



Developmental and Risk Status of Toddlers from Arab American Families: What We Know about Families Today?

Huda Felimban, Assistant Professor, of Special Education, King Abdulaziz University, Saudi Arabia

Asha Yadav, Doctoral Candidate, Early Intervention, University of Oregon



College of Education

<p>Background</p> <p>Arabic-speaking families are fast growing community in America. However, little research has been done to study the developmental outcomes of children growing up in Arabic-American families. Therefore, this study investigates the developmental and risk status of 191 children, aged 18-36 months from Arab-American families. We examine the relationship between environmental risk factors such as family income and years spent in the USA with children's developmental scores and parental stress. Given an underrepresentation of Arab-American families and children in early childhood research, this study has practical implications for researchers and practitioners.</p>	<p>Descriptive characteristics of parents (n=191)</p> <table border="1"> <thead> <tr> <th>Characteristic</th> <th>n(%)</th> </tr> </thead> <tbody> <tr> <td>Person filling survey</td> <td></td> </tr> <tr> <td> Mother</td> <td>147(77)</td> </tr> <tr> <td> Father</td> <td>28(14.7)</td> </tr> <tr> <td> Both</td> <td>16(8.4)</td> </tr> <tr> <td>User language</td> <td></td> </tr> <tr> <td> Arabic</td> <td>79(41.4)</td> </tr> <tr> <td> English</td> <td>112(58.6)</td> </tr> <tr> <td>Yearly family income</td> <td></td> </tr> <tr> <td> \$0-\$16,500</td> <td>23(12)</td> </tr> <tr> <td> \$16,501-\$24,500</td> <td>25(13.1)</td> </tr> <tr> <td> \$24,501-\$44,500</td> <td>35(18.3)</td> </tr> <tr> <td> \$44,501-\$60,000</td> <td>43(22.5)</td> </tr> <tr> <td> more than \$60,000</td> <td>44(23)</td> </tr> <tr> <td> I don't know</td> <td>21(11)</td> </tr> <tr> <td>Years spent in the USA</td> <td></td> </tr> <tr> <td> 0-5 years</td> <td>101(53)</td> </tr> <tr> <td> 6-10 years</td> <td>58(30)</td> </tr> <tr> <td> Above 10 years</td> <td>32(17)</td> </tr> <tr> <td>Country of origin</td> <td></td> </tr> <tr> <td> Jordan</td> <td>53(27.7)</td> </tr> <tr> <td> Saudi Arabia</td> <td>47(24.6)</td> </tr> <tr> <td> Syria</td> <td>20(10.5)</td> </tr> <tr> <td> Palestine</td> <td>18(9.5)</td> </tr> <tr> <td> Iraq</td> <td>18(9.4)</td> </tr> <tr> <td> Egypt</td> <td>15(7.9)</td> </tr> <tr> <td> Lebanon</td> <td>9(4.7)</td> </tr> <tr> <td> Kuwait</td> <td>4(2.1)</td> </tr> <tr> <td> Morocco</td> <td>4(2.1)</td> </tr> <tr> <td> United Arab Emirates</td> <td>2(1)</td> </tr> <tr> <td> Libya</td> <td>1(0.5)</td> </tr> </tbody> </table>	Characteristic	n(%)	Person filling survey		Mother	147(77)	Father	28(14.7)	Both	16(8.4)	User language		Arabic	79(41.4)	English	112(58.6)	Yearly family income		\$0-\$16,500	23(12)	\$16,501-\$24,500	25(13.1)	\$24,501-\$44,500	35(18.3)	\$44,501-\$60,000	43(22.5)	more than \$60,000	44(23)	I don't know	21(11)	Years spent in the USA		0-5 years	101(53)	6-10 years	58(30)	Above 10 years	32(17)	Country of origin		Jordan	53(27.7)	Saudi Arabia	47(24.6)	Syria	20(10.5)	Palestine	18(9.5)	Iraq	18(9.4)	Egypt	15(7.9)	Lebanon	9(4.7)	Kuwait	4(2.1)	Morocco	4(2.1)	United Arab Emirates	2(1)	Libya	1(0.5)	<p>Results</p> <p>Descriptive characteristics of children (n=191)</p> <table border="1"> <thead> <tr> <th>Characteristic</th> <th>n(%)</th> </tr> </thead> <tbody> <tr> <td>Gender</td> <td></td> </tr> <tr> <td> Female</td> <td>110(57.6)</td> </tr> <tr> <td> Male</td> <td>81(42.4)</td> </tr> <tr> <td>Has diagnosis</td> <td></td> </tr> <tr> <td> Yes</td> <td>11(5.8)</td> </tr> <tr> <td> No</td> <td>180(94.2)</td> </tr> </tbody> </table> <p>Descriptive (ASQ: AR) Means (<i>M</i>) and standard deviations (<i>SD</i>) were calculated for all eight age intervals from 18 to 36 months for the development of AAC children in the five areas of development on the ASQ: AR. For most AAC children 126 (66%) scored above the cut-off scores in all areas of development; 40 (21%) were below cut-off scores in one area, and 25 (13%) were below cut-off scores in two areas or more.</p> <p>Descriptive (PSI: SF) On the PSI: SF, 48.2% scored within the typical stress, 16.8% scored within the high stress, and 35.1% scored within the clinically significant stress percentiles.</p> <p>Child development and Parental stress A Pearson <i>r</i> was conducted to examine the relationships between child development and parental stress. The results showed a significant correlation, $r(189) = .322, p < .001$, indicating that children with ASQ: AR scores under the cutoff in one domain or more were likely to have parents with higher levels of stress.</p>	Characteristic	n(%)	Gender		Female	110(57.6)	Male	81(42.4)	Has diagnosis		Yes	11(5.8)	No	180(94.2)	<p>Two-way between subject ANOVA in environmental factors and ASQ: AR Scores</p> <table border="1"> <thead> <tr> <th>Source</th> <th>df</th> <th>SS</th> <th>MS</th> <th>F</th> </tr> </thead> <tbody> <tr> <td>Income</td> <td>5</td> <td>54.46</td> <td>10.89</td> <td>1.91</td> </tr> <tr> <td>Years spent in US</td> <td>2</td> <td>1.87</td> <td>0.93</td> <td>0.16</td> </tr> <tr> <td>Income * Years</td> <td>10</td> <td>96.24</td> <td>9.62</td> <td>1.69</td> </tr> <tr> <td>Error</td> <td>173</td> <td>985.03</td> <td>5.69</td> <td></td> </tr> <tr> <td>Total</td> <td>190</td> <td>1137.60</td> <td></td> <td></td> </tr> </tbody> </table> <p>There was no significant effect of the family income and years spent in the US on children's ASQ scores. There was insufficient evidence to reject the null hypothesis, $F(10, 173)=1.69, p>.05$.</p> <p>Two-way between subject ANOVA in environmental factors and parental stress</p> <table border="1"> <thead> <tr> <th>Source</th> <th>df</th> <th>SS</th> <th>MS</th> <th>F</th> </tr> </thead> <tbody> <tr> <td>Income</td> <td>5</td> <td>2.91</td> <td>0.58</td> <td>1.16</td> </tr> <tr> <td>Years spent in US</td> <td>2</td> <td>0.43</td> <td>0.02</td> <td>0.04</td> </tr> <tr> <td>Income * Years</td> <td>10</td> <td>6.54</td> <td>0.65</td> <td>1.30</td> </tr> <tr> <td>Error</td> <td>173</td> <td>87.02</td> <td>0.50</td> <td></td> </tr> <tr> <td>Total</td> <td>190</td> <td>96.90</td> <td></td> <td></td> </tr> </tbody> </table> <p>There was no significant effect of the family income and years spent in the US on Arabic-American community parental stress. There was insufficient evidence to reject the null hypothesis, $F(10, 173)=1.30, p>.05$.</p> <p>Themes</p> <table border="1"> <thead> <tr> <th>Experience raising children</th> <th>Service access and use</th> <th>Challenges raising children in US</th> <th>Strategies to prevent Arabic culture</th> </tr> </thead> <tbody> <tr> <td>Positive (64%) Negative(36%)</td> <td>Education & health (41%) Entertainment (26%) Social support (22%) No discrimination (100%)</td> <td>Lack of support (65%) Cultural & language barrier (94%)</td> <td>Islamic & cultural teaching (30%) Community build (32%) Language (29%)</td> </tr> </tbody> </table>	Source	df	SS	MS	F	Income	5	54.46	10.89	1.91	Years spent in US	2	1.87	0.93	0.16	Income * Years	10	96.24	9.62	1.69	Error	173	985.03	5.69		Total	190	1137.60			Source	df	SS	MS	F	Income	5	2.91	0.58	1.16	Years spent in US	2	0.43	0.02	0.04	Income * Years	10	6.54	0.65	1.30	Error	173	87.02	0.50		Total	190	96.90			Experience raising children	Service access and use	Challenges raising children in US	Strategies to prevent Arabic culture	Positive (64%) Negative(36%)	Education & health (41%) Entertainment (26%) Social support (22%) No discrimination (100%)	Lack of support (65%) Cultural & language barrier (94%)	Islamic & cultural teaching (30%) Community build (32%) Language (29%)
Characteristic	n(%)																																																																																																																																																		
Person filling survey																																																																																																																																																			
Mother	147(77)																																																																																																																																																		
Father	28(14.7)																																																																																																																																																		
Both	16(8.4)																																																																																																																																																		
User language																																																																																																																																																			
Arabic	79(41.4)																																																																																																																																																		
English	112(58.6)																																																																																																																																																		
Yearly family income																																																																																																																																																			
\$0-\$16,500	23(12)																																																																																																																																																		
\$16,501-\$24,500	25(13.1)																																																																																																																																																		
\$24,501-\$44,500	35(18.3)																																																																																																																																																		
\$44,501-\$60,000	43(22.5)																																																																																																																																																		
more than \$60,000	44(23)																																																																																																																																																		
I don't know	21(11)																																																																																																																																																		
Years spent in the USA																																																																																																																																																			
0-5 years	101(53)																																																																																																																																																		
6-10 years	58(30)																																																																																																																																																		
Above 10 years	32(17)																																																																																																																																																		
Country of origin																																																																																																																																																			
Jordan	53(27.7)																																																																																																																																																		
Saudi Arabia	47(24.6)																																																																																																																																																		
Syria	20(10.5)																																																																																																																																																		
Palestine	18(9.5)																																																																																																																																																		
Iraq	18(9.4)																																																																																																																																																		
Egypt	15(7.9)																																																																																																																																																		
Lebanon	9(4.7)																																																																																																																																																		
Kuwait	4(2.1)																																																																																																																																																		
Morocco	4(2.1)																																																																																																																																																		
United Arab Emirates	2(1)																																																																																																																																																		
Libya	1(0.5)																																																																																																																																																		
Characteristic	n(%)																																																																																																																																																		
Gender																																																																																																																																																			
Female	110(57.6)																																																																																																																																																		
Male	81(42.4)																																																																																																																																																		
Has diagnosis																																																																																																																																																			
Yes	11(5.8)																																																																																																																																																		
No	180(94.2)																																																																																																																																																		
Source	df	SS	MS	F																																																																																																																																															
Income	5	54.46	10.89	1.91																																																																																																																																															
Years spent in US	2	1.87	0.93	0.16																																																																																																																																															
Income * Years	10	96.24	9.62	1.69																																																																																																																																															
Error	173	985.03	5.69																																																																																																																																																
Total	190	1137.60																																																																																																																																																	
Source	df	SS	MS	F																																																																																																																																															
Income	5	2.91	0.58	1.16																																																																																																																																															
Years spent in US	2	0.43	0.02	0.04																																																																																																																																															
Income * Years	10	6.54	0.65	1.30																																																																																																																																															
Error	173	87.02	0.50																																																																																																																																																
Total	190	96.90																																																																																																																																																	
Experience raising children	Service access and use	Challenges raising children in US	Strategies to prevent Arabic culture																																																																																																																																																
Positive (64%) Negative(36%)	Education & health (41%) Entertainment (26%) Social support (22%) No discrimination (100%)	Lack of support (65%) Cultural & language barrier (94%)	Islamic & cultural teaching (30%) Community build (32%) Language (29%)																																																																																																																																																
<p>Research Questions</p> <ol style="list-style-type: none"> 1. What is the overall developmental status of children aged 18 to 36 months raised in Arabic-American families? (Quantitative) 2. Are parents of toddlers aged 18 to 36 months old from AAC experiencing typical or heightened levels of parenting stress? (Quantitative) 3. What strategies do parents use to preserve their native culture and the challenges they face as they raise their children? (Qualitative) 4. What are parents' perspectives on the availability of services and support to raise their children in the United States? (Qualitative) 																																																																																																																																																			
<p>Methods</p> <p>We conducted a mixed-method study comprising a survey questionnaire, completed by 191 families and semi-structured interviews with 17 families. Participants were recruited using non-probability purposive sampling and represented 11 Arab-speaking countries. The survey questionnaire was composed of overall developmental screening using the Ages and Stages Questionnaire (ASQ3:AR), the relative stress in the parent-child relationship using the Parental Stress Inventory: Short Form - Arabic (PSI: SF -AR), and demographic information. The inclusion criteria were: (a) a family with at least one non-US-born parent; (b) the immigrant parent's country of origin is an Arabic-speaking country, and (c) families with children aged 18 to 36-month-old.</p> <p>Data analysis</p> <p>Descriptive analysis was conducted to summarize the parental and child characteristics and overall score on ASQ: AR and PSI: SF-AR. The relationship between environmental factors such as family income and years spent in the USA and child's development and parental stress was analyzed using a 5 x 3 two-way between-subject Analysis of Variance(ANOVA). Given the exploratory nature of the study, the semi-structured interviews we analyzed using content-driven thematic analysis (Guest et al., 2012).</p>	<p>Discussion</p> <p>-Study reported no significant relationship between environmental risk factors such as family income and years spent in the USA, and parental stress and children's development. However, literature shows that low SES is a risk factor for children's development in immigrant families (Capps et al., 2003) and parental stress is associated with low SES in immigrant families struggling with acculturation (Huston, McLoyd, & Garcia Coll, 1994).</p> <p>-Approximately 44% of the children in the study were below the cutoff scores in one or more of the development domains, however, only 6% reported receiving professional diagnoses and services. Many Arabic countries are now beginning to establish EI services. There may be less parental awareness about the significance of EI services. Therefore, raising parental awareness by providing parents with handouts and online resources in Arabic might be one solution.</p>		<p>Future directions</p> <p>Future research efforts may recruit a larger, stratified sample for a clearer understanding of child development in Arabic-American families. Comparisons between the ASQ scores across different cultures and populations would help us understand how uniquely some children develop based on their background and what factors contribute to their development.</p> <p>For references, please contact ayadav@uoregon.edu.</p>																																																																																																																																																