

An Investigation into Bowen Family Systems Theory in an Iranian Sample

Fatemeh Gharehbaghy **

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Objective: The goal of this study was achieving a better understanding of the Bowen family systems theory, especially regarding the relationships between differentiation of self, quality of relationship with parents and health dimensions in a sample of Iranian college students.

Methods: A convenient sample of 210 students (102 female and 108 male) participated in the present study. They were selected from the college students who were studying in Tehran. Standard and hierarchical regression analyses were used in this correlational study.

Results: The results indicated that differentiation of self influences the relationship with parents, physical-psychological health and social relationships. Besides, the obtained results regarding moderating and mediating mechanisms indicated that persons who are more differentiated experience less conflict with parents and report better quality of social relationships than those who are less differentiated.

Conclusion: These results supported the initially cross-cultural validity of Bowen theory and extended it by supporting some mechanisms that explain how differentiation of self leads to individuals' quality of specific and social relationships and physical and psychological health.

Declaration of Interest: None.

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Introduction

Bowen (1) hypothesized that individuals and families live within an emotional system that contributes to the dynamics of interpersonal relationships, well-being and psychological symptoms. Differentiation of self as the primary concept of Bowen theory is a multidimensional construct comprised of an intrapsychic capacity to distinguish thinking and feeling systems and an interpersonal ability to maintain connections with others while achieving an autonomous self. Poorly differentiated persons are thought to fuse with others or conversely engage in emotional cutoff and distancing emotionally and/or physically from others (2). In contrast, more differentiated persons take more "I" position

and are comfortable with intimacy in close relationships, and they do not use fusion or emotional cutoff as relational mechanisms for regulating their anxiety. Furthermore, Bowen (3) believed that individuals define themselves in the context of significant relationships with family, friends and loved ones. Bowen (3) believed that the level of differentiation persons achieve in their family of origin has an important and lasting effect on their life. The quality of relationships is one area mostly influenced by the level of differentiation. The impact of differentiation of self on interpersonal and psychological well-being was studied by Skowron and colleagues (4). Bowen (1,3) proposed that more differentiated individuals would be more likely to remain in good contact with their families of origin and to work out person-to-person relationships with members of their extended families. However, there are not enough studies to indicate the influence of differentiation of self on quality of human's specific relationships with others.

Authors' affiliations : * Tarbiat Modares University, Tehran, Iran

• **Corresponding author :** Fatemeh Gharehbaghy, Graduate of Psychology, Tarbiat Modares University, Tehran, Iran
Tel : +98 912 5174407
Fax : +98 21 8006544
E-mail: fagh_1977@yahoo.com

Few available studies only lend initial support for the notion that differentiation of self is reflected in greater ability to manage emotional reactivity in one's relationships and is associated with mature relationship functioning. Hence, the first goal of this study was to examine the role of interpersonal aspect of differentiation of self in predicting the quality of specific and social relationships.

In addition, although Bowen claimed that his theory was "universal", few studies have addressed the issue of culture (5). Bowen (1) believed that his concept of differentiation of self transcends categories such as social class and cultural-ethnic differences. Murphy (5) studied this proposed universality by examining the theory with an Asian-American population. The sample for his study consisted of individuals from countries such as China, Taiwan, Korea, the Philippines and Laos, and he did not find any support for Bowen's claim. Accordingly, some other studies have focused on explaining the relationship between differentiation of self and cultural worldview (6). The individualistic and collectivistic cultures have been observed to be different in some dimensions (7). Culture has a great impact on family functions. Thus, there is a necessity to study other cultures that are different from cultures in which the theories of family have been formed. Markus and Kitayama (8) believed that most of what psychologists currently know about human nature is based on the Western view of the self as an independent, self-contained, autonomous entity. In collectivist cultures children are dependent emotionally on their parents throughout the parents' lives. Each society might have some characteristics of both individualism and collectivism. Nonetheless, Iranian families have some essential features of collectivism including having an important role in all stages of children's life such as marriage, choosing a job and academic activities. Indeed, families encourage emotional fusions of children with parents and children are supposed to have an intimate relationship with parents throughout their lives (7). Some have argued that Bowen's concept of differentiation of self overemphasizes Western values of independence (9) while it does not

address the role of interconnection in collectivist cultures. Others have disagreed and mentioned that Bowen theory is one of the few theories of human functioning that adequately elevates the role of healthy connections with others to one of the central important factors of healthy development and maturity (10). Kerr and Bowen (2) believed that differentiation of self (which does not depend on ethnic-cultural differences) is the core of all psychopathological and interpersonal symptoms and health problems. While researchers confirm the influence of differentiation of self on adults' health from Western nations, little evidence determines whether differentiation predicts health status of adults from Eastern countries. Therefore, the second goal of this study was to examine direct and indirect influences of intrapsychic aspects of differentiation of self on health status of a sample of Iranian young adults. Besides, confirmation of these two hypotheses could lead to an initial cross-cultural validity of Bowen family systems theory in Iranian social and cultural context.

Materials and Methods

The sample of this study involved 210 university students (102 women and 108 men), aged from 24 to 33 years (Mean: 28.2; SD: 4.2), from the convenient population of Tehran college students. Three hundred questionnaires were presented to convenient selected students from dormitories of Tehran and Tarbiat Modares Universities that were interested in cooperating in the present research. Two hundred ten of them completed all of the three questionnaires. The sample consisted of young adults from different cities of Iran and varied ethnical groups who were living in Tehran to continue their education. All of them spoke Farsi and were Muslim. Eighty seven percent were single, 81% were from middle socioeconomic class, 18% were Master's or Doctoral students and 82% were 4-year university students. Any of them had children. The married persons were in the first years of their marriage. The average years of education was 15.5 years (SD: 1.5).

This research was a correlational study. WHOQOL-BREF and Differentiation of self inventory (DSI) had been rendered into Persian by Nedjat et al. (11) and Yousefi et al. (12). The Quality of relationship inventory (QRI) has been used for the first time in this study by the permission of the author. Two B. S. Graduates of English literature back-translated the QRI. These three questionnaires were used in a pilot study with 35 students. After correcting the problems, the package of these three questionnaires was presented to all participants. The participants were selected from the students who were interested in responding the questionnaires. The questionnaires were introduced to the participants and were gathered after four days. Seventy percent of distributed questionnaires were responded completely.

Participants completed the DSI (13), which is a 43-item scale rated on a 6-point Likert type scale ranging from “not at all true of me” at the low end, and “very true of me” at the high end. The authors used Bowen theory to create the items. The scale contains four subscales and higher scores on the DSI reflect a higher level of differentiation. The *Emotional Reactivity* scale assesses the tendency to respond to environmental stimuli on the basis of autonomic emotional responses, emotional flooding, or lability. The *“I” Position* scale contains items that reflect a clearly defined sense of self and the ability of thoughtfully adhering to one’s convictions even when being pressured to do otherwise. The *Emotional Cutoff* scale consists of items reflecting fears of intimacy or engulfment in relationships, and the accompanying behavioral defenses against those fears. The *Fusion* with other scales reflects emotional over-involvement with significant others and over-identification with one’s parents—taking in parental values, beliefs and expectations without questioning. Higher scores reflect lower ER, EC, FO and greater IP and differentiation of self. Theoretically-based relationships between DSI scores and less chronic anxiety, less symptomatology (13) and problem focused coping styles (14) provide evidence for the DSI’s construct validity. The second version of this scale (DSI-2) was used by Yousefi and colleagues (12) in an Iranian sample (n=560)

with good psychometric properties. They reported adequate Cronbach’s Alpha (0.86 to 0.91) for subscales. Besides, CFA analysis confirmed four-scale structure of the questionnaire in Iranian participants. Furthermore, they confirmed the structural relationships between self-differentiation, subjective well-being, mental health and marital quality. Internal consistency for the DSI as Cronbach’s Alpha in current study contains: ER= 0.74, IP= 80, EC= 70 and FO= 67 and for total differentiation of self =0.82.

The QRI (15) measures three aspects reflecting quality of an identified relationship. *Social Support* is defined as how dependable and available a partner is to listen and provide help with problems or to engage in social activity. *Conflict* is defined as negative emotions, such as anger, guilt, and mistrust related to interpersonal interactions with the spouse or parents. *Depth* of relationship is defined as the significance of the relationship in a participant’s life. Participants responded to each statement on a Likert-type format that ranged from 1 (not at all) to 4 (very much) about their spouse or parents. Scores within each subscale were summed and then averaged to range from one to four, with higher scores indicating a greater social support, conflict, and depth. Pierce and colleagues (15) reported alpha coefficients that ranged from 0.83 to 0.91. Internal consistency reliabilities using Cronbach’s Alpha in this study have been reported as follows: Support= 0.87, Conflict= 0.81, Depth=0.88, and Positive Quality of Relationship that contained sum of depth and support scales= 0.92. This questionnaire was used in this study for assessing the participants’ quality of specific relationship with parents.

The World Health Organization Quality Of Life-100 (WHOQOL-100) (16) is a comprehensive assessment of different domains related to Quality of Life (QOL) or health. The WHOQOL-BREF (17) was developed to counter this with items extracted from the WHOQOL-100. It contains twenty six questions encompassing four domains (physical, psychological, social relationships, and environment) and two items from overall quality of life and general health facets. Each domain is given a score, which reflects the

individual's perception of QOL in that particular domain; with higher score denoting higher QOL. Developed in 24 international field trial centers simultaneously, it is suitable to be used as a generic QOL instrument across cultures and has been widely validated. The answers are rated on a 5-point Likert scale. In the research of Castro et al. (18) the WHOQOL- BREF presented good reliability (Cronbach's Alpha 0.92), converging validation ($0.382 \leq r \leq 0.753$; $p < 0.001$), discriminant validation and criterion validation ($0.554 \leq r \leq 0.778$; $p < 0.001$). Nedjat et al. (11) back-translated the WHOQOL-Bref into Persian and studied it in 1164 individuals aged ≥ 18 years. Their results indicated that the questionnaire discriminated well between subgroups of the study differing in their health status. Since the WHOQOL-BREF demonstrated statistically significant correlation with the Iranian version of the SF-36 (19), the convergent validity of

the questionnaire was found to be desirable. Values equal to or greater than 0.70 were considered satisfactory. The internal consistency for each domain used in the present study was estimated using Cronbach's Alpha: physical health= 0.64; psychological health= 0.80; social relationships= 0.68, and total health= 0.89.

Standard and hierarchical regression analyses for analyzing direct and indirect relationships between variables were used.

Results

Table 1 displays descriptive statistics and correlations between variables and Table 2 demonstrates the regression analyses of direct effects between variables. As shown in Table 2, total differentiation of self positively predicted total health ($\beta = 0.44$, $p < 0.001$, $R^2 = 0.17$) and negatively predicted conflict with parents ($\beta = -0.47$, $p < 0.001$, $R^2 = 0.19$).

Table 1. Descriptive Statistics and Correlations among Variables (N=210)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. DSI † total	13.67	2.19	-										
2. DSI ER ‡	2.99	.84	.84**	-									
3. DSI IP §	3.95	.93	.65**	.37**	-								
4. DSI EC	4.06	.77	.53**	.36**	-.10	-							
5. DSI FO ¶	2.66	.78	.62**	.47**	.12	.10	-						
6. QRI †† Positive Quality	6.64	1.16	.06	.06	.08	.37**	-.31**	-					
7. QRI Conflict	2.45	.51	-.46**	-.36**	-.23**	-.43**	-.18**	-.42**	-				
8. QOL ††† total health	14.37	2.32	.42**	.32**	.40**	.46**	-.07	.39**	-.38**	-			
9. QOL Physical health	3.74	.53	.34**	.23**	.33**	.29**	.05	.13	-.21**	.75**	-		
10. QOL Psychological health	3.50	.67	.43**	.32**	.45**	.39**	-.06	.27**	-.30**	.89**	.61**	-	
11. QOL Social Relationships	3.37	.82	.32**	.23**	.28**	.47**	-.12	.40**	-.35**	.86**	.51**	.69**	-

†: DSI= Differentiation of Self Inventory; ‡: ER=Emotional Reactivity; §: IP= I Position; ||: EC= Emotional Cutoff; ¶: FO= Fusion; ††: QRI= Quality of Relationship Inventory; †††: QOL= Quality of Life. * $p < .05$, ** $P < .01$

Table 2. Test of Individual Paths of Mediational Model in Community Sample (N=210)

Predictor	Criterion	B	t	SE	R ²	F
DSI † total	QOL † total Health	.44	6.67***	.06	.17	44.55***
DSI Emotional Reactivity	QOL Physical Health	.13	3.06***	.04	.04	9.40***
DSI Emotional Reactivity	QOL Psychological Health	.25	4.77***	.05	.09	22.83***
DSI Emotional Reactivity	QOL Social Relationships	.20	3.05***	.06	.04	9.32***
DSI I Position	QOL Physical Health	.19	5.17***	.03	.11	26.72***
DSI I Position	QOL Psychological Health	.33	7.36***	.04	.20	54.29***
DSI I Position	QOL Social Relationship	.24	4.19***	.05	.07	17.62***
DSI Emotional Cutoff	QOL Physical Health	.20	4.42***	.04	.08	19.56***
DSI Emotional Cutoff	QOL Psychological Health	.34	6.17***	.05	.15	38.12***
DSI Emotional Cutoff	QOL Social Relationship	.50	7.73***	.06	.22	59.85***
DSI total	QRI § Conflict	-.10	-7.15***	.01	.19	51.17***
DSI Emotional Cutoff	QRI Positive Relationship Quality	.55	5.73***	.09	.13	22.94***
DSI Emotional Cutoff	QRI Conflict	-.29	-6.92***	.04	.18	47.89***
DSI Fusion	QRI Positive Relationship Quality	-.47	-4.78***	.09	.09	22.89***
DSI Fusion	QRI Conflict	-.12	-2.69**	.04	.03	7.23**
DSI Emotional Reactivity	QRI Conflict	-.20	-5.02***	.04	.10	25.22***
DSI I Position	QRI Conflict	-.13	-3.48**	.03	.05	12.12**
QRI Positive Quality	QOL total	.77	6.03***	.12	.15	36.53***
QRI Conflict	QOL total	-1.74	-6.07***	.28	.15	36.94***
QRI Positive Quality	QOL Psychological Health	.16	4.12***	.03	.07	17.04***
QRI Positive Quality	QOL Social Relationship	.29	6.56***	.04	.17	43.14***
QRI Conflict	QOL Physical Health	-.21	-3.11**	.07	.04	9.68**
QRI Conflict	QOL Psychological Health	-.39	-4.63***	.08	.09	21.77***
QRI Conflict	QOL Social Relationship	-.56	-5.51***	.10	.12	30.44***

†: DSI= Differentiation of Self Inventory; ‡: QOL= Quality of Life; §: QRI= Quality of Relationship Inventory. $P < .01$ **, $P < .001$ ***

Besides, in subscales, emotional reactivity, I-position and emotional cutoff predicted physical and psychological health, social relationships and conflict with parents. Only emotional cutoff and fusion predicted positive relationship with parents. In addition, positive quality of relationship with parents positively ($\beta=0.38$, $p<0.001$, $R^2=0.15$) and conflict negatively ($\beta=-0.38$, $p<0.001$, $R^2=0.15$) predicted total health. In subscales, they predicted physical and psychological health and quality of social relationship.

Based on Barron and Kenny (20) statistical procedure, confirming the paths between predictor variable (differentiation of self), hypothesized mediator variable (quality of relationship with parents) and criterion variable (physical and psychosocial health and social relationships) as shown in table 2 hierarchical regression was used for testing mediation. As shown in table 3, with entering the Conflict in the relation between Emotional Reactivity and Social Relationships Quality [$F(1.2084)=9.32$, $p<0.01$, $R^2=0.04$] there was no significant relationship between them and mediating role of Conflict received support [$F(2.207)=16.38$, $p<0.001$, $R^2=0.13$]. This means that emotional reactivity can lead to a lower level of social relationships quality through conflict with parents.

Furthermore, regarding Barron and Kenny (20) statistical procedure, in step 1 predictor and moderator variables (differentiation of

self and conflict with parents) and in step 2 the interaction of them (predictor \times moderator) are entered. As shown in Table 4, the hierarchical multiple regression indicated that there was a significant main effect between differentiation and conflict with social relationships quality in step 1 [$\Delta F(2.207)=19.78$, $p<0.001$, $\Delta R^2=0.16$] and this result can indicate the incremental validity of the study. In addition, the interaction of differentiation and conflict produced a significant relationship that changed the direction between conflict and social relationships quality [$\Delta F(1.206)=5.69$, $p<0.01$, $\Delta R^2=0.02$]. This means that differentiation of self counteract the effect of conflict on social relationships quality.

Discussion

This study attempted to investigate the Bowen family systems theory (1) in a sample of Iranian college students, specifically direct, mediating and moderating relationships between differentiation of self, quality of relationship with parents and health. This study supported the role of two essential aspects of differentiation of self (interpersonal and intrapsychic) in predicting quality of relationships and health as Bowen mentioned. Regression analyses supported the notion that more emotional reactivity, emotional cutoff

Table 3. Hierarchical Regressions Analysis –third equation- Testing Mediation in Community Sample (N=210)

Analysis and Predictor Variable	B	SE	R ²	t	F	Criterion Variable
Analysis 1			.04		9.32**	
DSI † Emotional Reactivity	.29	.06		3.05**		QOL § Social Relationships
Analysis 2						
DSI Emotional Reactivity	.09	.06		1.47		QOL Social Relationships
Analysis 3			.13		16.38***	
QRI ‡ Conflict	-.51	.10		-4.74***		QOL Social Relationships

†: DSI= Differentiation of Self Inventory; ‡: QRI= Quality of Relationship Inventory; §: QOL= Quality of Life. Analysis 1: the main effects of predictor on criterion variable in step 1. Analysis 2: the effects of predictor on criterion variable in presence of mediator variable in step 2. P < .01**, P < .001***

Table 4. Hierarchical Regression Analysis Testing Moderation in Community Sample (N=210)

Step and Predictor Variable	B	SE	R ²	ΔR^2	ΔF	Criterion Variable
Step 1			.16	.16	19.78***	Social Relationship Quality
Differentiation of Self	.07	.02				
Conflict	-.42	.11				
Step 2			.18	.02	5.69**	Social Relationship Quality
Differentiation of self \times Conflict	.09	.04				

Step 1: main effects of predictor and moderator on criterion variable; Step 2: interaction effects of predictor and moderator on criterion variable. P < .01**, P < .001***

and fusion with others were related to lower levels of physical and psychological health and social relationships and were associated with higher levels of conflict with parents. Furthermore, "I" position and differentiation of self were positively related to physical and psychological health and social relationships and negatively related to conflict with parents. These results provide support for Bowen family systems theory. Moreover, the results indicated some mediating and moderating mechanisms. Emotional reactivity negatively affected social relationships through conflict with parents. In addition, differentiation of self counteracted the negative influence of conflict on social relationships quality. Therefore, persons experiencing conflict with parents and are more differentiated express better quality of social relationships than those less differentiated.

Confirming the role of differentiation of self in quality of relationships and health in an Iranian sample with a collectivist culture was consistent with some studies that found the cross-cultural validity for Bowen hypothesis. For example, Skowron (21) found that greater differentiation of self, that is less emotional reactivity, better ability to take "I" positions in relationships and less emotional cutoff or fusion with others predicted fewer psychological symptoms and better problem solving abilities in a U.S. sample of young adults of color. In addition, Tuason and Friedlander (22) found support for the cross-cultural applicability of Bowen theory in a sample of 306 Filipino adults. Contrary to the authors' predictions that self-assertion in relationships would predict maladjustment in this collectivist culture, greater ability to take "I" positions in relationships predicted lower levels of anxiety and better adjustment, as proposed by Bowen theory. In another cross-cultural investigation conducted in Taiwan (23), family differentiation was found to predict greater self-esteem and interpersonal competence and greater self-esteem among young adults. Furthermore, Chung and Gale (24) in comparing self-differentiation and psychological well-being between Korean and European-American students supported the notion that differentiation is a meaningful construct for understanding

psychological adjustment of college students in collectivist Korean society. In spite of encouraging emotional fusion in most families of the collectivist cultures (7), the notion that reflects emotional over-involvement with significant others and over-identification with parents, the current study demonstrated the positive influence of differentiation of self and the negative effect of fusion with others on quality of relationships and physical-psychological health as Bowen theory hypothesized.

An innovation of this study was to find support for the role of differentiation of self in quality of relationship with parents and social relationships. Kerr and Bowen (2) believed that differentiation was at the core of relational symptoms. Some researches demonstrated that greater differentiation of self was related to greater relationship satisfaction (25), fewer interpersonal problems (26) and lower relationship violence (27). Another exploration of this study was to obtain moderation and mediation mechanisms. In the field of indirect influences of differentiation of self, Murdock and colleagues (14) supported the role of differentiation of self as moderator of stress and adjustment. Besides, Skowron et al (28) tested both mediating and moderating models of differentiation, stress and functioning, but only support for the mediating model was observed.

In conclusion, the findings of the present study provide support for Bowen theory considering some limitations. Current study used a young and educated convenient sample that most of them were single and from middle socioeconomic status. Hence, the results are not generalizable for other groups such as elders, adolescents and low educated persons. Besides, whereas current study found support for the mediating and moderating mechanisms in the relationship between differentiation of self and health in one collection data, these results do not confirm causal influences and only demonstrate statistical mediations and moderations. For more understanding of causal relationships longitudinal studies should be performed. In addition, for better understanding of the cultural issues there is a necessity to use

comparison studies in random selected and multiple ethnic groups of various cities of Iran. The CFA study of DSI and QRI in Iranian sample can be useful for researchers in future studies. These results can help family therapists and counselors for providing some therapy programs. Bowen (1) recommended that elevation of differentiation of self can diminish anxiety and solve health and relational problems, but this hypothesis has not been put to test of experimental studies and can be a domain for future studies.

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