

The Predictors of Loneliness in Adolescents: The Role of Gender, Parenting Rearing Behaviors, Friendship Quality, and Shyness

Seyyedeh Fatemeh Mousavi^{*1}; Golamreza Dehshiri²

1- Department of Psychology, Women Research Center, Alzahra University, Tehran, Iran

2- Department of Educational Sciences and Psychology, Alzahra University, Tehran, Iran

ARTICLE INFO

Received: 05 March 2021
Accepted: 04 August 2021

Article Type

Research paper

Keywords:

Gender, Perceived
parenting rearing
Behavior, Shyness,
Friendship quality,
Loneliness

ABSTRACT

This study was designed to explore the role of gender, parental rearing behavior, friendship quality and shyness in the feeling of loneliness during adolescence through the ecological model of human development and the contextual-developmental perspective. 211 adolescents (133 females, 78 males) living in Tehran (Iran) participated in correlational research design (a non-experimental study) and completed the self-report scales including: Loneliness Scale, Short EMBU, Revised Cheek–Buss Shyness Scale and Friendship–Unfriendship Attachment Inventory (SACRAL). The block-entry method, as a subset of the hierarchical method, was used for data analysis. The results showed that parenting behavior, shyness, and friendship quality were correlated with loneliness. Moreover, the findings indicated that the low level of friendship quality and high level of parenting behavior in both rejection and over controlling had a positive correlation with the high level of loneliness in adolescents. In addition, the result showed that male adolescents feel lonelier than female adolescents. The results obtained from the current study provide a number of implications, which can be beneficial in proposing intervention efforts directed toward promoting ideal development and growth during teenage years.

Citation: Mousavi, S. F. & Dehshiri, G. R. (2022). The predictors of Loneliness in Adolescents: The role of Gender, Parenting Rearing Behaviors, Friendship Quality, and Shyness. *Journal of Woman and Family Studies*, 9(4), 1-20. Doi: 10.22051/jwfs.2021.35319.2656

¹Correspondence: f.mousavi@alzahra.ac.ir

Introduction

It can be argued that one of the most challenging transition periods in growth and evolution of every human being is the developmental phase that occurs during adolescence (Erikson, 1968; Sullivan, 2013). Teenagers may encounter some overwhelming emotional states of loneliness that can be traced in the developmental process, which are associated with the transformation of the attachment bond with parents and the emergence of peer relationships. Loneliness involve a “cognitive awareness of a deficiency in one’s social and personal relationships and the ensuing affective reactions of sadness, emptiness, or longing” (Asher & Paquette, 2003).

Moreover, according to Ecological Systems Development (Bronfenbrenner, 1979) emphasizes that examining the situation in which adolescents are living within is very significant. The Ecological Systems Theory assumes that development has transpired as a result of interaction between persons and the surrounding environment which is viewed as a systematic change, which comes from dynamic relations between developing person and the context that she or he is engaged in. This model emphasizes that examining the situation in which adolescents are living within is very significant; in this regard, we need to consider parent and peer as two keys and important interpersonal contexts for youngsters.

On the other hand, Chen (2012) proposed a Contextual-Developmental Framework, which mentions that adult and peers might estimate socioemotional features during interactions, in a way that is dependable on cultural belief classifications; this may create dissimilar reactions against certain behaviors and represent different attitudes such as acceptance or rejection concerning youngsters who show these behaviors. Based on this model, shyness can be described as a behavior among adolescents (Chen & French, 2008; Chen, French, & Schneider, 2006).

The investigation of loneliness in adolescents has two fundamental reasons. First, available evidence demonstrates that adolescents experience loneliness as a predominant and severe problem more than any other age groups (Boldero & Moore, 1990; Heinrich & Gullone, 2006). Second, from a developmental perspective, the interpersonal and social problems related to



loneliness in adolescents are rooted in early relationships and friendships with other adolescents (McDonald, et al., 2011).

Given that many studies have examined different variables separately in predicting loneliness in adolescents, identifying factors related to family, friends' relationships, and factors related to adolescents' temperament hierarchically in predicting loneliness has been the focus of this study.

Parental Rearing Behavior and Loneliness in Adolescents

Grounded in Bronfenbrenner's theory (Bronfenbrenner, 1979), parenting factors, which are considered as microsystem constructs are represented in the parent-child relationship, and they influence adolescents' developmental process. Regarding, ecological theory, perceived parental rearing behavior can affect self-esteem and happiness (Cheng & Furnham, 2004; Sowislo & Orth, 2013), which influence the feeling of loneliness, the relationships with friends and the quality of life (Hartup & Stevens, 1997).

Parental rearing behavior includes two dimensions: "the first dimension is described as care, that refers to acceptance, warmth, responsiveness, and, on the other hand, rejection; and the second one is described as control, that refers to multiple behaviors related to child discipline and management, supervision and overprotection" (Cummings, & Valentino, 2015).

Generally, Iranian culture began to modernize, although the traditions still exert a powerful force on family life in Iran and make adolescents predominantly different from those in the Western contexts (Tavakoli, 2012). In a study on Iranian parental behaviors and adolescence, Rezaeian, and Tutunchi (2019) emphasized the importance of family patterns in shaping children's identity. Dehyadegary, Yaacob, Juhari, and Talib (2011) indicated that adolescents' mental health is positively influenced by warm and responsive parental behavior. Moreover, Naimi and Niaraki (2013) concluded that the perceived parenting style significantly affects several mental health dimensions, such as physical, depression, and loneliness, among adolescents. This concept indicates that perceive warm and accepting parental behaviors positively affect physical and mental health of children.

The above-mentioned points support the importance of focusing on adolescents' perception of parenting rearing behavior and its effect on youths' development.

Shyness and Loneliness in Adolescents

Shyness is highly related to the development of loneliness because it affects interpersonal relationships as it determines the primary responses of an individual to new social encounters, activity in social situations, and recovery in response to social threats (McClowry, Halverson, & Sanson, 2003). The conceptual construct of shyness overlaps with other constructs, such as social anxiety, withdrawal, reticence, and behavioral inhibition (Crozier, 2005). Shyness is defined as “the experience of wariness with unknown people and in new social encounters and novel places” (Cheek & Buss, 1981; Rubin, 2014).

Shyness in some cultures may become problematic during adolescence; in Western cultures often express their negative outlooks such as frustration, anxiety, and rejection concerning youngsters’ shy behaviors, caused by cultural values of confidence and self-expression (Rubin et al., 2009). Nevertheless, in East and Middle East countries in which these values are less emphasized, shyness may be related to more positive attitudes and less problematic (Chen et al., 2004; Rubin et al., 2009; Tavakoli, 2012).

On the other hand, Chen et al. (2004) in a cross-cultural study examined the relationship between loneliness and social relationship adjustment in the four countries (Brazilian, Canadian, Chinese and Italian) and found that shyness as social behavior is correlated strongly and negatively with peer relationships and thus it is associated indirectly with loneliness among the four countries. According to this argument, shyness may make unique and direct contributions to loneliness. In addition, research has demonstrated that lonely people are usually passive, and less sociable than non-lonely people (Gruenenfelder-Steiger, Harris, & Fend, 2016; Heinrich & Gullone, 2006). Normally, shy children become distressed and doubtful when confronted with unknown adults, and they can be around other children without playing with them (Leary & Buckley, 2000). Consequently, without sufficient social support, shy adolescents may suffer in terms of adaptive functioning and development during their personal transition (Buss & Plomin 2014; Hastings, Nuselovici, Rubin, & Cheah, 2010). Given that shy individual encounters few people in daily life, they have few opportunities to experience social interactions, which, in turn, result in fewer dates and limited attendance in social activities (Leary & Buckley, 2000). Therefore, behaviors, such as shyness, poses some risks to adolescents’ social interactions because it is directly linked to behavioral weakness, which reduces opportunities to



develop and establish positive social relationships. Thus, shyness as a factor that distinctly linked to the development and maintenance of loneliness is of interest to be examined in this study.

Friendship Quality and Loneliness in Adolescents

The Developmental–Ecological model of development (Bronfenbrenner, 1979; Szapocznik & Coatsworth, 1999) explains the association between extracurricular activity contribution and adolescents' adjustment. The ecological side of this approach underlines the effect of continuing features of the surroundings in which youngsters are living and the degree and nature of the interface between these surroundings on person's development (Bronfenbrenner, 1979). The interaction between contexts implies that adolescents and their feeling of loneliness are affected by key developmental stimuli, such as a friendship quality (Mahoney, Larson, & Eccles, 2005). Accordingly, friendship quality has a significant impact on adolescents' adjustment and development (Mahoney et al., 2005).

Studies demonstrated that friendship quality is an important dimension because high levels of positive behavior, such as loyalty, intimacy, and social interaction, are characterized by high level of friendship quality (Wrzus, Zimmermann, Mund & Neyer, 2017). By contrast, conflict and dominance in relationships are related to low level of friendship quality (Criss et al., 2016). Adolescents who experience high-quality friendships are happy, well-adjusted to peers, and have high self-esteem (Demir, Ozdemir & Weitekamp, 2007; Seiffge-Krenke, 2013). In addition, they experience fewer interrelationship problems and less social anxiety than adolescents who have low-quality friendships (Bokhorst, Sumter, & Westenberg, 2010; Rubin, 2004), and, experiencing low level of loneliness (Aikins, Bierman, & Parker, 2005; Kingery & Erdley, 2007). Studies have consistently shown that low levels of acceptance and high levels of rejection from peers are related to a high level of loneliness (Lodder et al., 2016; Pedersen, Vitaro, Barker, & Borge, 2007). Generally, lonely adolescents have few friends and report a low quality of relationships with their friends (Bagwell & Schmidt, 2013; Asher & Paquette, 2003). In addition, adolescents who have increased feelings of loneliness correspondingly report increased feelings of isolation and social withdrawal (Heinrich & Gullone, 2006; Rubin, Coplan, & Bowker, 2009). These results

have been confirmed by a cross-sectional study (Parker, Saxon, Asher, & Kovacs, 1999) and by a longitudinal study (Laursen et al., 2007).

Therefore, friendship quality and having a friend appear to protect juveniles against social isolation and feelings of loneliness not only during childhood but also during teenage year.

Gender and Loneliness in Adolescents

The manifestation of loneliness may vary depending on gender. According to the literature, girls generally face more emotional issues and they need to deal with more worries compared to boys (Kandel & Davies, 1982). Studies have indicated that on average, boys tend to experience loneliness more than girls and that they probably feel more lacking in friendship (Kerr & Stattin, 2000). Researchers have suggested that in today's society, shyness in girls is less accepted, and parents, especially mothers, treat girls differently from boys, helping girls become more sociable and interactive with others, which may increase the feelings of loneliness among boys compared to girls (Kerr & Stattin, 2000; Stevenson-Hinde & Glover, 1996). Although researchers have documented the influence of gender differences on friendship provision and processes and their relation to loneliness among adolescents, males and females tend to report equal levels of loneliness (Rose & Rudolph, 2006). Thus, different genders may have varying experiences regarding loneliness, making it gender-specific (Chen, 2007; Mahon et al., 2006). Therefore, exploring feelings of loneliness based on gender differences is important to determine which group feels lonelier during adolescence target these issues to reduce loneliness in adolescents, and contribute to the body of knowledge in this area.

Goals and Hypotheses of the Current Investigation

The current investigation examines the associations among perceived parental rearing behavior, shyness, friendship quality and adolescent loneliness. The following hypotheses was tested:

- 1- There is relationship between parenting rearing behavior and feeling of loneliness among adolescents.
- 2- There is relationship between friendship quality and feeling of loneliness among adolescents.



- 3- There is relationship between shyness and feeling of loneliness among adolescents.
- 4- Boys feel lonelier than girls.

Methods

Study Design

The research design is correlational (a non-experimental study), that loneliness is a dependent variable and parent rearing styles, shyness and friendship quality are independent variables. The participants were secondary school students who were selected from two districts of Tehran city (districts 6 and 20). The inclusion criteria were as follow: (a) the participant should be adolescents who are in secondary school (age 13-15) and (b) they must live with both parents. The exclusion criteria were the following: (a) adolescents who are not in range age of 13 to 15 and (b) adolescents who currently not living with one or both parents. To select the participants, students were grouped using cluster sampling method. At the first, two districts of Tehran were selected by random, then five girls' and boys' secondary school were selected randomly. After receiving the required approval from school principals and coordinating with adolescents' parents, one class in each level (grades 7, 8 & 9) was selected randomly from each school. The researcher described the purpose of the research during break time or at the end of class, and informing students that there is no compulsion to participate in research and that their information is kept confidential. As a total, 260 adolescents were briefed about the research. Among them, 211 agreed to participate in our research and fully completed the Questionnaires. Hence, the agreement rate was 81%. The missing data rate was between 0 and 3%, which was replaced by the mean variable. The process of collecting data took about two months, which was at the end of the academic year (in 2018-2019). Therefore, 211 secondary school students, including 133 females ($14.38 \pm .85$) and 78 males ($13.36 \pm .56$) recruited across three grades (7th, 8th, and 9th) participated in the study.

Measures

Loneliness Scale

The Loneliness Scale (Dehshiri, Borjali, sheikhi, & Askarabad, 2008) is a 38-item instrument that is rated using a 5-point Likert scale from *very much* to *very little*. It assesses loneliness in the relationships with family and friends and the affective symptoms of loneliness (i.e., “I enjoy being with my family”; “I have friends who really understand me”). The possible range of scores is between 0 to 152. A high score in this scale means high levels of feelings of loneliness. The internal consistency of this scale is .91 (Dehshiri et al., 2008). In this study, α -coefficient is .81.

Short EMBU

The short (s)-EMBU is a self-reporting instrument used in this study to measure adolescents' current perception of parental rearing. The s-EMBU (Castro, Toro, Van der Ende, & Arrindell, 1993) is a 23-item self-report that is rated on a 4-point scale from *not at all* to *all the time*, which consist of three subscales; rejection (7 items, i.e., “my parents treated me in such a way that I felt ashamed”); emotional warmth (6 items, i.e., “my parents praised me”), and (over) protection (10 items, i.e., “I felt my parents interfered with everything I did”) (Arrindell et al., 2005). EMBU is a reliable and valid scale for measuring the main dimensions of perceived parental rearing (Muris, Meesters, & Berg, 2003). A high score for emotional warmth in possible ranging of 6 to 24 means functional parenting, whereas high scores in rejection in possible ranging of 7 to 28 and overprotection rearing in possible range of 10 to 40 are interpreted as dysfunctional parenting. The subscale of emotional warmth has good concurrent validity with the Parental Bonding Instrument (Hassani, Fathi-Ashtiani, & Rasoolzadeh-Tabatabaei, 2012). In addition, its Cronbach's α -coefficients for the subscales of rejection, emotional warmth, and overprotection are .76, .75, and .75 (Soheili, Dehshiri, & Mousavi, 2015). In this study, the α -coefficient of the subscales ranged from .71 to .80.

Revised Cheek–Buss Shyness Scale

The revised Cheek–Buss shyness scale (RCBS) (Cheek, 1983) is a 14-item self-report that uses a 5-point Likert scale from *very uncharacteristic* to *very characteristic* to assess the degree of shyness (i.e., “I have trouble looking someone right in the eye” or “I feel tense when I'm with people I don't know



well”) (Crozier, 2005). The possible range of scores is between 12 to 60. Factor analysis performed by Rajabi and Abasi (2011) revealed three subscales, namely, social avoidance, lack of confidence, and shyness when relating to strangers. The RCBS has strong internal consistency ($\alpha = .86$) (Hopko, Stowell, Jones, Armento, & Cheek, 2005). In this research, after the omission of two questions 6 and 12 (It does not take me long to overcome my shyness in new situations, and I do not find it hard to talk to strangers), the RCBS yielded a α -coefficient of .69

Friendship–Unfriendship Attachment Inventory

The Friendship–Unfriendship Attachment Inventory (SACRAL) (Reisman & Billingham, 1989) consists of 20 items, rated on a 5-point Likert scale from *strongly disagree* to *strongly agree*, SACRAL is used to assess self-concept, accessibility, rewardingness, and alienation as dimensions of friendliness (i.e., “you think of yourself as a very friendly person”; “good friends are hard for you to find”). A high score on SACRAL indicates high levels of friendliness (Reisman & Billingham, 1989) and the possible range is between 0 to 80. Arefi et al. (2006) derived a α -coefficient of .74 for this scale, whereas this study obtained .70.

Data analysis

In the current study, the block-entry method, which is a subset of the hierarchical method, has been used to enter the predictor variables into the regression equation. Based on the research and theoretical background, the importance and priority of variables were determined. Because according to the research background, the variable of gender as a demographic variable has an effect on the feeling of loneliness in adolescence was considered as a covariate variable. Therefore, at the first, the perceived parenting styles, which are related to the individual's perceptions of his childhood interactions with parents, were entered into the equation as a block to determine whether it has the power to predict loneliness, and then the shyness was selected from the variables related to the person's current mood and emotional state and entered the equation to answer the question of whether the feeling of shyness as a negative self-conscious emotion is common due to sudden and rapid changes in adolescence has the power to predict the variance of feeling loneliness after controlling for

gender variables and parenting styles? The last variable that was selected according to the existing researches and theoretical background and the developmental conditions of adolescence was the quality of friendship.

Before analyzing, univariate outlier data were analyzed by calculating the standard score of Z and considering the range of ± 3.29 . Multivariate outlier data were also analyzed through the Mahalanobis distance, which showed that all observations were within the normal range. The assumption of non-linearity and non-multicollinearity was examined through the Tolerance index, which ranged from .92-.64, which indicates that this assumption was observed.

Results

The data were analyzed using the Statistical Package for Social Sciences (SPSS) V24. Means and standard deviations were calculated for describing the variables.

Table 1

Means, standard deviations and correlations of the main variables (N=211)

Variables	1	2	3	4	5	6	7
1. Gender	-						
2. Rejection	-.1	-					
3. Emotional warmth	.08	-.39**	-				
4. Overprotection	-.02	.40**	.00	-			
5. Shyness	.01	.24**	-.14*	.18**	-		
6. Friendship quality	.31**	-.33**	.36**	.01	-.15*	-	
7. Loneliness	-.30**	.49**	-.46**	.15*	.33**	-.48**	-
Mean	-	14.33	16.46	21.69	38.76	41.34	58.87
Standard deviation	-	4.31	3.94	4.43	7.16	8.78	20.15

** $p < .01$, * $p < .05$

Note: gender was represented as dummy variables with male (0) and female (1).

Table 1 showed the means, standard deviations and correlation coefficients among the variables. This table showed a positively significant correlation between loneliness and rejection ($r = .49$, $p < .01$) and overprotective styles of parenting ($r = .14$, $p < .05$), as well as a significantly negative correlation between loneliness and emotional warmth ($r = -.46$, $p < .01$). The positive correlation between loneliness and shyness was significant ($r = .33$, $p < .01$), the negative correlation of loneliness with friendship quality ($r = -.49$, $p < .01$) and gender ($r = -.30$, $p < .01$) was also significant which showed male adolescents were more likely to feel lonely than girls.



Table 2

Hierarchical regression summary for gender, perceived parenting styles, shyness and friendship quality predicting loneliness

	Predictors	<i>B</i>	<i>SEB</i>	β	<i>R</i>	<i>R</i> ²	ΔR^2
Step 1	Gender	-.33	.07	-.30**	.30	.09	
	Gender	-.27	.06	-.24**			
Step 2	Rejection	.30	.05	.35**			
	Emotional Warmth	-.25	.05	-.30**	.62	.38**	.29*
	Overprotection	.00	.06	-.00			
Step 3	Gender	-.27	.05	-.25**			
	Rejection	.27	.05	.31**			
	Emotional Warmth	-.27	.04	-.30**	.66	.44**	.06*
	Overprotection	-.03	.06	-.02			
	Shyness	.23	.05	.23**			
Step 4	Gender	-.21	.05	-.18**			
	Rejection	.22	.05	.25**			
	Emotional Warmth	-.19	.04	-.24**	.68	.47**	.03*
	Overprotection	.00	.06	-.00			
	Shyness	.21	.05	.21**			
	Friendship Quality	-.27	.07	-.23**			

Table 2 presented the results of the hierarchical regression analyses for the outcome variables of loneliness. The table showed that four-step hierarchical regression analysis is utilized to determine the predictive role of gender, perceived parenting styles, shyness, and friendship quality for loneliness. In the first to fourth steps parenting styles, shyness, friendship quality, and gender were entered into the model. Also, Table 2 indicated that gender determined only 9% of the loneliness variance in step 1, $R^2 = .09$, $F(1, 209) = 20.7$, $p < .01$. In this step, gender had a negative correlation with loneliness, in which boys felt lonelier than girls. In step 2, perceived parenting style was entered into the regression, and the model showed a .38% of the loneliness variance, $R^2 = .38$, $F(3, 206) = 32.87$, $p < .01$. In this step, rejection had a significantly positive role in predicting loneliness ($\beta = .35$, $p < .01$), and emotional warmth had a significantly negative role in predicting loneliness ($\beta = -.30$, $p < .01$); lastly, overprotection was not significant in this analysis.

In step 3, shyness was entered into the regression analysis, and the regression model determined a 45% of the loneliness variance, $R^2 = .44$, $F(1,$

205) = 17.04, $p < .01$. The change in the value of R^2 was significant, $\Delta R^2 = .06$, $F(1, 205) = 17.04$, $p < .01$. Thus, shyness played a significantly positive role in predicting loneliness ($\beta = .23$, $p < .01$).

In step 4, friendship quality was entered into the regression analysis, and the model determined 47% of loneliness variance, $R^2 = .47$, $F(1, 204) = 14.33$, $p < .01$. The variation in the value of R^2 was statistically significant, $\Delta R^2 = .03$, $F(1, 204) = 14.33$, $p < .01$. Thus, friendship quality played a significantly negative role in predicting loneliness ($\beta = -.23$, $p < .01$).

Discussion

The present work contributes to the previous studies by examining the factors that affect adolescents' loneliness. The present investigation advanced our perspective on feelings of loneliness in adolescents, wherein the result of this study indicated that parental rearing behavior is strongly related to developmental behavior in adolescents. This result showed that parental rejection and lack of warmth in parent-child relationships are positively related to adolescent loneliness. It is also confirmed that parental warmth and acceptance are negatively associated with loneliness.

Considering the finding of the current study Kiff, Lengua, & Zalewski (2011) suggested that if adolescents perceive rejection from their parents at a time of growth, they might look for others to evaluate them. This behavior may increase their fear of negative evaluation by generalization, which in turn increases the tendency for isolation (Coplan, Gavinski-Molina, Lagace-Seguin, & Wichmann, 2001). Meanwhile, similar to our finding, parental warmth and acceptance will protect adolescents from feelings of loneliness and increase their social interactions and self-esteem level (Kiff et al., 2011). Hosseinchari, Delavarpour, and Dehghani (2008) revealed parental control is positively related to feelings of loneliness in adolescents, which support our findings. In terms of cultural and societal circumstances of Iranian families, warmth and acceptance behaviors (Latifi & Moradi, 2016) are indeed appropriate parenting behaviors. This kind of parenting behavior helps children to adapt to social norms, better and be qualified, realistic, self-confident, active, self-ordered, and responsible (Latifi & Moradi, 2016). Therefore, healthy and close relationships with parents are related to optimism, joyfulness, calmness, self-reliance, and self-esteem. Conversely, strict parental discipline is related to pessimism,



shyness, skillfulness, and further loneliness (McCombs, Forehand, & Smith, 1988). Although, Iranian cultural aspects might affect the adolescents' perception of parental behavior such as the collectivistic and patriarchal family system, Tavakoli, (2012) claimed that the Iranian family system is shifting from traditional to modern. As a result, the perception of parental rearing behavior of Iranian adolescents as concluded in this study are in line with the literature found in different cultures.

The effect of friendship quality on adolescent loneliness is the strongest unique link in our study. This result indicates that if the experience of friendship does not satisfy the needs of an adolescent, then feelings of loneliness will increase because friendships and peer relationships become increasingly important during adolescence. The finding of the current study explains that adolescents with negative friendship quality experience feeling of loneliness which is supported by the study of Archibald, Bartholomew, and Marx (1995); the findings revealed that as satisfaction with friendship quality and relationships increases, the level of loneliness decreases. In this line, Shin, Hong, JYoon, and Espelage (2014) revealed that friendship quality has a significant relation to the maximal level of interparental conflict and feeling of loneliness among adolescents. Similarly, Bruch and Heimberg (1994) reported that the negative evaluation and self-underestimation of adolescents are often attributed to parental neglect, which prevents autonomy and self-efficacy and influences the quality of friendships that adolescents establish with their peers and increase the feeling of loneliness. In addition, conflict and lack of friendship skills might increase the likelihood of disruptive and negative social behaviors and isolate among adolescent. Thus, lonely adolescents may not have the social skills or may be unable to show that they want to be with others; consequently, people in the social context may not be aware that their lonely peers desire to be their friends.

We present the evidence for the power of shyness in relation to loneliness. Shyness is learned in social relationships and in connection with others (Liu, Coplan, Chen, Ding, & Zhou, 2014). In addition, our findings indicated that shyness is a negative behavior that affects adolescents' social lives and is strongly correlated with loneliness. Mounts, Valentiner, Anderson, and Boswell (2006) demonstrated that shyness has a negative effect on loneliness

in adolescence. Shy people are discontented with their social lives and feel lonelier than normal people in their different type of relationships such as family and friends. The finding of this study could be explained that adolescents who experience emotional coldness and parental rejection may become more prone to shyness, and may grow up with negative self-evaluation and fear of negative evaluations by their peers in later stages of life. This fear inhibits social behavior and prevents positive interaction. The hierarchical correlation of shyness with loneliness in this study confirmed this perspective, which is supported by similar results of the research findings from different cultures (Booth-LaForce & Oxford, 2008; Grose & Coplan, 2015). So, we can say that shyness may increase internalization problems, which render them less social and prone to further peer exclusion and loneliness.

The hypothesis that boys feel lonelier than girls is confirmed in our study and it is supported by the results of Rich, Kirkpatrick-Smith, Bonner, and Jans's study (1992) which revealed that boys feel higher levels of loneliness than girls. However, Hawthorne (2008) claimed that girls feel lonelier than boys. Conversely, other studies have reported no significant association between loneliness and gender (Koenig & Abrams, 1999). Literature has revealed (Heinrich & Gullone, 2006; Kerr & Stattin, 2000; Rose & Rudolph, 2006) that this discrepancy is caused by a gender difference in terms of the markedly better friendship quality among girls than boys. According to the current study findings we can conclude that girls are more likely to interact with others than boys, as well as family and friends, may expecting more girls to talk and communicate. Given that, girls may tend to establish dyadic relationships, gain emotional support and self-disclosure opportunities, whereas boys may feel lonelier than girls due to their lack of ability to express themselves to others.

Limitations and Implications

The findings of the present study are based on cross-sectional research and thus preclude us from drawing conclusions about the direction of the effects. Moreover, given that the participants are in their early to mid-adolescence, our results cannot be generalized to older adolescents. In addition, a sociometric measure that is completed by peers could be a better choice for evaluating friendship quality among adolescents. Furthermore, we evaluated parenting rearing behavior on the basis of the participants' perceptions and self-reports



given the lack of contact with the parents of the study participants. In future research, parenting styles should be measured by asking parents to self-report their parenting style.

Conclusion

The implications of this study are:

- 1- Children's feeling of loneliness can be influenced constructively by parents' protective and supportive attitudes and parenting manners.
- 2- The quality of friendship attachments provides an essential situation for nurturing teenage psychological happiness. Consequently, it is evident that by providing a caring atmosphere among family members and generating sympathetic parenting behaviors plus fine attachments, we can decrease the possibility of negative developmental consequences among youngsters.

Compliance with Ethical Standards

Ethical Approval: All procedures performed were in accordance with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent: Informed consent was obtained from all individual participants included in the study.

Funding: There was no external funding for this study.

Authors' Contributions the correspondent author SFM performed the measurement and prepared the draft of manuscript, GRD performed the statistical analysis, interpretation of the data; All authors read and approved the final manuscript.

Conflict of Interest: The authors declare that they have no conflicts of interest.

Acknowledgments: The authors thank the school principals and all adolescents participating in the study.

References

- Aikins, J. W., Bierman, K. L., & Parker, J. G. (2005). Navigating the transition to junior high school: The influence of pre-transition friendship and self-system characteristics. *Social Development*, 14(1), 42-60. <https://doi.org/10.1111/j.1467-9507.2005.00290.x> [Link]
- Archibald, F. S., Bartholomew, K., & Marx, R. (1995). Loneliness in early adolescence: A test of the cognitive discrepancy model of loneliness. *Personality and Social Psychology Bulletin*, 21(3), 296-301. <https://doi.org/10.1177/0146167295213010>. [Link]
- Arefi, M., Navabinezhad, Sh. & Sanai, B. (2006). Investigation of the relationship between attachment styles and friendship quality. *Counseling Research and Development*, 5(18), 9-31. [Link]
- Arrindell, W. A., Akkerman, A., Bagés, N., Feldman, L., Caballo, V. E., Oei, T. P., ... & Davis, M. (2005). The short-EMBU in Australia, Spain, and Venezuela. *European Journal of Psychological Assessment*, 21(1), 56-66. <https://doi.org/10.1027/1015-5759.21.1.56> [Link]
- Asher, S. R., & Paquette, J. A. (2003). Loneliness and peer relations in childhood. *Current Directions in Psychological Science*, 12(3), 75-78. <https://doi.org/10.1111/1467-8721.01233> [Link]
- Bagwell, C. L., & Schmidt, M. E. (2013). *Friendships in childhood and adolescence*. Guilford Press. [Link]
- Bokhorst, C. L., Sumter, S. R., & Westenberg, P. M. (2010). Social support from parents, friends, classmates, and teachers in children and adolescents aged 9 to 18 years: Who is perceived as most supportive. *Social development*, 19(2), 417-426. <https://doi.org/10.1111/j.1467-9507.2009.00540.x> [Link]
- Boldero, J., & Moore, S. (1990). An evaluation of de Jong-Giervald's loneliness model with Australian adolescents. *Journal of Youth and Adolescence*, 19, 133-147. doi: 10.1007/BF01538717. [Link]
- Booth-LaForce, C., & Oxford, M. L. (2008). Trajectories of social withdrawal from grades 1 to 6: Prediction from early parenting, attachment, and temperament. *Developmental psychology*, 44(5), 1298. doi: 10.1037/a0012954 [Link]
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press. [Link]
- Bruch, M. A., & Heimberg, R. G. (1994). Differences in perceptions of parental and personal characteristics between generalized and nongeneralized social phobic. *Journal of Anxiety Disorders*, 8, 155-168. doi: 10.1016/0887-6185(94)90013-2. [Link]
- Buss, A. H., & Plomin, R. (1984). Theory and measurement of EAS. *Temperament: Early developing personality traits*, 98-130. [Link]
- Castro, J., Toro, J., Van der Ende, J., & Arrindell, W. A. (1993). Exploring the Feasibility of Assessing Perceived Parental Rearing Styles in Spanish Children with Theembu. *International Journal of Social Psychiatry*, 39(1), 47-57. doi: 10.1177/002076409303900105. [Link]
- Cheek, J. M. (1983). The revised Cheek and Buss shyness scale. Wellesley College, Wellesley, MA, 21-81. [Link]
- Cheek, J. M., & Buss, A. H. (1981). Shyness and sociability. *Journal of personality and social psychology*, 41(2), 330. <https://doi.org/10.1037/0022-3514.41.2.330>. [Link]



- Chen, X. (2012). Culture, peer interaction, and socioemotional development. *Child Development Perspectives*, 6, 27-34. <https://doi.org/10.1111/j.1750-8606.2011.00187.x>. [Link]
- Chen, X., & French, D. C. (2008). Children's social competence in cultural context. *Annual Review of Psychology*, 59, 591-616. doi:10.1146/annurev.psych.59.103006.093606. [Link]
- Chen, X., French, D. C., & Schneider, B. H. (Eds.). (2006). *Peer relationships in cultural context*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511499739>. [Link]
- Chen, X., He, Y., Oliveira, A. M. D., Coco, A. L., Zappulla, C., Kaspar, V., ... & DeSouza, A. (2004). Loneliness and social adaptation in Brazilian, Canadian, Chinese and Italian children: a multi-national comparative study. *Journal of Child Psychology and Psychiatry*, 45(8), 1373-1384. <https://doi.org/10.1111/j.1469-7610.2004.00329.x>. [Link]
- Chen, Y. (2007). Parent-child relationship in single-child families in China. *World Cultural Psychiatry Research Review*, 2, 123-127. [Link]
- Cheng, H., & Furnham, A. (2004). Perceived parental rearing style, self-esteem and self-criticism as predictors of happiness. *Journal of Happiness Studies*, 5(1), 1-21. <https://doi.org/10.1023/B:JOHS.0000021704.35267.05>. [Link]
- Coplan, R. J., Gavinski-Molina, M. H., Lagacé-Séguin, D. G., & Wichmann, C. (2001). When girls versus boys play alone: Nonsocial play and adjustment in kindergarten. *Developmental Psychology*, 37(4), 464-474. <https://doi.org/10.1037/0012-1649.37.4.464>. [Link]
- Criss, M. M., Houlberg, B. J., Cui, L., Bosler, C. D., Morris, A. S., & Silk, J. S. (2016). Direct and indirect links between peer factors and adolescent adjustment difficulties. *Journal of Applied Developmental Psychology*, 43, 83-90. <https://doi.org/10.1016/j.appdev.2016.01.002> [Link]
- Crozier, W. R. (2005). Shyness and students' perceptions of seminars. *Psychology Learning & Teaching*, 4(1), 27-34. <https://doi.org/10.2304/plat.2004.4.1.27>. [Link]
- Cummings, E. M., & Valentino, K. (2015). Developmental psychopathology. *Handbook of child psychology and developmental science*, 1-41. <https://doi.org/10.1002/9781118963418.childpsy115>. [Link]
- Dehshiri, Gh., Borjali, A., Sheikhi, M., & Habibi-Askarabad, M. (2008). Development and Validation of the Loneliness Scale among the University Students. *Journal of Psychology*, 12 (3), 282-296. [Link]
- Dehyadegary, E., Yaacob, S. N., Juhari, R. B., & Talib, M. A. (2011). Relationship between parenting style and academic achievement among Iranian adolescents in Sirjan. *Asian Social Science*, 8(1), 156-176. DOI:10.5539/ass.v8n1p156. [Link]
- Demir, M., Özdemir, M., & Weitekamp, L. A. (2007). Looking to happy tomorrows with friends: Best and close friendships as they predict happiness. *Journal of Happiness Studies*, 8(2), 243-271. doi:10.1177/0743558404273118. [Link]
- Erikson, E. (1968). *Identity: Youth and crisis*. New York: W.W. Norton. [Link]
- Grose, J., & Coplan, R. J. (2015). Longitudinal outcomes of shyness from

- childhood to emerging adulthood. *The Journal of genetic psychology*, 176(6), 408-413.
<https://doi.org/10.1080/00221325.2015.1084988>. [[Link](#)]
- Gruenfelder-Steiger, A. E., Harris, M. A., & Fend, H. A. (2016). Subjective and objective peer approval evaluations and self-esteem development: A test of reciprocal, prospective, and long-term effects. *Developmental psychology*, 52(10), 1563.
<https://doi.org/10.1037/dev0000147>. [[Link](#)]
- Hartup, W. W., & Stevens, N. (1997). Friendships and adaptation in the life course. *Psychological bulletin*, 121(3), 355-377. DOI:10.1037/0033-2909.121.3.355 [[Link](#)]
- Hassani, M., Fathi-Ashtiani, A., Rasoolzadeh-Tabatabaei, S. K. (2012). A comparison of early maladaptive schemas and perceived parental rearing behaviors in couples with problem-focused and emotion-focused coping style. *Journal of Behavioral Sciences*, 6 (3):9-10. [[Link](#)]
- Hastings, P. D., Nuselovici, J. N., Rubin, K. H., & Cheah, C. S. L. (2010). Shyness, parenting, and parent-child relationships. In K. H. Rubin & R. J. Coplan (Eds.), *The development of shyness and social withdrawal* (pp. 107–130). The Guilford Press. [[Link](#)]
- Hawthorne, G. (2008). Perceived social isolation in a community sample: Its prevalence and correlates with aspects of peoples' lives. *Social Psychiatry and Psychiatric Epidemiology*, 43, 140-150. <https://doi.org/10.1007/s00127-007-0279-8>. [[Link](#)]
- Heinrich, L. M., & Gullone, E. (2006). The clinical significance of loneliness: A literature review. *Clinical psychology review*, 26(6), 695-718. <https://doi.org/10.1016/j.cpr.2006.04.02>. [[Link](#)]
- Hopko, D. R., Stowell, J., Jones, W. H., Armento, M. E., & Cheek, J. M. (2005). Psychometric properties of the revised Cheek and Buss shyness scale. *Journal of Personality Assessment*, 84(2), 185-192. doi: 10.1207/s15327752jpa8402_08. [[Link](#)]
- Hosseinchari, M., Delavarpour, M., Dehghani, Y. (2008). The Role of Parenting Styles on High School Students' Shyness. *Contemporary Psychology*, 2(2), 21-30. [[Link](#)]
- Kandel, D. B., and Davies, M. (1982). Epidemiology of depressive moods in adolescents. An empirical study. *Arch. Gen. Psychiatry*. 39, 1205–1212. doi: 10.1001/archpsyc.1982.04290100065011 [[Link](#)]
- Kerr, M., & Stattin, H. (2000). What parents know, how they know it, and several forms of adolescent adjustment: further support for a reinterpretation of monitoring? *Developmental psychology*, 36(3), 366-386. doi: 10.1037//0012-1649.36.3.366. [[Link](#)]
- Kiff, C. J., Lengua, L. J., & Zalewski, M. (2011). Nature and nurturing: Parenting in the context of child temperament. *Clinical child and family psychology review*, 14(3), 251. doi: 10.1007/s10567-011-0093-4. [[Link](#)]
- Kingery, J. N., & Erdley, C. A. (2007). Peer experience as predictors of adjustment across the middle school transition. *Education and Treatment of Children*, 30(2), 73-88. <https://doi.org/10.1353/etc.2007.0007>. [[Link](#)]
- Koenig, L. J., & Abrams, R. R. (1999). Adolescent Loneliness and Adjustment: A Focus on Gender Differences. *Loneliness in childhood and adolescence*, 30, 296-315. [[Link](#)]
- Latifi, Z., & Moradi, F. (2016). Parenting practices in Iran. *International Journal of Humanities and Cultural Studies*, 1(1), 261-270. [[Link](#)]
- Laursen, B., Bukowski, W. M., Aunola, K., & Nurmi, J. E. (2007). Friendship Moderates prospective associations between social isolation and



- adjustment problems in young children. *Child development*, 78(4), 1395-1404. doi: 10.1111/j.1467-8624.2007.01072.x. [[Link](#)]
- Leary, M. R & Buckley, K. E. (2002). Shyness and the pursuit of social acceptance. In *Shyness* (pp. 155-169). Routledge. [[Link](#)]
- Liu, J., Coplan, R. J., Chen, X., Li, D., Ding, X., & Zhou, Y. (2014). Unsociability and shyness in Chinese children: Concurrent and predictive relations with indices of adjustment. *Social Development*, 23(1), 119-136. <https://doi.org/10.1111/sode.12034>. [[Link](#)]
- Lodder, G. M. A., Goossens, L., Scholte, R. H. J., Engels, R. C. M. E., & Verhagen, M. (2016). Adolescent loneliness and social skills: agreement and discrepancies between self-, meta-, and peer-evaluations. *Journal of youth and adolescence*, 45(12), 2406-2416. <https://doi.org/10.1007/s10964-016-0461-y>. [[Link](#)]
- Mahoney, J. L., Larson, R. W., & Eccles, J. S. (Eds.). (2005). *Organized activities as contexts of development: Extracurricular activities, after school and community programs*. Psychology Press. [[Link](#)]
- McClowry, S. G., Halverson, C. F., & Sanson, A. (2003). A re-examination of the validity and reliability of the School-Age Temperament Inventory. *Nursing Research*, 52(3), 176-182. Doi: 10.1097/00006199-200305000-00007. [[Link](#)]
- McCombs, A., Forehand, R., & Smith, K. (1988). The relationship between maternal problem-solving style and adolescent social adjustment. *Journal of Family Psychology*, 2(1), 57. <https://doi.org/10.1037/h0080479>. [[Link](#)]
- McDonald, K. L., Wang, J., Menzer, M. M., Rubin, K. H., & Booth-LaForce, C. (2011). Prosocial behavior moderates the effects of aggression on young adolescents' friendships. *International Journal of Developmental Science*, 5(1-2), 127-137. doi: 10.3233/DEV-2011-10066. [[Link](#)]
- Mounts, N. S., Valentiner, D. P., Anderson, K. L., & Boswell, M. K. (2006). Shyness, sociability, and parental support for the college transition: Relation to adolescents' adjustment. *Journal of Youth and Adolescence*, 35(1), 68-77. [[Link](#)]
- Muris, P., Meesters, C., & van den Berg, S. (2003). Internalizing and externalizing problems as correlates of self-reported attachment style and perceived parental rearing in normal adolescents. *Journal of Child and Family Studies*, 12(2), 171-183. <https://doi.org/10.1023/A:1022858715598>. [[Link](#)]
- Naimi, S., & Niaraki, F. R. (2013). Effectiveness of Self-Differentiation Training on Self-Differentiation, Test-Anxiety and Self-Efficacy among Students in Saveh City. *European Online Journal of Natural and Social Sciences*, 2(2s), 317. [[Link](#)]
- Parker, J. G., Saxon, J. L., Asher, S. R., & Kovacs, D. M. (1999). Dimensions of children's friendship adjustment: Implications for understanding loneliness. *Loneliness in childhood and adolescence*, 27(4), 201-221. [[Link](#)]
- Pedersen, S., Vitaro, F., Barker, E. D., & Borge, A. I. H. (2007). The timing of middlechildhood peer rejection and friendship: Linking early behavior to early-adolescent adjustment. *Child Development*, 78(4), 1037-1051. doi: 10.1111/j.1467-8624.2007.01051.x [[Link](#)]
- Rajabi, Gh., Abasi, Gh. A. (2011). A Study of Factorial Structure (Construct

- Validity) of the Persian Version of the Revised Shyness Scale among Students. *Iranian Journal of Psychiatry and Clinical Psychology*, 16 (4), 456-467. [[Link](#)]
- Rezaeian, H., Tutunchi, B. (2019). Predicting the religious identity of children based on interactive family patterns, parental religiosity and critical thinking of adolescents. *Journal of Woman and Family Studies*, 7(3), 109-128. doi: 10.22051/jwfs.2020.9643.1133. [[Link](#)]
- Reisman, J. M., & Billingham, S. (1989). SACRAL: Additional correlates of a self-report measure of friendliness-unfriendliness. *Journal of Personality Assessment*, 53(1), 113-121. https://doi.org/10.1207/s15327752jpa5301_12. [[Link](#)]
- Rich, A. R., Kirkpatrick-Smith, J., Bonner, R. L., & Jans, F. (1992). Gender differences in the psychosocial correlates of suicidal ideation among adolescents. *Suicide and Life-Threatening Behavior*, 22(3), 364-373. PMID: 1440750. [[Link](#)]
- Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological bulletin*, 132(1), 98-110. doi: 10.1037/0033-2909.132.1.98. [[Link](#)]
- Rubin, D. B. (2004). *Multiple imputation for nonresponse in surveys*. John Wiley & Sons, (Vol. 81). [[Link](#)]
- Rubin, K. H., Coplan, R. J., & Bowker, J. C. (2009). Social withdrawal in childhood. *Annual Review of Psychology*, 60, 141-171. doi: 10.1146/annurev.psych.60.110707.163642. [[Link](#)]
- Seiffge-Krenke, I. (2013). *Stress, coping, and relationships in adolescence*. Psychology Press. [[Link](#)]
- Shin, J. H., Hong, J. S., Yoon, J., & Espelage, D. L. (2014). Interparental conflict, parenting behavior, and children's friendship quality as correlates of peer aggression and peer victimization among aggressor/victim subgroups in South Korea. *Journal of interpersonal violence*, 29(10), 1933-1952. doi:10.1177/0886260513511695. [[Link](#)]
- Soheili, M., Dehshiri G., & Mousavi, S. F. (2015). Potential for Drug Abuse: the Predictive Role of Parenting Styles, Stress and Type D Personality. *Journal of research on addiction*, 9 (33), 91-106. [[Link](#)]
- Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological bulletin*, 139(1), 213. <https://doi.org/10.1037/a0028931>. [[Link](#)]
- Stevenson-Hinde, J., & Glover, A. (1996). Shy girls and boys: A new look. *Journal of Child Psychology and Psychiatry*, 37(2), 181-187. <https://doi.org/10.1111/j.1469-7610.1996.tb01389.x> [[Link](#)]
- Sullivan, H. S. (2013). *The interpersonal theory of psychiatry*. Routledge. [[Link](#)]
- Tavakoli, H. (2012). *A dictionary of research methodology and statistics in applied linguistics*. Rahnama press. [[Link](#)]
- Wrzus, C., Zimmermann, J., Mund, M., Neyer, F. J. (2017). Friendships in young and middle adulthood: Normative patterns and personality differences. In Hojjat, M., Moyer, A. (Eds.), *The Psychology of friendship*. New York, NY: Oxford University Press.

