

Association between Iranian adolescents' perceptions of paternal and maternal relationship with resilience

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Introduction:

Resilience has been described as a protective factor for a range of health outcomes, particularly mental health issues (Fritz et al., 2018), and generally it refers to “the capacity of a material or system to return to equilibrium after a displacement” (Garmezy et al., 1984). The American Psychological Association has defined resilience as “the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress” (American Psychological Society, 2020). Masten (2001) considers resilience as “good outcomes in spite of serious threats to adaptation and development” with the term “good outcomes” referring to academic success, and extending to self-esteem or well-being (Masten, 2001). Davydov et al. states that resilience is more than just resisting against harms or threatening situations but that a resilient person is an active and creative participant of his/her own wellbeing (Davydov et al., 2010). In spite of general agreement that in the time of exposure to adversity, resilience appears as a process of adaptation (Ungar, 2015), some debates remain in the more detailed definition of resilience. Some have argued that resilience is more than just a one-dimensional, dichotomous attribute that a person has or does not have (Zolkoski & Bullock, 2012). As Southwick (2014) states the interaction between “a host of biological, psychological, social and cultural factors” determines individual responses to stressful experiences (Southwick et al., 2014). There is also a hypothesis that child's environment has an influence on his/her resilience and some literature states that social and political settings are important for resilience (Ungar, 2008). In this study, we used

the following definition: “resilience is both the capacity of individuals to navigate their way to health-sustaining resources, including opportunities to experience feelings of well-being, and a condition of the individual’s family, community and culture to provide these health resources and experiences in culturally meaningful ways” (Ungar, 2008), during exposure to any kind of considerable adversity (environmental, psychological or both).

Resilience occurs when environmental, social, and individual factors interrupt the trajectory from risk to pathology (Zimmerman et al. 2013). These factors have been called promotive factors. They are effective in positive development and help youth to overcome adversity (Fergus & Zimmerman, 2005). Resilience promotive factors encompass both those individual characteristics such as cultural identity, competence, coping skills, and self-efficacy, as well as external factors such as the quality of relationships with adults including parents or other caring adults as well as cultural and ethnic identity (Zimmerman et al., 2013), (Fergus & Zimmerman, 2005). In a family context, there is a “dyadic relationship” where a change in one individual in a family system can cause imbalances in the family. Adolescence is a period of rapid changes in physical, emotional and cognitive development (Arnett, 2013). Therefore, it is not surprising that this stage corresponds with increased conflict between parents and children in early adolescence (ages 10-14, which is the most focus of this study). In spite of such challenges among parents and adolescents, most adolescents consider family as a “crucial source of love, support, protection and comfort” (Larson et al., 2009).

Parental support, monitoring and communication skills are particularly important and effective resources for youth (Fergus & Zimmerman, 2005). In a study of U.S. adolescents, over 80% percent of 12 to 14 year-olds reported that they thought highly about their parents; 75% reported that their parents were always there to help them, and 60% said their parents were role

models (Arnett, 2013). Moretti et.al (2004) state that secure attachment between adolescents and their parents can result to less high risk behaviors, fewer mental health problems and enhanced social skills and coping strategies (Moretti & Peled, 2004). Family structure, family cohesion, and supportive parent-child relations are considered among the most effective protective factors in adolescent resilience (Zolkoski & Bullock, 2012). However, the differential effect of fathers and mothers on adolescent resilience is not well understood. The limited researches on this topic suggest that maternal and paternal roles influence adolescent resilience in different ways. Mahedy found that fathers' role/relationship/warmth promoted the mental health of adolescents with mothers with recurrent depressive syndrome has also been shown (Mahedy et al., 2018). Eisenberg found that mothers' expression of positive emotions promoted social competence and adjustment in children (Eisenberg et al., 2003).

Another important dimension of resilience promotive factors is the cultural environment. Culture influences parenting behavior and specifies standards of right and wrong in raising adolescents. For example in the United States, parents may encourage independence for their children but in eastern countries parents expect obedience and deference from their children. Islamic beliefs also have a strong effect on parenting practices (Arnett, 2013). In Iran, an authoritarian parenting style, traditional gender roles and patriarchy have been the dominant structure in most families, where fathers are responsible for providing the economic needs of family and mothers assume responsibility for child raising (Sharifi et al., 2016). However, Iranian society is undergoing profound changes and where traditional structures and roles are being challenged (Asadi et al., 2015). Among young people, there is an increasing affinity for western culture and values, resulting in conflict between children and parents (Parvizy & Ahmadi, 2009).

In addition, opportunities for education and employment for women have expanded and are challenging traditional family structures (Sharifi et al., 2016).

In Iran, adolescents aged 12-15 made up 5.5% of the population. Child and adolescent mental and behavioral health problems are common, ranging between 16.7 – 36.4% in the population (Sharifi et al., 2016). Reasons for the relatively high prevalence of mental and behavioral problems among young people stem from family, cultural, and societal factors, and suggest the need for research on protective factors that might promote resilience. Given the significance of family in Iranian society, parents could play an important role in promoting child and adolescent wellbeing. The purpose of this cross-sectional study was to examine the association between Iranian adolescents' perceptions of paternal and maternal relationship with resilience promotive factors.

Methods:

Participants in this self-reported survey study were N=113 (47 male and 66 female) Iranian adolescents aged between 12-15 years old from different cities and regions in Iran. Participants were recruited through snowball sampling (Sedgwick, 2013) from the Iranian families living in Iran who had an adolescent between 12-15 years old who lives with both parents. The aims of the study were described by a member of the research team and potential participants were invited to participate. Parental consent and adolescent assent to participate were obtained separately. Participants were instructed to complete the online survey independently. The study was conducted during from August 2020 to January 2021. This study was approved by Institutional Review Board of the Bahai Institute for Higher Education.

The analytic samples size was determined through correlation sample size formula ($n = 112$, $r = 0.3$, sig.level = 0.05, power = 0.9, alternative = two.sided) (Champely et al., 2020). To study the association between the parent-child relationships and examine the differential effects of the father and mother on resilience, the study used three survey instruments (described below).

Survey Measures

1. Resilience promotive factors (Child & Youth Resilience Measure (CYRM))

To measure resilience promotive factors, the CYRM was used. This 28 item scale is intended for 10-23 years old and includes several measures of social-ecological resilience. The scale was developed through a process of interviewing youth and their caregivers in countries around the world. It was developed at the Resilience Research Center (RRC) (*CYRM & ARM – Child and Youth Resilience Measure & Adult Resilience Measure*, n.d.). Reflection on the obstacles youth confront, as well as possible resources called upon to navigate through and/or around these obstacles, resulted in the original version of the CYRM, which was piloted with 1,451 youth from 14 communities in 11 countries (*CYRM & ARM – Child and Youth Resilience Measure & Adult Resilience Measure*, 2016). The items of the questionnaire are listed in Table 1 and responses were recorded on a 5 point Likert scale: from “not at all” to “a lot”. The overall scoring is calculated by taking the sum of all the items (*CYRM & ARM – Child and Youth Resilience Measure & Adult Resilience Measure*, 2016). The questionnaire used for this study was in the Persian language and was accessed directly from the RRC and it was back translated. The focus of this research was on all 8 subscales of CYRM which were grouped into 3 areas: 1) individual capacities/ resources (personal skills, peer support and social skills), 2) relationships with primary caregivers (physical caregiving, psychological caregiving), and 3) context factors that facilitate a sense of belonging (spiritual factors and education and cultural context) (*CYRM & ARM – Child and Youth Resilience*

Measure & Adult Resilience Measure, 2016). The questionnaire showed a good content-related validity and range for Cronbach's α for the total CYRM was 0.92 with CI (0.912 – 0.93).

2. Parent Child Relation Survey (PCRS)

To measure the quality of the participants' relationship with their fathers and mothers, adolescents were asked to fill two questionnaires: PCRS for mothers and the PCRS for fathers. This questionnaire consists of 24 questions, 7 point Likert scale from “almost none” to “a great deal” (Fine et al., 1983) used to measure the parents and child relation. The father and mother's version of questionnaire are identical except the term (father) and (mother) in each related one. The questionnaire was translated into Persian in 2000 by Sanaee et.al (Fine et al., 1983) and it was back translated. The items in the questionnaire are listed in Table 2. The alpha Cronbach for this questionnaire were (0.93 for father and 0.92 for mother) which show good internal consistency (Yahya, 2009). Of the 24 questions in the PCRS, 10 items were selected that were considered to be modifiable factors in the context of Iranian families.

Data analysis

Responses from the three questionnaires were used to evaluate the probable relation between parent-adolescents relation and adolescents' resiliency. SPSS version 24 and R version 4.0.2 were used as statistical software for analysis. Although data were collected on Likert scales, parametric methods were used for the analysis because of their robust characteristics (Norman, 2010). First, the association between the overall measures of variables were assessed between the father's and mother's adolescent relationships and resilience with a Pearson's correlation. Then, multiple linear regression analysis was used where CYRM-28 total and subscale scores were considered as the outcome variable and PCRS were the predictors.

As the purpose of this study was to examine the association between the parent-child relationship and resilience, the analysis used two outcome measures. The first was the total CYRM-28 score and the second was limited to the CYRM-28 subscales (Appendix 1). Items for the PCRS scales are listed in Appendix 2. These ten selected items were examined for potential collinearity. After excluding variables that are likely to cause collinearity, the final combination of items was identified using an exhaustive search with best subsets. The corrected Akaike information criterion (AICc) was used to determine the optimal model. The statistical significance was set at $p < 0.05$ and interpretation was based primarily on 95% confidence intervals.

Results

Descriptive statistics

A total of 113 participants from 10 different provinces satisfied inclusion criteria. Missing data from seven subjects (6%) were deleted from further analysis. Table 1 shows the demographic data for the remaining 106 participants. There are descriptive statistics about CYRM as well as its subscales and PCRS in table 2.

Table 1: Descriptive statistics of categorical data

Variables	Total population N= 106
Gender	
Male	46
Female	60
Age	
12	43
13	24
14	18
15	21
Province	
Alborz	10
Fars	10
Gilan	1
Hamedan	2
Isfahan	19
Khorasan Razavi	1
Mazandaran	2
Qom	1
Tehran	58
West Azarbaijan	2

Table 2: Descriptive statistics of data (N=106)

	Mean	Std. Deviation
CYRMs	109.13	12.709
Psychological care	21.2	3.5
Personal skills	20.75	2.66
Cultural context	17.64	3.52
Social skills	15.12	2.34
Spiritual context	10.46	2.74
Physical care	8.81	1.23
Education	8.13	1.69
Peer support	7.01	1.88
Mother's PCRS	127.83	22.86
Father's PCRS	138.07	21.62

Primary analysis

There was a positive and statistically significant relation between mother's PCRS score and father's PCRS score with CYRM ($R = .55$ between CYRM and mother's PCRS) ($R = .65$ between CYRM and father's PCRS) (figure 1). Father-child relationship had stronger association with children's resilience ($R = .65$) than mothers ($R = .55$), although this difference was not statistically significantly ($p = .08$). There was a positive correlation between mother-child relation and father-child relation ($R = .62$)

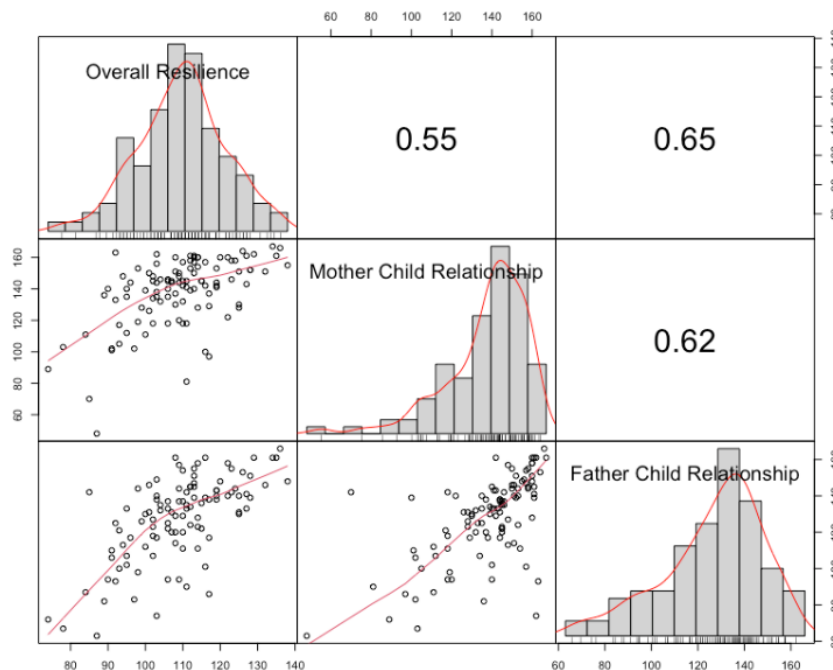


Figure 1: Scattergrams, distribution of overall resilience, the overall scores of the mother-child relationship and the father-child relationship and correlation coefficients between these variables. the distributions of each variable are shown on the diagonal and label the names of each row and column. The distributions of each variable are shown on the diagonal and label the names of each row and column.

Figure 2 presents the results of the multiple linear regression model examining which of the PCRS scale were associated with overall resilience. Mother-child relationship (MCR) and father-child relationship (FCR) were positively associated with total resilience. The interaction between the mother's and father's relationship was also included in the model and was positively associated with resilience but did not reach statistical significance. Although the correlations presented in Figure 1 showed a marginally stronger association for father-child relationship than mothers, the regression model showed that the association between mother's relationship and resilience was marginally higher than fathers.

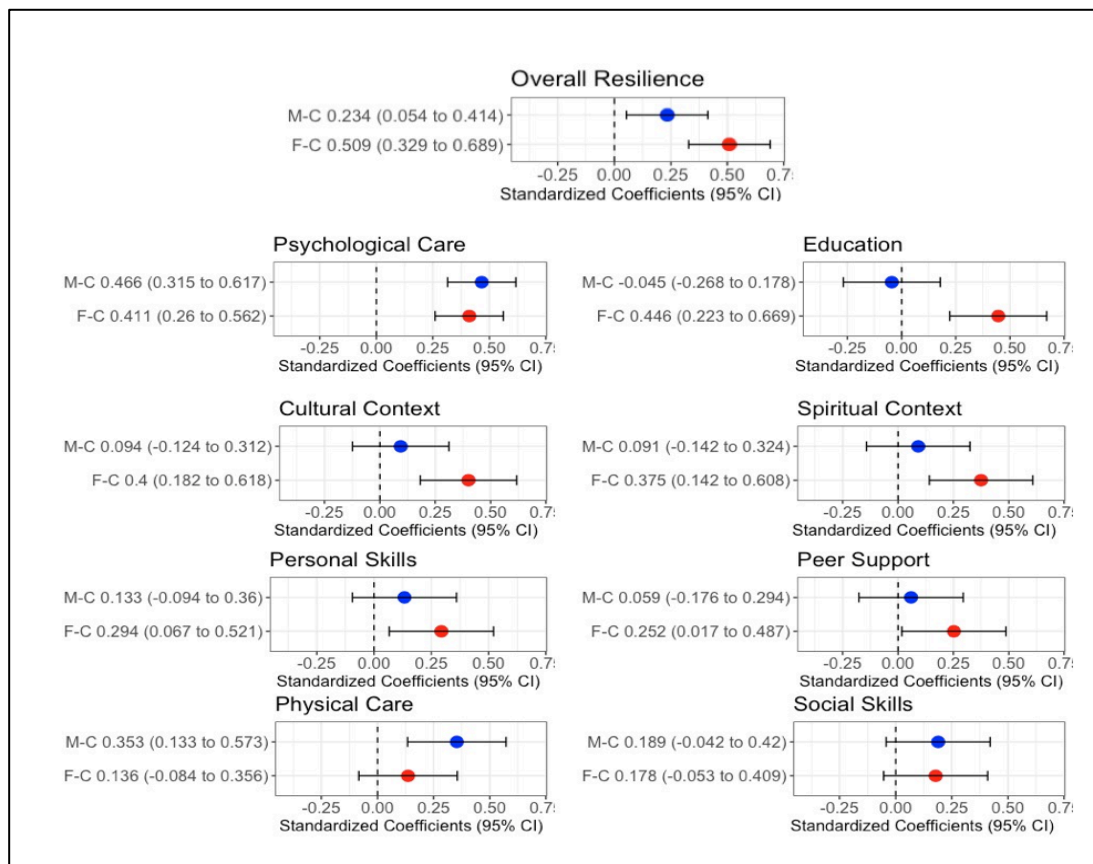


Figure 2: Standardized coefficients for the mother-child and father child relationship Standardized coefficients for the mother-child and father child relationship overall and for each subscale. The plot shows coefficients with the 95% confidence intervals (CI).

Figure 2 also presents the results of the multiple linear regression model examining which of the PCRS scale were associated with each one of the CYRM scales. In individual subscales, there is a statistical significance in psychological care both for MCR and FCR. There was a statistically significant association between FRS but not MRS for education, cultural context, spiritual factors, personal skills, peer support and physical care. The association between physical care with resilience was statistically significant for MRS but not for FRS. There was no statistical significance association for social context with either FRS or MRS. These tests discern whether or not the coefficients are significantly different from zero. We also compared whether or not the coefficients were significantly difference from each other. The only occasions when the coefficients were significantly greater for the FRS than the MRS were education ($p < .05$) and spiritual factors ($p < .05$). In all other subscales there was no significant difference between MRS and FRS.

Secondary analysis

Ten items from the PCRS were selected for further analysis as they were considered to be modifiable factors in the context of Iranian families' questions. In order to determine which items of the child's perception of their relationship with their mother and father were associated with the overall resilience score, we used an exhaustive search using best subsets. The responses to some of the selected items were strongly correlated. Two items were eliminated from the search: mother's PCRS (items 3 and 6) and one from the father PCRS (item 6) so that the variance inflation factor among the remaining items was < 4 to avoid marked collinearity. Table 6 presents the best predictors of overall resilience from the parent-child relationship surveys. "Confidence of help being given when needed" as well as "ease of talking about a problem" were used as the important items for mothers. While "How well father listens", "Ease of talking about a romantic problem"

and “Ease of talking about a problem” were the important items for fathers. Gender analysis showed that there is no significant effect was seen about genders.

Table 3: Best predictors of overall resilience from the parent-child relationship surveys

Item	Standardized coefficient	Lower 95% CI	Upper 95% CI	P value
Significant items for Mothers				
“Confidence of help being given when needed”	0.393	0.195	0.591	<0.001
“Ease of talking about a problem”	0.199	0.001	0.397	0.052
Significant Items for Fathers				
"How well father listens"	0.265	0.077	0.453	<0.01
"Ease of talking about a romantic problem"	0.197	-0.024	0.418	<0.01
"Ease of talking about a problem"	0.149	-0.053	0.351	0.071

Note: CI = confidence interval

Discussion:

The present study investigated the association between Iranian adolescents’ perceptions of parental relationships with resilience promotive factors. We found a significant, distinctive relation between paternal and maternal roles on resilience. This is consistent with other studies and found that father-child warmth was associated with higher resilience and less delinquency (O’Gara et al., 2020) (Cabrera et al., 2021). To the best of our knowledge, this is the first time this relation has been observed in the Iranian context. The leading edge in developmental science about promoting resilience is insufficient without changing environments and providing opportunities and healthy environment for all youth. For most young people, family is a crucial source of love, support, protection and comfort (Larson et al., 2009). The strength of interpersonal relationships has been shown to impact resilience (Mancini & Bonanno, 2009), and secure attachments to parents are

essential for adolescents' psychological and physical health and wellbeing (Hershenberg et al., 2011) (Harmelen et al., 2016). The findings of this study are consistent with the prior literature on the role of parent-child relations in promoting resilience and demonstrate this association transcends nationality.

In this study, we found that adolescents' perceptions of each parent relationship has a significant and distinctive relation with resilience. Fathers' relationships were significantly associated with the resilience subscales of education, cultural context, spiritual factors, personal skills, peer support and physical care while mothers' relationships were associated with between physical care. The contrasting roles of fathers and mothers in promoting adolescent resilience suggests that parental roles are changing in Iran. In prior qualitative work, Rahkar Farshi et. al found that mothers generally spend more time with their children than fathers, and fathers' roles tend to become more prominent as the children enters in adolescence (Rahkar Farshi et al., 2018). In the last few decades, Iranian society has undergone dramatic socioeconomic and cultural changes and there is apparent crash between tradition and modernity (Nassehi-Behnam, 2015) Although family has still considerable role in cultural and spiritual context of adolescents which in this study showed their association with resilience, it seems that such changes brought new definition for Iranian fathers and mothers.

Fathers' relationships with adolescents were significantly associated with the cultural subscales in the CYRM. This subscale includes items related to cultural identity and traditions. Establishing cultural norms is among the most important elements of parenting behavior (Gafoor & Kurukkan, 2014). To date nearly all research studies about parent-adolescent relation have been undertaken with predominantly focus on western countries (Ungar & Liebenberg, 2011). In the Iranian context, fathers appear to have a special role in establishing the social and religious beliefs

that shape behaviors, knowledge and attitudes. In a review, Gunnestad has described the role of fathers in establishing cultural norms in the family across multiple countries and continents. In both European and African countries culture can generate resilience and that fathers play a prominent role in this regard (Gunnestad, 2006). Adolescents' communication with fathers also appears to have an important association with resilience. In previous studies father's positive communication with adolescents has a significant relation with better self-control, self-esteem and social competence (Amato, 1986). The importance of father communication in adolescents life satisfaction was also shown by Levin & Curie (Levin & Currie, 2010).

Our results also show that communication and support from mother are important factors on their adolescent's resilience. In this developmental stage, emotional supports from both mother and father is especially salient among Iranian adolescents, as is evident in importance in "ease of talking about a problem" faced by adolescents in this age. Both parents are important in developing resilience in adolescents through empowering their adolescents against adversity. The family is the first and the most accessible for support and care and we can see the positive effect of both parents as primary caregiver on adolescents' resilience.

Strengths and limitations

The study findings notwithstanding, there are limitations to be noted. First, this study relies on self-reported data by adolescents. It focused on the adolescent's perception of their resilience and their relationship with their parents. However, we used validated translated questionnaires across cultures what helps enhance the validity of our findings. Future studies may consider additional sources of measuring parenting and resilience factors (e.g. parental reports, teacher reports). Secondly, as this study was conducted during the COVID-19 pandemic, the most accessible mode for data collection was snowball sampling using online questionnaire which

meant there was no direct contact between the researcher and participant. This sampling strategy may result in the respondents being less likely to be representative of the general population. To overcome these limitation, we attempted to recruit individual from different geographical areas which will hopefully enhance the variation of our sample. Furthermore, the inclusion criteria was adolescents with both parents present in the same household and this limits the generalizability of the study because the findings may not apply to adolescents with single-parents. Third, there is potential social-desirability bias occurred data collection. It is not known if a parent was next to the adolescent when the forms were completed and influenced the responses. Finally, the study is cross-sectional and our findings of correlations between parent-child relationship and resilience factors cannot infer causal relationships and the mechanism that underlie paternal and maternal influences on adolescents' resilience. Nevertheless, the study is unique in the context of Iran and produced some potential areas on which parents might wish to focus. Further studies may consider examining the association between parent-adolescents relationships on resilience using more representative samples, including single-parent households. Surveys could also be administered to parents and adolescents to measure concordance and discordance using scales that are culturally-tailored in Iranian context.

Conclusion

Resilience is a capability which can be promoted by parents. It is a protective factor against the negative forces and everyday life challenges. Adolescents across the world need protective factors which empower them to face adversities in their lives, and resilience is one factors to overcome developmental challenges and risks. Our findings demonstrate that both father and mothers play a critical and distinctive role in promoting adolescents' resilience. In this study,

fathers appear to have more influence through their communication and establishing cultural norms with adolescents and mothers' through support and communication.

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Appendices

Appendix 1: Subscales of CYRM-28 questionnaire

#	Item	Psychological Care N = 5	Personal skills N= 5	Cultural context N=5	Social Skills N= 4	Spiritual Context N= 3	Physical Care N= 2	Education N=2	Peer Support N= 2
1	I have people look up to			*					
2	I cooperate with people around me		*						
3	Getting an education is important to me							*	
4	I know how to behave in different social situations				*				
5	My parent(s)/caregiver(s) watch me closely						*		
6	My parent(s)/caregiver(s) know a lot about me	*							
7	If I am hungry, there is enough to eat						*		
8	I try to finish what I start		*						
9	Spiritual beliefs are a source of strength to me					*			
10	I am proud of my ethnic background			*					
11	People think I am fun to be with		*						
12	I talk to my family/caregiver(s) about how I feel	*							
13	I am able to solve problems without harming myself or others (for example by using drugs and/or being violent)		*						
14	I feel supported by my friends								*
15	I know where to go in my community to get help				*				
16	I feel I belong at my school							*	
17	My family stands by me in difficult times	*							
18	My friends stand by me in difficult times								*
19	I am treated fairly by my community			*					
20	I have opportunities to show others that I am becoming an adult and can act responsibly				*				
21	I am aware of my own strengths		*						
22	I participate in organized religious activities					*			
23	I think it is important for me to help out in my community					*			
24	I feel safe when I am with my family/caregiver(s)	*							
25	I have opportunities to develop skills that will be useful to me later in life (like job skills and skills to care for others)				*				

26	I enjoy my family's/caregiver's cultural and family traditions	*
27	I enjoy my community's traditions	*
28	I am proud to be Iranian	*

* The questions used in that subscale.

Appendix 2: Parent-Child Relationship Survey

	Item	Potentially Modifiable
1	Time spent with mother/father	*
2	Maintenance of a steady relationship	*
3	Trust	*
4	Ease of talking about a problem	*
5	Confidence of help being given when needed	*
6	Closeness	*
7	Ease of talking about romantic problem	*
8	Ease of talking about school problem	*
9	Clarity of mother's/father's role	
10	Understanding of mother/father	
11	Ease of accepting weakness in mother/father	
12	Perception of mother/father as having a life of their own	
13	Lack of anger	
14	Lack of resentment	
15	Communication	
16	Mother's/father's understanding of child	*
17	How well mother/father listens	*
18	Caring	
19	Miss mother/father when away	
20	Respect	
21	Value mother's/father's opinion	
22	Admiration	
23	Desire to be like mother/father	
24	Satisfaction with mother's/father's lifestyle as own	

* The questions used in that subscale.