

## **Underestimated impact of Family Climate on Young Adult: Mediation and Moderation effects of Psychosocial Maturity on Well-Being**

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### *Abstract*

Family research has been spotlighting on the well-being of child and adolescent, but the unheeded side is the effects of family on young adults who have been transiting from dependence to independence of family. This study investigated the impacts of family climates on young adults' well-being through mediations or moderations of psychosocial maturity. A total of 202 participants were administrated a selection of scales measuring their family climate, ego strengths, self-esteem, depression and life satisfaction. Results showed that expressiveness and active-recreational orientation were stronger predictors of well-being than did cohesion and conflict. Cohesion, expressiveness and active-recreational orientation exerted partial indirect effects through different ego strengths on indicators of well-being except moral self. Cohesion and expressiveness acted as resilience factors against deficiency in ego for moral self, while conflict interact with ego strengths to produce mixed findings of family self, social self and life satisfaction. The reversed importance of family climates suggested that a probable main task for adult is to transform the family relationship and interaction that close to the way of friendship. Empirical application of ascending egos and descending egos also brought both new perspective and critic toward Erikson's theory of psychosocial development. These complex complementary effects of family climates and psychosocial maturity on well-being serve as rare, yet inspiring, evidence for theoretical background about family impact on adult.

### **Introduction**

Family is a special psychosocial system that every member pursuit individual needs and goals, and yet all functioning as a whole by multidirectional and circular impacts to maintain the homeostasis (Goldenberg and Goldenberg 2005). This resilient equilibrium undergoes a strained period when the child of family enters adolescence and develops autonomy to attempt becoming an independent one and to take responsibility of own world (Hill and Holmbeck 1986, Sprinthall and Collins 1995). Nonetheless, the family influences on offspring are so profound but unapparent that, for instance, irrational beliefs or behavioral patterns can be transmitted generation by generation and formulate a vicarious cycle (Adshead and Bluglass 2001, Kretchmar and Jacobvitz 2002).

Despite of having a proliferated theoretical background, the trend of family research is, ironically, always not referring theory as the guidance (Jacob 1987). An extensive body of research is interested in comparing children and adolescents from nuclear family stepfamily, single-parent family and divorced family (Amato and Keith 1991, Hanson *et al.* 1996, Dunn *et al.* 1998, Hazelton *et al.* 1998). Family Environment Scale (FES), which is one of the most acknowledged and accepted self-reported questionnaire, was frequently employed in these studies concerning well-being (Glidden and Schoolcraft 2007). FES is developed by R. H. Moos and his colleagues (1974, 1981) who aimed at assessing family climate, which defined as

the perceived environment by each family member that they are influenced by its characteristics. It consists of nine subscales: cohesion, expressiveness, conflict, independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, moral-religious emphasis, organization and control.

### ***Family research on Adult***

It is fair to say that focus of family research has been mainly concentrating on children and adolescence (Maccoby 1980). This could be expounded by the fact that psychological development during young ages is critically sensitive and subjective to the contexts of family (Hunter and Youniss 1982, Greenberg *et al.* 1983). For example, child's violent behavior and later adolescent's delinquency are related to both the presence and quality of parental involvement (Wright and Wright 1994). Contrariwise, the increasing autonomy of young adult results in their declining reliance on parents whether in cognitive, emotional, or behavioral domains (Sprinthall and Collins 1995, Grotevant 1998). Adults have to achieve individuation from family of origin that separates their lives with parents (Frank *et al.* 1988). Therefore, they are rarely considered on how can be changed or shaped by family.

Although adult is always regarded as an independent and autonomy unit, there are, still, few research recruited adult as subject to investigate the possible role of family played. Serewicz and her colleagues (2007) found that in university students, the communication with family members was indicative of the qualities of family interactions, satisfaction and relationships. More importantly, this communication pattern learned from family continued to affect ninety percent of the left home adult. In addition, Siddique and D'Arcy (1984) demonstrated that perceived family stress has, surprisingly, more consistent and larger correlations with psychological adjustments than school and peer stresses in adolescents. This implies many unrealized but dominant roles of family on adults have been unrevealed such as family relationship in socialization (Weidman 1989, Pascarella and Terenzini 1991). All of these evidences suggested that family exerted direct and indirect effects on adult, which have always been overlooked.

### ***Family, Adult and Psychosocial Maturity***

Adulthood is a period concerning psychosocial maturity as a function of individuation to separate from parents and start self-governance (Hill and Holmbeck 1986, Frank *et al.* 1988). Greenberger and Sørensen (1974) integrated the viewpoints from psychology and sociology and defined psychosocial maturity as the capacity to deal effectively with oneself, others and the society. In this sense, plenty of studies constitute a giant picture showing that family environment is conducive to psychosocial maturity. Young adult who grow up in stepfamily have higher chances of engagement in quitting school, substance dependence, antisocial behavior and sexual risk-taking behavior (Nicholson *et al.* 1999). These deviations in behavior resulting from immature identities can be referred back to the high control in parental style (Enright *et al.* 1980). Indeed, family factors, such as support of individuation, can foster identity formation in young adult (Sandhu and Tung 2006).

Another piece of evidence justified that family impact on adult has been neglected in theoretical perspective rise from the Erikson's (1968) life-span theory of psychosocial development. According to his epigenetic principle, Erikson proposed every individual would invariably go through a series of psychosocial stages in which particular challenges from surrounding social contexts would become salience. Each resolution of these crises would result in development of a

stronger corresponding ego strength as well as healthier psychological functioning. These eight ego strengths ascending in a sequential order during life span are: hope, will, purpose, competency, fidelity, love, care, and wisdom. His idea denoted that in the sixth crisis, the pursuit of love from individuals other than family members is the main theme faced by young adult. Maybe Erikson is right in his assertion, this point, however, deserves additional validation based on the previous notions of family impact on adult.

The investigation of family effect on ego strengths suggested by Erikson was very limited. As to our knowledge, only two studies, both done by Adams and his colleagues (2000, 2006), were conducted to clarify for this linkage in university students. One study administered cohesion, expressiveness and conflict from FES to investigate first five ego strengths of Erikson's theory, while another administered cohesion and expressiveness to investigate fidelity only. They found that ego strengths were positively correlated with family cohesion and expressiveness, and was negatively correlated with family conflict. Nevertheless, the external validities of the results were greatly constrained due to the exclusion of love, care and wisdom in their assessments. Especially, the love strength is asserted as the main pursuit of university students, who regarded as young adults, according to Erikson. Usage of single indicator of ego strengths in their methodology also demolished the possibility for explicit analyses. The linkage between family and Erikson's theory is needed to be reexamined with incorporation and more detailed analysis of eight ego strengths.

### ***Family impact on Well-Being***

The concepts of self-esteem, depression and life satisfaction were frequently adapted for assessment to justify the degree of well-being in family research (Lawton 1984, Burt *et al.* 1988, Ryff 1989). In fact, measurements of positive psychological resources as well as diathesis of psychopathology are desirable for comprehensive indication of adjustment (Shek 1989, 1993).

Self-esteem, defined as the overall evaluation toward self-worthiness, has consistent positive relationship with family functioning (Brown *et al.* 2001). Children experienced inappropriate parental attitudes and behaviors tended to be impaired in self-esteem (Kernis *et al.* 2000). In normal American adolescents, family cohesion, conflict and active-recreational orientation were strongly related to self-esteem whereas family expressiveness and independence were not related statistically (Hirsch *et al.* 1985). Another study recruited Chinese adolescents with similar ages only yielded weaker but significant correlations. Family cohesion and conflict had moderate correlations with self-esteem, while family expressiveness, independence, active-recreational orientation and moral-religious emphasis were weakly correlated (Cheung and Lau 1985). Despite of the cultural difference, the aforementioned studies only carried out superficial explorations of self-esteem (Rosenberg 1965). An influential theoretical premise on self-esteem is elucidated by Shavelson's model which emphasized the hierarchy of different aspects of self underlying a so-called "self-esteem" (Shavelson *et al.* 1976). General trends of research in Western and Eastern are to invest much more attention on linking the multiple facets of self-esteem and family functioning (Wells 1976, Wylie 1979, Cheng and Watkins 2000).

The assessment of depression as an indicator of well-being was a searching for presence of chronological symptoms. Family factors were empirically validated in the development, maintenance and relapse of depression in children and adolescent

(Sander and McCarty 2005). Most notably, rejection during childhood and overwhelming parental control were somehow associated with clinical depression in Adult (Gladstone and Parker 2005). In terms of FES, family conflict was positively related to depression, while family cohesion, active-recreational orientation and moral-religious emphasis were negatively related in children and adolescent (Friedrich *et al.* 1982, Stark *et al.* 1990); and the scores of cohesion, expressiveness and conflict were indicators of less depression and psychosomatic complaints in adult (Holahan and Moos 1982).

Life satisfaction is one of the main components of subjective well-being which strongly determined by parental warmth and conflict (Diener 1984, Love and Murdock 2004). In a sample of Chinese adolescents, high life satisfaction was correlated with positive parental style, low parental conflict and less family dysfunction (Shek 1997). Across samples of different age groups and cultures, family has been proved as the strongest predictor of life satisfaction among various psychosocial resources such as peer and school (Lewinsohn *et al.* 1991, Sepahmansour and Bayat, 2011).

### Proposed Conceptual Models

There are evidences declaring complicated interrelations and mixed models may exist between family influences, ego strengths and well-being. On the one hand, psychosocial maturity is conducive to well-being. Ego strength was positively related to self-esteem and purpose in life, and was negatively related to sense of hopelessness and personal distress (Markstrom *et al.* 1997). On the other hand, the effects of family and psychosocial maturity may be aligned in the same direction on individual functioning. Parent's divorce occurred in childhood can impair the relationship interaction and satisfaction of adult (Amato 1996). Nonetheless, a ten year longitudinal study reported that personality trait was a more significant predictor than divorce in childhood on the future relationship quality during adulthood (Burns and Dunlop 2000). It should be noticed that only multivariate analysis was conducted in this study but not testing for mediation and moderation. This was coincident with most of the research designs of aforementioned studies which were mainly correlational and hence cannot infer, if any, mechanisms. In other words, building on the inadequate knowledge, only obscure conclusion about the interrelations could be drawn from the literature. One hypothetical possibility is that family environment can promote ego strengths, which then promotes well-being as shown in Figure 1. Another possibility is that moderation effect on family environment and well-being may be produced by ego strength as shown in Figure 2. That is, the enhancement of family climate on well-being may either through increasing of or dependent on ego strength.



Figure 1. Hypothesized model of Mediation.

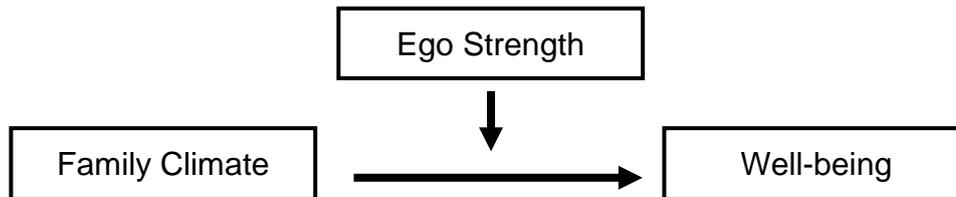


Figure 2. Hypothesized model of Moderation.

### ***The Present Study***

This study was designed to investigate the family influence on young adult's psychosocial maturity and well-being. Specifically, the interrelations among family climates, Erikson's eight ego strengths, self-esteem, depression and life satisfaction were examined by applying FES on Chinese young adult. It is hypothesized family climate that is cohesive, expressive, low conflict and that emphasized greatly on personal growth would lead to mature ego strengths as well as functional well-being. The positive relations between family climates and well-being are expected to be either mediated or moderated by ego strengths. Given that the researching of family influences on adult is relatively insufficient, it is valuable to explore, from an unheeded point of theoretical view, if there are any underlying family forces shaping the adult's development through mediation or moderation of psychosocial maturity.

### **Methodology**

#### ***Subjects***

Total of 202 Hong Kong participants, including 102 males and 99 females, were recruited in this study. To suit the definition of young adults, the ages of participants ranged from 18 to 23, with a mean of 21.4. Full-time students (76.4%) occupied greater proportion than full-time workers (22.6%) in the sample. Participants were mostly holders of bachelor degree (83.9%). Majority of them came from nuclear family (96.9%) and still living with their two biological parents (89.2%). Since many participants are living with siblings (77.7%), the most common family size is four members (50%).

#### ***Instruments***

A self-reported questionnaire consisted of five main parts assessing family climate, psychosocial maturity, self-esteem, depression and life satisfaction respectively, and was attached in Appendix A with the scoring keys attached in Appendix B.

Family Climate was assessed using Chinese Version of Family Environment Scale (FES-CV) which is developed by Philips and his colleagues in 1991. FES-CV measures actual social environment perceived within family (Moos, 1974; Moos and Moos, 1981). According to the reviewed literature, only six out of nine subscales of FES-CV were selected for the purpose of this study. These six selected subscales, composed of 9-items each, included *cohesion*, the degree of family members are supportive and committed to each other; *expressiveness*, how freely can family members express their feelings in a direct way; *conflict*, the likelihood of family members express conflict or with angry manner in daily interactions; *independence*, the power of family members in making own decisions that fully authorized by others; *active-recreational orientation*, the initiative of family members participated and enjoyed in entertaining activities; and *moral-religious emphasis*, the extent to

which family members heavily held moral values and religious issues. These 54 items were in the format of true or false questions commenting statements that described a particular dimension of family climate perceived. The internal consistencies as expressed in Cronbach's alphas for cohesion, expressiveness, conflict, independence, active-recreational orientation and moral-religious emphasis were .83, .65, .70, .17, .62 and .27, respectively. Item 8 of expressiveness scale and item 3 of conflict scale were deleted to improve their reliabilities. Independence and moral-religious emphasis were dropped out from the analysis due to their unacceptable inconsistencies.

For the measure of psychosocial maturity, the 32-items short form of The Psychosocial Inventory of Ego Strengths (PIES) was employed and translated into Chinese by authors (Markstrom *et al.* 1997). This 32-items short form yielded similar reliability with original 64-items version that no scales had differences higher than .10 in Cronbach's alphas. The convergent and divergent validities were also maintained consistently in two versions. Two opposite themes were assessed in each of the eight ego strengths: hope, will, purpose, competence, fidelity, love, caring and wisdom. There were 1 positively oriented item and 1 antipathic item in each theme of ego strengths that consistent with the assertion from Erikson (1985) that a balance in the continuum of ego identity is most desirable for healthy functioning individual. Scores of ego strengths were rated on a 5-point Likert scale with 1 representing *does not describe me well* and 5 representing *describe me very well*. The Cronbach's alphas for each ego strength and their total scores were as follow: Hope (.65), Will (.55), Purpose (.63), Competence (.65), Fidelity (.53), Love (.70), Care (.72), and Wisdom (.70). Item 4 of Love scale was deleted to improve its reliability.

To measure self-esteem, the Chinese Adolescent Self-Esteem Scales (CASES) was used (Cheng 1997, 2005). CASES was developed specifically to capture the construct of self-concept in Hong Kong adolescent, yet can also be applied to young adult. It held a hierarchical as well as multidimensional view of structure of self-esteem with a general evaluation of self and six domain-specific evaluations of the self. The evaluations of *general self*, *family self*, *social self* and *moral self* were incorporated into the questionnaires amounted to 34 items. Responses were rated on a 7-point Likert scale with 1 representing *strongly disagree* and 7 representing *strongly agree*. For the present study, the internal consistencies of general self, family self, social self and moral self were .90, .93, .88 and .89, respectively.

Depression was assessed by the Chinese version of the Center for Epidemiologic Studies Depression Scale (CES-D; Chien and Cheng, 1985; Radloff, 1977). CES-D consisted of 20 items measuring major symptoms of depression in general population. Responses were rated on a Likert scale indicating the frequencies of occurrences of symptoms during the past two weeks with 0 representing *rarely or none of the time* (less than 1 day), 1 representing *some of a little of the time* (1-2 days), 2 representing *occasionally or a moderate amount of the time* (3-4 days), and 3 representing *most or all of the time* (5-7 days). The internal consistency of this measure for the present study was .92.

The assessment of life satisfaction employed Chinese version of the Satisfaction With Life Scale (SWLS; Diener *et al.* 1985, Shek 1992). SWLS measures a global evaluation of life satisfaction based on cognitive judgments. 5 items were rated on a 7-point Likert scale with 1 representing *strongly disagree* and 7 representing *strongly agree*. Internal consistency for the current study was .86.

**Procedures**

The administrations of questionnaires were conducted through two different means. The first means was by distribution of questionnaires in paper. Each questionnaire was delivered directly from the researcher. The second means was by forward of website containing online survey. Content of survey was kept to be equal to the paper version. All participants were recruited in voluntary basis. At the beginning of the questionnaires, debriefings of research purpose were cited and informed consents were collected. Participants were then encouraged to answer in light of their own understandings of the questions.

**Statistical Analyses**

For the purpose of data reduction, the Erikson’s eight ego strengths were extracted by principal component analysis and then rotated in varimax method. As indicated in Table 1, these eight scales yielded two factors by which Erikson’s (1968) lifespan theory predicted. The first factor loaded by Love (.77) and Care (.88) was named as ascending egos since they represent the dominant crises currently facing by young adult. The second factor loaded by Hope (.70), Will (.83), Purpose (.82), Competence (.75), Fidelity (.69), and Wisdom (.78) was named as descending egos as they were recessive ego strengths according to epigenetic principle (Erikson, 1968, 1985). Their scores were computed by averaging scores from corresponding ego strengths. Overall indicator of ego resiliency was also obtained from average scores of all ego strengths. The Cronbach’s alphas for ego resiliency, ascending egos and descending egos were .90, .78 and .90 respectively. These resorted ego strengths would be interpreted in later sections instead of Erikson’s eight ego strengths.

Table 1. *Rotated Factor Loadings of Erikson’s Ego Strengths in Varimax method.*

	Component	
	Ascending Egos	Descending Egos
Hope		.70
Will		.83
Purpose		.82
Competence		.75
Fidelity		.69
Love	.77	
Care	.88	
Wisdom		.78

Factor loadings smaller than .400 were suppressed.

The testing of mediation and moderation effects was conducted applying approaches suggested by of Barron and Kenny (1986) and Holmbeck (1997). The hypothesized testing model was depicted in Figure 3. There were three steps in testing mediation effects through multiple regressions. First, various indicators of well-being were regressed on family climates to prove that the influences of predictor variables on criterion variables were existed for which can be mediated. Second, ego strengths were regressed on family climates to establish a valid linkage

between mediators and predictor variables. Third, mediations were tested by hierarchical multiple regression of various well-beings on ego strengths with family climates controlled. It should be noticed that step three was executed if only the simple regressions in steps one and two were significant, although some other authors argued that it is not necessary (see MacKinnon *et al.* 2000). Separate analyses were conducted to test the mediation effects of ego resiliency, ascending egos and descending egos.

Ego strengths treated as the moderators which varied linearly with the relationships between independent variables and dependent variables were examined by both simultaneous and hierarchical multiple regressions (Barron and Kenny 1986, Holmbeck 1997). The regression coefficients of family climates and ego strengths in simultaneous regressions of well-beings were not necessarily significant, and hence moderation effects were test with all possible combinations of predictor, moderator and criterion variables. Their interaction terms created after centering of each variable were assessed in hierarchical multiple regressions for moderation effects (Aiken and West 1991). Significant effects of moderation were interpreted by plotting the graphs with three regression lines representing different levels of moderator (Whisman and McClelland 2005).

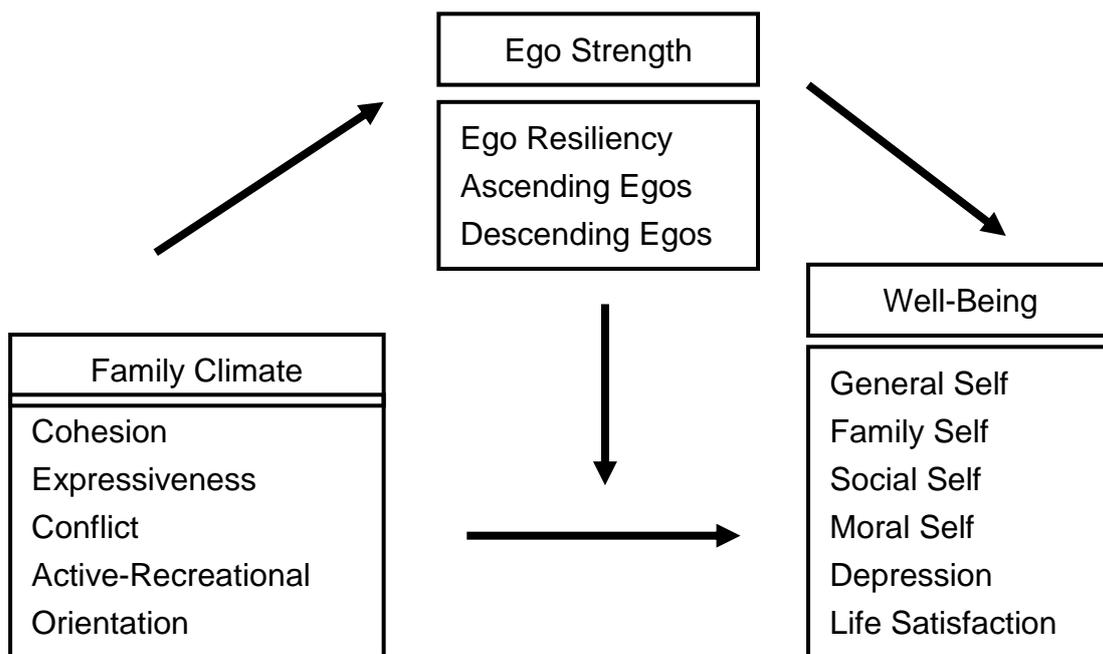


Figure 3. Testing model of Simple Regressions, Mediations and Moderations

## Results

### *Descriptive Statistic*

The means and standard deviations of all variables categorized by both genders, male and female were presented in Table 2.

Table 2. Means and Standard Deviations for Both Genders, Male and Female.

		Total		Male		Female	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Family	Cohesion	15.54	2.62	15.66	2.52	15.41	2.73
Climates	Expressiveness	13.95	2.15	13.73	2.12	14.17	2.19
	Conflict	12.24	2.21	11.90	2.07	12.59	2.32
	ARO	13.86	2.18	13.73	2.31	14.03	2.03
Erikson's	Hope	13.17	2.59	13.32	2.80	13.01	2.37
Ego Strengths	Will	12.25	2.59	12.42	2.67	12.06	2.53
	Purpose	13.09	2.89	13.22	3.06	12.96	2.74
	Competence	13.28	2.79	13.24	3.02	13.33	2.56
	Fidelity	13.29	2.60	13.19	2.93	13.40	2.24
	Love	14.79	2.56	14.91	2.62	14.68	2.52
	Care	14.65	2.54	14.47	2.71	14.85	2.35
	Wisdom	12.42	3.01	12.54	3.30	12.29	2.72
Resorted	Ego Resiliency	13.35	1.95	13.37	2.13	13.34	1.77
Ego Strengths	Ascending Egos	14.72	2.20	14.69	2.27	14.76	2.13
	Descending Egos	12.90	2.16	12.95	2.39	12.85	1.94
	General Self	4.71	1.05	4.64	1.14	4.78	0.95
	Family Self	5.16	1.04	5.16	1.03	5.16	1.06
	Social Self	4.58	1.00	4.52	1.11	4.64	0.87
	Moral Self	5.17	0.83	5.14	0.87	5.21	0.78
	Depression	21.94	12.25	22.89	13.06	20.95	11.33
	Life Satisfaction	20.47	5.76	20.42	6.52	20.52	4.93

ARO= Active-recreational orientation.

### Correlation Analyses

Table 3 was a bivariate correlations matrix of different dimensions in family climates, ego strengths and criteria of well-being. All of the effect sizes of Pearson coefficient correlations were judged by suggestion of Cohen (1992). Scatter plots were generated to all correlations so as to ensure no clear curvilinear relationships existed by visual check of researchers.

Family climates were generally related to ego strengths and criteria of well-being. In positive direction, while cohesion, expressiveness and active-recreational orientation were all correlated with ego resiliency, expressiveness was also correlated to descending egos, and active-recreational orientation was further correlated to ascending egos as well as descending egos. Besides, cohesion, expressiveness and active-recreational orientation were positively correlated with self-esteems except moral self, and life satisfaction, and were negatively correlated with depression. Differed from the patterns of weak correlations from expressiveness and active-recreational orientation, cohesion was moderately

correlated with family self, weakly correlated with life satisfaction, and very weakly correlated with general self, social self and depression. Conflict was only negatively correlated with family self in weak effect size.

Ego strengths were related to almost all criteria of well-being ranged from weak to medium effect sizes. The exceptions were that ascending egos could not correlate with life satisfaction and that descending egos could not correlate with family self. Other than that, ego resiliency, ascending egos and descending egos were positively related to all self-esteems and life satisfaction, and were negatively related to depression.

### ***Simple Regression Analyses***

As the prerequisite procedures of testing mediation, criterion variables of family climates were identified using simple regression. This was pertaining to the first and second steps suggested by Barron and Kenny (1986) and the resulting patterns were consistent to what obtained in correlation matrix. Cohesion predicted higher levels of ego resiliency,  $\beta = .14, p < .05$ ; general self,  $\beta = .15, p < .05$ , family self,  $\beta = .53, p < .001$ ; social self,  $\beta = .15, p < .05$ ; and life satisfaction,  $\beta = .28, p < .001$ ; and lower level of depression,  $\beta = -.20, p < .01$ . Higher level of expressiveness indicated higher levels of ego resiliency,  $\beta = .18, p < .05$ ; descending egos,  $\beta = .08, p < .05$ ; general self,  $\beta = .24, p < .01$ ; family self,  $\beta = .31, p < .001$ ; social self,  $\beta = .20, p < .01$ ; and life satisfaction,  $\beta = .31, p < .001$ ; and lower level of depression,  $\beta = -.23, p < .001$ . Conflict predicted lower level of family self,  $\beta = -.38, p < .001$ . Active-recreational orientation was a significant predictor of higher ego resiliency,  $\beta = .18, p < .05$ ; ascending egos,  $\beta = .17, p < .05$ ; descending egos,  $\beta = .29, p < .001$ ; general self,  $\beta = .28, p < .001$ ; family self,  $\beta = .17, p < .05$ ; social self,  $\beta = .28, p < .001$ ; and life satisfaction,  $\beta = .26, p < .001$ ; and lower depression,  $\beta = -.21, p < .001$ . In brief, all family climates were feasible to be tested with mediations except conflict due to its non-significant regressions of all ego strengths. Total six pathways of mediations included cohesion to ego resiliency, expressiveness to ego resiliency and descending egos, and active-recreational orientation to all three ego strengths were consequently tested.

Table 3. Bivariate Correlations Matrix of Family Climates, Ego Strengths, Self-Esteems, Depression and Life Satisfaction.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Cohesion												
2. Expressiveness	.47**											
3. Conflict	-.39**	-.01										
4. ARO	.33**	.31**	.10									
5. Ego Resiliency	.14*	.18*	-.01	.33**								
6. Ascending Egos	.13	.05	.02	.17*	.51**							
7. Descending Egos	.09	.18*	-.02	.29**	.86**	.00						
8. General Self	.15*	.24**	-.05	.28**	.73**	.26**	.69**					
9. Family Self	.53**	.31**	-.38**	.17*	.29**	.34**	.14	.32**				
10. Social Self	.15*	.20**	.10	.28**	.60**	.30**	.52**	.56**	.23**			
11. Moral Self	.13	.08	-.00	.18	.56**	.51**	.35**	.47**	.35**	.56**		
12. Depression	-.17*	-.23**	.08	-.23**	-.51**	-.21**	-.46**	-.57**	-.27**	-.40**	-.32**	
13. Life Satisfaction	.28**	.31**	-.12	.26**	.46**	.02	.52**	.50**	.28**	.43**	.35**	-.36**

Note. ARO = Active-recreational orientation; \* =  $p < .05$ , \*\* =  $p < .01$ , two-tailed.

**Mediation Effects**

A series of hierarchical multiple regressions based on six aforementioned pathways were conducted to search for the mediation effects of ego strengths between family climates and various well-beings. The significance of indirect effect from hypothesized mediation models were tested by Sobel’s test (1982). A complicated pattern of mediations was obtained showing that family climates influence multiple indicators of well-being through different mediators.

Table 4. Hierarchical Multiple Regression testing Ego Resiliency as Mediators of Cohesion on indicators of Well-being.

	Predictor	Mediator	$\beta$		$R^2$
			Predictor	Mediator	
<i>Predicting General Self</i>					
Step 1	Cohesion		.15*		.02
Step 2	Cohesion	ER	.05	.72***	.53
<i>Predicting Family Self</i>					
Step 1	Cohesion		.53***		.28
Step 2	Cohesion	ER	.49***	.21***	.32
<i>Predicting Social Self</i>					
Step 1	Cohesion		.15*		.02
Step 2	Cohesion	ER	.08	.58***	.36
<i>Predicting Depression</i>					
Step 1	Cohesion		-.18*		.03
Step 2	Cohesion	ER	-.09	-.49***	.27
<i>Predicting Life Satisfaction</i>					
Step 1	Cohesion		.28***		.08
Step 2	Cohesion	ER	.23***	.42***	.26

Note. ER = Ego Resiliency; \* =  $p < .05$ , \*\*\* =  $p < .001$ .

As shown in Table 4, effects of cohesion partially mediated through ego resiliency on general self ( $z = 2.03, p < .05$ ), social self ( $z = 2.00, p < .05$ ), and depression ( $z = -2.01, p < .05$ ). Since cohesion remained significant in predicting life satisfaction ( $z = 1.96, p < .05$ ), ego resiliency was only functioned as partial mediator. No mediation of ego resiliency existed between cohesion and family self.

Table 5 presented the effects of expressiveness on social self through mediators of ego resiliency ( $z = 2.43, p < .01$ ) and descending egos ( $z = 2.47, p < .01$ ). Expressiveness remained significant after adding partial mediators using ego resiliency on predicting general self ( $z = 2.48, p < .01$ ), family self ( $z = 2.13, p < .05$ ), depression ( $z = -2.39, p < .05$ ) and life satisfaction ( $z = 2.36, p < .05$ ); and using descending ego on predicting general self ( $z = 2.54, p < .01$ ), depression ( $z = -2.42, p < .05$ ) and life satisfaction ( $z = 2.46, p < .01$ ). No mediation of descending egos existed between expressiveness and family self.

Table 5. Hierarchical Multiple Regression testing Ego Strengths as Mediators of Expressiveness on indicators of Well-being.

	Predictor	Mediators	$\beta$		$R^2$
			Predictor	Mediators	
<i>Predicting General Self</i>					
Step 1	Expressiveness		.24**		.06
Step 2 (M1)	Expressiveness	ER	.18*	.71***	.55
Step 2 (M2)	Expressiveness	DE	.12*	.67***	.49
<i>Predicting Family Self</i>					
Step 1	Expressiveness		.31***		.10
Step 2 (M1)	Expressiveness	ER	.27***	.24***	.16
Step 2 (M2)	Expressiveness	DE	.28***	.18**	.13
<i>Predicting Social Self</i>					
Step 1	Expressiveness		.20**		.04
Step 2 (M1)	Expressiveness	ER	.10	.58***	.36
Step 2 (M2)	Expressiveness	DE	.12	.50***	.28
<i>Predicting Depression</i>					
Step 1	Expressiveness		-.23**		.05
Step 2 (M1)	Expressiveness	ER	-.15*	-.48***	.28
Step 2 (M2)	Expressiveness	DE	-.15*	-.48***	.28
<i>Predicting Life Satisfaction</i>					
Step 1	Expressiveness		.31***		.10
Step 2 (M1)	Expressiveness	ER	.25***	.41***	.27
Step 2 (M2)	Expressiveness	DE	.23***	.47***	.28

Note. ER = Ego Resiliency; DE = Descending Egos; M1 = Expressiveness mediates through Ego Resiliency; M2 = Expressiveness mediates through Descending Egos; \* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$ .

Active-recreational orientation predicted well-being through all kind of mediators as noted in Table 6. Ego resiliency partially mediated general self ( $z = 4.58, p < .001$ ), family self ( $z = 2.80, p = .01$ ), social self ( $z = 4.34, p < .001$ ), depression ( $z = -4.39, p < .001$ ) and life satisfaction ( $z = 4.08, p < .001$ ). Ascending egos partially mediated family self ( $z = 2.11, p = .03$ ) and acted as partial mediators of general self ( $z = 1.89, p = .06$ ), social self ( $z = 2.01, p = .04$ ) and depression ( $z = -2.00, p = .05$ ). No mediation of ascending egos existed between Active-recreational orientation and life satisfaction. Descending egos partially mediated of general self ( $z = 4.03, p < .001$ ), family self ( $z = 2.28, p = .02$ ), depression ( $z = -3.70, p < .001$ ) and life satisfaction ( $z = 3.70, p < .001$ ); and acted as partial mediator of social self ( $z = 3.70, p < .001$ ). The standardized indirect effects for these partial mediations were calculated and presented in Table 7 (Shrout and Bogler 2002).

Table 6. Hierarchical Multiple Regression testing Ego Strengths as Mediators of Active- recreational orientation on indicators of Well-being.

	Predictor	Mediators	$\beta$		$R^2$
			Predictor	Mediators	
<i>Predicting General Self</i>					
Step 1	ARO		.28***		.08
Step 2 (M1)	ARO	ER	.04	.72***	.53
Step 2 (M2)	ARO	AE	.25***	.21**	.13
Step 2 (M3)	ARO	DE	.09	.67***	.49
<i>Predicting Family Self</i>					
Step 1	ARO		.17*		.03
Step 2 (M1)	ARO	ER	.10	.26***	.09
Step 2 (M2)	ARO	AE	.13	.32***	.13
Step 2 (M3)	ARO	DE	.12	.19*	.07
<i>Predicting Social Self</i>					
Step 1	ARO		.28***		.08
Step 2 (M1)	ARO	ER	.10	.56***	.36
Step 2 (M2)	ARO	AE	.24***	.26***	.14
Step 2 (M3)	ARO	DE	.15*	.48***	.29
<i>Predicting Depression</i>					
Step 1	ARO		-.23**		.05
Step 2 (M1)	ARO	ER	-.07	-.49***	.26
Step 2 (M2)	ARO	AE	-.17*	-.27***	.12
Step 2 (M3)	ARO	DE	-.07	-.49***	.26
<i>Predicting Life Satisfaction</i>					
Step 1	ARO		.26***		.07
Step 2 (M1)	ARO	ER	.12	.42***	.22
Step 2 (M2)	ARO	AE	.24***	.07	.07
Step 2 (M3)	ARO	DE	.12	.48***	.28

Note. ARO= Active-recreational orientation; ER = Ego Resiliency; AE = Ascending Egos; DE = Descending Egos; M1 = Active-recreational orientation mediates through Ego Resiliency; M2 = Active-recreational orientation mediates through Descending Egos; M3 = Active-recreational orientation mediates through Ascending Egos; \* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$ .

### Moderation Effects

Significant moderation effects on well-beings tested by interaction terms of ego strengths and family climates were presented in Table 8. Raw regression weights instead of betas were reported in the table as recommended by Whisman and McClelland (2005). The additions of interaction terms in the above models explained further total variances ranged from 1% to 5%. Amongst all family climates, only active-recreational orientation had no pattern of interaction with ego strengths.

For all ego strengths, the relationships between cohesion and moral self varied in the same pattern. As shown in Figure 4, low level of ego strengths indicated positive relationship; mild level of ego strengths indicated no relationship; and high level of ego strengths indicated negative relationship. In overall, higher level of ego

strengths predicted higher level of moral self.

Table 7. Standardized Indirect Effects (%).

	Cohesion		Expressiveness		ARO	
	ER	ER	DE	ER	AE	DE
General Self	66.7 <sup>a</sup>	50.0 <sup>b</sup>	50.0 <sup>b</sup>	85.7 <sup>a</sup>	14.3 <sup>b</sup>	71.4 <sup>a</sup>
Family Self	-	13.3 <sup>b</sup>	-	37.5 <sup>a</sup>	25.0 <sup>a</sup>	34.1 <sup>a</sup>
Social Self	50.0 <sup>a</sup>	44.4 <sup>a</sup>	44.4 <sup>a</sup>	69.2 <sup>a</sup>	15.4 <sup>b</sup>	46.2 <sup>b</sup>
Depression	48.6 <sup>a</sup>	35.0 <sup>b</sup>	37.1 <sup>b</sup>	70.2 <sup>a</sup>	25.6 <sup>b</sup>	68.4 <sup>a</sup>
Life Satisfaction	17.7 <sup>b</sup>	21.7 <sup>b</sup>	25.3 <sup>b</sup>	53.6 <sup>a</sup>	-	53.6 <sup>a</sup>

Note. ARO = Active-recreational orientation; Mediators: ER = Ego Resiliency; AE = Ascending Egos; DE = Descending Egos; <sup>a</sup>Predictors not remain significant in step 2; <sup>b</sup>Predictors remain significant in step 2.

Expressiveness was moderated by all ego strengths on moral self, and by ego resiliency and descending egos on life satisfaction as evident from Figure 5 and 6. The relationships between expressiveness and moral self were also equal to what observed in cohesion and moral self across all ego strengths. There were interaction effects emerged that lack of expressiveness predicted low level of life satisfaction only when respondents also had low levels of ego resiliency and descending egos.

Table 8. Hierarchical Multiple Regression testing Ego Strengths as Moderators between Family Climates and indicators of Well-being.

	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>B</i>	<i>SE</i>
<i>Predicting Moral Self</i>				
Cohesion X Ego Resiliency	.37	.05	-.04 <sup>***</sup>	.01
Cohesion X Ascending Egos	.35	.03	-.03 <sup>**</sup>	.01
Cohesion X Descending Egos	.29	.05	-.03 <sup>***</sup>	.01
Expressiveness X Ego Resiliency	.35	.03	-.04 <sup>**</sup>	.01
Expressiveness X Ascending Egos	.33	.02	-.03 <sup>*</sup>	.01
Expressiveness X Descending Egos	.26	.03	-.03 <sup>*</sup>	.01
<i>Predicting Life Satisfaction</i>				
Expressiveness X Ego Resiliency	.29	.02	-.22 <sup>*</sup>	.09
Expressiveness X Descending Egos	.32	.02	-.18 <sup>*</sup>	.08
Conflict X Ego Resiliency	.24	.02	-.18 <sup>*</sup>	.08
<i>Predicting Family Self</i>				
Conflict X Ascending Egos	.53	.02	-.04 <sup>*</sup>	.02
<i>Predicting Social Self</i>				
Conflict X Descending Egos	.38	.01	-.02 <sup>*</sup>	.01

Note. <sup>\*</sup>= *p*<.05, <sup>\*\*</sup>= *p*<.01, <sup>\*\*\*</sup>= *p*<.001.

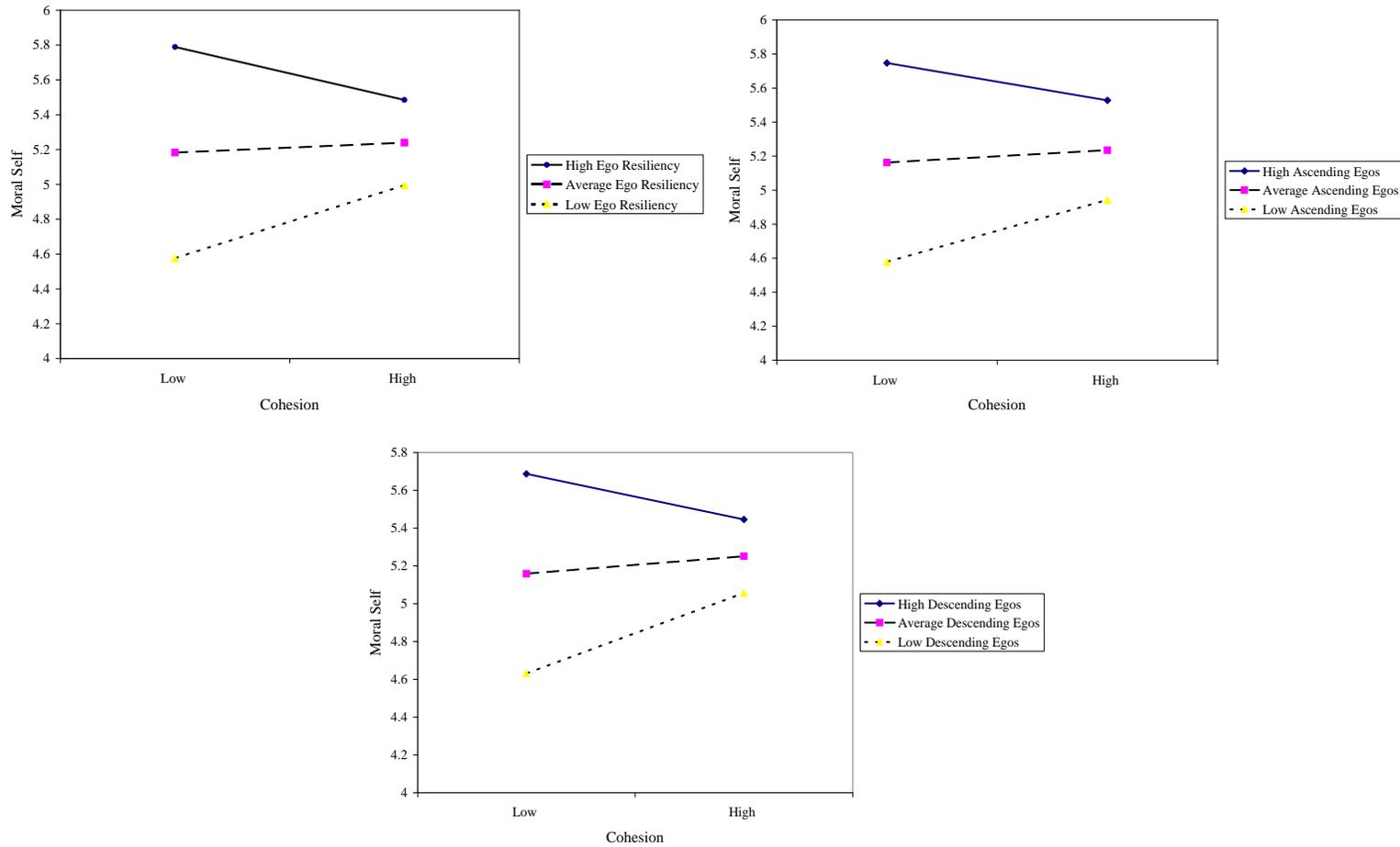


Figure 4. Ego Resiliency, Ascending Egos, and Descending Egos as Moderators of the association between Cohesion and Moral Self.

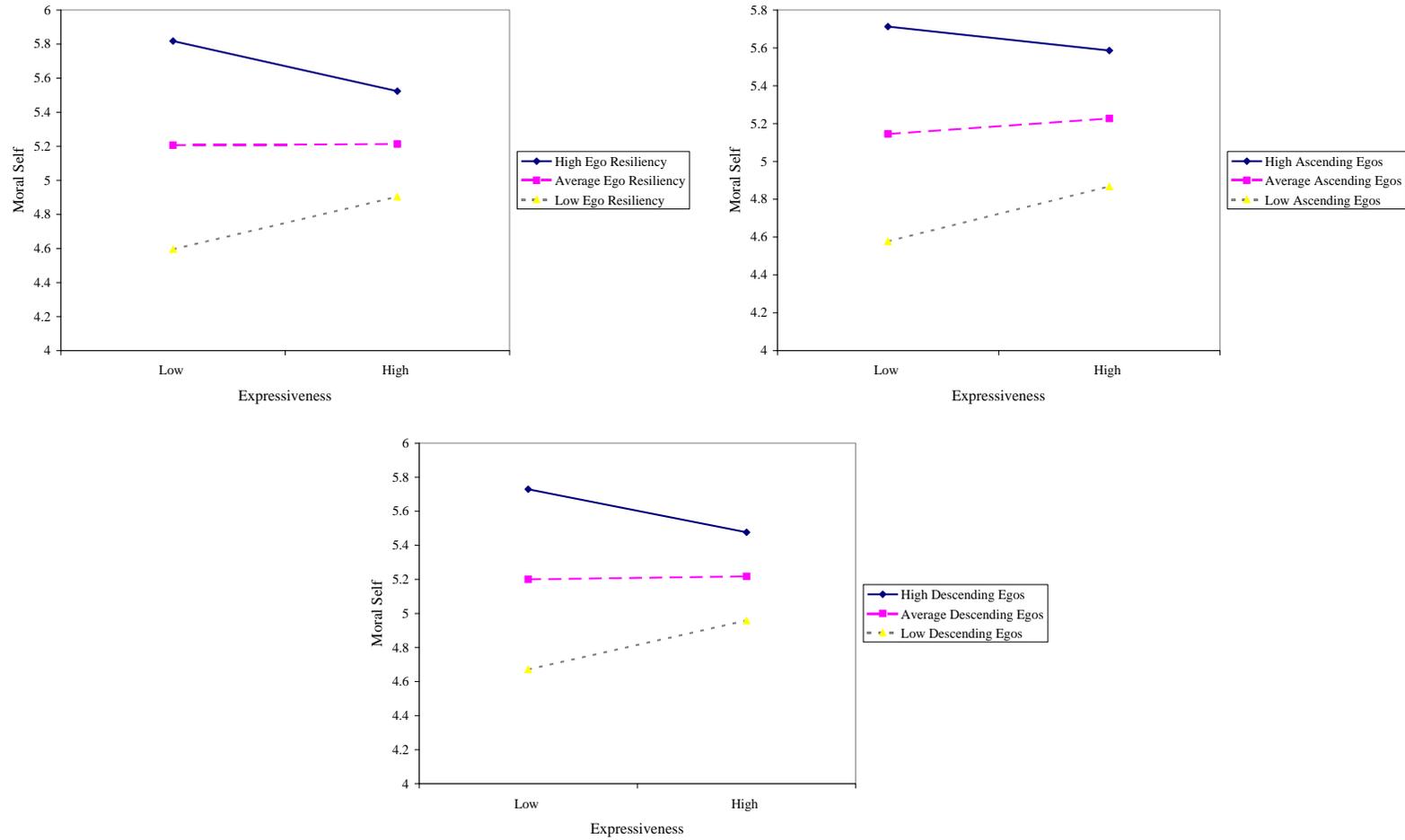


Figure 5. Ego Resiliency, Ascending Egos, and Descending Egos as Moderators of the association between Expressiveness and Moral Self.

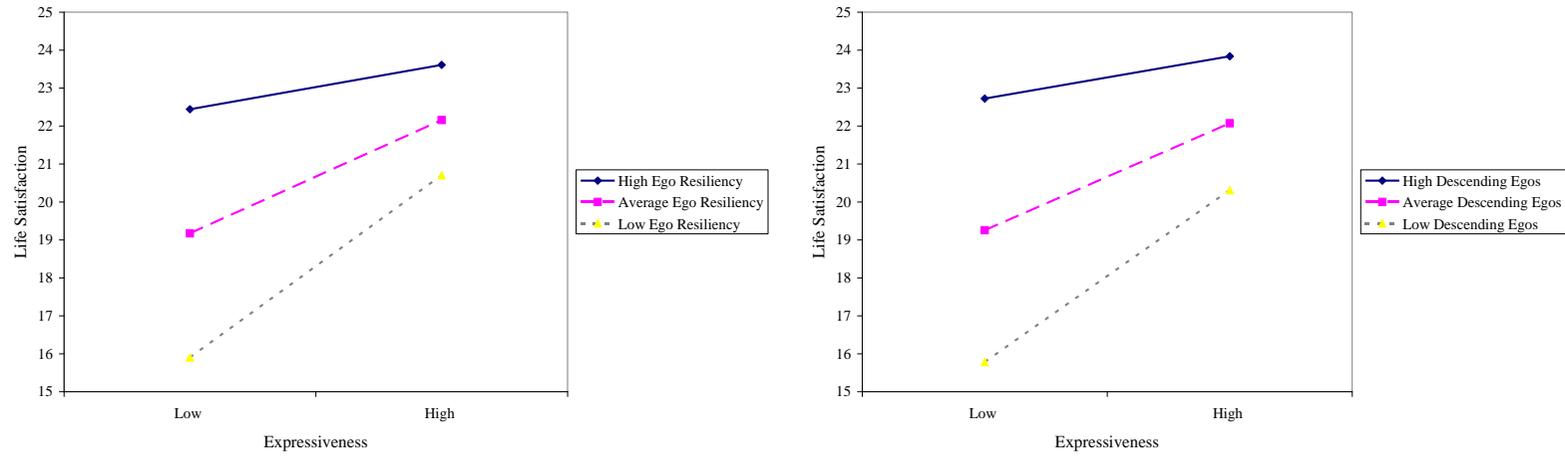


Figure 6. Ego Resiliency and Descending Egos as Moderators of the association between Expressiveness and Life Satisfaction.

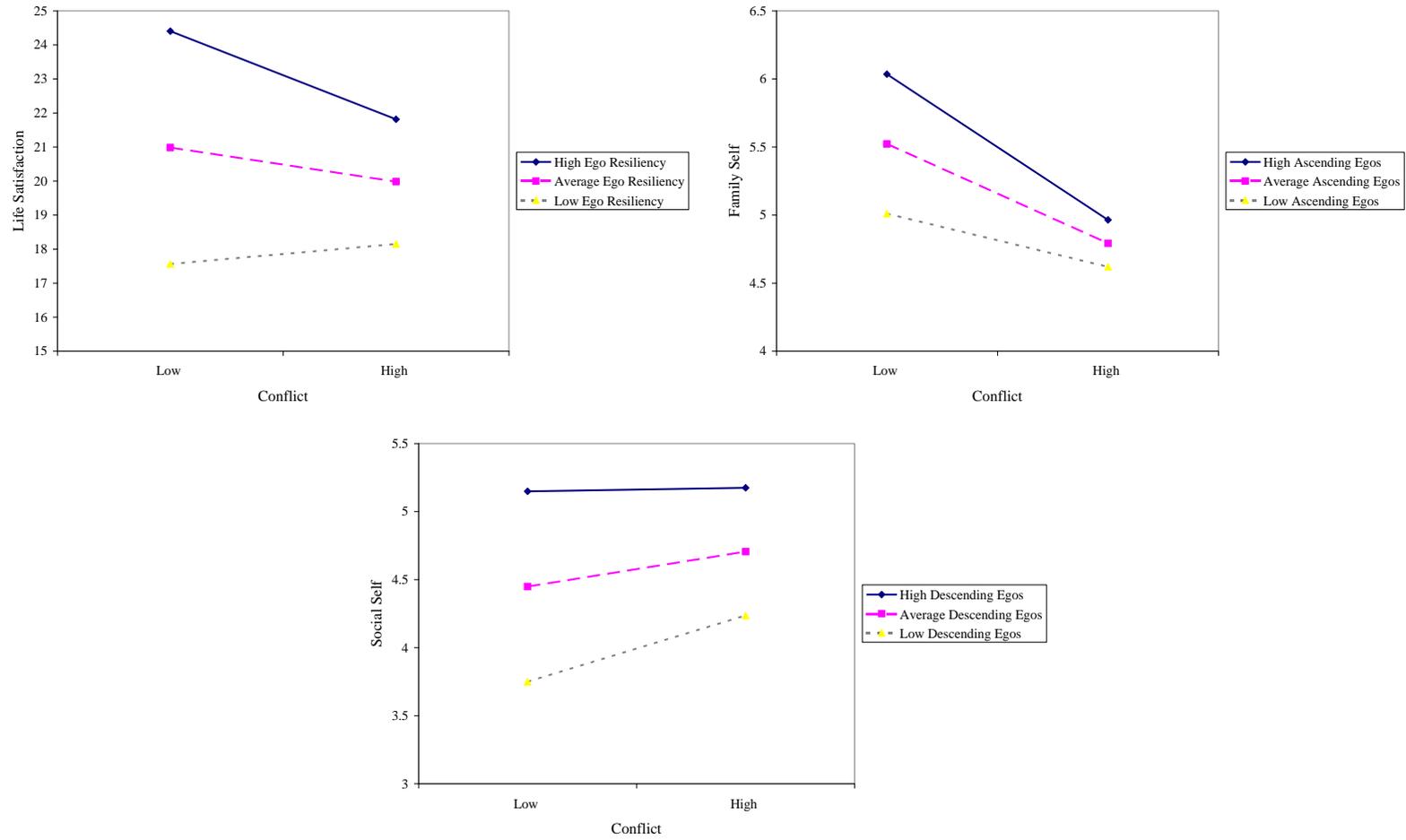


Figure 7. Different Ego Strengths as respective Moderators of the associations between Conflict and Life Satisfaction, Family Self and Social Self.

The patterns that conflict moderated by ego resiliency on life satisfaction, by ascending egos on family self, and by descending egos on social self were displayed in Figure 7. For individuals with mild and high levels of ego resiliency, less life satisfaction was shown when they had high conflict. Individuals with low level of life satisfaction showed low life satisfaction whether they reported high or low conflict. The negative relations between conflict and family self become much stronger in respondents with higher levels of ascending egos. In contrast, the positive relations between conflict and social self become much stronger in respondents with lower levels of ascending egos. In overall, lower level of ego strengths predicted lower level of all three outcomes.

### **Discussion and Conclusions**

This paper primarily aimed at establishing the relationships of family climates with ego strengths and well-beings in young adults. Four FES subscales-cohesion, expressiveness, conflict and active-recreational orientation, are related to three forms of ego strengths-ego resiliency, ascending egos and descending egos, which were resorted from Erikson's (1968) eight ego strengths, and to different indicators of well-being. Apart from the direct relationships, complex pathways between FES scores and multiple self-esteems, depression and life satisfaction were emerged that three ego strengths either provided mediations, moderations, or both types of effects at the same time.

### **Discussion**

Opposed to some western research conducted on adolescents, this study discovered that family has a set of significant relationships on young adults, who are assumed to be much untouched in conventional wisdom (Hundert *et al.* 1988, Walker *et al.* 1988, Alnajjar and Smadi 1998,). Generally, family climates that cohesive, expressive, emphasized recreation and less conflictual were significantly related to greater ego strengths and better well-beings. This is consistent with study of Frank *et al.* (1990) that higher relatedness and less insecurity with family members plus unlimited restriction on personal autonomy would lead to stable identity status and better adjustment. Especially for this age group, ranged from 18 to 23 years old, of the participants, the family climates may be more robust because majority of them still expect to depend on their parent to cope with life (Frank *et al.* 1988).

The perception of different climates in family environment affected different aspects of ego developments in young adults. Cohesion was only conducive to ego resiliency; expressiveness was conducive to ego resiliency as well as descending egos; while active-recreational orientation was conducive to ego resiliency, ascending egos and descending egos. Conflict predicted no relationship with ego strengths. To fully elaborate the linkages, definitions of all three resorted ego strengths have to be reviewed. Ego resiliency is an aspect of personality that restores overall toughness and strength of ego acuminated from resolutions of all possible psychosocial crises at the present moment (Loevinger 1996, 1997). Ascending egos characterized by love and care in young adults refers to the strengths acquired from current psychosocial crisis of subjects, whereas descending egos characterized by the rest of Erikson's ego strengths refers to the residual qualities which are not valued as essential, qualities that underlying current identity of the subjects. These resorted ego strengths, thus, can be understood as total psychosocial resources, conscious and unconscious identity statuses, respectively. The ways that family

climates influence corresponding products of psychosocial maturity are indeed a demonstration of how individual's readiness and environment interplay to determine the ascendance of ego strengths (Erikson 1964). Multiple social-cognitive factors such as informational, normative and diffuse-avoidant styles in processing identity (Berzonsky 1989), and achieved, moratorium, foreclosed and identity diffusion approaches to form identity (Waterman 1999), were addressed as mediators between family relationships and ego development (Adams *et al.* 2006). By extension, a fascinating view might be that family climates influence ego strengths through different pathways of identity processing styles and identity statuses.

With reference to pervious evidences, high cohesion and expressiveness within family represented adequate self-expression in a warmth social context, which is vital to identity development (Adams and Marshall 1996, Adams *et al.* 2000). Active-recreational orientation, interestingly, unlike cohesion and expressiveness, was related to all aspects of ego strengths. This may pointing to a fact that being "friend" with family members, as demonstrated as participating in leisure activities together, becomes the main task of adult that aims at transforming the relationships with parents in a way that less intimate yet close enough. Similar behavioural tendency has been predicted by the concept of individuation of adult stressing separation of the world from parents without losing emotional connection (Murphy *et al.* 1963, Frank *et al.* 1988). As for conflict, the nonsignificant relation with ego strengths was out of expectation. Conflict resolution in family decision making was assumed to strengthen psychosocial maturity included identity formation and ego development (Grotevant and Cooper, 1985; Hauser, Powers and Noam, 1991). One possible interpretation for the phenomenon that conflict and ego functioning as two independent variables is that for family with too less conflict, successful negotiation often occur that individual has learned to deal effectively with others. While for family with too high conflict, isolation, instead of keep fighting, occurs at family members that forced individuals depend on themselves (Moné *et al.* 2011). These two circumstances located at opposite extreme of positions may foster a curvilinear, other than linear, relationship between conflict and ego strengths.

Only in certain aspects, were family climates related directly to well-being that as same as pervious studies (Burt *et al.* 1988, Lewinsohn *et al.* 1991). Greater perceived cohesion, expressiveness and active-recreational orientation in family predicted higher self-esteems except moral self, life satisfaction, and lower depression. Contrary to research done in the past, cohesion and conflict were not emerged as the most significant indicators of psychological outcome amongst the FES subscales (Kleinman *et al.* 1989). Compared to expressiveness and active-recreational orientation, cohesion had stronger positive relation with family self but weaker positive relations with general self, social self and depression; whereas conflict had negative relation with family self only. This reversed importance of cohesion and conflict with active-recreational orientation suggest the leisure activities with family members is somehow similar to the role of "play" in child that free individual from internal and external stresses to promote personal growth (Piaget 1962, Vygotsky 1967, Csikszentmihalyi 1975). As evidence, one study investigated old adults participating in playful activities had improved well-being (Lomranz *et al.* 1988). This transformed friended alike interaction with parents, again, surmise the remaining salient impacts of cohesion and conflict on family self since adult desired to earn approval from parents just as they need it from friends (Epperson 1964).

### *Mediation Effects*

The emergence of ego strengths as mediators are embedded in the theoretical background stating that family has direct and indirect effects on well-being (Lamborn *et al.* 1991). Cohesion, expressiveness and active-recreational orientation exerted partial indirect effects through different ego strengths on indicators of well-being except moral self. Cohesive family climate would increase ego resiliency, and hence benefit psychological well-being. This is somewhat albeit the better psychological well-being in adult experienced trauma in childhood assisted psychosocially (Punamaki 2001); and in patient with terminal disease received supportive family environment (Christensen *et al.* 1988). Expressive interactions with family members could increase ego resiliency and descending egos, which then increased social self. The open sharing of feeling in family might provide secure base to explore and experiment in interactions with others that leading to synchronize own aspiration with societal expectation, and eventually boosted their interest in interpersonal affiliation and social confidence (Kamptner 1998). Active-recreational orientation had much indirect effects by ego resiliency and descending egos on well-being than cohesion and expressiveness. A picture about how growth and development in adult promoted by transforming into befriended interactions with family members then become clear that by depicting the mechanism as maturation in ego and unconscious identity. Transformed interaction with parents benefiting adult not merely as accomplishment of task catalyzed by individuation, but also as retracing of innate tendency of “play” in childhood (Erikson 1950, Frank *et al.* 1988). Moreover, active-recreational orientation fostered family self through all three resorted ego strengths. It is likely that the mutual enjoyment of playing process, as a function of ego, have enhanced the belonging and positive interactions between adults and their parents (Erikson 1950, Beckwith 1986).

Although in some mediation pathways, ego strengths only function as partial mediators that family climates remain significant in predicting well-being, it was generally suggested that an emotionally, linguistically and behaviourally tied family environment can foster the strengths of egos for young adult so that they become self-confident, less depressed and satisfied with life. The simultaneous growths in ego and self-esteem were regarded as the product of cohesive and expressive family environment which also value individuation to encourage both relatedness and autonomy (Grotevant and Cooper 1983, 1986, Ryan and Lynch 1989, Allen *et al.* 1994). Balancing independence and sense of connection with parents was especially reinforcing self-esteem (Joselson 1980). The protection against depression by well-functioning family climates was probably achieved by the minimization of affectionless control by parents perceived in adults (Nomura *et al.* 2002). The inflated life satisfaction was by family providing resources to pursuit the priority of life task and activities, as mentioned by Erickson (1968), which gained the most satisfaction for them (Chang *et al.* 2003); and to assist adult in interpreting life experience in a positive and coherent way that lead to successful self-transformation of roles, thus promote greater life satisfaction through increasing ego resiliency (Pals 2006).

### *Moderation Effects*

Two distinct patterns of moderation effects were generated by ego strengths between family climates and indicators of well-being. The first pattern is the effects of cohesion and expressiveness on moral self moderated by all ego strengths. For

young adult with low ego strengths, the degree of moral self increases with family climates; while for young adult with high ego strengths, the degree of moral self decreases with family climates. The moral self for adults in the group of high ego was greater than the group of low ego. This portrayed deficiency in psychosocial maturity inhibited adults to demonstrate their capacity of own moral judgement and strength of caring, but this can be compensated by intimacy expressed by family members, which act as resilient factors to motivate individuals to concern for others. Adults low in ego strength would need supportive and eliciting interactions from parents for moral development (Walker and Taylor 1991). And adults high in ego strength have achieved autonomous that would disagree with parent's opinions in certain situations, therefore, their standard of moral self cannot be predicted from the parents' interaction or moral reasoning as cited in literature (Haan *et al.* 1976). This inconsistent relationship between family climates and moral self also accounted for the failed mediation by ego strengths mentioned above.

The second pattern is the effects of conflict interacting with ego strengths on well-beings. High life satisfaction predicted by less conflict was only perceived in young adult with strong ego resiliency. The deficiency in psychosocial resources may deteriorate the capacity to integrate life events to a positive end despite of presence of low conflict with family (Pals 2006). Family self had a much stronger negative relationships with conflict in young adults with high ascending egos. Low social self predicted by less conflict was much significant in young adult with weak descending egos. These individuals with coherent and conscious identity are more likely to engage in defining mutual goals with parents, which accompanies frequent arguments and criticisms with family members but more social confidence (Kamptner 1998). The unexpected result for lowest life satisfaction and social self in groups of low ego strengths but also low conflict revealed a tendency for compromise in young adult with weak coherent and unconscious identity would avoid argument and hidden in the surface phenomenon of "peace" in family (Maccoby and Martin 1983).

#### *Mediation and Moderation Effects*

Relationship between expressiveness and life satisfaction was both mediated and moderated by ego resiliency and descending egos. Mediation effects pointed out that family with low ego resiliency and descending egos are pathways of repressed revealing of feeling and dissatisfaction with life. However, moderation effects suggested that unexpressed adults are dissatisfied only if they also have low resiliency of ego and descending egos. This can be elaborated on one hand, unexpressed feeling and thought towards family members turn individual to be less resourceful and resilient, and hence feel less contented; on the other hand, individual with higher resiliency learnt how to manage themselves even the family members cannot behave as good communicators and generated less negative cognitive view of life. This demonstrated an example of one type of the moderated mediations (Preacher *et al.* 2007). Expressiveness not only promotes life satisfaction through ego strength but also affects their relationship that low ego strengths would not necessarily lead to dissatisfaction if people live in an expressive family climate. Of course, this hypothetical moderation mediation has to be clarified with further investigation.

#### *Implications*

Perhaps here is the appropriate point to reconsolidate the major implications from

the huge amount of findings. These implications contributed to both the literatures of family and Erikson's theory. For family literature, the role of family played on adult was well established from the aspects of personal characteristics and well-being. This study serves as rare evidence to discover mediation and moderation factors from family to psychological outcomes should inspire a specific theory about family impact on adult (Darling and Steinberg 1993). Several pieces of information could be functioned as corner stones. The reversed importance of cohesion and conflict with active-recreational orientation implied relationships with parents are transformed that close to friendship. That mutual participation in leisure had recognized, although unheeded in literature, as vital ingredient of constituting a well-functioning family in perspectives of family researching (Stinnett *et al.* 1982, Curran 1983). The distinctive pattern of conflict on adult also suggested its impact may not be obvious and more factors should be identified as moderators. As a matter of fact, conflict is a complex concept whose nature varies depending on with whom and about what is subject arguing (Semtana *et al.* 1991, Hanson *et al.* 1996). Besides, the three resorted ego strengths interact with family and well-being in different combinations verified how different situational and personal mediators might exert their impact on different adjustments (Farber *et al.* 1985). The instrumentation of large amount of variables would help to avoid overgeneralization or oversimplification of family impact.

As enrichment of Erikson's theory, the usage of ascending egos and descending egos as respective to eight traditional ego strengths opened a new perspective to his theory and structure of psychosocial maturity. Ascending egos and descending egos can be conceptualized as the conscious and unconscious identities consolidated from dominant and recessive ego virtues. It should be noticed that ascending egos and descending egos were computed from factor analysis, and hence they have zero correlation with each other. These products from principle component analysis, which demonstrated its effectiveness in mediating and moderating family climates and well-beings, reject Erikson's (1968, 1985) ideas that pervious ego virtues would contribute to actualizing of later ego strengths by merging as parts of them. The relatively higher degrees of love and care, and relatively lower degrees of will and wisdom in samples were also called into questions. Society has known contributes to the ascendance of ego virtues, but it was unclear that this uneven distribution of ego strengths is a result of characteristics of Hong Kong young adult, cohort effect, or nature of true human development (Erikson 1964). Further, findings suggested that transforming the relationship with family as a friend in interaction might be another psychosocial crisis faced by young adult.

### ***Limitations***

The findings of this paper should be interpreted with caution due to the limitations on the design. First, the sample size of this study was relatively small. Detection of significant effects in regression analysis was greatly constrained by small sample size (MacKinnon *et al.* 1995, Frazier *et al.* 2004). Second, the current study recruited convenience samples composed mainly of young adults who born in nuclear family and still living with parents. Thus, the results may not generalize to people growing up in stepfamily, single-parent family and divorced family that raised by different caregivers. It is normal in Hong Kong that adults not live with their parents anymore. In 2009, people aged 18 and over had around 75% moved out from home and around 33% lost their parents (Census and Statistics Department, 2010). Third, this study solely adopted a cross-sectional design to examine mediation and moderation effects.

To validate cause and effect, true experiment, or, in this case, longitudinal study with advanced statistical analysis such as SEM, is recommended to be used instead (Preacher and Hayes 2008, Rosopa and Stone-Romero 2008). Validity of moderating effect is also questionable that one study found buffering effect of family environment on negative events and stress in cross-sectional analyzes but not in later longitudinal analyzes (Burt *et al.* 1988). Forth, measures in this study were all based on self-report methods. Investigations relied on self-report data to assess family system have been greatly criticized (Sabatelli and Bartle 1995). One possible outcome of this approach is that the significant relations reported are merely the results of common method variance (Doty and Glick 1998). Multiple indicators from different domains such as reports of FES from parents and siblings, and observation utilizing behavioral checklist could serve as ideal substitutes (Shek 1997). Fifth, the obtaining of ascending egos and descending egos were based on factor analysis of scale scores of eight Erikson's ego strengths. Although this procedure is built on theoretical consideration, but a more statistically appropriate way should be conducting factor analysis of all items of PIES (Costello and Osborn 2005, DiStefano *et al.* 2009). Last, due to the cultural differences, these findings originated from Chinese society may not apply equally into Western culture. It is reasonable to believe that the values emphasizing on harmony and interpersonal relatedness constitute a much significant impact of family on Chinese young adult than their Western counterparts (Yang 1981, Ho 1986,).

### ***Future Studies***

Further evidence was needed to establish the unheeded but complex relationship between family environment and adult. Based on the findings of this study, more psychological outcomes or factors that acted as moderated mediators or mediated moderators could be identified in the linkages. Complete employment of FES could reveal more influences of family climates as well as their relative sizes of effects. Renewed and validated reliable FES in Chinese culture must be designed with clinically significant t-scores established for these applications. Also, future studies could be replicated with sample varied in bigger size, older age group and different cultures.

### **Conclusions**

In closing, the findings are, to some extent, agreeable to Moos's (1974) asserted framework that family climates, personal characteristics and well-beings of family members are mutually influencing each other, and to Erikson's (1985) epigenetic principle that various forms of ego coexist with different degrees of salience at a given point of life. The highlight of complementary effects between family environment and psychosocial maturity of adult is illuminating that restated why needs of relatedness and autonomy should both be promoted for optimal functioning (Kandel and Lesser 1972). The essence to balance independence and emotional connection with family refers back to an old notion from psychoanalytic approach questioning the achievement of "deeper autonomy of individualism" in human being (Douvan and Adelson 1966).

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### Biographic Note

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### References

- Adams, G.R., Berzonsky, M.D., and Keating, L., 2006. Psychosocial resources in first-year university students: The role of identity processes and social relationships. *Journal of Youth and Adolescence*, 35, 81-91.
- Adams, G.R. and Marshall, S.K., 1996. A developmental social psychology of identity: Understanding the person-in-context. *Journal of Adolescence*, 19, 1-14.
- Adams, G.R., Ryan, B.A., and Keating, L., 2000. Family relationships, academic environments, and psychosocial development during the university experience: A longitudinal investigation. *Journal of Adolescent Research*, 15, 99-122.
- Adshead, G. and Bluglass, K., 2001. A vicious cycle: Transgenerational attachment. Representations in a case of factitious illness by proxy. *Attachment and Human Development*, 3, 77-95.
- Aiken, L.S. and West, S.G., 1991. *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Allen, J.P., Hauser, S.T., Bell, K.L., and O'Connor, T.G., 1994. Longitudinal assessment of autonomy and relatedness in adolescent-family interactions as predictors of adolescent ego development and self-esteem. *Child Development*, 65, 179-194.
- Alnajjar, A. and Smadi, A., 1998. Delinquents' and non-delinquents' perception of family functioning in the United Arab Emirates. *Social behavior and personality*, 26, 375-382.
- Amato, P., 1996. Explaining the intergenerational transmission of divorce. *Journal of Marriage and the Family*, 58, 628-640.
- Amato, P. and Keith, B., 1991. Parental divorce and the well-being of children. *Psychological Bulletin*, 110, 26-46.
- Baron, R.M. and Kenny, D.A., 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Beckwith, L., 1986. Parent-infant interaction and infants' social-emotional development. In: A.W. Gottfried, and C.C. Brown, eds. *Play interactions: The contribution of play materials and parental involvement to children's development*. Lexington, MA: Lexington, 279-292.
- Berzonsky, M.D., 1989. Identity style: Conceptualization and measurement. *Journal of Adolescent Research*, 4, 267-281.
- Brown, J.D., Dutton, K.A., and Cook, K.E., 2001. From the top down: Self-esteem and self-evaluation. *Cognition and Emotion*, 15, 615-631.
- Burns, A. and Dunlop, R., 2000. Parental divorce, personal characteristics and early adult intimate relationships. *Journal of Divorce & Remarriage*, 33, 91-109.

- Burt, C.E., Cohen, C.H., and Bjorck, J.P., 1988. Perceived family environment as a moderator of young adolescents' life stress adjustment. *American Journal of Community Psychology*, 16, 101-122.
- Census and Statistics Department of Hong Kong Special Administration Region., 2010. *Thematic Household Survey Report No. 44: Relationships among Family Members*. Hong Kong.
- Chang, L., McBride-Chang, C., Stewart, S.M., and Au, E., 2003. Life satisfaction, self-concept, and family relations in Chinese adolescents and children. *International Journal of Behavioral Development*, 27, 182-189.
- Cheng, C.H.K., 1997. The Self-conceptions of Hong Kong Adolescents: Conceptual, Measurement, and Process Perspectives. Unpublished doctoral dissertation, the University of Hong Kong.
- Cheng, C.H.K., 2005. *The Chinese Adolescent Self-Esteem Scales (CASES): A User Manual*. Hong Kong: City University Hong Kong Press.
- Cheng, C.H.K. and Watkins, D., 2000. Age and gender invariance of self-concept factor structure: An investigation of a newly developed Chinese self-concept instrument. *International Journal of Psychology*, 35, 186-193.
- Cheung, P.C. and Lau, S., 1985. Self-esteem: its relationship to the family and school social environment among Chinese adolescents. *Youth Society*, 16, 438-456.
- Chien, C.P., and Cheng, T.A., 1985. Depression in Taiwan: epidemiological survey utilizing CES-D. *Seishin Shinkeigaku Zasshi – Psychiatria et Neurologia Japonica*, 87, 335-338.
- Christensen, A.J., Turner, C.W., Slaughter, J.R., and Holmen, J.H., 1988. Perceived family support as a moderator: Psychological well-being in end-stage renal disease. *Journal of Behavioral Medicine*, 12, 249-265.
- Cohen, J., 1992. A power primer. *Psychological Bulletin*, 112, 155-159.
- Cooper, J.E., Holman, J., and Braithwaite, V.A., 1983. Self-esteem and family cohesion: The child's perspective and adjustment. *Journal of marriage and the family*, 45, 153-159.
- Costello, A.B., and Osboren, J.W., 2005. Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation*, 10 (7), 1-9.
- Crocker, J., Luhtanen, R., Blaine, B., and Broadnax, S., 1994. Collective self-esteem and psychological well-being among White, Black, and Asian colleague students. *Personality and Social Psychology Bulletin*, 20, 503-513.
- Csikszentmihalyi, M., 1975. *Beyond boredom and anxiety*. San Francisco: Jossey-Bass.
- Curran, D., 1983. *Traits of a healthy family*. Minneapolis: Winston Press.
- Darling, N. and Steinberg, L., 1993. Parenting style as context: An integrative model. *Psychological Bulletin*, 113, 487-496.
- Diener, E., 1984. Subjective well-being. *Psychological Bulletin*, 95, 542-575.
- Diener, E., Emmons, R.A., Larsen, R.J., and Griffin, S., 1985. The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71- 75.
- DiStefano, C., Zhu, M., and Mindrila, D., 2009. Understanding and using factor scores: Considerations for the applied researcher. *Practical Assessment, Research & Evaluation*, 10 (7), 1-11.
- Doty, D.H. and Glick, W.H., 1998. Common methods bias: Does common methods variance really bias results? *Organizational Research Methods*, 1, 374-406.
- Douvan, F. and Adelson, J., 1966. *The Adolescent Experience*. New York: Wiley.
- Dunn, J., Deater-Deckard, K., Pickering, K., O'Conner, T., Golding, J., and ALSPAC Study Team., 1998. Children's adjustment and prosocial behavior in step-, single-parent, and non-stepfamily settings: Findings from a community study. *Journal of Child Psychology and Psychiatry*, 39, 1083-1095.
- Enright, R.D., Lapsley, D., Drivas, A., and Fehr, L., 1980. Parental influences on the development of adolescent autonomy and identity. *Journal of Youth and Adolescence*, 9, 529-545.
- Epperson, D.C., 1964. A reassessment of indices of parental influence in "the adolescent society." *American Sociological Review*, 29, 93-96.
- Erikson, E.H., 1950. *Childhood and Society*. New York: Norton.
- Erikson, E.H., 1964. *Insight and Responsibility*. New York: Norton.
- Erikson, E.H., 1968. *Identity: Youth and Crisis*. New York: Norton.
- Erikson, E.H., 1985. *The Life Cycle Completed*. New York: Norton.

- Farber, S., Felner, R., and Primavera, J., 1985. Parental separation/divorce and adolescents: An examination of factors mediating adaptation. *American Journal of Community Psychology*, 13, 171-185.
- Frank, S.J., Avery, C.B., and Laman, M.S., 1988. Young adults' perceptions of their relationships with their parents: Individual differences in connectedness, competence, and emotional autonomy. *Developmental Psychology*, 24, 729-737.
- Frank, S.J., Pirsch, L.A., and Wright, V.C., 1990. Late adolescents' perceptions of their relationships with their parents: Relationships among deidealization, autonomy, relatedness, and insecurity and implications for adolescent adjustment and ego identity status. *Journal of Youth and Adolescence*, 19, 571-588.
- Frazier, P.A., Barron, K.E., and Tix, A.P., 2004. Testing moderator and mediator effects in counselling psychology research. *Journal of Counseling Psychology*, 51, 115-134.
- Friedrich, W., Reams, R., and Jacobs, J., 1982. Depression and Suicidal Ideation in Early Adolescents. *Journal of Youth and Adolescence*, 11, 403-407.
- Gladstone, G.L., and Parker, G.B., 2005. The role of parenting in the development of psychopathology: An overview of research using the parental bonding instrument. In: J.L. Hudson, and R.M. Rapee, eds. *Psychopathology and the Family*. Elsevier Science, 21-33.
- Glidden, L.M. and Schoolcraft, S.A., 2007. Family assessment and social support. In: J.W. Jacobson and J.A. Mulick, eds. *Handbook of mental retardation and developmental disabilities*. New York: Springer, 391-422
- Goldenberg, I. and Goldenberg, H., 2005. *Family therapy: an overview* (5<sup>th</sup> ed.). Belmont, CA: Wadsworth Publishing Company.
- Greenberger, E. and Sørensen, A., 1974. Toward a concept of psychosocial maturity. *Journal of Youth and Adolescence*, 3, 329-358.
- Greenberg, M., Siegel, J., and Leitch, C., 1983. The nature and importance of attachment relationships to parent and peers during adolescence. *Journal of Youth and Adolescence*, 12, 373-386.
- Grotevant, H.D., 1998. Adolescent development in family contexts. In: W. Damon, and N. Eisenberg, eds. *Handbook of child psychology, volume 3: Social, emotional, and personality development*. New York: Wiley, 1091-1149.
- Grotevant, H.D. and Cooper, C.R., eds., 1983. *Adolescent development in the family. New directions for child development* (Vol. 22). San Francisco, CA: Jossey-Bass.
- Grotevant, H.D. and Cooper, C.R., 1985. Patterns of interaction in family relationships and the development of identity formation in adolescence. *Child Development*, 51, 415-428.
- Grotevant, H.D. and Cooper, C.R., 1986. Individuation in family relationships: a perspective on individual differences in the development of identity and role-taking skill in adolescence. *Human development*, 29, 82-100.
- Haan, N., Langer, J., and Kohlberg, L., 1976. Family patterns of moral reasoning. *Child Development*, 47, 1204-1206.
- Hanson, T., McLanahan, S., and Thomson, E., 1996. Double jeopardy: Parental conflict and stepfamily outcomes for children. *Journal of Marriage and the Family*, 58, 141-154.
- Hauser, S. T., Powers, S., and Noam, G., 1991. *Adolescents and their families: Paths of ego development*. New York: Free Press.
- Hazelton, R., Lancee, W., and O'Neil, M., 1998. The controversial long-term effects of parental divorce: The role of early attachment. *Journal of Divorce and Remarriage*, 29, 1-17.
- Hill, J.P. and Holmbeck, G.N., 1986. Attachment and autonomy during adolescence. *Annals of Child Development*, 3, 145-189.
- Hinde, R.A. and Stevenson-Hinde, J., 1988. *Relationships within families: Mutual influences*. New York: Oxford University Press.
- Hirsch, B.J., Moos, R.H., and Reischl, T.M., 1985. Psychosocial adjustment of adolescent children of a depressed, arthritic, or normal parent. *Journal of Abnormal Psychology*, 94, 154-164.
- Ho, D.Y.F., 1986. Chinese patterns of socialization: A critical review. In: M.H. Bond, ed. *The Psychology of the Chinese people*. New York: Oxford University Press, 1-37.
- Holahan, C. and Moos, R., 1982. Social support and adjustment: Predictive benefits of social climate indices. *American Journal of Community Psychology*, 10, 403-415.
- Holmbeck, G.N., 1997. Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology

- literatures. *Journal of Consulting and Clinical Psychology*, 65, 599–610.
- Hundert, J., Cassie, J., and Johnston, N., 1988. Characteristics of emotionally disturbed children referred to day-treatment, special-class, outpatient, and assessment services. *Journal of Clinical Child Psychology*, 17, 121-130.
- Hunter, F. and Youniss, J., 1982. Changes in functions of three relations during adolescence. *Developmental Psychology*, 18, 806-811.
- Jacob, T., ed., 1987. *Family Interaction and Psychopathology: Theories, Methods, and Findings*. New York: Plenum Publishing Corporation.
- Josselson, R.L., 1980. Ego development in adolescence. In: J. Adelson, ed. *Handbook of adolescent psychology*. New York: Wiley, 188-210.
- Kamptner, N.L., 1998. Identity development in late adolescence: Causal modelling of social and familial influences. *Journal of Youth and Adolescence*, 17, 493-511.
- Kandel, D. and Lesser, G.S., 1972. *Youth in Two Worlds*. San Francisco: Jossey-Bass.
- Kernis, M.H., Brown, A.C., and Brody, G.H., 2000. Fragile self-esteem in children and its associations with perceived patterns of parent-child communication. *Journal of Personality*, 68, 225-252.
- Kleinman, S.L., Handal, P.J., Enos, D., Searight, H.R., and Ross, M.J., 1989. Relationship between Perceived Family Climate and Adolescent Adjustment. *Journal of Clinical Child Psychology*, 18, 351-359.
- Kretchmar, M. and Jacobvitz, D., 2002. Observing mother– child relationships across generations: Boundary patterns, attachment, and the transmission of caregiving. *Family Process*, 41, 351–374.
- Lamborn, S.D., Mounts, N.S., Steinberg, L., and Dornbusch, S.M., 1991. Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*, 62, 1049-1065.
- Lawton, M.P., 1984. The varieties of wellbeing. In: C.Z. Malatesta, and C.E. Izard, eds. *Emotion in adult development*. Beverly Hills, CA: Sage, 67-84.
- Lewinsohn, P.M., Redner, J., and Seeley, J.R., 1991. The relationship between life satisfaction and psychosocial variables: New perspectives. In: F. Strack, M. Argyle, and N. Schwartz, eds. *Subjective well being*. Oxford: Pergamon Press, 141-169.
- Lian, T.C. and Yusoff, F., 2009. The effects of family functioning on self-Esteem of children. *Journal of Social Sciences*, 9, 643-650.
- Loevinger, J., 1996. The meaning and measurement of ego development. *American Psychologist*, 21, 195-206.
- Loevinger, J., 1997. Stages of personality development. In: R. Hogan, J.A. Johnson, and S.R. Briggs, eds. *Handbook of personality psychology*. San Diego, CA: Academic Press, 199-208.
- Lomranz, J., Bergman, S., Eyal, N., and Shmokin, D., 1988. Indoor and outdoor activities of aged women and men as related to depression and well-being. *International Journal of Aging and Human Development*, 26, 303-314.
- Love, K.M. and Murdock, T.B., 2004. Attachment to parents and psychological well-being: An examination of young adult college students in intact families and stepfamilies. *Journal of Family Psychology*, 18, 600-608.
- Maccoby, E.E., 1980. *Social development: Psychological growth and parent-child relationship*. New York: Harcourt Brace Jovanovich.
- Maccoby, E.E. and Martin, J., 1983. Socialization in the context of the family: Parent-child interaction. In: E.M. Hetherington, ed. *Handbook of child psychology, Vol. IV: Social and personality development*. New York: Wiley, 1-102.
- MacKinnon, D.P., Krull, J.L., and Lockwood, C. M., 2000. Equivalence of the mediation, confounding and suppression effect. *Prevention Science*, 1, 173–181.
- MacKinnon, D.P., Warsi, G., and Dwyer, J.H., 1995. A simulation study of mediated effect measures. *Multivariate behavioral research*, 30, 41–62.
- Markstrom, C.A., Sabino, V., Turner, B., and Berman, R., 1997. The psychosocial inventory of ego strengths: development and assessment of a new Eriksonian measure. *Journal of Youth Adolescence*, 26, 705–722.
- Mechanic, D. and Hansell, S., 1989. Divorce, family conflict, and adolescents' well-being. *Journal of Health and Social Behavior*, 30, 105-116.
- Moné, J.G., Macphee, D., Anderson, S.K., and Banning, J.H., 2011. Family members' narratives

- of divorce and interparental conflict: Implications of parental alienation. *Journal of Divorce & Remarriage*, 52, 642-667.
- Moos, R.H., 1974. *The Social climate scales: an overview*. Palo Alto, CA: Consulting Psychological Press.
- Moos, R.H. and Moos, B., 1981. *Family Environment Scale manual*. Palo Alto, CA: Consulting Psychologists Press.
- Murphey, E.B., Silber, E., Coelho, G.V., Hamburg, D.A., and Greenberg, I., 1963. Development of autonomy and parent-child interaction in late adolescence. *American Journal of Orthopsychiatry*, 33, 643-652.
- Nicholson, J., Fergusson, D., and Horwood, L., 1999. Effects of later adjustment of living in a stepfamily during childhood and adolescence. *Journal of Child Psychology and Psychiatry*, 40, 405-416.
- Nomura, Y., Wickramaratne, P.J., Warner, V., Mufson, L., and Weissman, M.M., 2002. Family discord, parental depression, and psychopathology in offspring: Ten-year follow-up. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41, 402-409.
- Pals, J.L., 2006. Narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood. *Journal of Personality*, 74, 1079-1110
- Pascarella, E.T. and Terenzini, P.T., 1991. *How college affects students*. San Francisco, CA: Jossey-Bass.
- Phillips, M.R., Shen, Q.J., Zheng, Y.P., Wang, L.W., Wang, X.D., and Jiang, S.Y., 1991. Preliminary evaluation of FACES and FES. *Chinese Journal of Mental Health*, 5, 198-202.
- Piaget, J., 1962. *Play, dreams and imitation in childhood*. New York: Norton.
- Preacher, K.J., Rucker, D.D., and Hayes, A.F., 2007. Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42, 185-227.
- Preacher, K. J. and Hayes, A.F., 2008. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879-891.
- Punamaki, R., 2001. From childhood trauma to adult well-being through psychosocial assistance of Chilean families. *Journal of Community Psychology*, 29, 281-303.
- Radloff, L.S., 1977. The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Raschke, H.J. and Raschke, V.J., 1979. Family conflict and children's self-concepts: A comparison of intact and single-parent families. *Journal of Marriage and Family*, 2, 367-374.
- Robertson, J.F. and Simons, R.L., 1989. Family factors, self-esteem, and adolescent depression. *Journal of Marriage and Family*, 51, 125-138.
- Rosenberg, M., 1965. *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenthal, R. and Rosnow, R.L., 1991. *Essentials of behavioral research* (2<sup>nd</sup> ed.). New York: McGraw Hill.
- Rosopa, P.J. and Stone-Romero, E.F., 2008. Problems with detecting assumed mediation using the hierarchical multiple regression strategy. *Human Resource Management Review*, 18, 294-310.
- Ryan, R.M. and Lynch, J.H., 1989. Emotional autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood. *Child Development*, 60, 340-356.
- Ryff, C.D., 1989. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- Sabatelli, R.M. and Bartle, S.E., 1995. Survey approaches to the assessment of family functioning: Conceptual, operational, and analytical issues. *Journal of Marriage and the Family*, 57, 1025-1039.
- Sander, J.B. and McCarty, C.A., 2005. Youth depression in the family context: Familial risk factors and models of treatment. *Clinical Child and Family Psychology Review*, 8, 203-219.
- Sandhu, D. and Tung, S., 2006. Identity formation in relation to family environment. *Personality Study and Group Behaviour*, 26, 153-161.
- Sepahmansour, M. and Bayat, M., 2011. Structure and multidimensional adolescent's life satisfaction. *Middle-East Journal of Scientific Research*, 9, 167-170.
- Serewicz, M.C.M., Dickson, F.C., Morrison, J.H.T.A., and Poole, L.L., 2007. Family privacy

- orientation, relational maintenance, and family satisfaction in young adults' family relationships. *Journal of Family Communication*, 7, 123–142.
- Shavelson, R.J., Hubner, J.J., and Stanton, G.C., 1976. Self-concept validation of construct interpretations. *Review of Educational Research*, 46, 407-441.
- Shek, D.T.L., 1989. Perception of parental treatment styles and psychological well-being in a sample of Chinese secondary school students. *The Journal of Genetic Psychology*, 150, 403-415.
- Shek, D.T.L., 1992. "Actual-ideal" discrepancies in the representation of self and significant-others and psychological well-being in Chinese adolescents. *International Journal of Psychology*, 27, 229.
- Shek, D.T.L., 1993. Perceptions of parental treatment styles and psychological well-being in Chinese college students. *Psychologia*, 36, 159-166.
- Shek, D.T.L., 1997. Family environment and adolescent psychological well-being, school adjustment, and problem behavior: A pioneer study in a Chinese context. *The Journal of Genetic Psychology*, 158, 113-128.
- Shrout, P.E. and Bolger, N., 2002. Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological Methods*, 7, 422–445.
- Siddique, C. and D'Arcy, C., 1984. Adolescence, stress, and psychological well-being. *Journal of Youth and Adolescence*, 13, 459-473.
- Slater, E. J. and Haber, J. D., 1984. Adolescent adjustment following divorce as a function of familial conflict. *Journal of Consulting and Clinical Psychology*, 52, 920-921.
- Smetana, J.G., Yau, J., and Hanson, S., 1991. Conflict resolution in families with adolescents. *Journal of Research on Adolescence*, 1, 189-206.
- Sobel, M.E., 1982. Asymptotic intervals for indirect effects in structural equations models. In: S. Leinhardt, ed. *Sociological methodology 1982*. San Francisco: Jossey-Bass, 290-312.
- Sprinthall, N.A. and Collins, W.A., 1995. *Adolescent psychology: a developmental view*. New York: McGraw-Hill.
- Stark, K.D., Humphrey, L.L., Crook, K., and Lewis, K., 1990. Perceived family environments of depressed and anxious children: Child's and maternal figure's perspectives. *Journal of Abnormal Child Psychology*, 18, 527–547.
- Stinnett, N., Sanders, G., DeFrain, J., and Parkhurst, A., 1982. A nationwide study of families who perceive themselves as strong. *Family Perspective*, 16, 15-22.
- Vygotsky, L.S., 1967. Play and its role in the mental development of the child. *Soviet Psychology*, 5, 6-18.
- Walker, L.S., McLaughlin, F., and Greene, J.W., 1988. Functional illness and family functioning: A comparison of healthy and somaticizing adolescents. *Family Process*, 27, 317-325.
- Walker, L. J. and Taylor, J. H., 1991. Family interactions and the development of moral reasoning. *Child Development*, 62, 264-283.
- Waterman, A.S., 1999. Identity, the identity statuses, and identity status development: A contemporary statement. *Developmental Review*, 19, 591–621.
- Wells, L.E., 1976. *Self-esteem: its conceptualization and measurement*. London: Sage.
- Weidman, J., 1989. Undergraduate socialization: A conceptual approach. In: J. Smart, ed. *Higher education: Handbook of theory and research* (Vol. 5). New York: Agathon, 86-98.
- Whisman, M.A. and McClelland, G.H., 2005. Designing, testing, and interpreting interactions and moderator effects in family research. *Journal of Family Psychology*, 19, 111-120.
- Wright, K.N. and Wright, K.E., 1994. *Family Life, Delinquency, and Crime: A Policymakers Guide. Research Summary*. Washington, DC: Office of Juvenile Justice and Delinquent Prevention, 4-21.
- Wylie, R.C., 1979. *The self-concept (Vol.2): Theory and Research on selected topics*. Lincoln: University of Nebraska Press.
- Yang, K.S., 1981. The formation and change of Chinese personality: A cultural-ecological perspective. *Acta Psychologica Taiwanica*, 23, 39-56.