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1 **Development of Parental Competence Scale in Parents of Children with Autism**

2 **Abstract**

3 Purpose: The purpose of this study is to develop and psychometrically of parental competence scale
4 in parents of children with autism.

5 **Design & Methods:** This mixed-methods design with a sequential exploratory approach was
6 conducted in May 2017 until June 2018 in the south of Iran. In the first phase, a conventional
7 content analysis method was performed with the participation of 16 parents of children with
8 autism. Interviews were held in the autism association offices in an urban area of Iran. In the
9 second phase, validity and reliability of this instrument were assessed with 300 parents of
10 children with autism.

11 **Results:** During content validity testing, 12 items were deleted. Content validity ratio and index
12 were 0.75 and 0.85, respectively. In face validity, impact scores for all items were reported as
13 >1.5. Factor analysis led to the development of a 2-factor solution accounting for 71.4% of the
14 observed variance. Reliability of the instrument using the calculation of the Cronbach's alpha
15 coefficient was reported as 0.98 for the entire instrument. No statistically significant difference
16 was reported between the pre and post-test scores of parental competence ($p= 0.46$). The Parental
17 competence scale demonstrated acceptable psychometric properties.

18 **Conclusion:** The Parental competence scale demonstrated acceptable psychometric properties.
19 Therefore, this scale can be used in future research and for educational and practical purposes
20 with the aim of identifying parents' issues and improving the quality of life of parents of children
21 with autism.

22 **Keywords:** Autism; Parents; Iran; Scale development; Competence

23

24 **1. Introduction**

25 Autism is a developmental disorder, which influences various aspects of the life of both children
26 and their families (Shahidi, Heidary, & Mohammadpuor, 2015). Epidemiological studies on the
27 prevalence of autism internationally have reported wide variation although increased rates are
28 reported globally. The characteristics of this disorder impose physical, psychological and social
29 pressures on the parents of children with autism (Safe, Joosten, & Molineux, 2012; Samadi &
30 McConkey, 2011; Sarabi, Hassanabadi, Mashhadi, & Asghari 2011). Moreover mothers of
31 children with autism have a lower level of overall health, more stress, less self-efficacy and
32 parental competence than the parents of children with normal development and those with other
33 types of developmental disorders (Herring et al., 2006; Pisula, 2007; Yamada et al., 2007).
34 Therefore, recent studies have sought to find ways to reduce these challenges and pressures on
35 the family, especially the mothers of autistic children (Mohammadi, Rakhshan, Molazem, &
36 Zareh, 2018; Mohammadi, Rakhshan, Molazem, Zareh, & Gillespie, 2018; Stuart & McGrew,
37 2009). However, an important starting point is to assess parental perceptions of their parenting
38 role.

39 In Iran, the challenges of caring for children with autism are beginning to be studied (Heidary,
40 Shahidi, & Mohammadpuor, 2015; Samadi & McConkey, 2011; Sarabi J, et al., 2011; Shahidi, et
41 al., 2015). They have shown that families, and especially mothers, have been neglected by
42 healthcare services even though they require professional support (Samadi & McConkey, 2011;
43 Samadi, McConkey, & Bunting, 2014; Shahidi, et al., 2015). Shahidi et al. (2015) found that
44 better care for autistic children was a priority for mothers who tended to rely on spirituality to
45 help their child in the absence of professional support (Shahidi, et al., 2015). Although Sarabi et
46 al. (2011) showed that parental education and skill development did not increase self-efficacy
47 among the parents of children with autism (رفرنس), Samadi et al., 2013 reported that group-based
48 interventions did increase parental wellbeing and coping (Samadi, McConkey, & Kelly, 2013).

49 In these studies, the instruments used for assessing parental competence in parents of children with
50 autism have been formats originally designed to evaluate parental competence in parents of healthy
51 children or parents of children with other disorders (Samadi, McConkey, & Kelly, 2013, و Sarabi
52 Jamaeb et al. 2011). The Parenting Sense of Competence Scale and the Maternal Self-Efficacy

53 Scale are the most commonly used instruments to measure parental competence in autistic children's
54 parents (Araceli Arellano Departamento Aprendizaje y Currículum, Facultad de Educación y Psicología,
55 Universidad de Navarra, Pamplona, SpainCorrespondenceaarellanot@unav.es2017 Kuhn & Carter, 2006,
56 Sarabi Jamaeb et al. (2011 ۛ)Golden Gate Ballroom2017). Although these instruments are validated for
57 use in the parents of children with autism(Samadi, McConkey, & Kelly, 2013ۛ Sarabi Jamaeb et al.
58 2011), but the many behavioral-developmental problems of these children cause the parents of these
59 children to experience extreme physical and emotional stress(mohammadi). Also, parental competence in
60 these parents is affected by more factors than other parents (mohammadi). Therefore, there is a need for
61 specific instrument to measure parental competence in these parents that is designed, according to the
62 experiences of these parents in the care of children with autism.

63 Although a range of instruments have been devised internationally to gauge parent's perceptions
64 of having a child with autism and the impact it has on them and the family, none has been
65 developed specifically for the Iranian context with its emphasis on Islamic and traditional
66 practices. The aim of the present study was to design and assess the psychometric properties of a
67 culturally relevant instrument which Iranian practitioners could use as part of their assessment
68 process and which would assist them with devising family-center supports to parents of children
69 with autism.

70 **2. Methods**

71 A sequential exploratory approach was adopted using mixed-methods. In the first qualitative
72 phase, interviews were conducted with 16 parents. A thematic content analysis identified the
73 most salient themes and a questionnaire was devised. This questionnaire refined a panel of
74 experts for Content validity. Then parents children with autism evaluated face validity and item
75 analysis. Finally psychometric properties of a 25 item questionnaire using a five-point Likert
76 scale was tested with 300 parents.

77 **Ethical considerations**

78 The institutional review board of the medical universities located in Southeast of Iran provided
79 ethics approval (approval number: 95-01-08-1168). Also, at the beginning of each interview, the
80 researcher introduced herself and explained the aim of this study. They were ensured that all

81 information would remain confidential and they could withdraw from the study at any time
82 without any effect on their caring process.

83 *2.1. Phase I. Instrument development*

84 *2.1.1. Qualitative study*

85 Sixteen parents of children in public centers providing care for autistic children affiliated to the
86 medical universities located in Southeast of Iran were selected through purposeful sampling.
87 The criterion for inclusion were: Iranian nationality, speaking and understanding Persian and at
88 least 6 months since a diagnosis of autism in their child. The participants included 10 mothers
89 and 6 fathers. The mean of parents' age was 36.52 ± 2.37 , with a range of 18 to 51 years. Most
90 participating parents in this phase were married (80%) and had a secondary diploma (50%), a
91 male child (65%), and an average monthly income equal to 200–300 US dollars.

92 In this phase, in-depth and semi-structured interviews were conducted face-to-face with the 16
93 parents. These took place in quiet environments by the first author. The individual interviews
94 started with general questions such as: "What competencies do you need to care for your autistic
95 child? ", "Are there situations that you felt incompetent for caring your autistic child?" Follow-
96 up questions were used in order to increase and clarify the information, such as: "Can you
97 explain more? Can you give me an example?" Based on parents' answers, other questions were
98 asked to further probe other aspects of parenting. The interviews were audio -recorded and field
99 notes were taken with the permission and awareness of the parents. Each interview lasted
100 between 45 and 90 minutes.

101 Immediately after each interview, the interviews were listened to by the first author several times
102 to have a general understanding and to identify the main insights provided. This preliminary
103 analysis was done after each interview so that later interviews could be planned. The interviews
104 continued until the data was saturated. Saturation occurs when there is no new category and the
105 categories are saturated based on their characteristics and dimensions (Speziale, Streubert, &
106 Carpenter, 2011).

107 The interview data were analyzed using content analysis. First each text was reviewed for
108 immersion and acquiring insights and deep understanding of the phenomenon under study. Then,

109 the meaning units were determined that reflected parents' perceptions of parenting. Next,
110 important points were extracted as open codes which were then categorized under broader titles
111 based on their similarities, and the data analysis continued until the main themes were extracted
112 (Elo & Kyngäs, 2008; Speziale, et al., 2011). In all 1011 codes were identified across the 16
113 interviews which were categorized into fifteen subcategories, six main categories, and two main
114 themes which were the "restoration of family stability" and "excellence in child care" as shown
115 in Figure 1. In order to ensure trustworthiness, the criteria proposed by (Graneheim & Lundman,
116 2004) were used.. Allocating sufficient time for data collection, prolonged engagement with the
117 data, maximizing variation in sampling, negative case analysis and a team analysis approach
118 using member check, external checks and peer checks

119 **2.1.2. Questionnaire Development**

120 Initially 55 possible items for the assessment tool were created from the qualitative data which
121 were reflective of the main themes. Also, five further items were included based on the literature
122 review, which led to an item pool with 60 items. Subsequently, the items were examined by the
123 research team and 9 items were found to be similar and deleted from the items' pool. Therefore,
124 an initial questionnaire with 51 items was designed in two dimensions: 'restoration of the family
125 stability' (17 items) and 'excellence in care' (34 items). There are more codes in the excellence
126 in care theme and these are often repeated by the parents in the interview .Therefore, there are
127 more items in this them, than restoration of the family stability theme. An example of the items
128 is presented in Table 1.

129 **2.1.3. Content validity**

130 Content validity was done with qualitative and quantitative approach. The sample size should be
131 10-12 participants for content validity (Waltz, Strickland, & Lenz, 2010). Content validity was
132 undertaken with a panel of experts and panel of parents. Fifteen experts consisting of nurses,
133 pediatricians and clinical psychologists reviewed the items in terms of vocabulary and grammar,
134 comprehensions and relevance to the Iranian culture and context. They suggested that two items
135 should be removed. The remaining 49 questions was entered into quantitative analysis of
136 content validity using two indices: content validity ratio (CVR) and content validity index (CVI)
137 (Waltz, Strickland, & Lenz, 2010). To do this, the instrument with was returned to the panel who
138 were asked to assess the items in terms of usefulness and necessity to the study's topic.
139 According to the Lawshe table, the acceptable CVR was reported as 0.46 (Ayre & Scally, 2014),

140 however four items had a CVR of 0.33 and were deleted. Next, the content validity index (CVI)
141 was assessed for each item. The revised version of the instrument was returned to the panel who
142 were asked to give each item a score in terms of relevance, simplicity and clarity using a five-
143 point Likert scale ranging from 1 to 5. The CVI was calculated for each item and the whole
144 instrument. In this study, $CVI > 0.8$ was considered appropriate (Waltz, Strickland, & Lenz,
145 2010) However six items had a score below this cut-off and these items were also deleted.

146 **2.1.4. Face validity**

147 The sample size was 10-12 participants in this phase (Waltz et al., 2010). The revised instrument
148 with 39 items was then given to 30 parents of children with autism using the same inclusion
149 criteria as for Phase 1. They were asked to assess each item in terms of difficulties, relevance,
150 grammar and vocabulary, and intelligibility. The participants declared that the items were
151 simple, clear and relevant to the study's topic. In addition, an impact score was calculated in
152 which parents evaluated each item using a five-point Likert scale ranging from one (very little
153)to five (very much) with a score > 1.5 considered as acceptable (Waltz, et al., 2010). The
154 impact score for all items was higher than 1.5. Therefore, no further items were deleted.

155 **2.1.5. Item Analysis**

156 Acceptable samples size for Item Analysis is 20 or more participants (Waltz et al., 2010).An
157 instrument with 39 items was developed from the previous stage. 30 eligible parents rated
158 themselves on the 39 items using a five-point Likert scale (from 1 = very low to 5 = very high).
159 The correlation coefficient between each item and the total score was $r > 0.3$, and Correlation
160 coefficients between each item and other items score should be in the range of $0.3 < r < 0.7$ (Waltz
161 et al., 2010). Among the questions that correlate more than 0.7, one question was selected by the
162 research team. The correlation between all items and the total score was more than 0.30 in this
163 study. But correlations coefficient between each item and other items had a range from 0.30 to
164 0.89. Therefore, between items had correlations more than 0.7 the most appropriate item
165 according to the perspectives of the research team and experts was chosen and in this section 14
166 items were deleted. A shorter version of the questionnaire was created with 25 items, thereby
167 making it more feasible for parents to complete. Figure 2 shows the diagram of the deleted items.

168 **2.2. Phase II. Psychometric properties**

169 **2.2.1. Participants and data collection**

170 300 parents of children with autism were recruited using a convenience sampling from four
171 Autism Children's Association in two cities of Iran. Parents from the same family were not
172 included in this study. The inclusion criteria were: diagnosed with autism in the last three
173 months, no other physical or mental diseases, ability to read and write in Farsi and willingness to
174 participate in the study. The participants' socio-demographic and clinical characteristics were
175 also collected. Data was analyzed using descriptive and inferential statistics via the SPSS
176 software, v. 19 (SPSS Inc, Chicago, Illinois, USA).

177 The mean of parents' age was 38.82 ± 2.48 , with a range of 18 to 51 years. Most participating
178 parents in this phase were women (66.67%), married (64.67%) and had a secondary diploma
179 (66.67%), a male child (61.67%), and an average monthly income equal to 200–300 US dollars.
180 Also there was no significance difference by gender of the parent or of the child. However,
181 college educated parents had more positive perceptions than those with primary education
182 ($p < 0.03$); married parents than those who were divorced or separated ($p < 0.04$) and more affluent
183 compared to less affluent parents ($p < 0.04$).

184 **2.2.2. Contrast validity (Exploratory factor analysis, Convergent and Divergent validity)**

185 The sample size is construct validity for each item 5-10 participants (Waltz et al., 2010).
186 Construct validity helped ensure that the instrument actually measured what was intended to
187 measure (Waltz, et al., 2010) Exploratory factor analysis using the varimax rotation was used in
188 this study. To achieve the most appropriate structure, eigenvalues higher than 1.0, factor loadings
189 higher than 0.50 and so-called 'elbow criterion' regarding the eigenvalues were considered (Polit
190 & Beck, 2013; Waltz, et al., 2010) To evaluate sample adequacy, the Kaiser–Meyer–Olkin
191 (KMO) test and Bartlett's test were performed. For exploratory factor analysis, the KMO value
192 had to be greater than 0.05. For convergent and divergent validity comparisons, the Pearson's
193 correlation coefficients between the developed instrument and the parenting sense of competence
194 scale and the child neglect questionnaire were calculated. Questionnaire has 46 questions in 4
195 dimensions physical, emotional, educational, and supervision neglect, that is useful for detecting

196 children at high risk for parental neglect (رفرمس) and parenting sense of competence scale is a
197 questionnaire of 17 items with two dimensions" self-efficacy and satisfaction" that purpose this
198 scale is to measure self-efficacy in parents of healthy children, but this scale has validity in
199 children with autism (رفرمس).

200 *Confirmatory Factor Analysis*

201 Confirmatory Factor Analysis was done with 300 parent's children with autism that they
202 are different of participants in exploratory factor analysis. Confirmatory Factor Analysis was
203 conducted using AMOS 20 and several indices were used to assess the usefulness of the model.
204 The following criteria need to be met: goodness of fit index (GFI) >0.90, root mean square error
205 of approximation (RMSEA) with acceptance level of <0.08, Tucker Lewis Index (TLI) with
206 acceptance level of >0.90,22 comparative fit index (CFI) with acceptance level of >0.90(Azami
207 et al., 2018).

208 *2.2.3. Reliability*

209 Reliability of this instrument was assessed with the Cronbach's alpha coefficient and test-retest
210 reliability. For internal consistency reliability, the Cronbach's alpha coefficient was calculated in
211 300 samples. the Cronbach's alpha coefficient > 0.7 was considered acceptable (Polit & Beck,
212 2013). For test-retest reliability, the intra class correlation (ICC) was calculated through
213 collecting data from 60 parents with autism with a two-week interval.

214 *3. Results*

215 *3.1. Contrast validity (Exploratory factor analysis, Convergent and Divergent* 216 *validity)*

217 Exploratory factor analysis using the varimax rotation identified two main factors as shown in
218 Table 1. Which together explained 71.4% of the observed variance. The items' factor loadings
219 ranged from 0.50 to 0.86. The two included factors were adapting with the present situation (9)
220 and excellence in care (16) which broadly confirmed the main themes identified in the qualitative
221 data. According to the Pearson's correlation, this instrument was significantly correlated with
222 the parenting sense of competence scale indicating weak convergent validity ($r = 0.54$). Also,

223 this instrument was significantly correlated with the child neglect questionnaire indicating a lack
224 of relationship or very small relationship with it, which approved its divergent validity ($r = 0.04$)
225 (Table 2).

226 3.2. *Confirmatory Factor Analysis*

227 The result of CFA indicated one model with 2 factors 'restoration of the family stability' (9
228 items) and 'excellence in care' (16 items). 'Excellence in care' showed 0.95 correlation and
229 'restoration of the family stability' showed 0.92 correlation. Also there are 0.89 correlation
230 between two factors. the chi- square of 558.43 ($df = 85$, $P = 0.032$) which showed poor fitness.in
231 addition The GFI in the current study was 0.95 which shows the good fitting of the uni-
232 dimensional model of the PTES construct. Further indices are tested in this model which are
233 RMSEA = 0.03, CFI = 0.94, NFI = 0.93 and TLI = 0.94. All of the reported indices indicate that
234 the extracted model is a good fitting one for the perceived therapeutic efficacy scale (Figure 3).

235 3.3. *Reliability*

236 The reliability of the questionnaire was assessed using Cronbach's alpha coefficient and test-
237 retest reliability. The Cronbach's alpha coefficient of internal consistency across the 25 items
238 instrument was 0.98 and for the two subscales of adapting with the present situation and
239 excellence in care were 0.94 and 0.95, respectively ($r = 0.90$).The test-retest reliability of the
240 questionnaire was calculated by inviting 60 parents to complete the questionnaire again after a
241 two-week interval. The test-retest showed no statistically significant difference between pre- and
242 post-test scores ($p = 0.46$). The correlations between the scores on the adapting with the present
243 situation administration of the questionnaire between test-retest were 0.818 and the correlations
244 between the scores on the excellence in care administration of the questionnaire between test-
245 retest were 0.822. Finally, the correlation coefficient of the test-retest is 0.90, indicating the
246 stability of the instrument.

247 4. Discussion

248 Parental competence from the perspective of the Iranian parents with autistic children was
249 defined namely adaptation to the current situation, organization of family affairs, improvement
250 of satisfaction in the family, development of self-confidence in child care, motivation in

251 caregiving and achievement of stability in the difficult path of child care. Then the instrument of
252 parental competencies in Iranian parents with autistic children was designed and developed in
253 this study. In this instrument, 80% of the items were designed and developed on the basis of
254 parents' perspectives using a content analysis approach, 20% of them were based on literature
255 review. It had 25 items and 2 dimensions of 'reconstruction 'the family stability' and 'excellence
256 in care'. It was used to collect data from 300 Iranian parents of children with autism. Then
257 psychometric properties of this instrument were assessed among these parents. Further, the CVR
258 and CVI for this instrument were confirmed. Factor analysis led to two domains accounting for
259 71.38 percent of the observed variance. Confirmatory Factor Analysis also indicated that the
260 overall structure of this questioner. Thus, this can confirm the ability of this questioner to assess
261 parental competencies in Iranian parents of children with autism.in addition Confirmatory Factor
262 Analysis was not done for other scales that were done used for assessing parental competence.

263 Study findings showed the restoration of family stability and achieve excellence in child care as
264 two of the important aspects of parental competence. To restore family stability, parents with
265 autistic children need to accept the illness of their children, patiently adapt to the psychological
266 tensions associated with the illness, and attempt to obtain accurate information about the illness
267 and how to give care to their afflicted children. Inanition when parents with autistic children
268 accept the illness of their children and obtain necessary information for quality child care, they
269 will be able to organize their interests and life schedules as well as the interests and plans of their
270 ill children and other family members. Moreover, they will be able to improve the interactions of
271 their ill children with family members and other people, improve satisfaction in their families,
272 and create a calm and stable life. Others study reported that having an autistic child negatively
273 affects their family members' personal and social lives, work, and marriage and therefore,
274 parents need to adopt different strategies to minimize these effects with the help of other family
275 members and healthcare professionals. Besides, they need adequate professional help, support,
276 and counseling to adopt optimistic views about their lives and their autistic children (Myers,
277 Mackintosh, & Goin-Kochel, 2009).

278 However, seven instruments of the parenting sense of competence scale, sense of competence
279 scale of the parenting stress index, parenting scale, Parenting Self-Agency Measure, parental self-

280 efficacy scale, parental self-efficacy questionnaire and maternal efficacy questionnaire were used for
281 assessing parental competence in parents of autistic children (Abidin, 1990; Gibaud-Wallston,
282 رفرنس ها اضافه شود). (1977)

283 Although these instruments are validated in parents of autistic children, but they are only
284 designed and developed through literature review. While the instrument in this study, was
285 designed and developed based on the inductive-deductive method according the experiences of
286 parents of children with autism. This instrument was developed for assessing parental
287 competence in Iranian parents of children with autism, considering the cultural characteristics of
288 Iran is more appropriate. While a few questions were similar between instruments but the title
289 and more questions of dimensions were different. This difference is probably due to differences
290 in the meaning of parental competencies in Iranian parents of children with autism.

291 However, Parental competence is a concept related to the culture and all parents of the present
292 study was Muslims and Iranians. They believe that they are responsible for the care of these
293 children and if they do not care well about these children, they must be held accountable to God.
294 Therefore, they stated that their religious beliefs are an important motive for caring for children.
295 Inanition having a sick child in Iranian culture is a disgrace to the family and families suffer a lot
296 of psychological stress. Some parents may hide their child and not interact with others. Hence,
297 one important factor in having parental competence in parents of children with autism in Iranian
298 culture is to overcome the psychological pressures due to having a sick child and develop their
299 interactions with others. In addition it is believed that parental competencies in parents of
300 children with autism are influenced by more factors than those in children with normal
301 developmental (Safe, et al., 2012). Therefore, it is important that the parental competence in
302 Iranian parents of children with autism is defined through the expression and description of these
303 parents themselves. Then parental competence scale is designed in these parents through the
304 experience parents children with autism. This instrument had appropriate CVR, CVI, EFA,CFA
305 convergent, divergent validity and reliability. Although seven instruments are used for assessing
306 parental competence in parents of autistic children have EFA and reliability but usually CVR,
307 CVI, CFA and divergent validity are not reported for these instruments. It is likely that the
308 instrument designed based on the participants' statements will have the potential to improve our

309 understanding of this phenomenon from the perspective of the Iranian parents with autistic
310 children. Also it can help practitioners to better assess parental performance and identify their
311 needs, and subsequently design supportive programs to enhance parental competence in these
312 parents.

313 One of the limitations of the present study was that the participants in this study were only
314 patients cared in public centers providing care for autistic children. The selection of participants
315 from private centers providing care for autistic children could broaden the scope of our findings.
316 Among other limitations of this study was gathering of information using individual interviews
317 in qualitative study (phase I), while utilizing other methods of collecting information could lead
318 to a richer outcome of this qualitative research. Therefore, it is recommended to conduct further
319 studies on the parental competence in parents of children with autism in private centers providing
320 care using other methods of gathering qualitative data such as observation and focus group in
321 addition to the individual interviews. Given the fact that parental competencies are broad and
322 multidimensional based on different contexts and cultures, more research should be done using
323 the qualitative and quantitative designs to determine and evaluate factors affecting parental
324 competencies among parents of children with autism. Also, the psychometric properties of this
325 instrument in a larger population of parents of children with autism and in different cultures are
326 suggested. In addition are suggested the psychometric properties of this instrument are evaluated
327 for measuring parental competence in children with other developmental-behavioral disorders.

328 **Conclusions**

329 Parental competence of children with autism is a multidimensional and complex concept
330 influenced by individual, family, social and cultural factors. On the other hand, awareness of
331 factors influencing parental competencies in parents of children with autism is important for
332 healthcare workers including nurses. Such an instrument is needed to assess parental
333 competencies and identify parents' needs and problems for gaining and improving their
334 competencies. Subsequently, the quality of care among these children can be improved. The
335 instrument developed in this study demonstrated acceptable psychometric properties. Therefore,
336 it can be used in future research and for educational and practical purposes with the aim of
337 assessing parental competencies in children with autism. Because, this tool can help practitioners

338 to better assess parental performance and identify their needs, and subsequently design
339 supportive programs to enhance parental competence in these parents and promote the quality of
340 life of parents and children with autism.

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Table 1. Varimax factor loadings of the items of the instrument (n =300)

Items	Factor 1	Factor 2
	Adapting with the present situation	Excellence in care
1- I have accepted my child's illness.	.823	
2- I am patient in dealing with my child.	.815	
3-I am patient with the words and behaviors of my child.	.812	
5- I can overcome my negative feelings and emotions.	.782	
6- I'm ashamed of my child's illness.	.764	
7- I feel relaxed as my wife and my relatives understand my circumstances.	.724	
8- I have peace of mind with reliance to God and prayer	.688	
9- I refer to the Autism Centers for children to provide better care to my child.	.644	
20- My beliefs motivate me to continue learning and caring for the child.	.545	
4- I try to get information about my child's illness and education from different people and resources.		.593
10- I am looking for financial support to improve my living conditions.		.691
11- I am pleased with myself for sustaining education and care to my child.		.659
12- I am successful in my role as a mother/father.		.755
13- As a wife, I perform my duties well.		.746
14- I look at my own desires and interests.		.733
15- I have been able to improve my child's relationship with other family members.		.720
16- My family members help me in my child care and education.		.857
17- Love for my child increases my motivation to continue his/her education.		.825
18- Looking forward to my child's recovery, I continue his/her education.		.862
19- When my child learns something, I become more eager for her/his education.		.805
21- I can take care of my child well and create the right behavior in him/her.		.560
22- I believe that I can improve my child's future.		.724
23- Under any circumstances, I feel responsible for pursuing my child's education.		.705
24- For my child's education, I provide my child with the appropriate atmosphere and time.		.646
25- I treat seriously when teaching to create the right behavior in my child.		.636

Table 2. Convergent and divergent validity of the instrument with the parenting sense of competencies scale and child neglect questionnaire

Scale		Parenting sense of competencies scale	Child neglect questionnaire
	Pearson r	0.54	0.04
This instrument	p	<.03*	<.02*
*Correlation is significant			

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Table3. Parental Competence Scale for parents children with Autism					
	Very Much	Much	Some times	Very Little	Little
1- I have accepted my child's illness.					
2- I am patient in dealing with my child.					
3-I am patient with the words and behaviors of my child.					
5- I can overcome my negative feelings and emotions.					
6- I'm ashamed of my child's illness.					
7- I feel relaxed as my wife and my relatives understand my circumstances.					
8- I have peace of mind with reliance to God and prayer					
9- I refer to the Autism Centers for children to provide better care to my child.					
20- My beliefs motivate me to continue learning and caring for the child.					
4- I try to get information about my child's illness and education from different people and resources.					
10- I am looking for financial support to improve my living conditions.					
11- I am pleased with myself for sustaining education and care to my child.					
12- I am successful in my role as a mother/father.					
13- As a wife, I perform my duties well.					
14- I look at my own desires and interests.					
15- I have been able to improve my child's relationship with other family members.					
16- My family members help me in my child care and education.					
17- Love for my child increases my motivation to continue his/her education.					
18- Looking forward to my child's recovery, I continue his/her education.					
19- When my child learns something, I become more eager for her/his education.					
21- I can take care of my child well and create the right behavior in him/her.					
22- I believe that I can improve my child's future.					
23- Under any circumstances, I feel responsible for pursuing my child's education.					
24- For my child's education, I provide my child with the appropriate atmosphere and time.					
25- I treat seriously when teaching to create the right behavior in my child.					

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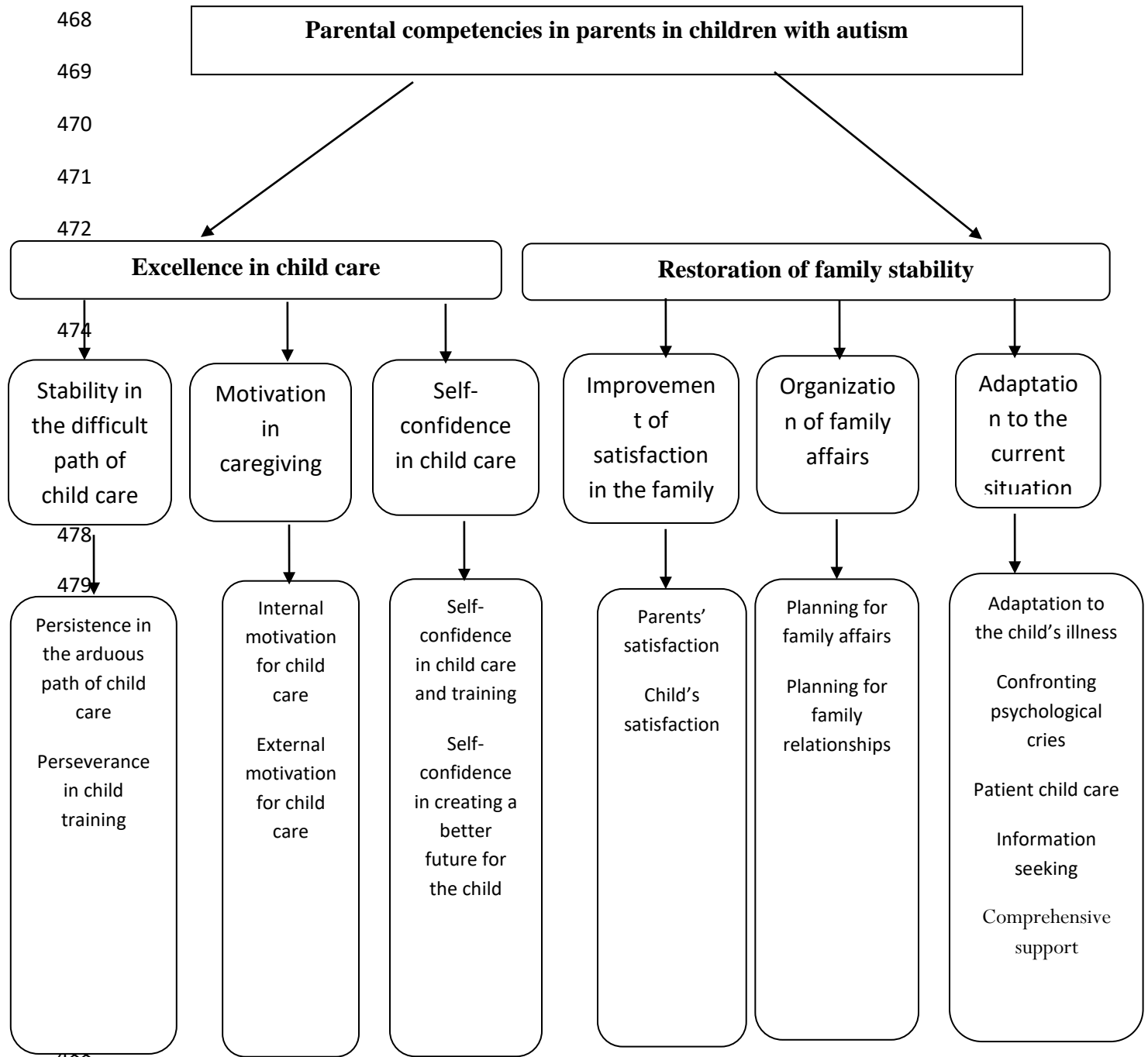
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Figure1. The main themes and subthemes in parent's perceptions

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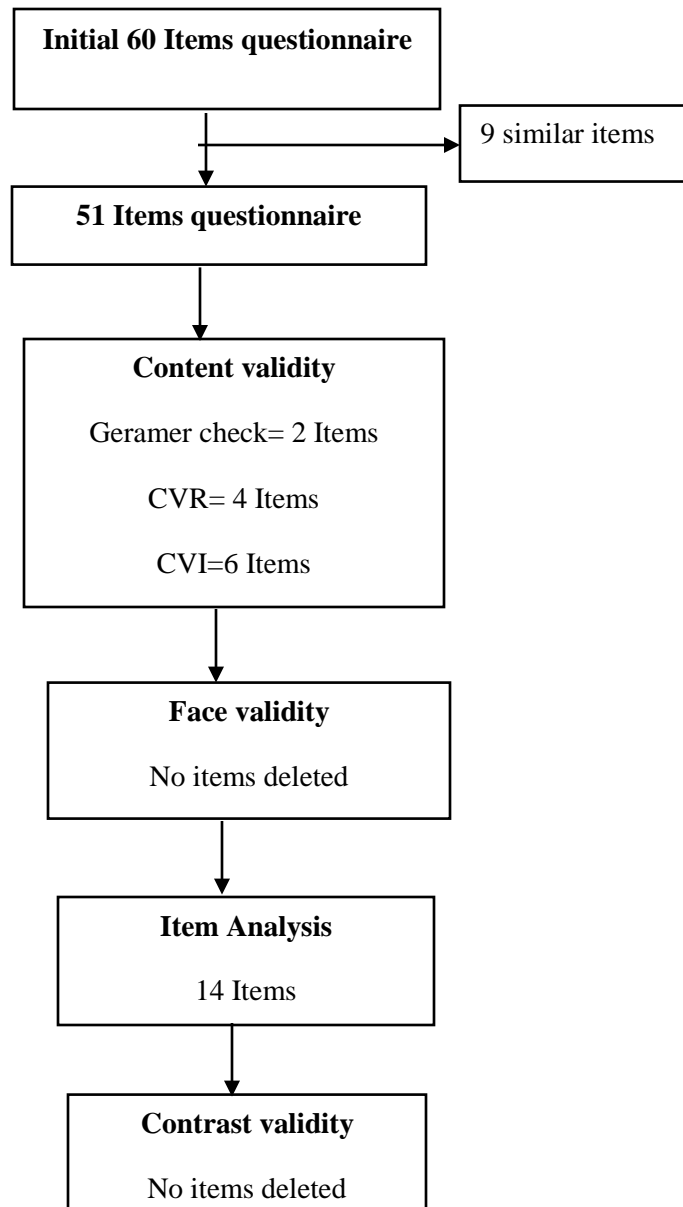
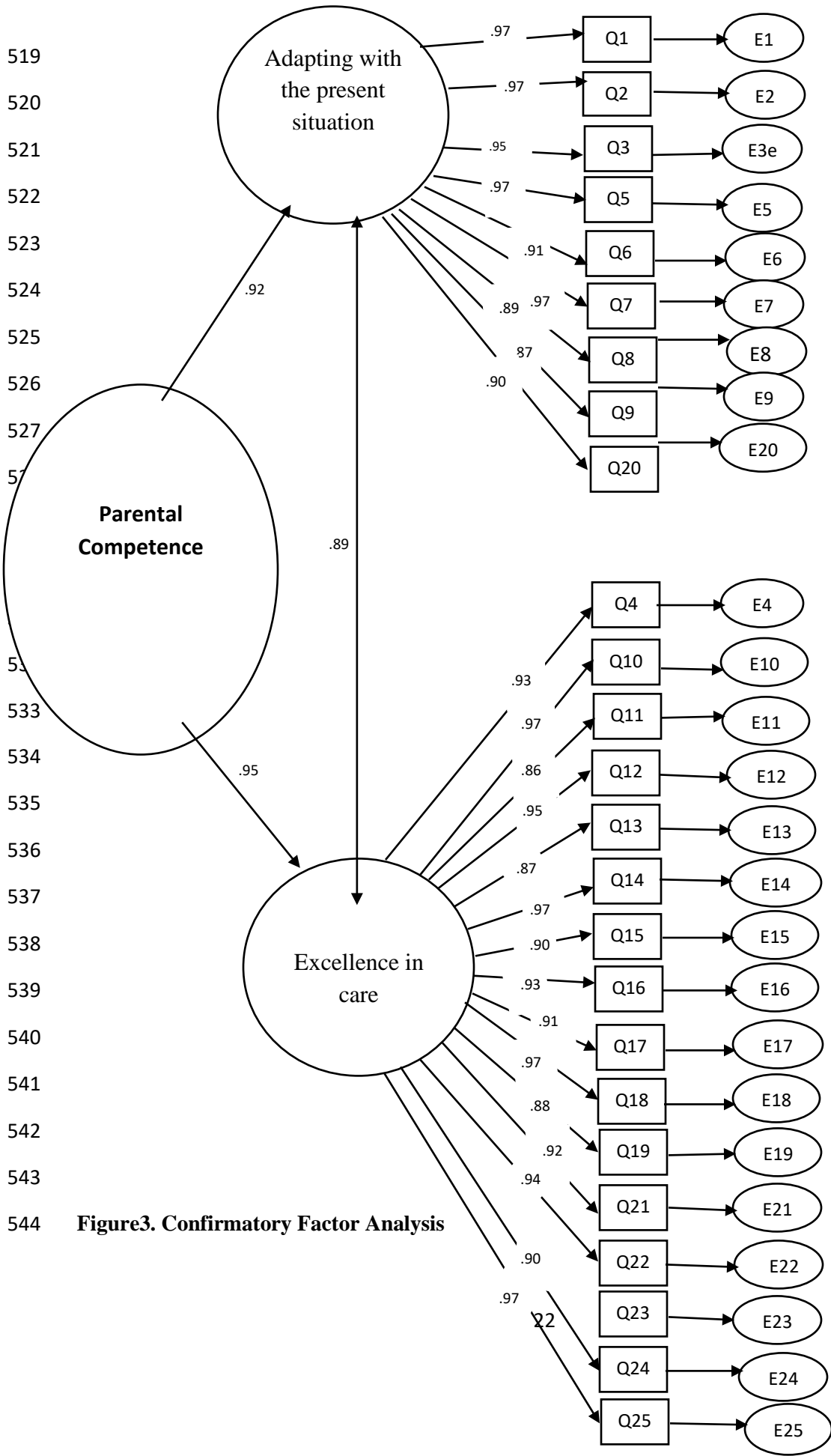


Figure2. Diagram of the deleted items



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Figure3. Confirmatory Factor Analysis