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Validity of the Measure of Intensive Mothering Ideology

Loyal Déborah, Sutter Anne-Laure & Rascle Nicole

Abstract

Objective. The aim of this study was to test the validity of the Measure of Intensive Mothering Ideology (MIMI) a French scale assessing beliefs about mothering and childcare. **Method.** The MIMI was submitted online to Mothers / mothers-to-be (N = 249) and Childless women (N = 231). To test structural validity, confirmatory factor analyses were conducted in both groups. Then, to test known-groups validity, means comparisons were conducted according to parity (mothers / mothers-to-be and childless women) and employment status (full-time, part-time and housewives). It was also hypothesized that MIMI scores would be negatively correlated with education. **Results.** Model fit was satisfactory for Mothers / mothers-to-be ($X^2/df = 2.52$, AGFI = .957, NFI = .937, RMR = .087) and, to a lesser extent, for Childless women ($X^2/df = 3.31$, AGFI = .948, NFI = .907, RMR = .104). In both groups, most dimensions were moderately correlated (.22-.70). As hypothesized, Mothers / mothers-to-be and Housewives had higher score than Childless women and Employed women. MIMI scores were also negatively and moderately correlated with education. **Conclusion.** The MIMI shows good structural validity and known-groups validity. This scale offers interesting research avenues notably regarding perinatal parental adaptation.

Keywords: Intensive Mothering Ideology; Motherhood; Scale Development; Validity

[Validité de la Mesure de l'Idéologie du Maternage Intensif]

Résumé

Objectif. Le but de cette étude était de tester la validité de la Mesure de l'Idéologie du Maternage Intensif (MIMI), une échelle française évaluant les croyances sur le maternage et les soins aux enfants.

Méthode. La MIMI a été soumise en ligne à des mères / futures mères (N = 249) et à des femmes sans enfants (N = 231). Cette échelle comprend 21 items évaluant 6 dimensions de l'IMI. Pour vérifier la validité structurelle, des analyses factorielles confirmatoires (moindres carrés pondérés) ont été effectuées dans les deux groupes. Puis, pour tester la validité de groupes connus, des comparaisons de moyennes ont été effectuées selon la parité (mères / futures mères et femmes sans enfant) et l'emploi (temps plein, temps partiel et au foyer). Nous avons également fait l'hypothèse que les scores d'IMI seraient corrélés négativement avec l'éducation. **Résultats.** L'ajustement du modèle était satisfaisant pour les mères et les futures mères ($X^2/df = 2.52$, AGFI = 0.957, NFI = 0.937, RMR = 0.087) et, dans une moindre mesure, pour les femmes sans enfant ($X^2/df = 3.31$, AGFI = 0.948, NFI = 0.907, RMR = 0.104). Dans les deux groupes, la plupart des dimensions étaient modérément corrélées (.22-.70).

Conformément à nos hypothèses, les mères / futures mères et les femmes au foyer présentent des scores plus élevés que les femmes sans enfant et les femmes ayant un emploi. Les scores d'IMI étaient également corrélés négativement et modérément avec le niveau d'éducation. **Conclusion.** La MIMI présente une bonne validité structurelle et de groupes connus. Cette échelle offre des pistes de recherche intéressantes notamment en matière d'adaptation au rôle parental dans la période périnatale.

Mots-clés : Idéologie du Maternage Intensif ; Maternité ; Développement d'Échelle ; Validité

Introduction

50

51 Our ideas about family, motherhood and childcare do not stem from nature but are mainly
52 socially built [1–5]. According to Hays [3], in developed nations, contemporary dominant discourse
53 about motherhood constitute an ideology, a collection interrelated of beliefs, that she named Intensive
54 Mothering Ideology (IMI). According to Hays [3], most people think that mothers are intrinsically the
55 best caregivers for children. Childcare is described as a consuming expert-guided and child-centered
56 activity. Child rearing is seen as the hardest job but also as the most meaningful and rewarding one.
57 Finally, children are revered owing to their purity and genuineness.

58 According to the attachment theory, women deep involvement in mothering is important for
59 the child development and mothers satisfaction and efficacy [6–8]. However normative aspects of
60 motherhood might also be significant contributors to distress in mothers through excessive
61 expectations or idealization [9–13]. Moreover, IMI might also threaten gender equality notably
62 through the belief that the mother is the natural and best caregiver which places an undue burden on
63 mothers [2,3,14–19]. Finally, IMI might also impact work-family balance because of the view that
64 mothering is all-encompassing and much more important than any professional success [3,15,16,20].

65 However, few quantitative studies focus on beliefs about motherhood. According to Liss et al.,
66 the main barrier to understand IMI was the lack of a quantitative measure to assess it [21]. To address
67 this problem, the Intensive Parenting Attitudes Questionnaire (IPAQ) has been constructed in the
68 United States [21]. The IPAQ measures 5 dimensions: Essentialism (mothers are the best caregivers
69 for children), Fulfillment (being a parent is fulfilling), Child-centrism (child-rearing should be focused
70 on the child’s needs), Challenge (child-rearing is the hardest job) and Stimulation (children should be
71 properly stimulated). All dimensions were moderately correlated, highlighting that IMI is a set of
72 interconnect beliefs. Various dimensions of IMI have been linked with mothers’ anxiety about leaving
73 the child, perception of maternal employment as detrimental to children and more participation in
74 household duties and childcare [21]. It was also found that Essentialism and Challenge were more
75 prevalent in mothers than in childless women. However, Stimulation and Child centrism were more
76 prevalent in childless women [21]. In the same vein, it was found that Essentialism and Challenge

77 were stronger in housewives than in employed mothers However, Stimulation was lower in
78 housewives. [21]. Incidentally, one should note than numerous studies have showed that gender
79 ideology was more traditional in less educated women [22]. Our guess is that it might hold true for
80 IMI. Finally, in a cross-sectional study with mothers of preschoolers, Essentialism was linked with
81 less life satisfaction and Challenge was linked with more depressive symptoms and stress, while
82 controlling for social support [23].

83 In France the Measure of Intensive Mothering Ideology (MIMI) has been built [24]. This scale
84 is made up of IPAQ items and new items generated from French mothers and mothers-to-be speech.
85 All the items have been submitted jointly to exploratory factor analysis. This procedure was
86 undertaken to increase the cultural validity of the scale in the French context. Indeed, parenting is
87 highly culture-bound [4,5]. American and French women might share some ideas about childcare and
88 motherhood but they might also exhibit differences [5,25]. For instance, French women have been
89 found to place less value on bonding, breastfeeding, sacrificing their own needs and responding
90 quickly to baby's ones, and more value on equal task-sharing between parents and child autonomy
91 than American mothers [26]. Moreover, United States and France have very different child and family
92 policies [27]. French parents benefit from childcare provision, paid parental leave and family
93 allowance [28]. On the other hand, United States "has no explicit family policy, nor does it have a
94 coherent package of social policies that are targeted on children and their families" [29]. For instance,
95 in the United States, except for a limited number of exceptions, there is no maternity or paternity paid
96 leave [30]. Nearly 1 in 4 American women go back to work within two weeks of having a child [31].

97 The MIMI assesses 6 dimensions of IMI: Essentialism, Consuming Fulfillment, Child-
98 centricism, Challenge, Sacrifice and Stimulation. The MIMI shows some differences with the IPAQ.
99 First, a new "Sacrifice" dimension was found and describe how parents should set aside many things
100 (i.e. "When becoming a parent, one must be prepared to put on hold one's personal life.").
101 Interestingly, the idea of sacrifice had been described in Hays seminal work [3]. Secondly, the
102 Essentialism dimension was more nuanced and depicts fathers as uncomfortable rather than
103 incompetent with children matters (i.e. "Mothers are often more comfortable with babies than

104 fathers”). Moreover, the original Fulfillment dimension has been turned into a “Consuming
105 Fulfillment” dimension about how parenting is fulfilling (“Being a parent brings a person the greatest
106 joy he or she can possibly experience”) but also consuming and all encompassing (i.e. “A parent
107 always fears that something might happen to his children”). Finally, the Stimulation dimension was
108 more about providing nurturing one-to-one interactions (i.e. “One must stimulate children, play with
109 them, talk to them, sing songs to them, read stories to them”) rather than intensive cognitive
110 stimulation. Most dimensions were moderately correlated, highlighting that IMI is a set of
111 interconnect beliefs. IMI, assessed with the MIMI, in conjunction with worries about maternal
112 employment effects on children, has been associated with more depressive symptoms and preoccupied
113 attachment in a cross-sectional study with pregnant women [20].

114 The MIMI has been created and validated in French women recently [24] and its validity
115 should be explored more deeply [32]. Thus, this study was designed to assess the structural and
116 known-groups validity of this scale. It was hypothesized that the MIMI would show good structural
117 validity through confirmatory factor analysis. It was also hypothesized that the MIMI would
118 discriminate women according to parity and employment status [21]. Finally, it was hypothesized that
119 IMI would be negatively associated with education [22].

120 **Method**

121 **Participants**

122 Mothers / mothers to be (N = 249) and Childless women (N = 231) were recruited online.
123 Participants characteristics are presented on Table 1. The questionnaire was hosted with LimeSurvey
124 (<https://www.limesurvey.org/>) and administrated on French forums and Facebook groups (generalist,
125 pregnancy, motherhood, childcare...) using a snowball sampling method.

126 **TABLE 1**

127 Research about online recruitment and data collection is still scarce but it offers very
128 promising avenue [33–35]. First, internet and social media offer a cost effective way to recruit quickly

129 a large amount of participants. Moreover, participants are responding in their natural context and
130 might be less influenced by social desirability bias. However, some potential disadvantages should be
131 noted. First, it is impossible to control how participants are completing the study (alone or not, noisy
132 surroundings...). It is also impossible to ensure that the person has read thoughtfully and understood
133 the consent form before signing it. Moreover, because of anonymity, online participants might be
134 more prone to conform to group norms and expectations. More importantly, issues have been raised
135 regarding the representativeness of samples recruited online. However, some researchers have
136 observed that online recruitment might in fact lead to more diverse samples than other recruitment
137 methods [33,36].

138 This study was approved by a national informatics right committee (<https://www.cnil.fr/>) and a
139 regional ethic committee (<http://www.cpp-soom3.u-bordeaux2.fr/>). All procedures were conducted in
140 accordance with the declaration of Helsinki.

141 **Measures**

142 The Measure of Intensive Mothering Ideology (MIMI) was administered [24]. The MIMI
143 contains 21 items assessing six dimensions of IMI: Essentialism (seven items), Consuming Fulfillment
144 (five items), Child-centrism (two items), Challenge (two items), Sacrifice (three items) and
145 Stimulation (two items). Participants were asked to answer each item on a Likert scale ranging from 1
146 (*disagree very strongly*) to 6 (*agree very strongly*). A higher score is indicative of a stronger
147 endorsement of the IMI component. Internal consistencies assessed with Cronbach's alpha have
148 previously been computed in a sample of mothers and mothers-to-be for Essentialism (.83),
149 Consuming Fulfillment (.74), Child-centrism (.75), Challenge (.61), Sacrifice (.61) and Stimulation
150 (.64) [24].

151 **Statistical Analysis**

152 Statistical analyses were carried out with SPSS 20 and SPSS Amos 20. First, confirmatory
153 factor analyses (Weighted Least Squares) were conducted for Mothers / mothers-to-be and Childless

154 women. Our sample size was adequate to compute such analyses [37]. Model fit is usually assessed
155 with various indicators such as : $\chi^2/ddl < 2-5$, AGFI and NFI $>.90$ and low RMR [37,38]. Factor
156 loadings ($>.40$) and correlations between variables were examined. Finally, internal consistencies have
157 been computed. Then, IMI scores were compared between Mothers / mothers-to-be and Childless
158 women (Student T test). Then, in Mothers / mothers-to-be, IMI scores were compared between women
159 who were housewives or were employed full-time or part time (Anova). Because most childless
160 women were students (60%) comparison according to their employment status was not computed.

161 **Results**

162 **Structural Validity.**

163 According to current recommendations [37,38], model fit was regarded as satisfactory in
164 Mothers / mothers-to-be ($X^2/df = 2.52$, AGFI = .957, NFI = .937 RMR = .087) and, to a lesser extent,
165 in Childless women ($X^2/df = 3.31$, AGFI = .948, NFI = .907, RMR= .104).

166 Figure 1 displays factor loadings and correlations between variables. Most factor loadings are
167 satisfactory ($>.40$). Only 2 items showed lower factor loadings for Childless women. In both
168 populations, most dimensions are correlated (.22 to .70). Only Stimulation was not correlated with
169 Essentialism and Sacrifice. Internal consistency was satisfactory for Mothers / mothers-to-be regarding
170 Essentialism (.80), Consuming Fulfillment (.81), Child centrism (.70) but lower for Challenge (.60),
171 Sacrifice (.64) and Stimulation (.56). In Childless women, it was satisfactory regarding Essentialism
172 (.72), Consuming Fulfillment (.76), Child centrism (.72) and very low regarding Challenge (.48),
173 Sacrifice (.43) and Stimulation (.38).

174 **FIGURE 1**

175 **Known-groups Validity.**

176 First, as expected, IMI (except Stimulation) was stronger in Mothers / mothers-to-be than in
177 Childless women (Table 2). Moreover, IMI (except Stimulation) was stronger in Mothers / mothers-to-
178 be who were housewives than in those who were employed either part time or full time. However,

179 Consuming Fulfilment was lower in women who were employed part time than in those who were
180 either housewives or employed full time (Table 3).

181 TABLE 2

182 TABLE 3

183 In Mothers / mothers to be, education was associated with Consuming Fulfillment, Child
184 centrism, Essentialism, Stimulation ($r = -.34, -.25, -.24, -.17, p < .01$) and Sacrifice ($r = -.14, p < .05$).
185 This was also observed, to a lesser extent, in Childless women regarding Consuming Fulfillment ($r = -$
186 $.15, p < .05$) and Essentialism ($r = -.14, p < .05$).

187 Discussion

188 As hypothesized, the MIMI showed good structural validity observed through confirmatory
189 factor analysis in Mother / mothers-to-be and, to a lesser extent, in Childless women. Essentialism,
190 Consuming Fulfilment and Child Centrism had good internal consistencies. However, Challenge,
191 Sacrifice and Stimulation dimensions had lower internal consistency but it is well known that
192 Cronbach alpha is highly influenced by the number of items [39–42]. Since those dimensions have few
193 items (2 or 3), getting values above .60 might be seen as satisfactory. Two-item factors are usually
194 considered less reliable [37] but some authors raise questions about this misgiving [41,42]. However,
195 internal consistency of those dimensions in childless women was troublesome ($< .50$). Thus, using the
196 MIMI in childless women requires some caution. On another note, in both groups, dimensions were
197 correlated, showing that IMI is a collection of interconnected beliefs. Only Stimulation was not
198 associated with Sacrifice and Essentialism. Thus, this dimension might be regarded as less central to
199 the very definition of IMI. However, it was clearly correlated to Consuming Fulfillment, Child
200 Centrism and Challenge.

201 As hypothesized, IMI (except Stimulation) was higher in Mothers / mothers-to-be than in
202 Childless women. Moreover, for Mothers / mothers-to-be, IMI (except Stimulation and Consuming
203 Fulfillment) was higher in those who were housewives than in those who were employed. Finally, IMI

204 was negatively correlated with education in Mothers / mothers-to-be, and, to a lesser extent, in
205 Childless women. Thus, our hypotheses are confirmed: IMI endorsement is higher in mothers /
206 mothers-to-be, housewives and less educated women. Our guess is that a very interesting research
207 avenue will be to explore if women who are choosing to have children have higher IMI endorsement
208 (self-selection hypothesis) or if women who become mothers exhibit a growth in IMI endorsement
209 (role transition hypothesis). The MIMI might be used to conduct such research. Moreover, IMI was
210 higher in Housewives. One could conclude that IMI might inhibit work engagement in women.
211 Indeed, Liss et al. found that IMI was associated with fear to leave the child and perception that
212 maternal employment is detrimental to children [21]. In the same vein, IMI associated with perception
213 that maternal employment is detrimental to children has been associated with a delayed planned return
214 to work after the birth [20]. However, IMI might also change to accommodate employment status.
215 Indeed, it has been observed that gender ideology is modified by changes in the division of housework
216 [43]. Further research might contemplate using the MIMI to explore the presumably reciprocal
217 influences between work and IMI. Finally, one unexpected result was that Consuming Fulfillment was
218 lower in women who were employed part-time. This interesting result might be explained by the fact
219 that those women are not engaged in either full-time childcare or full-time employment. Those two
220 situations might be associated with the perception that motherhood is a demanding and consuming
221 activity because of the time spend (housewifery) or the difficulty in work and family life balance (full-
222 time employment).

223 On the whole, our results are far more univocal than Liss et al. ones [21]. They found that only
224 Essentialism and Challenge were higher in Mothers whereas Stimulation and Child-Centrism were
225 higher in Childless women. They found no differences for Fulfillment. Regarding employment, they
226 found that housewives had higher Essentialism and Challenge but lower Stimulation. They found no
227 differences regarding Fulfillment and Child-Centrism. The explanation for those differences between
228 Liss et al. results [21] and ours probably lay in the different measures used. Our guess is that the IPAQ
229 probably assess a more virulent version of IMI. For instance, mothers in Liss et al. study might have
230 been unable to mentally reconcile Stimulation and Child-centrism with their everyday life. This

231 situation of cognitive dissonance might lead them to reject those ideas [44]. It might also be explained
232 by strong differences between French and American contexts. United States and France have very
233 different child and family policies [27]. French parents benefit from childcare provision, paid parental
234 leave and family allowance [28]. Thus, American and French housewives might be very different. For
235 instance, French mothers have been found to place more value on child autonomy [26], so they might
236 hold a softer understanding of what Stimulation and Child-centrism is about.

237 Thus study suffers some limitation. First, our participants were rather privileged women,
238 mainly well-educated, young and married or living as a couple, especially for mothers / mothers-to-be.
239 Further research should contemplate using the MIMI in more deprived populations. Moreover, the
240 housewife status might encompass various situations ranging from women choosing housewifery as a
241 lifestyle to women forced to stay at home for various reasons. Getting information about motives for
242 housewifery and employment could provide interesting perspective. For instance, women who are
243 housewives but would like to work are prone to distress [45,46]. In the same vein, even if employment
244 have generally been found to be beneficial to mothers mental health [47], those who are employed but
245 belief that men should be the sole bread-winner have been found to be more distressed [48,49]

246 Finally, further studies should investigate the test-retest reliability of the MIMI [32] and its
247 association with various related concepts [32] such as beliefs about the consequences of maternal
248 employment on children [20,21] or household and parental duties [21]. Attitude toward highly
249 normative childcare practices such as breastfeeding [50] might also be of particular interest

250 **Disclosure of interest.**

251 The authors declare that they have no competing interest.

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381 **Table 1.** Descriptive statistics

	Mothers Mothers-to-be N = 249	Childless N=231
Age (years)		
Min-max	20 – 47	18 - 48
Mean (SD)	30.49 (5.00)	23.95 (4.29)
Marital Status (%)		
Marriage	55	8
Couple	41	58
Single	3	35
Education (%)		
≥ 2 years of college	62	82
≤ High school diploma	22	13
Employment (%)		
Full-time	38	18
Part time	25	10
Housewives	23	0
Student	1	60
Pregnant (%)	14	0
Not pregnant women		
Number of child (%)		
0	0	100
1	52	0
2	30	0
3	14	0
4 or more	4	0
Youngest child age (months)		
Min-Max	0-60	---
Mean (SD)	15.43 (12.92)	
Pregnant women		
Number of child (%)		
0	42	
1	28	---
2	25	
3 or more	6	
Youngest child age (months)		
Min-Max	6 – 84	---
Mean (SD)	33.10 (20.10)	

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387 **Table 2.** Mean Comparisons between Mothers / Mothers-to-be and Childless Women.

Dimensions	Student T Test	Mothers / Mother-to-be (N = 249)	Childless Women (N = 231)
Essentialism	t(478) = 3.68, p<.01	3.41 (0.93)	3.09 (0.91)
C. Fulfilment	t(478) = 4.04, p<.01	5.09 (0.79)	4.78 (0.87)
Child centrism	t(478) = 3.31, p<.01	4.68 (1.03)	4.34 (1.22)
Challenge	t(478) = 2.11, p<.05	4.91 (1.01)	4.70 (1.11)
Sacrifice	t(478) = 5.42, p<.01	3.38 (1.05)	2.89 (0.93)
Stimulation	t(478) = -0.33, p =.75	5.64 (0.56)	5.65 (0.45)

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403 **Table 3.** Mean Comparisons between Mothers / Mothers-to-be according to their
 404 employment status.

Dimensions	Anova	Full-Time (n = 95)	Part-Time (n = 62)	Housewife (n = 58)
Essentialism	F(2.212) = 21.43, p<.01	3.12 (0.89) ^a	3.13 (0.82) ^a	4.01(0.94)
C. Fulfilment	F(2.212) = 8.59, p<.01	5.12 (0.73) ^a	4.76 (0.99)	5.34 (0.58) ^a
Child centrism	F(2.212) = 9.27, p<.01	4.66 (1.01) ^a	4.30 (1.13) ^a	5.10 (0.92)
Challenge	F(2.212) = 5.36, p<.01	4.73(1.05) ^a	4.77(1.07) ^a	5.25 (0.84)
Sacrifice	F(2.212) = 12.68, p<.01	3.23(0.95) ^a	3.06 (1.02) ^a	3.92(1.06)
Stimulation	F(2.212) = 0.623, p=.54	5.68(0.47)	5.59(0.69)	5.59(0.57)

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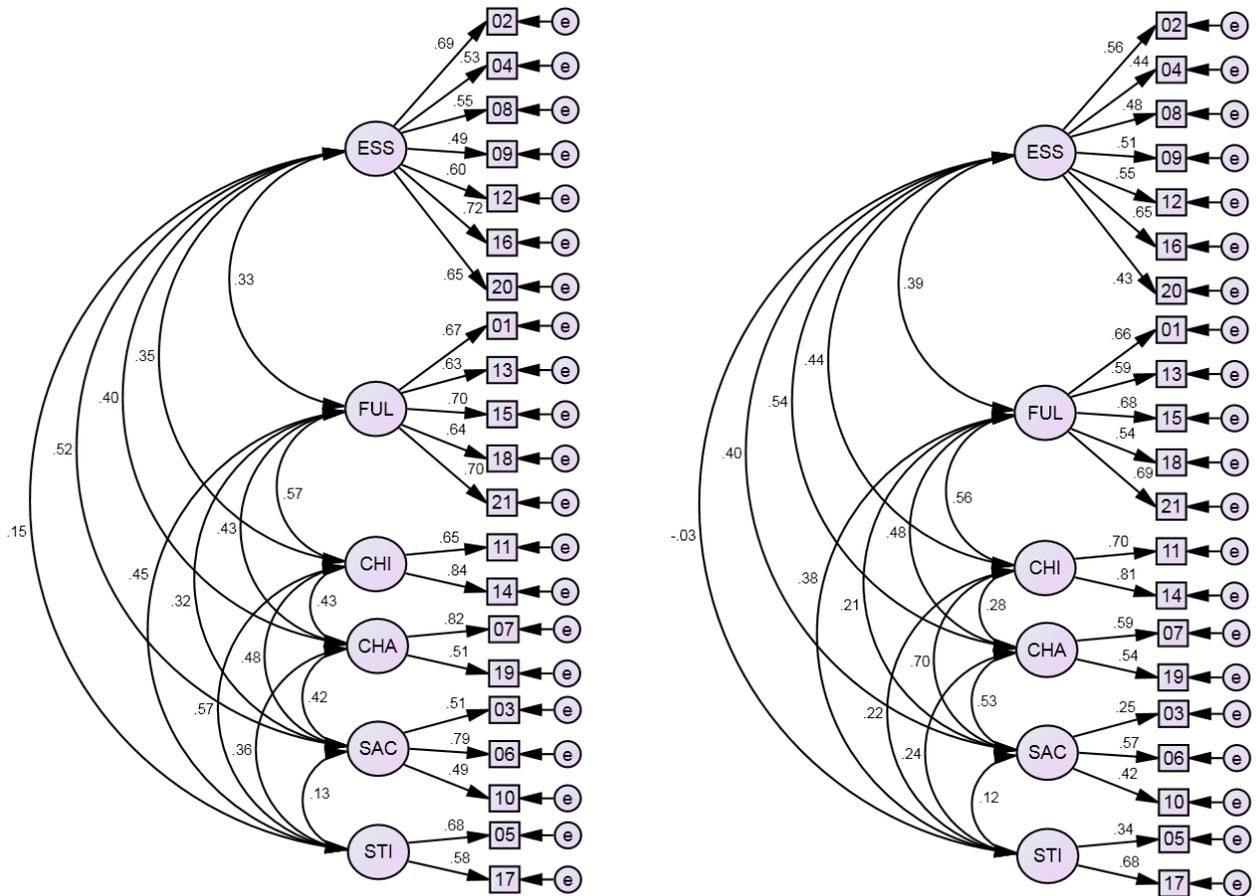
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419 **Figure 1. Validity of the Measure of Intensive Mothering Ideology**

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422 **Figure 1.** Confirmatory Factor Analysis for Mothers / Mothers-to-be (left) and Childless Women
 423 (right). Correlations are significant if they are above .23 ($p < .01$) or .16 ($p < .05$). ESS (Essentialism)
 424 FUL (Consuming Fulfilment), CHI (Child-Centrism) CHA (Challenge) SAC (Sacrifice) and STI
 425 (Stimulation).

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