

| Qualitative Question                                                                                     | Responses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Response to Feedback                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Do you feel that any additional modifications should be made to the instructions (below) for the ARC-PB? | <p>The instructions are fine, but I suggest that you put the adjectives at the top of each column, on each page. This way the participant does not need to remember what each number means.</p> <p>Yes: I do not understand the last sentence. Please rewrite the sentence (1) to clarify its meaning and (2) to make it less leading ("any changes you might want to make" may subtly suggest that Precontemplation is not acceptable.</p> <p>I don't think that the last sentence is very clear at all. Maybe it needs an example? Is it helpful to state that there are no correct answers, it is just your opinion right now. I don't know if this would make it more or less likely for people to stay in the 'right now' moment and not respond as they think they should.</p> <p>The focus on the current feeling is very good especially given we would hope it is change sensitive during the course of any</p> | <p>All subsequent versions of the PARC – both online and on paper – have listed adjectives at the top of each page.</p> <p>The sentence in question (the last sentence in the original ARC-PB used in Study 1) has been removed.</p> <p>It is not stated that there are “no correct answers” as it was felt that asking parents to indicate “the extent to which they agree or disagree” effectively conveys that there are no correct answers.</p> <p>“Answer based on how you feel right now” has been added to the instructions.</p> |

|                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                      |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
|                                                                                               | <p>interventions. "In each case" sounds a little formal I wonder whether it would be useful to simplify this to "Answer based on how you feel right now" Also in the paper version it is worth stating parents should circle the number that corresponds and have it would also be useful disagree/ agree on top of the scale (directly above the numbers) so ppl don't have to constantly refer up to the key at the top.</p> <p>". . . how a parent might feel when thinking about parenting." Are these items supposed to be thoughts or feelings [emotions]. Suggest "Each statement below describes how a parent might think about parenting to reduce the confound. I don't understand what the last sentence in the instructions is requesting.</p> <p>This looks fine to me.</p> <p>The choice of "right now" or "would like to feel" strikes me a potentially problematic. Maybe it will be clearer when I see the items. I would go with 1 or the other but not both.</p> <p>Looks good.</p> <p>The last sentence is not clear - perhaps parents need to see these "challenges" items before they would understand.</p> <p>OK.</p> <p>The instructions are fine, but I suggest that you put the adjectives at the top of each column, on each page. This way the participant does not need to remember what each number means.</p> | <p>"Each statement below describes how a parent might think about parenting" has been added to the instructions.</p> |
| <p>Are there additional items that need to be created, or items that need to be modified?</p> | <p>The original Maintenance items appear to only tap the relapse/relapse prevention aspect of the construct. Your adapted items parallel the original items, but your added items are essential to ensuring that the scale maps on to the entire construct.</p> <p>Overall, looks great - I felt like a couple of the Maintenance items were really "relapse" items but I get how they fit in Maintenance stage. I am excited about the possibilities of the assessment and how training and coaching for practitioners can align with the stage of the parent NOT with the curriculum they are supposed to be following and/or how parenting</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                      |

|                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|                                                                                                                                   | <p>curricula can be modified to be stage based - keep me posted.</p> <p>The pre-Contemplation and Maintenance phases seem the most difficult to sample in a parenting context. In particular because unlike substance issues parenting skills once acquired can be easier to maintain and parents may not need as much ongoing support. ...In an Action phase many interventions would encourage parents to accept that they are not perfect but they can try so this two part premise might not factor that well. For example a parent may want to accept that they are not the perfect parent but still aim to improve.</p> <p>I would suggest checking the readability of some of these items. Some of them might be worded in a more straightforward or plain language way.</p> <p>Maintenance items most problematic.</p> <p>what about barriers to initiating parent training? (e.g., spousal support or lack thereof)</p> <p>not that I can think of</p> | <p>Readability was assessed in Study 2 and was found to be adequate.</p>        |
| <p>If you are aware of any parental change readiness scales, that we have overlooked, we would be grateful for the reference.</p> | <p>I am not aware of any but I think it will be a really useful measure if it is brief enough to implement. In particular if the measure is validated it would be useful to see if readiness for change moderates treatment outcome</p> <p>Chuck Cunningham at McMaster University at one point had a readiness to change scale for parents.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                 |
| <p>Do you have any additional comments regarding how you feel that the ARC-PB could be improved?</p>                              | <p>Interesting idea and nice effort, overall. But one major concern: All of the items (or phrases) that stipulate "to help my child" should be eliminated. Such items potentially conflate what the parent thinks he/she should do about parenting with what a parent might do for a troubled child. Unnecessarily adds ambiguity, potentially confuses two stages of change (parenting stage, parenting stage for troubled child), and contributes error variance.</p> <p>Currently it is still rather long. I assume you will be looking at cutting down some of the items based on factor analysis etc. You have modelled it well on the existing scale and the newly added items are good additions to make it more parenting specific.</p>                                                                                                                                                                                                                 | <p>All items that reference "to help my child" were modified or eliminated.</p> |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                            |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | <p>Seems like a good idea for a measure.</p> <p>Overall I thought it was an excellent scale. I assume you will be looking at cutting down some of the items based on factor analysis. You have modelled it well on the existing scale and the newly added items are good additions to make it more parenting specific.</p> <p>It would have been helpful to have had an option to comment on specific items as I read them. Can't recall specific items &amp; concerns now that I am at the end of the survey</p> <p>Some items that talk about the child's problems need words added to make the connection to parenting clearer e.g. The last part of the question "I'm hoping I can get help to better understand how to help my child" could be changed to "parent my child. The question "I am concerned about my child's problems and am doing something to make things better" could be changed to "am changing my parenting to make things better"</p> <p>Overall, I think that you have done a fine job in creating new items as well as adapting the others. I look forward to hearing more about this in the future as it is an important area of study.</p> <p>Well done.</p> <p>The items switch between focusing on the child's behaviour as the problem vs. the parenting as the problem. It might be better to keep the focus on parenting.</p> <p>Some of the sentences are a bit long - but I can see that you are taking them from the original items. Often the new items are more readable.</p> <p>pilot test with parents. check for language. think about cultural appropriateness of language and concepts.</p> | <p>All such items were modified to focus on parenting.</p> |
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## Appendix E

### *Consent Form and Questions Used in Manuscript One Study Two*

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#### **Assessment of Readiness to Change Parenting Behaviours Study**

#### **CONSENT FORM**

##### **Who is conducting this study?**

Jeffrey Perron, MBA, School of Psychology University of Ottawa, 136 Jean-Jacques Lussier, Ottawa, ON K1N 6N5 613-562-5800 x7140.

Catherine M. Lee, PhD, C. Psych, School of Psychology, University of Ottawa, 136 Jean-Jacques Lussier, Ottawa, ON K1N 6N5 613-562-5800 x4525.

##### **Introduction**

Thank you for considering taking part. This is an independent study conducted by Jeffrey Perron, a Doctoral student at the University of Ottawa, under the supervision of Dr. Catherine Lee. Before you agree to participate in this study, we would like to explain, why we are doing the study, what it will involve, and the benefits associated with the study.

##### **Why are we doing this study?**

We have made a new questionnaire to help us understanding thoughts about changing parenting. We are asking for your feedback on the questionnaire. It will take you about 20 minutes to complete the study. If you agree to participate, you will be asked to provide feedback on whether the questions in the questionnaire are clear.

##### **First Come, First Served**

Please note that we are seeking a limited number of participants. Once we have the required number of participants we will close the survey.

##### **Risks and Benefits**

Participation in this study involves no physical or mental discomfort, and no risks beyond those of everyday living. If, however, you find any question distressing or invasive, you are free to not answer it. There is no direct benefit to you of participating in this survey. A potential indirect benefit, however, is that you may experience a sense of satisfaction by helping us create a questionnaire that will help parents who use parenting services. It is also possible that completing the survey will help you better understand your own thoughts and feelings about parenting.

## **Your Rights**

Participation in this study is completely voluntary and you can withdraw at any time without any effect on the care or services you or your family receive. Also note that no staff from the organization where you first learned about this survey will have access to any information you give through this survey. This study is being conducted independently from the organization where you learned about this study. In fact, staff at the organization will have no way of knowing whether or not you even completed the survey. If you decide to withdraw from the study, all of your responses will be anonymous. We will not know your name or any of your identifying information. You may withdraw from the study at any time.

## **Publication of Findings**

When we present the results of this study are published or presented at conferences, seminars, in a Doctoral thesis, or other public forms, no individual information or information that could identify you will be released. Following completion of the study (after publication) all data will be stored on the secure University of Ottawa server for a period of 5 years. After this five year period, the data will be destroyed.

## **Questions**

If at any point you have any questions about the survey you may contact Jeffrey Perron or Dr. Catherine Lee, whose contact information is listed above. Ethics If you have any questions, you may contact one of the researchers listed above. If you have any questions regarding the ethical conduct of this study, you may contact the Office of Research Ethics and Integrity, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, Ontario, K1N 6N5, [ethics@uottawa.ca](mailto:ethics@uottawa.ca).

## **Consent to Participate in this Study**

I acknowledge that the research study described above has been explained to me through this information form. I have been informed of my right to choose not to participate in the study. I also understand the indirect benefits of participating in the research study. I know that I may ask now or in the future any questions I have about the study or research procedures. I have been assured that my responses will remain anonymous. By clicking next, I agree to participate in this study and acknowledge that I can print a copy of this page for my own records.

## Assessment of Readiness to Change Parenting Behaviours

### Study Instructions

Thank you for agreeing to give feedback on this new questionnaire. What you will see on the following pages is the Assessment of Readiness to Change Parenting Behaviours (ARC-PB). It is a new questionnaire that asks questions about parenting behaviour. We are asking parents like you to comment on whether the questions of the ARC-PB make sense to parents. You will have the chance to comment on each question of the ARC-PB. Please click next.

### Your gender:

- ☐ Male
- ☐ Female

### Number of Children:

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ More than 8

### Age of Youngest Child:

- ☐ 0-12 months
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12
- ☐ 13

- ☐ 14
- ☐ 14-18
- ☐ Over 18

**Your Age:**

- ☐ 19-24
- ☐ 25-29
- ☐ 30-34
- ☐ 35-39
- ☐ 40-44
- ☐ 45-49
- ☐ 50-54
- ☐ 55 or above

**Your family's annual income (select one):**

- ☐ 0-10,000
- ☐ 10,001-30,000
- ☐ 30,001-50,000
- ☐ 50,001-70,000
- ☐ 70,001-90,000
- ☐ 90,001-150,000
- ☐ Over 150,000

**Below you will see the instructions that appear in the ARC-PB (these aren't the instruction for this survey, but they are what you would see if you were filling out the ARC-PB itself).**

Please read them carefully: The instructions are: "Each statement below describes how a parent might think about parenting. Please indicate the extent to which you agree or disagree with each statement. Answer based on how you feel right now."

Note, the actual ARC-PB will have five options: 1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

**Do the instructions make sense to you?**

- ☐ Yes
- ☐ No
- ☐ Not Sure

**Is there anything you would change about the instructions? If yes, please describe what you would change.**

- ☐ No
- ☐ Yes \_\_\_\_\_

You will now see each of the questions from the actual ARC-PB. For each question, you will be asked if it makes sense to you and whether you would change anything about the question.

Remember that in the actual ARC-PB, there will be five options for each question, from Strongly Disagree to Strongly Agree. You will not see these options in this survey. Also remember that we are not asking whether the question applies to you, but whether it is clear to you. For example, for the statement, "I am hoping that I can get help to become a better parent," we are not wondering whether you are actually hoping to get help with parenting, we are just wondering whether you think the statement is clear.

### **Question 1**

As far as I'm concerned, I don't need to change the way I parent.

**Does Question 1 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 1? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

### **Question 2**

I think I might be ready to find ways to improve my parenting.

**Does Question 2 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 2? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

### **Question 3**

I am really working hard to change the way I parent.

**Does Question 3 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 3? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 4**

I have worked hard to be a better parent to help my child, but every now and then, I slip into old habits so I need help to stay on track.

**Does Question 4 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 4? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 5**

I don't need an expert telling me how to parent my children.

**Does Question 5 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 5? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 6**

I'm hoping I can get help to be a better parent.

**Does Question 6 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 6? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 7**

I am concerned about the way I parent and am doing something to be a better parent.

**Does Question 7 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 7? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 8**

I have been successful in improving my parenting but I'm not sure I can keep up the effort on my own.

**Does Question 8 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 8? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 9**

Trying to change the way I parent is pretty much a waste of time for me because it won't change my child's problems.

**Does Question 9 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 9? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 10**

I've been thinking about changing the way I parent my child.

**Does Question 10 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 10? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 11**

I am finally working on my parenting.

**Does Question 11 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 11? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 12**

I'm not following through with positive parenting as well as I had hoped, and I want to make sure I don't slip back into old habits.

**Does Question 12 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 12? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 13**

I guess I have faults as a parent, but there's nothing that I really need to change.

**Does Question 13 make sense to you?**

- ☐ Yes

- ☐ No

**Is there anything you would change about Question 13? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 14**

I wish I had more ideas on how to be a better parent.

**Does Question 14 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 14? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 15**

At times it is difficult to be a good parent, but I'm working on it.

**Does Question 15 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 15? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 16**

I thought once I had learned to parent in a positive way, the problems would be solved, but sometimes I still find myself slipping back into old habits.

**Does Question 16 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 16? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 17**

The way I parent may be part of the problem my child is having but I don't really think it is.

**Does Question 17 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 17? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 18**

Maybe I can learn to be a better parent.

**Does Question 18 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 18? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Thank you for your input so far - it is very important and appreciated. You are now more than half-way done!**

**Question 19**

Even though I'm not always successful in changing the way I parent, I am at least working on it.

**Does Question 19 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 19? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 20**

I may need a boost right now to help me maintain the changes I've already made in the way I parent my child.

**Does Question 20 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 20? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 21**

I have worries about my parenting but so does every parent. Why spend time thinking about them?

**Does Question 21 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 21? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 22**

I hope that I can get help to be a better parent.

**Does Question 22 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 22? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 23**

I have started working my parenting but I would like help.

**Does Question 23 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 23? If yes, please describe below.**

- ☐ No

- ☐ Yes \_\_\_\_\_

**Question 24**

I need to prevent myself from slipping back into ineffective parenting habits.

**Does Question 24 make sense to you?**

- ☐ Yes  
☐ No

**Is there anything you would change about Question 24? If yes, please describe below.**

- ☐ No  
☐ Yes \_\_\_\_\_

**Question 25**

I need to prevent myself from slipping back into ineffective parenting habits.

**Does Question 25 make sense to you?**

- ☐ Yes  
☐ No

**Is there anything you would change about Question 25? If yes, please describe below.**

- ☐ No  
☐ Yes \_\_\_\_\_

**Question 26**

I have parenting challenges and I really think I should work on them.

**Does Question 26 make sense to you?**

- ☐ Yes  
☐ No

**Is there anything you would change about Question 26? If yes, please describe below.**

- ☐ No  
☐ Yes \_\_\_\_\_

**Question 27**

Anyone can talk about changing the way they parent; I'm actually doing something about it.

**Does Question 27 make sense to you?**

- ☐ Yes

- ☐ No

**Is there anything you would change about Question 27? If yes, please describe below.**

- ☐ No  
☐ Yes \_\_\_\_\_

**Question 28**

I feel frustrated that I might be slipping back into ineffective parenting habits.

**Does Question 28 make sense to you?**

- ☐ Yes  
☐ No

**Is there anything you would change about Question 28? If yes, please describe below.**

- ☐ No  
☐ Yes \_\_\_\_\_

**Question 29**

It would be a waste of time to try to learn about how to be a better parent.

**Does Question 29 make sense to you?**

- ☐ Yes  
☐ No

**Is there anything you would change about Question 29? If yes, please describe below.**

- ☐ No  
☐ Yes \_\_\_\_\_

**Question 30**

I think I need to find out how to be a better parent.

**Does Question 30 make sense to you?**

- ☐ Yes  
☐ No

**Is there anything you would change about Question 30? If yes, please describe below.**

- ☐ No  
☐ Yes \_\_\_\_\_

**Question 31**

I am actively working to become a better parent.

**Does Question 31 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 31? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 32**

When I feel stuck in parenting I try to remember the new things I have learned about parenting.

**Does Question 32 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 32? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 33**

Parenting programs are only useful for people who are having major problems with parenting, not me.

**Does Question 33 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 33? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 34**

I think that some advice on parenting would be helpful.

**Does Question 34 make sense to you?**

- ☐ Yes

- ☐ No

**Is there anything you would change about Question 34? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 35**

I am trying out new ways to parent.

**Does Question 35 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 35? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 36**

I try to find ways to use the parenting tips I've learned in new situations with my children.

**Is there anything you would change about Question 36? If yes, please describe below.**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 36? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 37**

I would rather accept I am not a perfect parent than try to change the way I parent my child.

**Does Question 37 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 37? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 38**

I'd like to change some things about the way I parent.

**Does Question 38 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 38? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 39**

I've been making an effort to learn things that will help me be the best parent I can be.

**Does Question 39 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 39? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Question 40**

I've learned a lot about becoming a better parent and I want to keep learning more.

**Does Question 40 make sense to you?**

- ☐ Yes
- ☐ No

**Is there anything you would change about Question 40? If yes, please describe below.**

- ☐ No
- ☐ Yes \_\_\_\_\_

**Do you have any general comments about the survey?**

**Overall what was your reaction to the survey? (Check any that apply)**

- ☐ Confused, I did not understand the questions
- ☐ Interested, as they made me think about the way I parent
- ☐ Upset, it seemed to suggest I need to change

- ☐ Bored, it seemed really long
- ☐ Other (please specify) \_\_\_\_\_

**Thank you very kindly for taking your time to provide feedback on the ARC-PB, we appreciate it very much. You have contributed to a new measure that will help parents get the right parenting supports.**

## Appendix F

*Manuscript One Study Two Results in Annotated Table*


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| Item                                                                                                                                      | Comments                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| As far as I'm concerned, I don't need to change the way I parent.                                                                         |                                                                                                                                                             |
| I think I might be ready to find ways to improve my parenting.                                                                            | <p>I think I might be ready to find ways to improve my parenting skills.</p> <p>I think I might be ready to find some new parenting tips or strategies.</p> |
| I am really working hard to change the way I parent.                                                                                      | <p>I am working hard to change the way I parent.</p> <p>I am really working hard to find new parenting strategies and tips.</p>                             |
| I have worked hard to be a better parent to help my child but every now and then, I slip into old habits so I need help to stay on track. |                                                                                                                                                             |

|                                                                                                                      |                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| I don't need an expert telling me how to parent my children                                                          | I am not looking for any help with parenting.                                                                   |
| I'm hoping I can get help to be a better parent.                                                                     |                                                                                                                 |
| I am concerned about the way I parent and am doing something to be a better parent.                                  | 2 parts that could be answered separately.<br>Will there be room to describe what "doing something" looks like? |
| I have been successful in improving my parenting but I'm not sure I can keep up the effort on my own.                | 2 parts that could be answered separately                                                                       |
| Trying to change the way I parent is pretty much a waste of time for me because it won't change my child's problems. |                                                                                                                 |
| I've been thinking about changing the way I parent my child.                                                         |                                                                                                                 |
|                                                                                                                      |                                                                                                                 |

|                                                                                                                                                          |                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| I am finally working on my parenting.                                                                                                                    | I am finally working on improving my parenting skills.                                   |
| I'm not following through with positive parenting as well as I had hoped, and I want to make sure I don't slip back into old habits.                     |                                                                                          |
| I guess I have faults as a parent, but there's nothing that I really need to change.                                                                     | I guess I have challenges as a parent, but there's nothing that I really need to change. |
| I wish I had more ideas on how to be a better parent.                                                                                                    |                                                                                          |
| At times it is difficult to be a good parent, but I'm working on it.                                                                                     |                                                                                          |
| I thought once I had learned to parent in a positive way, the problems would be solved, but sometimes I still find myself slipping back into old habits. |                                                                                          |
| The way I parent may be part of the problem my child is having but I don't really think it is.                                                           | My Parenting skills may be part of the problem my child....                              |

|                                                                                                              |  |
|--------------------------------------------------------------------------------------------------------------|--|
| Maybe I can learn to be a better parent.                                                                     |  |
| Even though I'm not always successful in changing the way I parent, I am at least working on it.             |  |
| I may need a boost right now to help me maintain the changes I've already made in the way I parent my child. |  |
| I have worries about my parenting but so does every parent. Why spend time thinking about them?              |  |
| I hope that I can get help to be a better parent.                                                            |  |
| I have started working my parenting but I would like help.                                                   |  |
|                                                                                                              |  |

|                                                                                            |                                                          |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------|
| I need to prevent myself from slipping back into ineffective parenting habits.             |                                                          |
| I would rather accept that my child is not perfect than try to change the way I parent.    | May be confusing since it is very similar to Question 24 |
| I have parenting challenges and I really think I should work on them.                      |                                                          |
| Anyone can talk about changing the way they parent; I'm actually doing something about it. |                                                          |
| I feel frustrated that I might be slipping back into ineffective parenting habits.         |                                                          |
| It would be a waste of time to try to learn about how to be a better parent.               |                                                          |

|                                                                                                     |                                                                                           |
|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| I think I need to find out how to be a better parent.                                               |                                                                                           |
| I am actively working to become a better parent.                                                    |                                                                                           |
| When I feel stuck in parenting I try to remember the new things I have learned about parenting.     | When I feel stuck in parenting I try to remember the new parenting skills I have learned. |
| Parenting programs are only useful for people who are having major problems with parenting, not me. |                                                                                           |
| I think that some advice on parenting would be helpful.                                             |                                                                                           |
| I am trying out new ways to parent.                                                                 |                                                                                           |
| I try to find ways to use the parenting tips I've learned in new situations with my children.       |                                                                                           |

|                                                                                               |  |
|-----------------------------------------------------------------------------------------------|--|
|                                                                                               |  |
| I would rather accept I am not a perfect parent than try to change the way I parent my child. |  |
| I'd like to change some things about the way I parent                                         |  |
| I've been making an effort to learn things that will help me be the best parent I can be.     |  |
| I've learned a lot about becoming a better parent and I want to keep learning more.           |  |

## Appendix G

### *Consent Form and Questions Used in Manuscript One Study Three*

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#### **CONSENT FORM**

##### **Who is conducting this study?**

Jeffrey Perron, MBA, School of Psychology University of Ottawa, 136 Jean-Jacques Lussier, Ottawa, ON K1N 6N5 613-562-5800 x7140.

Catherine M Lee, PhD, C. Psych, School of Psychology University of Ottawa, 136 Jean-Jacques Lussier, Ottawa, ON K1N 6N5 613-562-5800 x4525.

##### **Introduction**

Thank you for considering taking part. This is an independent study conducted by Jeffrey Perron, a Doctoral student at the University of Ottawa, under the supervision of Dr. Catherine Lee. Before you agree to participate in this study, we would like to explain, why we are doing the study, what it will involve, and the benefits associated with the study.

##### **Why are we doing this study?**

We have made a new questionnaire to help us understand thoughts about changing parenting behaviours. We are seeing how answers to the questionnaire compare to answers on other questionnaires. It will take you about 20 minutes to complete the study. If you agree to participate, you will be asked to complete the questionnaire along with some other questions related to parenting. First Come, First Served Please note that we are seeking a limited number of participants. Once we have the required number of participants we will close the survey.

##### **Risks and benefits**

Participation in this study involves no physical or mental discomfort, and no risks beyond those of everyday living. If, however, you find any question distressing or invasive, you are free to not answer it. There is no direct benefit to you of participating in this survey. A potential indirect benefit, however, is that you may experience a sense of satisfaction by helping us create a questionnaire that will help parents who use parenting services. It is also possible that completing the survey will help you better understand your own thoughts and feelings about parenting.

**Your rights**

Participation in this study is completely voluntary and you can withdraw at any time without any effect on the care or services you or your family receive. Also note that no staff from the organization where you first learned about this survey will have access to any information you give through this survey. This study is being conducted independently from the organization where you learned about this study. In fact, staff at the organization will have no way of knowing whether or not you even completed the survey. If you decide to withdraw from the study, all of your responses will be anonymous. We will not know your name or any of your identifying information. You may withdraw from the study at any time.

**Publication of findings**

When the results of this study are published or presented at conferences, seminars, in a Doctoral thesis, or other public forms, no individual information or information that could identify you will be released. Following completion of the study (after publication) all data will be stored on the secure University of Ottawa server for a period of 5 years. After this five year period, the data will be destroyed.

**Questions**

If at any point you have any questions about the survey you may contact Jeffrey Perron or Dr. Catherine Lee, whose contact information is listed above.

**Ethics**

If you have any questions, you may contact one of the researchers listed above. If you have any questions regarding the ethical conduct of this study, you may contact the Office of Research Ethics and Integrity, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, Ontario, K1N 6N5, [ethics@uottawa.ca](mailto:ethics@uottawa.ca).

**Consent to participate in this study**

I acknowledge that the research study described above has been explained to me through this information form. I have been informed of my right to choose not to participate in the study. I also understand the indirect benefits of participating in the research study. I know that I may ask now or in the future any questions I have about the study or research procedures. I have been assured that my responses will remain anonymous. By clicking next, I agree to participate in this study and acknowledge that I can print a copy of this page for my own records.

**Tell us a bit about yourself...****What is your gender?**

- ☐ Male
- ☐ Female

**How many children do you have?**

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ More than 8

**What is the age of your youngest child?**

- ☐ 0-12 months
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12

**How old are you?**

- ☐ 19-24
- ☐ 25-29
- ☐ 30-34
- ☐ 35-39
- ☐ 40-44
- ☐ 45-49
- ☐ 50-54
- ☐ 55 or above

**What is your family's annual income (select one)?**

- ☐ 0-10,000
- ☐ 10,001-30,000
- ☐ 30,001-50,000
- ☐ 50,001-70,000
- ☐ 70,001-90,000
- ☐ 90,001-150,000
- ☐ Over 150,000

**Which province do you call home?**

- ☐ Alberta
- ☐ Ontario
- ☐ Saskatchewan

**Are you involved with parenting programs?**

- ☐ I'm not currently looking to do any kind of parenting program
- ☐ I am on a wait list for a parenting program
- ☐ I am currently taking part in a parenting program
- ☐ I have already completed a parenting program in the past

**Which services for your child have you used in the past year (select all that apply)?**

- ☐ Vaccination clinics for your child
- ☐ Regular doctor check-ups for your child
- ☐ Parenting classes or programs

**Each statement on the following pages describes how a parent might think about parenting. Please indicate the extent to which you agree or disagree with each statement. Answer based on how you feel right now.**

**There are five possible responses to each of the items in the questionnaire: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree.**

**Please click next.**

**As far as I'm concerned, I don't need to change the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I think I might be ready to find ways to improve my parenting.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I am working hard to learn new ways to parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I have worked hard to be a better parent, but every now and then, I slip into old habits so I need help to stay on track.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I don't need an expert telling me how to parent my children.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I'm hoping I can get help to be a better parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Trying to change the way I parent is pretty much a waste of time for me because it won't change my child's behaviour.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I've been thinking about changing the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I am finally working on the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I'm not following through with the way I parent as well as I had hoped, and I want to make sure I don't slip back into old habits.**

- ☐ Strongly Disagree

- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I guess I have challenges as a parent, but there's nothing that I really need to change.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I wish I had more ideas on how to be a better parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**At times it is difficult to be a good parent, but I'm working on it.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I thought once I had learned to parent in a positive way, the problems would be solved, but sometimes I still find myself slipping back into old habits.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Maybe I can learn to be a better parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Even though I'm not always successful in changing the way I parent, I am at least working on it.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I may need a boost right now to help me maintain the changes I've already made in the way I parent my child.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I have worries about the way I parent but so does every parent. Why spend time thinking about it?**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I have started working on the way I parent but I could use some help.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I need to prevent myself from slipping back into my old ways of parenting.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I would rather accept that my child is not perfect than change the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I have parenting challenges and I really think I should work on them.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Sometimes I feel like I might be slipping back into my old ways of parenting.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**It would be a waste of time to try to learn about better ways to parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I am actively working to become a better parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Parenting programs are only useful for people who are having major problems with parenting, not me.**

- ☐ Strongly Disagree
- ☐ Disagree

- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I think some advice on parenting would be helpful.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I am trying out new ways to parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I try to find ways to use the parenting tips I've learned in new situations with my children.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I'd like to change some things about the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I've been making an effort to learn things that will help me be the best parent I can be.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I've learned a lot about becoming a better parent and I want to keep learning more.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

The next 4 questions are "yes or no" questions about new ways of parenting.

I don't think that I will try to improve my parenting in the next 6 months.

Yes ☐ No ☐

I want to learn new ways of parenting in the next 6 months.

Yes ☐ No ☐

I am learning new ways of parenting and want to keep learning about parenting.

Yes ☐ No ☐

In the past 6 months I have started to use new ways of parenting.

Yes ☐ No ☐

**You're almost done! Thank you for your input so far. In this next section, please read each statement and select a statement that indicates how true the behaviour was of your child over the past four (4) weeks. There are no right or wrong answers. Do not spend too much time on any statement.**

**My child:**

**Gets upset or angry when they don't get their own way.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Refuses to do jobs around the house when asked.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time

- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Worries.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Loses their temper.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Misbehaves at mealtime.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Argues or fights with other children, brothers or sisters.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Refuses to eat food made for them.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Takes too long getting dressed.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Hurts me or others (e.g., hits, pushes, scratches, bites).**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Interrupts when I am speaking to others.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Seems fearful or scared.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Misbehaves at school or daycare.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Has trouble keeping busy without adult attention.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Yells, shouts, or screams.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Whines or complains (whinges).**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time

- ☐ True of my child very much, or most of the time

**Acts defiant when asked to do something.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Cries more than other children their age.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Rudely answers back to me.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Seems unhappy or scared.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Has trouble organizing tasks or activities.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Follows rules and limits.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Gets on well with family members.**

- ☐ Not true of my child at all

- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Is kind and helpful to others.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Can keep busy without constant adult attention.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Cooperates at bedtimes.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Seems to feel good about themselves.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Gets on well with other children.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Talks about their views, ideas and needs appropriately.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Can do age appropriate tasks by themselves.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**Does what they are told to do my adults.**

- ☐ Not true of my child at all
- ☐ True of my child a little, or some of the time
- ☐ True of my child quite a lot, or a good part of the time
- ☐ True of my child very much, or most of the time

**On a scale from 1-10 (where 1 = certain I can't do it; 10 = certain I can do it), what is your overall level of confidence to deal with your child's behavioural or emotional problems (even if they don't have these problems very often)?**

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10

At one time or another, all children misbehave or do things that could be harmful, are "wrong," or that parents don't like. Examples include: hitting someone, forgetting homework, having a tantrum, whining, throwing food, lying, arguing back, not picking up things, refusing to go to bed, coming home late. Parents have many different ways or styles of dealing with these types of problems. Below are items that describe some styles of parenting.

For each item, fill in the bubble that best describes your style of parenting during the **PAST TWO MONTHS**

Example:

At meal time...

*I let my child decide how  
much to eat*

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

*I decide how much my child eats*

**IN THE PAST TWO MONTHS**

|                                                                                                          |                                                                                                                                                                                 |                                           |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| 1. When my child misbehaves...<br><i>I do something right away</i>                                       | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I do something later</i>               |
| 2. Before I do something about a problem...<br><i>I give my child several reminders<br/>and warnings</i> | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I use only one reminder or warning</i> |
| 3. When I'm upset or under stress...<br><i>I am picky and on my child's back</i>                         | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I am not more picky than usual</i>     |
| 4. When I tell my child NOT to do something...<br><i>I say very little</i>                               | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I say a lot</i>                        |
| 5. When my child pesters me...<br><i>I can ignore the pestering</i>                                      | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I can't ignore the pestering</i>       |

|                                                                                              |                                                                                                                                                           |                                                            |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 6. When my child misbehaves...<br><i>I usually get into a long argument with my child</i>    | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I don't get into an argument</i>                        |
| 7. I threaten to do things that...<br><i>I'm sure I can carry out</i>                        | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I know I won't actually do</i>                          |
| 8. I am the kind of parent that...<br><i>Sets limits on what my child is allowed to do</i>   | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>Lets my child do whatever he/she wants</i>              |
| 9. When my child misbehaves...                                                               | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I keep my talks short and to the point</i>              |
| 10. When my child misbehaves...<br><i>I raise my voice or yell</i>                           | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I speak to my child calmly</i>                          |
| 11. If saying no doesn't work right away...<br><i>I take some other kind of Action</i>       | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I keep talking and try to get through to my child</i>   |
| 12. When I want my child to stop doing something...<br><i>I firmly tell my child to stop</i> | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I coax or beg my child to stop</i>                      |
| 13. When my child is out of sight...<br><i>I often don't know what my child is doing</i>     | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I always have a good idea of what my child is doing</i> |
| 14. After there's been a problem with my child...<br><i>I often hold a grudge</i>            | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>Things get back to normal quickly</i>                   |
| 15. When we're not at home...<br><i>I handle my child the way I do at home</i>               | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I let my child get away with a lot more</i>             |

|                                                                      |                                                                                                                                                           |                                                           |                                                              |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------|
| 16. When my child does something I don't like...                     | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I do something about it every time</i>                 | <i>I often let it go</i>                                     |
| 17. When there is a problem with my child...                         | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>Things build up and I do things I don't mean to do</i> | <i>Things don't get out of hand</i>                          |
| 18. When my child misbehaves I spank, slap, grab, or hit my child... | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>Never or rarely</i>                                    | <i>Most of the time</i>                                      |
| 19. When my child doesn't do what I ask...                           | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I often let it go or end up doing it myself</i>        | <i>I take some other Action</i>                              |
| 20. When I give a fair threat or warning...                          | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I often don't carry it out</i>                         | <i>I always do what I said</i>                               |
| 21. If saying "no" doesn't work...                                   | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I take some other kind of action</i>                   | <i>I offer my child something nice so he/she will behave</i> |
| 22. When my child misbehaves...                                      | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I handle it without getting upset</i>                  | <i>I get so frustrated or angry</i>                          |
| 23. When my child misbehaves...                                      | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I make my child tell me why</i>                        | <i>I say "no" or take some other action</i>                  |

|                                                                                                              |                                                                                                                                                           |                                                     |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 24. If my child misbehaves and then acts sorry...                                                            |                                                                                                                                                           |                                                     |
| <i>I handle the problem like I usually would</i>                                                             | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I let it go that time</i>                        |
| 25. When my child misbehaves...                                                                              |                                                                                                                                                           |                                                     |
| <i>I rarely use bad language or curse</i>                                                                    | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I almost always use bad language</i>             |
| 26. When I say my child can't do something...                                                                |                                                                                                                                                           |                                                     |
| <i>I let my child do it anyway</i>                                                                           | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I stick to what I said</i>                       |
| 27. When I have to handle a problem...                                                                       |                                                                                                                                                           |                                                     |
| <i>I tell my child I'm sorry</i>                                                                             | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I don't say I'm sorry</i>                        |
| 28. When my child does something I don't like, I insult my child, say mean things, or call my child names... |                                                                                                                                                           |                                                     |
| <i>Never or rarely</i>                                                                                       | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>Most of the time</i>                             |
| 29. If my child talks back or complains when I handle a problem...                                           |                                                                                                                                                           |                                                     |
| <i>I ignore the complaining and stick to what I said</i>                                                     | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I give my child a talk about not complaining</i> |
| 30. If my child gets upset when I say "no"                                                                   |                                                                                                                                                           |                                                     |
| <i>I back down and give in to my child</i>                                                                   | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> | <i>I stick to what I said</i>                       |

For the following questions, read each item and decide whether it is true (T) or false (F) for you. Try to work rapidly and answer each question by on the T or the F.

1. Before voting I thoroughly investigate the qualifications of all the candidates.
  - True
  - False
2. I never hesitate to go out of my way to help someone in trouble.
  - True
  - False
3. It is sometimes hard for me to go on with my work if I am not encouraged.
  - True
  - False
4. I have never intensely disliked anyone.
  - True
  - False
5. On occasions I have had doubts about my ability to succeed in life.
  - True
  - False
6. T F I sometimes feel resentful when I don't get my way.
  - True
  - False
7. I am always careful about my manner of dress.
  - True
  - False
8. My table manners at home are as good as when I eat out in a restaurant.
  - True
  - False
9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
  - True
  - False
10. On a few occasions, I have given up something because I thought too little of my ability.
  - True
  - False
11. I like to gossip at times.
  - True

- False

12. There have been times when I felt like rebelling against people in authority even though I knew they were right.

- True
- False

13. No matter who I'm talking to, I'm always a good listener.

- True
- False

14. I can remember "playing sick" to get out of something

- True
- False

15. There have been occasions when I have taken advantage of someone.

- True
- False

16. I'm always willing to admit it when I make a mistake.

- True
- False

17. I always try to practice what I preach.

- True
- False

18. I don't find it particularly difficult to get along with loudmouthed, obnoxious people.

- True
- False

19. I sometimes try to get even rather than forgive and forget.

- True
- False

20. When I don't know something I don't mind at all admitting it.

- True
- False

21. I am always courteous, even to people who are disagreeable.

- True
- False

22. At times I have really insisted on having things my own way.
- True
  - False
23. There have been occasions when I felt like smashing things.
- True
  - False
24. I would never think of letting someone else be punished for my wrong-doings.
- True
  - False
25. I never resent being asked to return a favor.
- True
  - False
26. I have never been irked when people expressed ideas very different from my own.
- True
  - False
27. I never make a long trip without checking the safety of my car.
- True
  - False
28. There have been times when I was quite jealous of the good fortune of others.
- True
  - False
29. I have almost never felt the urge to tell someone off.
- True
  - False
30. I am sometimes irritated by people who ask favors of me.
- True
  - False
31. I have never felt that I was punished without cause.
- True
  - False
32. I sometimes think when people have a misfortune they only got what they deserved.
- True
  - False
33. I have never deliberately said something that hurt someone's feelings.

- True
- False

## Appendix H

### *Consent Form and Questions Used in Manuscript Two Study One*

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#### **Who is conducting this study?**

Jeffrey Perron, MBA, School of Psychology University of Ottawa, 136 Jean-Jacques Lussier, Ottawa, ON K1N 6N5 613-562-5800 x7140.

Catherine M. Lee, PhD, C. Psych, School of Psychology University of Ottawa, 136 Jean-Jacques Lussier, Ottawa, ON K1N 6N5 613-562-5800 x4525.

#### **Introduction**

Thank you for considering taking part in this study being conducted by Jeffrey Perron, as part of his doctoral dissertation at the University of Ottawa, under the supervision of Dr. Catherine M. Lee. Before you agree to participate in this study, we would like to explain why we are doing the study, what it will involve, and the benefits associated with the study.

#### **Why are we doing this study?**

We have made a new questionnaire to help us understand thoughts about changing parenting behaviours. We are interested in learning about how readiness to change parenting is associated with child behavioural and emotional problems, parenting behaviours themselves, involvement in parenting-related programs and services, and plans to learn new parenting behaviours. To do this we will compare answers to various questions asked in this study. If you agree to take part, we estimate it will take you about 5 minutes to complete the questionnaires.

#### **First Come, First Served**

Please note that we are seeking a limited number of participants. Once we have the required number of participants we will close the survey.

#### **Confidentiality and Anonymity**

Participation in this study is completely confidential. No identifying data will be collected. Also note that no staff from the organization where you learned about the survey will have access to any information you give through this survey.

All online survey data will be stored on the secure Qualtrics (the organization who maintains the website this survey is hosted on) servers until such time as they can be transferred to a secure computer server at the University of Ottawa. After responses are transferred to a secure computer, all data stored on Qualtrics servers will be destroyed.

## **Risks and benefits**

Participation in this study involves no physical or mental discomfort, and no risks beyond those of everyday living. If, however, you find any question distressing or invasive, you are free to not answer it.

There are no direct benefits to participation in this study. A potential indirect benefit, however, is that you may experience a sense of satisfaction by helping us create a questionnaire that will help parents who use parenting services. The questionnaire may also be useful in helping us understand whether parenting services are actually helping parents. It is also possible that completing the survey will help you better understand your own thoughts and feelings about parenting.

## **Voluntary participation**

Participation in this study is completely voluntary and you can withdraw at any time without any effect on the care or services you or your family receive at the organization where you learned about the survey. If you decide to withdraw from the study, no one will know because all of your responses will be anonymous. We will not know your name or any of your identifying information. You may withdraw from the study at any time by choosing to stop answering questions. Note that because your information is anonymous, we can't retrieve any answers you submit prior to withdrawing.

## **Publication of findings**

When the results of this study are published or presented at conferences, seminars, in a doctoral thesis, or other public forms, no individual information or information that could identify you will be released given that we are not collecting any identifying information. All data will be stored in a secure manner on University of Ottawa server until 5 years after the publication of findings. After this five-year period, the data will be destroyed.

## **Questions**

If at any point you have any questions about the survey you may contact Jeffrey Perron or Dr. Catherine M. Lee, whose contact information is listed above.

## **Ethics**

If you have any questions, you may contact one of the researchers listed above. If you have any questions regarding the ethical conduct of this study, you may contact the Office of Research Ethics and Integrity, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, Ontario, K1N 6N5, [ethics@uottawa.ca](mailto:ethics@uottawa.ca).

**Consent to participate in this study**

I acknowledge that the research study described above has been explained to me through this information form. I have been informed of my right to choose not to participate in the study. I also understand the indirect benefits of participating in the research study. I know that I may ask now or in the future any questions I have about the study or research procedures. I have been assured that my responses will remain anonymous. By proceeding, I agree to participate in this study and acknowledge that I can print a copy of this page for my own records.

---

**Tell us a bit about yourself...****What is your gender?**

- ☐ Male
- ☐ Female
- ☐ You don't have an option that applies to me. I identify as (please specify) \_\_\_\_\_.

**How many children do you have?**

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ More than 8

**Do you have a child aged 2-12?**

- ☐ Yes
- ☐ No

**For this survey, please select one of your children aged 2-12. What is the age of that child?**

- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8

- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12

**For the child you have in mind, please indicate the child's gender:**

- ☐ Male
- ☐ Female
- ☐ Other

**How would you describe your marital status?**

- ☐ Married
- ☐ Single
- ☐ Divorced
- ☐ Separated
- ☐ Widowed

**What is the highest level of education you have graduated from?**

- ☐ Elementary/middle school
- ☐ High school
- ☐ College or trade school
- ☐ University (undergraduate degree)
- ☐ University (graduate degree)

**Where were you born?**

- ☐ In Canada
- ☐ Outside of Canada

**Do you have children older than 12?**

- ☐ Yes
- ☐ No

**How old are you?**

- ☐ 19-24
- ☐ 25-29
- ☐ 30-34
- ☐ 35-39
- ☐ 40-44
- ☐ 45-49
- ☐ 50-54
- ☐ 55 or above

**What is your family's annual income (select one)?**

- ☐ 0-10,000
- ☐ 10,001-30,000
- ☐ 30,001-50,000
- ☐ 50,001-70,000
- ☐ 70,001-90,000
- ☐ 90,001-150,000
- ☐ Over 150,000

**Are you involved with parenting programs?**

- ☐ I'm not currently looking to do any kind of parenting program
- ☐ I am on a wait list for a parenting program
- ☐ I am currently taking part in a parenting program
- ☐ I have already completed a parenting program in the past

**Parent Assessment of Readiness to Change (PARC)**

**Each statement on the following pages describes how a parent might think about parenting. Please indicate the extent to which you agree or disagree with each statement. Answer based on how you feel right now.**

**There are five possible responses to each of the items in the questionnaire:**

**1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree.**

**As far as I'm concerned, I don't need to change the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I am working hard to learn new ways to parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I don't need an expert telling me how to parent my children.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I'm hoping I can get help to be a better parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Trying to change the way I parent is pretty much a waste of time for me because it won't change my child's behaviour.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I've been thinking about changing the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I am finally working on the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I'm not following through with the way I parent as well as I had hoped, and I want to make sure I don't slip back into old habits.**

- ☐ Strongly Disagree
- ☐ Disagree

- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I thought once I had learned to parent in a positive way, the problems would be solved, but sometimes I still find myself slipping back into old habits.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Maybe I can learn to be a better parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Even though I'm not always successful in changing the way I parent, I am at least working on it.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I may need a boost right now to help me maintain the changes I've already made in the way I parent my child.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I have started working on the way I parent but I could use some help.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree

- ☐ Strongly Agree

**I need to prevent myself from slipping back into my old ways of parenting.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I would rather accept that my child is not perfect than change the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I have parenting challenges and I really think I should work on them.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**Sometimes I feel like I might be slipping back into my old ways of parenting.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**It would be a waste of time to try to learn about better ways to parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I am trying out new ways to parent.**

- ☐ Strongly Disagree
- ☐ Disagree

- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

**I'd like to change some things about the way I parent.**

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Undecided
- ☐ Agree
- ☐ Strongly Agree

### **Readiness to change parenting behaviours staging algorithm**

The next 4 questions are "yes or no" questions about new ways of parenting.

I don't think that I will try to improve my parenting in the next 6 months.

Yes ☐ No ☐

I want to learn new ways of parenting in the next 6 months.

Yes ☐ No ☐

I am learning new ways of parenting and want to keep learning about parenting.

Yes ☐ No ☐

In the past 6 months I have started to use new ways of parenting.

Yes ☐ No ☐

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