

Differentiation of Self and Hope Mediated by Resilience: Gender Differences

Masoud Sadeghi, Usha Barahmand and Somaye Roshannia

Abstract

The intent of the present study was to examine the associations among differentiation of self, resilience and hope. Extending Bowen's family systems theory to adolescents in a middle-eastern culture, we anticipated age and gender-based differences in the level of the constructs as well as in the associations among them. Employing a multistage cluster sampling procedure, a sample of 300 adolescents (132 girls and 168 boys) ranging in age from 14 to 19 years old ($M = 16.36$ years; $SD = 1.24$) were recruited from junior and senior high schools in Khoramabad. Data were collected through self-report measures, Differentiation of Self Inventory, Connor-Davidson Resilience Scale and Snyder Hope Scale, and analyzed via descriptive statistics, correlations and bootstrap analyses. Higher scores of differentiation were related to greater resilience and hope. Scores on I-position, emotional cutoff and fusion with others were also associated with resilience and hope. Age and gender differences emerged in certain components of differentiation. However, a moderated mediation analysis revealed no moderating effects of age and gender in the association between differentiation and resilience. Separate gender based bootstrapping results for mediation highlighted the specific indirect paths that resilience has in the relationship between I-position and hope in adolescent boys and between emotional closeness (low emotional cutoff) and hope in adolescent girls. Findings are discussed with regard to the cross-cultural validity of Bowen family systems theory.

Key words: differentiation of self, resilience, hope, culture, family systems theory

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Introduction

Adolescence, the period from age 10 to 18 years (Lo Iacono & Carolab, 2018), or extended to the mid-twenties (UNICEF, 2011) in humans, is a period of transition that begins with pubertal maturation and ends with independence from the caregiver (Casey, Duhoux & Cohen, 2010). During this period, individuals experience emotional, cognitive, and social changes (Spear, 2000) as well as behavioral changes (Gardner & Steinberg, 2005) as they develop an identity (Cramer, 2017; Hatano, Sugimura & Klimstra, 2017; Tanti, Stukas, Halloran & Foddy, 2011), seek to establish autonomy from parents (Allen & Hauser, Autonomy and relatedness in adolescent-family interactions as predictors of young adults' states of mind regarding attachment, 1996) and engage in risk behaviors (Park, McCoy, Erausquin & Bartlett, 2018). During this period of development, youths are prone to experiencing stress, anxiety and depression (Anyan & Hjemdal, 2013) as they face the challenges of individuation and self-discovery and assume increased responsibility (Steinberg & Morris, 2001). To navigate these challenges and attain psychological well-being, the development of emotion regulation, coping, and decision-making skills is crucial (Modecki, Zimmer-Gembeck & Guerra, 2017). Psychological well-being, defined as engagement with existential challenges of life (Ryff & Singer, 2008) is determined by positive relationships with others, personal mastery, autonomy, a feeling of purpose and meaning in life, and personal growth and development (Ryff, 1989). Psychological well-being in adolescents has been well-studied and found to be associated with identity style, (Phillips & Pittman, 2007), parental involvement and parenting style (Cripps & Zyromski, 2009), leisure activities (Trainor, Delfabbro, Anderson & Winefield, 2010), ethnic identity and meaning in life (Kiang & Fuligni, 2010), social environment (Hussey, Kanjilal & Okunade, 2013), and more recently with optimism (Monzani, Steca & Greco, 2014), intrinsic goals and aspirations (Davids, Roman & Kerchhoff, 2017), and personality and self-efficacy beliefs (Tommasi, et.al., 2018).

One factor associated with well-being in adolescents and of relevance to the current study is having meaning in life (Halama & Dedová, 2007; Ho, Cheung & Cheung, 2010; Kiang & Fuligni, 2010), suggesting that meaning in life may mitigate the negative effects of stressors on affective well-being. In recent years, people in Iran have witnessed changes in their social, technological, political, and economic life conditions. Adolescents graduating from high school have to make a choice between passing the highly competitive state university entrance exam and pursuing any undergraduate program, whether of their interest or not, and the expensive private universities. If they do not pursue education after high school, they will have to be content with low paying jobs which are also not easy to come by as there are many educationally overqualified individuals willing to do the same jobs as unemployment is rife. With inflation on the rise, adolescents are keenly aware that most workers, perhaps even their parents, labor at multiple jobs trying to make ends meet. Finding a purpose in life amidst such conditions can be difficult for an adolescent. It is easy to deduce that resilience and hope would be the individual difference factors contributing to psychological well-being in these individuals. Both these factors will be explored in some detail below.

Hope, defined as a) a motivational state based on b) goals valued by the person and c) the person's perceived ability to generate plans to attain those goals, has been suggested to help an individual in avoiding psychological ill health and enhancing psychological well-being (Snyder,

Feldman, Taylor, Shroeder & Adams, 2000). Other studies have also documented the contribution of hope to psychological well-being (Yeung, Ho & Mak, 2015), life satisfaction (Yang, Zhang & Kou, 2016), and perceived stress, self-esteem and academic success (Dixson, Worrell & Melloc, 2017). Future goals that adolescents usually formulate and focus their hopes on are mainly educational and occupational in nature. The goals and the material, psychological, and social resources adolescents utilize to achieve them are influenced by the social, cultural and environmental circumstances they live in (Massey, Gebhardt & Garnefski, 2008). In particular, parental involvement and support have been found to be associated with adolescent goal-setting, perceptions of attainability, and plans for goal attainment (Ginevra, Nota & Ferrari, 2015) with parental support of autonomy in adolescents being related to adolescents' satisfaction with career decisions, wellbeing, and success (Katz, Cohen, Green-Cohen & Morsiano-Davidpur, 2018).

Like hope, resilience can be regarded as an important contributor to an individual's psychological well-being as empirical evidence points to a positive association between resilience and subjective well-being (Bajaj & Pande, 2016; Liu, Wang & Lu, 2013; Lü, Wang, Liu & Zhang, 2014; Mak, Ng & Wong, 2011; Doyle et.al., 2015). Resilience has been variously defined as the capability of an individual to bounce back after experiencing adversity (Garmezy, 1991), personal qualities or adaptive capacities that help individuals cope with dire circumstances (Connor & Davidson, Development of a new resilience scale: The Connor- Davidson Resilience Scale (CD-RISC), 2003; Masten, 2001), a continuum of adaptation or success (Hunter & Chandler, 1999) all reflecting the dynamic relationship between personal characteristics and environmental factors (Ahern, 2006). Past research has established that strong parent-child relationships have an impact on an individual's ability to cope with stresses and risks (Wright, Masten & Narayan, 2013).

While levels of parental involvement, warmth and support (Tubman & Lerner, 1994) and perceptions of family cohesion (Fosco, Caruthers & Dishion, 2012) are associated with the adolescent's psychological adjustment, a mature sense of identity and well-being requires that adolescents develop autonomy while maintaining emotional relatedness in their interactions with their parents (Allen, Hauser & Eickho, 2010 as cited in Cook, Wilkinson, & Stroud, 2018). This ability of an individual to strike a balance between autonomy and connectedness is termed differentiation of the self (Peleg & Zoabi, 2014), a central concept in the Bowen's (1978) Family Systems Theory (Sloan & Dierendonck, 2016). According to this theory, individuals with high differentiation of self, have the ability to maintain the I-position, the capacity to stand up for oneself and independently express one's will despite being pressured to do otherwise, while individuals with low differentiation of self either overreact to negative feelings in interpersonal relationships becoming "fused" with others or tend to be more emotionally cut off, emotionally distancing themselves from others (Doba, Berna, Constant & Nandrino, 2018). Differentiation of self has been found to be positively associated with better mental health (Yao, Yu-Hong, Liu, Zhao, 2011; Sandage & Jankowski, 2010; Frederick, 2016; Ross, 2014). Although adult studies have not documented any significant differences between men and women in their levels of differentiation, a greater tendency for women to develop togetherness and men to develop cutoff has been reported (Peleg & Yitzhak, 2011; Skowron, 2000).

Past research has, therefore, indicated that differentiation of self, resilience and hope are all related to psychological well-being. Furthermore, hope and resilience have been reported to be related (Ong, Standiford & Deshpande, 2018; Egger, 2018; Schultz, 2018) with some studies

(Munoz, Brady & Brown, 2017; Satiici, 2016; Jones, 2016) indicating that hope contributes to resilience while others (Celik, Cetin & Tutkun, 2015; Panter-Brick & Eggerman, 2012) found resilience contributing to hope. Similarly, some research has reported differentiation of self to be related to resilience (Kakaberaei, Rostamian & Ronasi, 2016) or to be a factor of resilience (Halevi & Idisi, 2017) or to be predicted by resilience (Yanyan, Qin & Qing, 2014). But the association of differentiation of self and hope has not received much research interest. One study (Sandage, Crabtree & Schweer, 2014) did find differentiation of self to be related to hope.

Contemporary Iranian society is best characterized as a blend of individualistic and collectivistic values with emphasis placed on both standing out from the group through competitive achievement (Kitayama, Markus & Lieberman, 1995) and striving for strong interpersonal ties and approval of others (O'Reilly & Chatman, 1996). In the current cultural and economic context, most adolescents (63.33%) have reported uncertainty regarding their future as far as educational and occupational goals are concerned (Naderi & Hosseini, 2016). Uncertainty about the future can result in anxiety and stress (Grupe Nitschke, 2013) and, therefore, impact psychological well-being. Consistent with previous research findings, we believe that adolescents who are resilient will be better equipped to face the challenges they encounter. In addition, adolescents who show high differentiation of self will also have the capacity to express their desires despite being pressured to do otherwise. Therefore, we expect both resilience and differentiation of self to contribute meaningfully to hope. In the current Iranian cultural context, while there is a lot of equality between the genders in education and employment, gender-based biases are still evident in parenting practices. Expectations regarding educational and employment success are much higher for boys, risk-taking and independence is more easily encouraged in boys and parenting tends to be more conservative regarding girls. Within such a context, it is likely that adolescent boys and girls who are faced with the first major decision regarding their educational and occupational career paths will differ in terms of differentiation of self, hope and resilience.

While there has been ample research documenting the association between these constructs, differences that may exist within these associations have not been explored. The present study was designed with the aim of revealing the differential association, if any, among these psychological constructs in adolescent boys and girls. We anticipate that adolescent boys will demonstrate higher levels of differentiation of self, resilience and hope than adolescent girls and, owing to the gender differences in socialization and expectations regarding achievement, we also hypothesize that the components of differentiation of self that contribute to resilience and hope will be different across the genders. The latter hypothesis is, therefore, exploratory.

Method

Ethics Statement

The study protocol was approved by the Ethics Committee of Lorestan University.

Participants

The study sample comprised 300 adolescent students (168 males and 132 females) who were randomly selected using multistage cluster sampling from junior high schools (35.5%) and senior high schools (64.5%) in Khorramabad, Lorestan. They ranged in age from 13 years 2 months to 19 years 3 months, with a mean age of 16.36 years ($SD = 1.24$).

Measures

Differentiation of Self Inventory-Revised (DSI-R; (Skowron & Friedlander, 1998; Skowron & Schmitt, 2003). The DSI-R validated for use in Iran by Younesi, (2006) was used in this study. The inventory consists of 46 items each rated using a six-point Likert scale ranging from 1 (completely untrue) to 6 (very true). Differentiation of the self is measured by four subscales emotional cutoff (EC), emotional reactivity (ER), fusion with others (FO) and I-position (IP), Emotional cut-off refers to the degree to which one feels threatened by intimacy and isolates oneself from others, emotional reactivity refers to the extent to which a person's response to environmental stimuli reflects emotional flooding, emotion lability, or hypersensitivity, fusion with others reflects over-involvement and/or over-identification with one's parents or significant others and I-position refers to a well-defined sense of self reflected by one's ability to adhere to personal convictions even under pressure. A sample item of this subscale includes *I am able to say no to others even when I feel pressured by them*. The items of the ER (e.g., *People often tell me I'm overly emotional*), EC, (e.g., *I'm often uncomfortable when people get too close to me*) and FO (e.g., *I try to live up to my parents' expectations*) subscales are reverse scored in the computation of the subscale scores. All subscale scores were then summed and an average score ranging from 1 to 6 was computed, with higher score reflecting that the individual is less likely to demonstrate emotional reactivity, cutoff, or fusion with other people, and is more likely to assume an I position in relationships and, therefore, greater differentiation of self. The original scale was found to have acceptable internal consistencies indicated by Cronbach's alpha ranging from .81 to .89 for the subscales and .92 for the full scale (Skowron & Schmitt, 2006). The internal consistency of the Persian version was reported to be .85 (Younesi, 2006). In another more recent study (Pasha Sharifi, Manayipour & Asgari, 2014), acceptable internal consistencies were reported for the full scale ($\alpha = .88$) and subscales ($\alpha = .74$ to $.80$). The Persian version of the scale was used in the current study. In items that had the phrase 'spouse or partner', the word 'parents' was substituted.

Connor-Davidson Resilience Scale (CD-RISC; (Connor & Davidson, 2003): The Connor Davidson Resilience Scale (CD-RISC) was used to measure resilience. The 25 item CDRISC measures resilience as composed of five subscales of resilient qualities: personal competence and tenacity (8 items; e.g., *When things look hopeless, I don't give up*) trust in one's instincts and strengthening effect of stress (7 items; e.g., *Under pressure, focus and think clearly*) accepting of change positively (5 items; e.g., *Can deal with whatever comes*), control (3 items; e.g., *Know where to turn for help*), and spiritual influences (2 items; *Sometimes fate or God can help*). Participants are instructed to use a 5-point Likert scale (0 = not at all true to 4 = true nearly all the time) and indicate their agreement regarding how much each statement applies to their life experience. If any item reflects a situation they have not experienced, they are to indicate how they

would normally respond. Total scores range from 0 to 100, with higher scores indicating greater resilience. The Persian version of the CD-RISC validated by (Derakhshanrad, Piven, Rassafiani, Hosseini, & Mohammadi Shahboulaghi, 2014) was used in this study. The scale has been used widely in Iran and internal consistencies ranging from $\alpha = .93$ (Samani, Jokar, & Sahragard, 2007) to $\alpha = .87$ (Derakhshanrad et al., 2014) have been reported.

Adult Hope Scale (AHS; (Snyder, et.al., 1991). The Adult Hope Scale (AHS) is a 12 item self-report measure of hope responded to on a 8-point scale ranging from 1= definitely false, to 8=definitely true, with higher total scores indicating greater hope. A sample item is, *I energetically pursue my goals*. Based on the model presented by Snyder et.al., (1991), the scale measures the reciprocal interaction between one's perceived determination toward goals, termed agency, and one's perceived ability to find ways toward goals, termed pathways. Each of the subscales (Agency and Pathways) has 4 items and in addition, the scale has four filler items. The internal consistency of the entire scale has been reported by various studies to range between .74 and .88 (Snyder, Lopez, Shorey, Rand & Feldman, 2003). This scale has been adapted for use in adolescents (Shehni-Yailagh, et.al., 2011). The psychometric properties of the Iranian version of the scale have also been reported to be acceptable. The internal consistencies of the Agency and Pathways subscales have been reported to be .66 and .80, respectively (Shehni-Yailagh, Kianpour Ghahfarokhi, Maktabi, Neasi & Samavi, 2011).

Procedure

Sampling Procedure

The city of Khoramabad is segmented into four educational districts (ED) and, based on figures provided by the Khoramabad General Directorate of Education and using a proportional stratified sampling strategy, the sample size to be targeted in each of these regions was calculated. A simple random sampling method was used to select public and private junior and senior high schools within each district. This resulted in 15/76 schools being selected (four schools from ED 1, five schools from ED 2, three schools from ED 3, and three schools from ED 4). Finally, corresponding to the sample size required from each district and school, clusters of participants making up the study sample were selected. To explore for any age differences, junior high school adolescents (ages 13 to 15 years) were compared with senior high school adolescents (ages 16 to 19 years).

Data Collection

Consent to conduct the research was first obtained from the school principals. Next, written information regarding the objectives and procedure of the study and ways to contact the researchers for any clarification along with consent forms explaining that participation was voluntary were given to students to take home. Once responses and clarifications were provided to queries from parents and adolescents, written consents were obtained from both parents and adolescents. All questionnaires were administered in counterbalanced order and completed by adolescents during a regular class period in the presence of one of the researchers. All data including demographic information were collected anonymously.

Data Analyses

Distribution of scale scores, scale reliability and measures of central tendency were computed followed by an examination of the correlations between variables and moderated mediation analyses. All analyses were conducted at an alpha level of .05.

Results

First, the distribution of each predictor variable was examined for outliers and normality within each gender and age group. There were no outliers. Skewness and kurtosis coefficients were less than 1, indicating no problems with normality. Second, internal consistency analyses were run to determine the reliability of each scale used in this study. Next, means and standard deviations were computed for each scale, followed by an examination of age and gender differences in each of the variables and the correlations among them. Table 1 presents the mean values and standard deviations (SD), age and gender differences, zero order correlation coefficients as well as Cronbach's alphas for all the variables in the study. As can be seen in Table 1, the three variables of study were significantly correlated with each other. Furthermore, the total and some subscale scores of differentiation of self also correlated positively with hope and resilience.

Closer examination of the mean scores on the differentiation of self-subscale reveals that age differences emerged only on emotional cutoff. Examination of gender differences indicated that both boys and girls do not differ on emotional reactivity and fusion with others, with both groups having low mean scores on these components. In addition, boys have high mean scores on I-position while girls have high mean scores on emotional cutoff. Owing to the age and gender differences that emerged on some of the differentiation of self-subscale scores, a dual moderated mediation analysis was initially performed to determine whether the mediation process that links differentiation of self with hope depends on age and gender of the respondents.

Power analysis conducted a priori using the software package, G*Power 3.1 (Faul, Erdfelder, Buchner & Lang, 2009) indicated that a sample size of 300 would be more than sufficient to detect significant mediational and interaction effects with a power of .80 and an alpha of .05. The proposed moderated mediation model was tested using PROCESS, a resourceful modeling tool for testing mediation and moderation models and based on bootstrapping which is considered to be more reliable than previous methods of testing mediation (Hayes A.F., 2013). The analyses were based on 10,000 bootstrapped samples, using bias-corrected 95 % confidence intervals. Confidence intervals for the indirect effect that do not contain zero reflect a significant mediation. Before analysis, all continuous variables were mean-centered.

To compute the index of partial moderated mediation and statistical inference, a model where the effect of differentiation of self (X) on hope (Y) through resilience (M) was estimated as moderated in the first stage by age (W) and gender (Z) of the respondent was considered. This was a first stage dual moderated mediation model, such as depicted in Figure 1. Using ordinary least squares regression, the regression coefficients and standard errors were estimated and are displayed in Table 2. Resilience was positively related to hope ($b = 0.271$, $p < .001$, 95% CI = 0.229 to 0.313). In the model of resilience (M), neither age (W) ($a_4 = -1.078$, $p = .581$, 95% CI = -4.911 to 2.754) nor gender ($a_5 = -2.368$, $p = .211$, 95% CI = -6.095 to 1.357) significantly moderated the effect

differentiation of self on resilience. However, a statistically significant relationship between the mediator and outcome or a significant interaction is not required to test moderated mediation using the index approach to inference (Hayes, 2015). Instead, the weight for the moderators, age and gender, in the function defining the relationship between the indirect effect and those moderators is important. That is, the indices of partial moderated mediation by age and gender are important as they quantify the relationship between one moderator and the size of the indirect effect of X on Y through M when the other moderator is held constant. The bootstrap CIs for indices of partial moderated mediation estimated using 10,000 bootstrap samples (Table 1) were -.075 to .066 for age (W) and -.062 to .075 for gender (Z). As the CIs for the indices of partial moderated mediation by age and gender include zero, they indicate that independent of the effect of age or gender on the indirect effect, the evidence does not support a claim that the indirect effect differs between boys and girls or across the two age groups studied.

As the test of moderated mediation was not affirmative, no further attempt was made to probe the interaction of age and gender with the mediator, resilience. Instead, given the gender differences in components of differentiation of self, separate mediation analyses were conducted for each gender and age group.

Given the correlation coefficients of the subscales of differentiation of self with both resilience and hope and the gender differences on the subscales, mediation analyses in males was conducted with scores on the I-position subscale as the independent variable, resilience as the mediator and hope as the dependent variable. In females with the same mediator and dependent variables, scores on the emotional cutoff subscale of differentiation of self was used as the independent variable. Figures 2 and 3 display the proposed mediation models. In males, mediation analysis show that although I-position has a significant total effect on hope [c: $B = .453$, $SE = .049$, BCa CI (.356, .551)], after controlling for the effect of resilience as the mediator [a: $B = 1.246$, $SE = .106$, BCa CI (1.037, 1.456); b: $B = .280$, $SE = .029$, BCa CI (.223, .337)] the direct effect of I-position on hope is no longer significant [c': $B = .104$, $SE = .054$, BCa CI (-.002, .209)]. The indirect effect of I-position on hope scores through resilience [$B = .349$, $SE = .052$, BCa CI (.253, .458)] indicates complete mediation by resilience.

In females, mediation analysis show that although emotional cutoff has a significant total effect on hope [c: $B = -.366$, $SE = .069$, BCa CI (-.504, -.230)], after controlling for the effect of resilience as the mediator [a: $B = -.930$, $SE = .126$, BCa CI (-1.180, -.680); b: $B = .249$, $SE = .043$, BCa CI (.164, .334)] the direct effect of emotional cutoff on hope is no longer significant [c': $B = -.135$, $SE = .074$, BCa CI (-.281, .010)]. The indirect effect of emotional cutoff on hope scores through resilience [$B = -.232$, $SE = .055$, BCa CI (-.344, -.128)] indicates complete mediation by resilience. All results are displayed in tables 2 and 3.

Discussion

The results of the present study supported our theoretical model that high levels of differentiation of self can predict hope in adolescents through resilience. While the obtained positive associations between differentiation of self, resilience and hope are in line with previous research that has associated differentiation of self with the development of positive indices of mental health (e.g. Fredrick, 2016), these results also highlight certain likely age trends in the

development of differentiation of self and the strong effects, especially through specific indirect paths, that resilience has in the relationship between gender-specific components of differentiation of self and hope in adolescents.

Older adolescents report greater differentiation of self than younger adolescents. This finding is inconsistent with that of previous studies (Alaedin, 2008; Skowron, Wester & Azen, 2004; Tuason & Friedlander, 2000) that have endorsed the lack of age differences in self-differentiation and suggested that younger adults may not differ from their older counterparts in their capability for striking a balance between autonomy and intimacy (Alaedin, 2008). However, it should be noted that these previous results were based on adult samples and not on adolescents. The age differences observed in the current study fit well with the proposition by Johnson, Berg and Sirotzki, (2007) that young people's sense of self and adulthood and the factors associated with it vary based on socially structured experience reflecting membership in racial/ethnic groups, socioeconomic status, and age. Empirical evidence on developmental processes in adolescence is robust in indicating that balance between differentiation and connection in the attachment/individuation process is achieved over time (Perosa, Perosa & Einsporn, 2013).

The pattern of results implies that within the current cultural context, adolescent boys demonstrate greater differentiation of self than their female counterparts. Studies comparing men's and women's levels of differentiation have provided inconsistent results, with some (Alaedin, 2008; Elieson & Rubin, 2001) reporting no differences and others (Skowron & Schmitt, Assessing Interpersonal Fusion: Reliability and Validity of a New DSI Fusion with Others Subscale., 2003) reporting differences on some components of differentiation. The gender differences noted in differentiation of self in the present study are in harmony with the confluence model that posits that role transitions and character qualities have an impact on developing an adult identity which varies by individuals' life-course experiences (Johnson et al., 2007). Some studies (Oliver, Aries, & Batgos, 1989; Ziebarth, 2016) have reported lower levels of differentiation in women. These gender differences have been accounted for by their relations to indices of identity development, implying that clarity in goals, values, and belief systems also include clear and specific visions of the self in the future (Ziebarth, 2016), or by the increased involvement and intrusiveness of mothers in the lives of their daughters than their sons (Oliver et.al., 1989). In the absence of conclusive evidence from prior research suggesting clear culture-related gender differences in differentiation of self and their association with resilience and hope, the DoS domains were explored within each gender.

Male adolescents scored higher on the I-Position, the intrapsychic domain of self-differentiation while female adolescents scored higher on emotional cutoff, the interpersonal domain. The gender difference in I-position resonates with earlier findings by Yao, Liu, & Zhao (2011), who concluded that consistent with other gender specific developmental patterns, some aspects of differentiation of self develop differently for girls and boys. What is striking is that within a general sense of differentiation of self, I-position in male adolescents and emotional cutoff in female adolescents have unique powerful roles as they develop resilience and hope. In other words, while the tendency to own one's thoughts and feelings without the need to conform to others' expectations contributes to greater resilience in boys, it appears that the tendency to be emotionally close to others contributes to increased resilience in girls. These differences may be reflective of differences in parenting, with parents encouraging ego and identity development, standing up for oneself, and fighting for one's rights more assertively in boys while endorsing the maintenance of close emotional ties with one's family and important others more strongly in girls. On the other hand,

this finding may imply cultural differences in the pattern of components of the differentiated self. Bowen's "differentiated self" does not discount close relationships with intimates; instead, the differentiated individual is one who is capable of simultaneously maintaining selfhood and close emotional relationships without getting enmeshed or cutting off (Bowen, 1978). Furthermore, Bowen's theory is believed to be universal, applying to all families and all cultures (Kerr & Bowen, 1988). However, there are no studies comparing the differentiation of self in adolescents across different cultures and demonstrating cultural equality. One study (Chung & Gale, 2006) concluded that the value of differentiation of self and autonomy is emphasized in individualistic societies, while the values of belonging and closeness are considered more important in collectivistic societies. Consistent with this assertion, Alaedin (2008) found Americans, representative of an individualistic culture, reported greater scores on all components of differentiation of self except fusion with others than Jordanians, representative of a collectivistic culture. In contrast, Biadisy-Ashkar & Peleg (2013) found cross-cultural differences between Arab women and Jewish women in Israel. Describing Jewish women as belonging to a Western individualistic culture and the Arab women as belonging to an Eastern and collectivistic society, these researchers found higher levels of emotional reactivity and I-position among the Arab women.

The gender differences observed in the current study leads to several hypotheses. It might be that the findings merely reflect gender-role socialization practices with girls being raised to be more relations-oriented. Alternatively, findings may imply the beginnings of cultural change within a traditional collectivist culture with the encouragement of individualistic decision-making, autonomous thinking and a clear coherent sense of self in the context of emotional relationships with important others in boys, while girls continue to be nurtured by patriarchal influences, experiencing the value of emotional closeness with less emphasis on individuation. In short, findings imply that the cross-cultural validity of Bowen family systems theory needs to be explored extensively.

Although differing across gender, both the components of differentiation of self, I-position in males and emotional cutoff in females contributed to resilience, which in turn contributed to hope. The association of I-position with various indices of psychological well-being such as self-regulation, problem solving and psychosocial adjustment, (Skowron, 2004), intercultural competence (Sandage & Harden, 2011), courage and assertiveness (Singh, et.al., 2010) and resilient capacities to self-validate (Sandage & Harden, 2011) has been well-documented. In Bowen's theory, emotional cutoff, reflects one's tendency to deal with tensions and conflicts in symbiotic relationships by ending or cutting off inter-personal relationships. Individuals with a good sense of differentiated self display low levels of this tendency. In the current study, low levels of emotional cutoff in girls contributed to greater resilience, implying that stronger the emotional ties that adolescent girls have with important others, the greater the likelihood of their being resilient. Although there have not been any studies investigating the relationships between domains of differentiation with indices of psychological function and well-being in adolescents, negative associations between emotional cut off and marital satisfaction (Peleg, The relation between differentiation of self and marital satisfaction: What can be learned from married people over the course of life?, 2008), family functioning (Chung & Gale, 2009), life satisfaction (Biadisy-Ashkar & Peleg, 2013; Lou, 2010), loneliness and anxiety (Jankowski & Hooper, 2012) have been found in adults. The obtained results point to the positive role that the absence of emotional cutoff, or rather, the presence of emotional ties, plays in fostering resilience in girls.

Despite the finding that components of differentiation of self are differentially associated with resilience, results also suggest that the observed positive association between differentiation of self and hope in the adolescent sample is completely mediated by resilience. That is, highly differentiated people may also report higher levels of hope and optimism as a consequence of having developed resilience. Both hope and resilience have been found to contribute to psychological well-being (e.g. Bajaj & Pande, 2016; Yeung, Ho & Mak, 2015), as well as to bear a bidirectional causal relationship with one another (Celik, Cetin & Tutkun, 2015; Munoz, Brady, & Brown, 2017; Panter-Brick & Eggerman, 2012; Satici, 2016; Jones, 2016). Therefore, current observations lend support to extant literature.

To conclude, this study represents an attempt at exploring the cross-cultural relevance of Bowen family systems theory among Iranian adolescents. Although preliminary, these findings may serve to stimulate further research into the relevance and functions of domains of differentiation of self within specific cultures and cultural subgroups.

The study has certain limitations which should be noted. A general limitation concerns the use of cross-sectional approaches to mediation, which, however, is still controversial. Many (for e.g. Maxwell & Cole, 2007) argue that mediation analyses aim at describing causal processes that evolve over time and that cross-sectional data gathered through retrospective measures can at best provide biased estimates of longitudinal mediation effects. However, a cross-section mediation analysis can make theoretical contributions and, therefore, does play an important role in Psychology especially since longitudinal alternatives being expensive and burdensome are not always feasible. Other limitations are specific to the current study. One limitation comes from the study sample which included adolescents of a restricted age range. The obtained gender differences may not be replicated in other samples of males and females of different ages. Secondly, all information was gathered using self-report measures. Constructs such as differentiation of self, resilience and hope can be assessed more accurately through interviews, observations or a combination of different measures. Thirdly, the gender differences obtained in this study are unique as most previous studies documented no gender differences. However, the inconsistency could be attributed to the fact that previous studies were performed on adult samples, while the current study focused on adolescents. Despite these limitations, this study represents a modest effort at extending the investigation of the relevance of Bowen's theory to a Middle Eastern culture and to a younger age group. The findings obtained suggest the need for more rigorous investigation into the development of differentiation of self and associated family dynamics. Cross-sectional and longitudinal studies may reveal age and gender related changes in the various components of differentiation and cross-cultural comparisons can reveal similarities and differences in the construct within culture specific family systems.

Table 1

Means and Standard Deviations on Hope, Resilience, Differentiation of Self and its Subscales along with Cronbach's Alpha (α) for Each Measure Displayed by Gender and Age

Scales	Cronbach's α	Males				Females				t
		M	SD	R	H	M	SD	R	H	
ER	.77	37.35	9.65	-.125	-.135	35.24	9.81	-.121	-.139	1.86
IP	.67	59.09	7.38	.184*	.192*	25.86	6.44	.113	.146	-15.91**
EC	.71	42.14	6.69	-.134	-.141	50.11	6.29	-.153*	-.159*	10.61**
FO	.67	33.39	8.77	-.169*	-.157*	31.49	8.46	-.155*	-.166*	1.90
DoS	.74	161.54	36.20	.678**	.536**	149.98	33.57	.736**	.716**	-3.31**
R	.89	82.17	16.61	1	.483**	76.72	13.50	1	.552**	-3.13**
H	.67	43.90	8.48			40.60	7.40			-3.60**
		12 -15				16-19				t
		M	SD	R	H	M	SD	R	H	
ER		39.80	6.29	-.131	-.153	39.04	7.39	-.119	-.148	-.89
IP		35.82	9.44	.265**	.277*	37.38	8.80	.433*	.471*	-1.42
EC		46.56	9.19	-.106	-.127	43.20	9.72	-.146	-.160	-2.91**
FO		33.37	6.58	-.140	-.158	32.15	6.90	-.133*	-.155	-1.49
DoS		151.98	14.95	.307**	.329**	155.50	14.26	.443**	.476**	2.01*
R		74.46	17.12	1	.545**	79.45	17.43	1	.659**	2.38*
H		44.72	6.88			42.50	8.59			2.28*

* $p < .05$; ** $p < .01$

Note. DoS = Differentiation of Self; ER = Emotional Reactivity; IP = I-Position; EC = Emotional Cut-off; FO = Fusion with others; R = Resilience; H = Hope

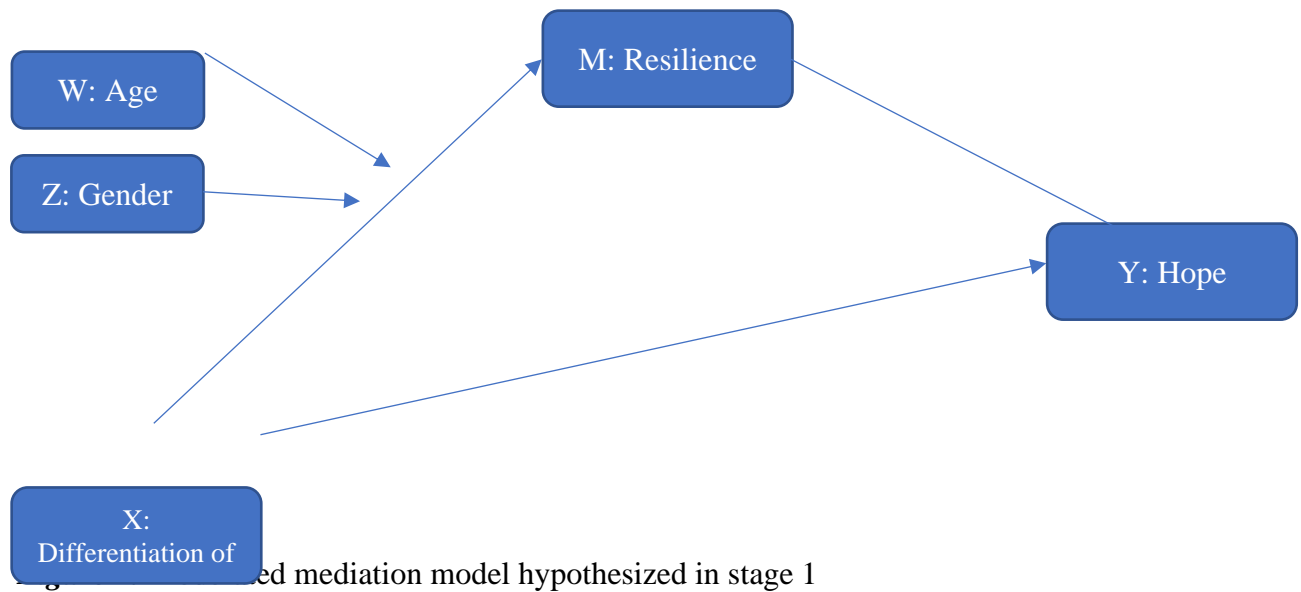
Table 2

Ordinary Least Squares Regression Coefficients (with Standard Errors) from a First Stage Dual Moderated Mediation Model.

		Outcome	
		M: Resilience	Y: Hope
Constant		78.836 (.930)	20.565 (1.711)
X: DoS	$a_{1 \rightarrow}$	-.490 (.063)	$c' \rightarrow$ -.115 (.025)
W: Age	$a_{2 \rightarrow}$	-1.078 (1.947)	
Z: Gender	$a_{3 \rightarrow}$	-2.368 (1.893)	
XW: DoS x Age	$a_{4 \rightarrow}$	-.031 (.132)	
XZ: DoS x Gender	$a_{5 \rightarrow}$.172 (.126)	
M:Resilience			$b \rightarrow$.271 (.021)
	R	.437	.704
Moderator	Index of partial moderated mediation		95% bootstrap CI
W	$a_4b =$	-.008 (.036)	-.075 to .066
Z	$a_5b =$.005 (.035)	-.062 to .075

Table 3**Total and Direct Effects of Components of Differentiation of Self on Hope with Resilience as a Mediator in Males and Females**

Males									
Variables	Resilience						Hope		
	Path	Coeff	S.E.	Path	Coeff	S.E.	Path	Coeff	S.E.
I-Position	a	1.246	.106	C	.453	.049	c'	.104	.054
Resilience							b	.280	.029
Females									
Variables	Resilience						Hope		
	Path	Coeff	S.E.	Path	Coeff	S.E.	Path	Coeff	S.E.
Emotional Cutoff	a	-.930	.126	c	-.367	.069	c'	-.135	.073
Resilience							b	.249	.043



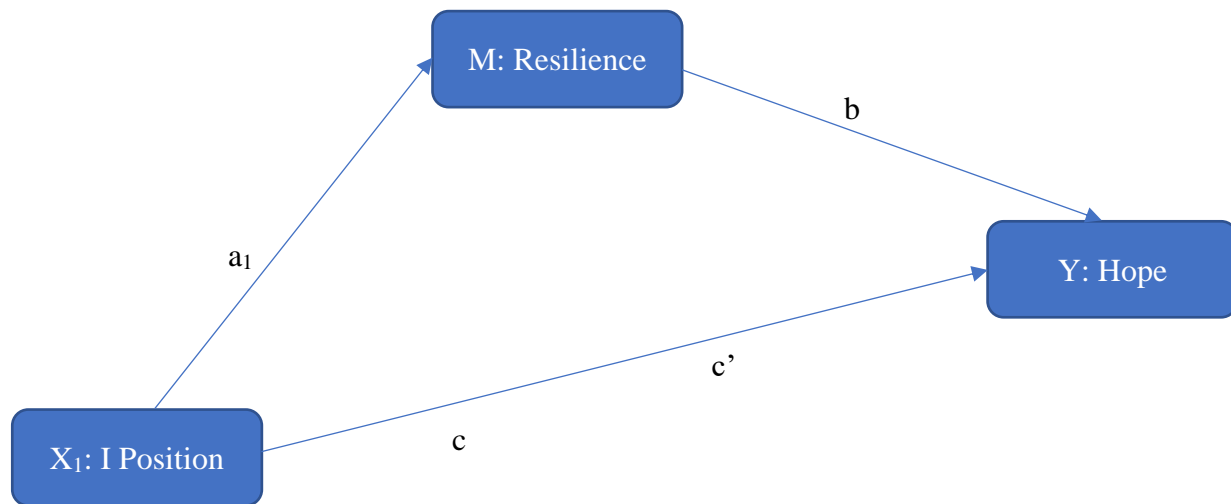


Figure 2. Mediation model in males hypothesized in stage 2

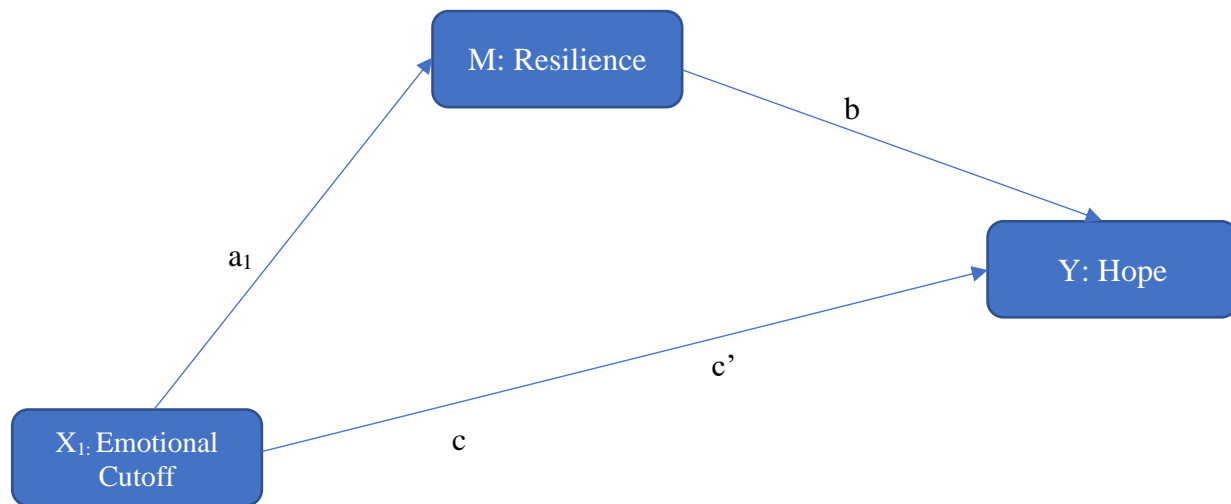


Figure 3. Mediation model in females hypothesized in stage 2

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