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Characteristics of Adolescents' Family Environment: The Case of Selected Secondary Schools in Addis Ababa

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Abstract

Family Environment (FE) contributes to a plethora of positive and negative outcomes in its members. Nonetheless, little is known about the characteristics of the FE as perceived by adolescents in the Ethiopian context. Aiming at examining characteristics of FEs, this study was conducted on 477 Ethiopian adolescents (214 males and 255 females, with 8 missing cases) attending two government schools and one private secondary school in Addis Ababa City. Data were gathered using Family Environment Scale (FES) and demographic items. Descriptive statistics, one-variable chi-square test, independent samples t-test and One-Way ANOVA were used to analyze the data. Conflict, Achievement Orientation and Control were found to be the salient features that characterize a relatively greater number of the adolescents' families, with a less balanced overall quality of the FE. Moreover, family structure, fathers' and mothers' educational levels and family income were found to contribute to variations in the adolescents' FEs. Implications of these findings are discussed.

Keywords*: family environment, family environment scale, adolescent*

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Introduction

Behavior develops within certain environmental contexts. A number of experts in social psychology including Fiske (2014) assert that behavior is, to a greater extent than people realize, a response to context, thereby extolling the power of the situation and the legitimacy of situationism as a subject of scientific inquiry. According to James Mark Baldwin, one of these contexts–social relationships–mainly those involving parents and siblings, exert a remarkable effect on the development of the thinking and feeling of the human child (Bretherton, 2009). Indeed, positive family environments (FEs) are the foundation of a strong society. Nonetheless, there is a huge gap in the empirical literature examining family and other environmental characteristics. Exemplar among psychologists who have been dealing with variables related to persons and their environments was Lewin (1951). Lewin developed and depicted his field theory using the formula: B = f (P, E). This formula indicates that behavior B is a function of the interaction between person P and environment E. According to Moos (1996), there are some emphases on environmental factors in various fields, including biology, psychiatry, and social and community psychology. Yet, the structure of attributes of environments has not been given as much attention as the structure of attributes of persons (Saucier et al., 2007).

Influenced by Henry Murray's notions of the beta press, Rudolf H. Moos and his colleagues at the Social Ecology Laboratory of Stanford University expounded the social ecological approach based on the assumption that the way an individual perceives the environment tends to influence the way the individual behaves in that environment (Moos, 2003). In this manner, Moos and his colleagues developed the Social Climate Scales to measure and describe the social climates. The Social Climate

Model is one of the several conceptual models that psychologists use to understand the interactions between the environment and individuals. The model conceives of environments via three major dimensions: social interactions within the environments (the relationship, R, dimension), how the environments may foster or stifle personal developments (the personal growth, PG, dimension), and the extent to which the environments tend to change or maintain the existing conditions (the system maintenance, SM, dimension) (Moos & Moos, 2009). This study employed the Social Climate Model as its theoretical framework and the Family Environment Scale (FES) (one of the Social Climate Scales), to assess adolescents' FEs. Of the various FE assessment tools, the Family Environment Scale (FES) is the most widely used due to its comprehensiveness (Charalampous et al., 2013). Table 1 depicts the three dimensions of the FES and descriptions of its 10 subscales. Despite paucity of comprehensive empirical studies that employ dimensions of the FES to examine the quality of adolescents' FEs, some studies documented the relations between characteristics of FEs and various outcomes. For instance, Chivukula and Agarwal (2016) found a statistically significant and positive correlation between

Table 1

Descriptions of the Ten Subscales of the Family Environment Scale

Dimension	Subscale	Description
Interpersonal Relationships	Cohesion	The degree of perceived commitment, support and help family members provide for each other.
	Expressiveness	The degree to which family members are encouraged to express feelings and problems.
	Conflict	Amount of openly expressed anger, aggression and conflict among family members.
Personal Growth	Independence	The extent to which family members are assertive, make own decisions, and are self-sufficient.
	Achievement Orientation	The extent to which school and work activities are cast as indices of achievement or areas of competition.
	Intellectual-Cultural Orientation	The extent to which family members show interest in political, social, intellectual, and cultural activities.
	Active-Recreational Orientation	The extent to which family members emphasize participation in social and recreational activities.
	Moral-Religious Emphasis	The extent to which family members emphasize ethical and religious issues and values.
System Maintenance	Organization	The extent to which the family endorses clear organization and structure in planning family activities and responsibilities.
	Control	The extent to which rules and procedures are followed and enforced by family members.

Source: Moos and Moos (2009) and Charalampous et al. (2013)

psychological wellbeing and components of FE (i.e., cohesion, expressiveness, independence, active-recreational orientation, and organization) and negative relations between psychological wellbeing, conflict, and control. Other researchers have identified conflict, inability to express emotions, poorer communication, disorganization as salient features of low quality FEs that stifle adolescents' healthy development whereas higher family cohesion (relationship dimension of FE) , clear familial roles (organization) and open communication (expressiveness), are labeled as

characteristics of high quality FEs that lead to positive outcomes (Reis et al., 2021). The positive outcomes resulting from high-quality FEs are also evident in other studies. For example, Bell et al. (2001) found that youth in more cohesive families with lower family conflict and control experienced more social competence and satisfaction in their relationships with the opposite sex, and less social avoidance, shyness, and fear of negative evaluation. Thus, FEs with low quality are considered risky environments characterized by conflict, anger, aggression, relationships that lack warmth and support, and neglect of the needs of family members (Repetti et al., 2002).

The notion that characteristics of the FEs are impacted by cultural and contextual factors in which the families are embedded (e.g., norms and values of neighbors, communities, cultures, and societal and technological changes) is less disputed (Crosbie-Burnett & Klei, 2009). Nowadays, the positive influence of family has markedly diminished following the loss of the richness and frequency of relations among its members. One of the factors that contributed to the weakening of the family's influence on its members is, according to Hamburg and Hamburg (2004), technological advancements that are characterized by high geographic mobility and the heavy workload of modern times. In addition, family violence, divorce, child abuse, and the challenges of single parenting and extended families led such scholars as Carl Zimmerman of Harvard University (Olson & DeFrain, 2000) to argue that because the moral values of the family are so disintegrating, there is little left to hold the family together. Thus, although the family is expected to provide deep emotional nourishment for its members, this may happen rarely due to myriads of factors. Instead, the influence of media that presents powerful messages that bypass the family has increased more than ever before. The period of adolescence by itself tends

to make family-adolescent interactions conflictual as adolescents need greater independence from their parents (Smith, 2016). These challenges deprive families of the potential to raise children and adolescents desirably.

Ethiopian families are not exception to these challenges. Family violence has been identified as a rampant and serious social problem in Ethiopia (Habtamu, 2005; Shanko et al., 2013; Biniam, 2023; Birye & Netsanet, 2023; Galata & Belay, 2023). It goes without saying that family members including children and adolescents witness or directly experience this violence thereby nurturing inter-generational transmission of violence (World Health Organization [WHO], 2005; Mihret & Heinrichs, 2024; Mekuriyaw, 2018). Indeed, in Ethiopia, due to the amalgamation of traditional patriarchal societal structures, poverty, and illiteracy, domestic violence is an everyday reality for women (Tayechalem, 2009). A review of 15 empirical studies in the Ethiopian context indicated that two-thirds of the studied women did experience domestic violence by their husbands or intimate partners (Agumasie & Bezatu, 2015). Worst of all, Agumasie and Bezatu found that eight out of ten women accept wife-beating if the husband or intimate partner has at least one justifiable reason. The wives held the belief that "he is my husband and he can kick me (p. 9)". One of the consequences of family violence in Ethiopia is divorce, which is increasing at an alarming rate (Yeshiwork et al., 2019; Tilson & Larsen, 2000; Mekonnen et al., 2019). Because family is a system, these experiences of family violence affect members of the entire family thereby characterizing the FE as conflictual (Galata & Belay, 2023).

At least traditionally, the Ethiopian culture has been considered as collectivist and embeddedness oriented as people are viewed as entities embedded in the

collectivity in which maintaining the status quo and restraining actions that might disrupt in-group solidarity or the traditional orders are emphasized (Schwartz, 2006; Kagitcibasi, 2017). As a result, the Ethiopian cultural norms endorse physical punishment as an effective means of child discipline for instilling ethical behavior and preparing children for their future. Consequently, although an authoritative parenting style has been emerging recently, Ethiopia's parenting is characterized predominantly by authoritarian parenting style. This creates a fertile ground for children to model violence as authoritarian parenting features with little warmth, too much control, and a lack of willingness to negotiate (Abraham, 1996 & Habtamu, 1979 cited in Reda, 2014; Dame, 2014; Menelik et al., 2022). Nonetheless, there are some studies (e.g., Abesha, 2012; Yalew, 2004) that indicate that even in a collectivist oriented Ethiopian culture, high value is attached to achievement.

In addition to contextual factors, quality of FEs may vary as a function of demographic variables including gender, educational levels and income of the adolescents' parents. Regarding gender differences in FE, Lopeza et al. (2008) have shown that for girls, there is a strong relationship between quality of FE and the need for social recognition. One possible explanation for this link was, as provided by these researchers, that high-quality FE discourages girls from going outside of the family for meeting their social recognition needs. On the other hand, as the researchers argue, experiences of poor family cohesion may lead these young women to look outside of the family and, in the process, take part in aggressive acts. However, other studies (e.g., Mohanraj & Latha, 2005; Vianna et al., 2007; Ladd, 1988) using the FES as a measure of FE did not find significant sex differences. Some studies (e.g., Boake & Salmon, 1983), on the contrary, reported differences in FE with respect to parents'

level of education and family income. Whether these findings hold true in the Ethiopian context will be examined in the present study.

Overall, given a family's potential for raising well-functioning individuals thereby contributing to the development of strong society and the prevailing cultural and other contextual factors that can stifle this potential, it is mandatory to assess characteristics of adolescents' FEs in order to prepare a fertile ground for subsequent interventions that aim at enhancing quality of these environments. Nonetheless, little attention has been given to the assessment of FE in the Ethiopian context (Kidist & Sandhu, 2020).

Objectives of the Study

This study was intended to:

- Assess characteristics of adolescents' family environment (FE).
- Examine differences in the attributes measured by the 10 subscales of the family environment scale (FES) (as described in Table 1) with respect to demographic characteristics (i.e., sex, family structure, educational and income levels).

Operational Definitions

The major construct examined in this study is FE which refers to perceived social functioning of the family as assessed by items adapted from the Real Form of the FES (Moos & Moos, 2009). Characteristics of the FE denote attributes of the families as represented by the 10 subscales of the FES (see Table 1).

Methods

Study Approach and Site

This study employed a quantitative approach to research. The use of this approach was dictated by the nature of objectives of the study. Addis Ababa city, where the present study was conducted, was founded in 1886 (Bahiru, 2002). This city has been serving as the capital city and cultural hub of Ethiopia for about 130 years. It is, therefore, one of the oldest cities in Africa. Because it is the capital city of a multicultural society, Addis Ababa is also the home of people of diverse ethnicity, languages, and religions. According to the Central Statistical Agency of Ethiopia (2012), of the city's population aged 10 years and above (which are considered to be economically active), 86.42% (Male = 48.95%; Female = 51.05%) were literate while 13.54% (Male = 19.05%; Female = 80.95%) were illiterate.

Sample and Sampling Techniques

The present study emerged from an International Society for the Study of Behavioral Development (ISSBD)-sponsored Developing County Fellowship (DCF 2020-2022). As the time of data collection was during the aftermath of COVID-19, owing to restrictions and busy make up classes that resulted from academic calendar interruptions caused by the pandemic, it was difficult to get adequate number of willing schools so as to apply the principles of proportionate random sampling technique to school type (government and private). Thus, it was decided to collect data from two government and one private secondary schools (Grades 9-12) which permitted collection of the data. Data obtained from the record offices of the respective schools show that, at the time of data collection, there were 2905 (Male = 1391; Female =1514)

regular students in Addis Ketema, 2388 (Male = 1023; Female =1365) regular students in Kechene Debere Selam, and 455 (Male =213; Female =242) regular students in Bisrate Gebriel secondary schools. Thus, depending on these data, 5748 (i.e., 2905 + 2388 + 455 =5748) was considered as the accessible population of the study. Whereas the target population is the group to which research results are ideally generalized, generalization to accessible population is more realistic (Gay, Mills, & Airasian, 2012).

The present study was based on a research project which used a sample size of 500. This size was considered adequate for structural equation modeling in the project, and it was also assumed to be adequate for the analyses conducted in the present study. Because the number of students in the government schools (5293) was significantly higher than the number of students in the private school (455), in order avoid severe underrepresentation of the private school student population, it was decided to sample 74% of the 500 students from government schools and 26% of the 500 students from the private school (see Table 2). These proportions were based on the general observation that a greater number of students attend government schools than private schools in the Addis Ababa city (Addis Ababa Education Bureau, 2018). For a preliminary analysis of the FES items, a pilot study was conducted on a sample of 159 (77 male and 82 female) adolescents attending two secondary schools (one government and one private) in Addis Ababa City.

In order to select participants in accordance with this sample size, a proportionate stratified random sampling method (by considering sex and grade level as strata) was used. To decide the number of participants to be selected from each stratum, the following formula for proportional stratified sampling was used (Brown, 2007).

$$Ks = n\left(\frac{Ns}{N}\right)$$

Where K_s = Number of sampling units selected from stratum S; n = sample size for stratum S; Ns = Number of sampling units in a stratum S; N = Overall population size. This formula allocates sample sizes according to the number of participants in each stratum. For instance, for the sex stratum, to determine the proportion of male participants that would be selected from the private school, we have $N_M = 213$; n = 124 and N = 455. Then, using the formula for proportional stratified sampling,

$K_s = 124\ (213/455) \quad = 58.04835 \approx 58.$

Similar procedures were used to select students from the grade stratum. Table 2 shows the demographic characteristics of the main study participants. Although all of the participants (500) were present, able and willing to participate in the study and therefore filled in and returned the questionnaire (response rate = 100%), data screening indicated that 23 (14 males, 9 females; 17 from government schools, 6 from private school) did not complete the questionnaire appropriately (e.g., some acquiescence response sets and zigzag response patterns were observed). Response sheets of these 23 participants were discarded. As a result, a total of 477 participants remained in the analysis (see Table 2). The majority of these participants were from government schools (n = 353; 74%), female adolescents (n = 255; 53.50%), grade 12 (n = 149; 31.20%), who had been living with their families starting from their birth date (n = 371;

77.80%). Their family structures (i.e., the type of family in which they were living) varied from father and stepmother (n = 9; 1.90%) through parents and grandparents (28 = 5.90%) to father and

Table 2

Demographic Characteristics of the Main Study Participants (N = 477)

Variable		**N**	**%**
School Type	Government	353	74.00
	Private	124	26.00
Sex	Male	214	44.90
	Female	255	53.50
	Missing Values	8	1.70
Grade	9	105	22.00
	10	113	23.70
	11	110	23.10
	12	149	31.20
Duration of Living in the Family	From Birth Date	371	77.80
	From 10-15 Years	27	5.70
	From 6-9 Years	27	5.70
	From 2-5 Years	29	61.60
	From 5-12 Months	8	1.70
	Less than 5 Months	9	1.90
	Missing Values	6	1.30
Family Structure: Living With:	Father and Mother (Nuclear Family)	294	61.6
	Only Mother (Single Parent Family)	74	15.5
	Only Father (Single Parent Family)	15	3.10
	Stepfather and Mother (Blended Family)	10	2.10
	Father and Stepmother (Blended Family)	9	1.90
	Grandparents (Grand Father, Grand Mother or both; Extended Family)	18	3.80
	Parents and Grand Parents (Extended Family)	28	5.90
	Relatives (Uncle, Aunt)	19	4.00
	Others (with brother, sister, etc)	9	1.90
	Missing Values	1	.20

mother (n = 294; 61.60%). While the educational level of fathers or male guardians of the respondents varied from *No Education* (n = 13; 2.70%) through *Grades 11-12* (n = 102; 21.40%) to *PhD and above* (n = 9; 1.90%), the educational level mothers or female guardians ranged from *No Education* (n = 24; 5.00%), through *Grades 11-12* (n = 99; 20.80%) to *PhD and above* (n = 3; .60%). Similarly, the families' overall monthly income varied from *less than 500 Birr* (n = 17; 3.60%) through 10,001-15,000 Birr (n = 69; 14.50%) to greater than 15, 000 Birr (n = 150; 31.40%). (Birr is the currency of Ethiopian). The participants reported that they were living in family sizes that ranged from two to 16 members (Mean = 5.88; SD = 2.18). Likewise, the age of the participants ranged from 13 to 22 (Mean = 16.86; SD = 1.41).

Data Gathering Tools

Data was gathered using a questionnaire composed of Family Environment Scale (FES) and demographic questions. The FES was translated and validated in the Ethiopian context (see Mitiku, 2023). The present study was conducted using the validated 64 items of the FES in their respective 10 subscales. Table 3 indicates the internal consistency of the 10 subscales. In the present main study, seven of the 10 subscales (Cohesion, Conflict, Achievement Orientation, Moral Religious Emphasis, Independence, Active Recreational Orientation and Organization, see Table 3) had Cronbach Alphas greater than .50, a cutoff point above which some FES literatures (e.g., Omar et.al., 2010) regard reliability of a scale as acceptable. Despite its common use in the empirical literature in general and FES literature in particular, according to Hair, Black, Babin and Anderson (2010), Cronbach's alpha tends to understate reliability. Thus, in the present study, following the suggestion of Hoekstra et al.

(2018) to report more alternative measures of reliability besides Cronbach's alpha, index of quality (IoQ) (Schwartz & Butenko, 2014) was used for further examination of the reliability. It is evident from Table 3 that for most of the subscales, IoQ produced relatively higher reliability coefficients than did Cronbach's alpha. This indicates that the lower Cronbach's alphas of the subscales were not only due to the problems inherent in the items but also because of the approach used for estimating the reliabilities.

Data Gathering Procedures

The cooperation request letter that the School of Psychology, Addis Ababa University, provided was given to the administrators of the selected schools. After realizing that the data collection does not harm the instructional time and the students in any way, the administrators allowed to collect the data. From each of the schools, one teacher (data collection assistant) was assigned by the administrators to facilitate data collection. The assistants were introduced about the purposes of the study and procedures of responding to the questionnaire. Then, the name list of the students which served as a sampling frame was obtained from the schools' record offices.

Table 3

Reliabilities (Cronbach Alpha,α and IoQ) of the Subscales of the FES in the Present Study (N=477)

Subscales	Reliability		
	K*	α	IoQ
Cohesion	7	.73	.73
Conflict	7	.54	.62
Expressiveness	4	.42	.63
Achievement Orientation	8	.53	.59
Moral-Religious Emphasis	8	.54	.61
Independence	6	.61	.68
Intellectual Cultural Orientation	5	.33	.58
Active Recreational Orientation	7	.63	.67
Organization	8	.60	.64
Control	4	.48	.67
Total number of Items	*64*		

*Notes: *K = Number Items; IoQ = Index of Quality*

In cooperation with the administrators and the assigned teachers, free periods and a separate hall were arranged in advance. With the assistance of the data collection assistants, the selected students were informed in their respective sections about the time and venue where they were to provide data. In the hall, together with the assistants, the researcher explained to the participants about the purpose of the study, established rapport, assured participants of their confidentiality of their responses, and obtained their oral consent to voluntarily participate in the study. Participants who required further explanations concerning the items, instructions, or how they should respond to the items were assisted throughout the administration process.

Techniques of Data Analysis

In this study, descriptive statistics (i.e., frequency, percentage, mean and standard deviation) were used to describe the data. One variable chi-square test, independent samples t-test and One-way ANOVA were also used in the present study. To examine the tenability of the assumption of normality for independent samples t-test and one-way ANOVA, graphical methods (Tabachnick & Fidell, 2013) were employed. Generally, these assumptions were found to be tenable. The analyses were carried out using version 23.0 of the Statistical Package for the Social Sciences (SPSS). For all inferential tests, test of significance was set at the .05 level.

One Variable Chi-square Test

In the present study, one variable chi-square test (also called goodness-of-fit test) was used to test whether statistically significant differences exist between number of adolescents who reported above average scores in the subscales of the FES (see Figure 1). The major assumption of the chi-square (χ^2) test is concerned with the sample size in the expected frequency cells. When degree of freedom equals one, stringent statisticians recommend that the expected frequency in each cell be at least 10 (Cohen, 2001). In the present study, the minimum expected frequency was 16 (i.e., when equal expected frequency was applied to the total number of adolescents who reported above average scores on the five subscales in the Personal Growth Dimension, 80/5) and the maximum expected frequency was 79.50 (i.e., when equal expected frequency was applied to the total number of adolescents who reported above average scores on both subscales in the System Maintenance Dimension, 159/2) indicating the meeting of the assumption and tenability of the chi-square test. Since, there was no prior

study that examined characteristics of the adolescents' FEs in the Ethiopian context to use as a benchmark (so as to employ the unequal expected frequency option), the equal expected frequency option was used during analysis.

Independent Samples t-test

This test was used to examine differences in the subscales of the FES with respect to sex and school type. Levene's Test for Equality of Variances (Pallant, 2010) was used to test the tenability of the assumption of equality of variances. Except for Active Recreational Orientation Subscale, the variances of government and private schools on all of the subscales were homogeneous as Levene's Test was not significant ($p > .05$). Since the test revealed significant result for Active Recreational Orientation Subscale ($p = .018$) implying that government and private schools' data on this variable came from two different populations with unequal variances, the results under the second alternative in the output provided by the SPSS, *equal variances not assumed* were used leaving those provided under the *equal variances assumed* alternative. In computing the obtained t-values that compensate for violating the assumption of homogeneity of variance, some degrees of freedom (df) were consumed (see Table 6).

One-Way Analysis of Variance (One-Way ANOVA)

In the present study, one-way ANOVA was used to examine the differences in the ten components of the FES with respect to family structure, mothers' educational level, fathers' educational level, and family's income. ANOVA was followed by Tukey's Post Hoc Test to identify the pairs where statistically significant differences were observed.

Results

Characteristics of the Adolescents' FE

The first objective of the study was assessing characteristics of adolescents' FE. Table 4 shows summary of descriptive statistics on the subscales. Because the number of items per subscale differ in which case differences in the scores of the subscales would be due to the differences in the number of items, the obtained total scores on each subscale were divided by the number of items in their respective subscales. As illustrated in Table 4, this procedure produced average scores ranging from 1 to 4.

Table 4

Descriptive Statistics for the Subscales of the FES (N = 477)

Subscale	Minimum Score	Maximum Score	Mean	SD
Cohesion	1.29	4	3.36	.57
Conflict	1	3.86	1.97	.54
Expressiveness	1	4	2.81	.64
Achievement Orientation	1.63	4	3.22	.47
Moral Religious Emphasis	1.75	4	3.38	.45
Independence	1.17	4	3.05	.59
Intellectual Cultural Orientation	1	4	2.75	.53
Active Recreational Orientation	1	4	2.60	.62
Organization	1.63	4	3.15	.49
Control	1	4	2.97	.60

In order to examine which of the attributes measured by the 10 subscales of the FES characterized a family, FE orientations were assessed using mean scores presented in Table 4. Accordingly, to identify the exclusive FE propensity/orientation for Cohesion, participants with Cohesion scores greater than the mean of the Cohesion

Subscale and scores less than the mean of the Conflict and Expressiveness Subscales (i.e., Cohesion > 3.36 and Conflict < 1.97 and Expressiveness < 2.81) rule was used. Similar procedures were used for identifying FE orientations in the other subscales within their respective dimensions. Table 5 shows that, for subscales in the Relationship Dimension, the FEs of the adolescents were found to be more oriented towards Conflict (n = 91; 19.10%) followed by Cohesion (n = 73; 15.30%), and least oriented towards Expressiveness (n = 32; 6.71%). Chi-square test indicated that the differences among the frequencies of the three subscales were statistically significant ($\chi 2$ (2) = 27.990, p = .000). Closer examination of the data indicated that only few families may have been experiencing good quality family social relationships as 103 out of 477 (i.e., 21.59%) adolescents reported scores greater than means of Cohesion and Expressiveness and less than the mean of Conflict Subscale simultaneously.

Table 5

Summary of Family Environment Orientations (N = 477)

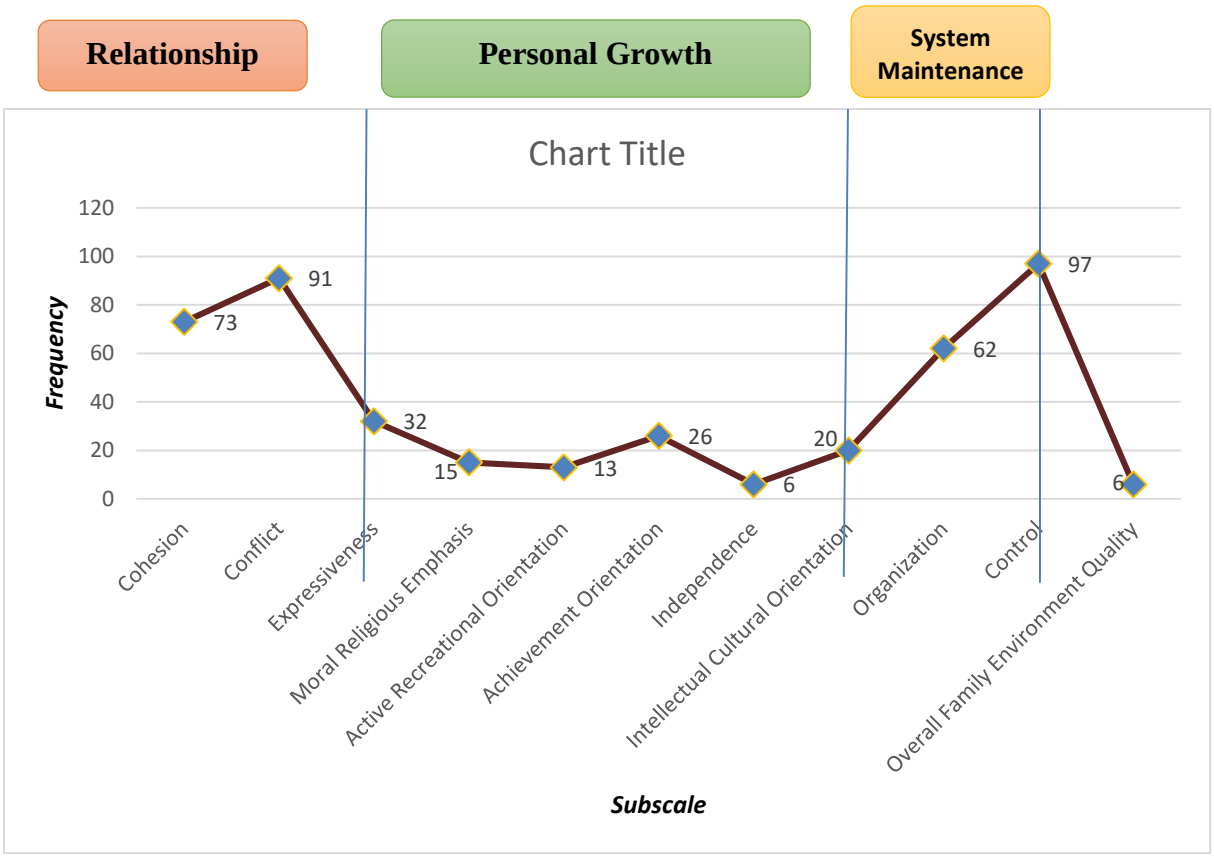
Dimension	Component	Male		Female		Total		Missing Case
		f	%	f	%	f	%	
Relationship	Cohesion	35	47.90	37	50.70	73	15.30	1
	Conflict	42	46.20	47	51.60	91	19.10	2
	Expressiveness	14	43.80	17	53.10	32	6.71	1
Personal Growth	Moral Religious Emphasis	2	13.30	13	86.70	15	3.15	
	Active Recreational Orientation	7	53.80	6	46.20	13	2.73	
	Achievement Orientation	9	34.60	17	65.40	26	5.45	
	Independence	3	50.00	3	50.00	6	1.26	
	Intellectual Cultural Orientation	10	50.00	9	45.00	20	4.19	1
System Maintenance	Organization	27	43.50	34	54.80	62	13.00	1
	Control	45	46.40	49	50.50	97	20.34	3

For components in the Personal Growth Dimension, the FEs appeared to emphasize more on Achievement (n= 26; 5.45%) and least oriented towards Independence (n = 6; 1.26%). Differences among the frequencies of the five subscales of this dimension were tested using Chi-square test and were found to be statistically significant (χ^2 (4) = 14.125, p = .01). On the other hand, relatively few number of adolescents (n =35; 7.34%) reported above average scores on the five subscales of this dimension simultaneously.

Similarly, on the System Maintenance Dimension, FEs oriented more towards Control (n = 97; 20.34%) than Organization (n= 62; 13%). Of course, FEs appeared to be most oriented relatively to Control and Conflict than any other orientations. Difference between the frequencies of the two subscales were tested using Chi-square test and was found to be statistically significant (χ^2 (1) = 7.704, p = .01). Closer scrutiny of the data showed that relatively greater number of the adolescents (n=185; 38.78%) reported more than average scores on Organization and Control Subscales simultaneously. Regarding the overall quality of the FE, a very few number of adolescents (n = 6; 1.26%) reported scores less than the mean of the Conflict and Control Subscales and scores greater than the mean of the other eight subscales simultaneously. Figure 1 depicts FE orientations using the number of adolescents who reported above average scores on the subscales.

Figure 1

Number of Adolescents Who Reported Above Average Scores in the Subscales of the FES



Differences in the Components of the FES as a Function of Demographic Variables

The demographic variables considered in this study were sex, school type, family structure, educational level (both fathers' and mothers'), and monthly family income. While no statistically significant difference was found in the ten components of the FES with respect to sex, the tests revealed differences in some of the components with respect to the other variables. Table 6 shows differences in the components with

respect to school type. Statistically significant differences in Conflict ($t_{(475)} = 2.298$, $p = .022$), Expressiveness ($t_{(475)} = 2.407$, $p = .016$), Active Recreational Orientation ($t_{(248.198)} = -5.039$, $p = .000$), Intellectual Cultural Orientation ($t_{(475)} = -2.922$, $p = .004$), and Organization ($t_{(475)} = -2.291$, $p = .022$) were observed with respect to school type.

Table 6

Results of t-Test for Differences in the Subscales of the FES with Respect to School Type (Government = 353; Private = 124)

Subscale	School Type	Mean (SD)	Df	t	Effect Size (Cohen's d)
Cohesion	Government	23.45 (3.75)	475		
	Private	23.73 (3.50)			
Conflict	Government	14.01 (3.88)	475	2.298*	.24
	Private	13.11 (3.50)			
Expressiveness	Government	11.40 (2.53)	475	2.047*	.25
	Private	10.76 (2.59)			
Active Recreational Orientation	Government	17.68 (4.40)	248.198	-5.039***	.49
	Private	19.76 (3.78)			
Achievement Orientation	Government	25.76 (4.04)	475		
	Private	25.94 (2.96)			
Moral Religious Emphasis	Government	27.00 (3.70)	475		
	Private	27.19 (3.35)			
Intellectual Cultural Orientation	Government	13.54 (2.74)	475	-2.922**	.31
	Private	14.35 (2.38)			
Independence	Government	18.20 (3.54)	475		
	Private	18.61(3.55)			
Organization	Government	24.95 (4.00)	475	-2.291*	.24
	Private	25.88 (3.61)			
Control	Government	11.89 (2.43)	475		
	Private	11.82 (2.24)			

While adolescents attending government schools reported significantly greater scores than those attending private schools on Conflict and Expressiveness, adolescents attending private schools rated their FEs significantly greater than those attending

government schools on Active Recreational Orientation, Intellectual Cultural Orientation, and Organization. With respect to the magnitude of the differences, only that of the Active Recreational Orientation reached the level of medium effect size (Cohen's d = .49); the rest had low effect sizes. On the other hand, the analyses did not find statistically significant differences in Cohesion, Achievement Orientation, Moral Religious Emphasis, Independence, and Control components with respect to school type.

For demographic variables with more than two levels, a One-Way ANOVA was used to examine differences in the dependent variables. Statistically significant results were obtained in Moral Religious Emphasis ($F_{(8, 467)} = 3.767$; $p = .000$; $\eta^2 = .061$) with respect to Family Structure. Follow-up analysis using Tukey's Post Hoc Test indicated that, on Moral Religious Emphasis, adolescents who live with their father and stepmother (Mean = 22.51) reported significantly lower scores than adolescents who live with both of their biological fathers and mothers (Mean = 27.49), only their mothers (Mean =26.63), stepfather and mother (Mean = 28.40), grandparents (Mean = 27.11) and parents and grandparents (Mean = 26.64) .

Similarly, statistically significant differences were found among fathers or male guardians of different educational levels with respect to Active Recreational Orientation ($F_{(8, 445)} = 5.651$; $p = .000$; $\eta^2 = .092$). Further analysis with Tukey's Post Hoc Test indicated that adolescents whose fathers or male guardians attained Basic Education (Mean = 15.08) reported significantly lower scores than adolescents whose fathers or male guardians completed Grades 9-10 (Mean = 18.80), Grades 11-12 (Mean = 18.27), College Diploma (Mean = 20.14), First Degree (Mean = 19.64) or Master of Arts Degree (Mean = 18.53) in Active Recreational Orientation. Moreover, adolescents

whose fathers or male guardians attained Primary Education (i.e., Grades 1-8) (Mean = 17.32) reported significantly lower scores than adolescents whose fathers or male guardians completed College Diploma (Mean = 20.14) or First Degree (Mean = 19.64). In a similar manner, father's or male guardian's levels of education produced statistically significant differences in the Conflict component of FE ($F_{(8, 445)} = 2.244$; $p = .023$; $\eta^2 = .039$). Tukey's Post Hoc Test showed that adolescents whose fathers or male guardians had No Education (Mean = 17.15) reported significantly higher scores than adolescents whose fathers or male guardians completed Grades 11-12 (Mean = 13.51), College Diploma (Mean = 12.59) or First Degree (Mean = 13.49) in the Conflict component of FE. Likewise, Cohesion differed significantly with respect to father's or male guardian's level of education ($F_{(8, 445)} = 2.416$; $p = .015$; $\eta^2 = .042$) in such a way that, according to Tukey's Post Hoc Test, adolescents whose fathers or male guardians had No Education (Mean = 19.85) reported significantly lower scores than adolescents whose fathers or male guardians completed Primary Education (i.e., Grades 1-8) (Mean = 23.65), Grades 9-10 (Mean = 23.39), Grades 11-12 (Mean = 23.71), College Diploma (Mean = 24.38), First Degree (Mean = 23.91) or Master of Arts Degree (Mean = 23.46) in Cohesion. Intellectual Cultural Orientation Subscale also differed significantly with respect to father's or male guardian's level of education ($F_{(8, 445)} = 2.386$; $p = .016$; $\eta^2 = .041$) in such a way that adolescents whose fathers or male guardians completed PhD or above (Mean = 15.67) reported significantly higher scores than adolescents whose fathers or male guardians had No Education (Mean = 11.92).

Mother's or female guardian's level of education also produced statistically significant differences in Organization ($F_{(8, 459)} = 2.376$; $p = .016$; $\eta^2 = .040$), Active Recreational Orientation ($_{.05}F_{(8, 459)} = 5.253$; $p = .000$; $\eta^2 = .084$) and Achievement

Orientation ($_{.05}F_{(8, 459)} = 3.057$; $p = .002$; $\eta^2 = .051$) Subscales. Follow-up analysis using Tukey's Post Hoc Test revealed that on Organization component of the FE adolescents whose mothers or female guardians had No Education (Mean = 22.65) reported significantly lower scores than adolescents whose mothers or female guardians completed Grades 11-12 (Mean = 25.92), College Diploma (Mean = 25.66) or First Degree (Mean = 25.60). Similarly, on Active Recreational Orientation, adolescents whose mothers or female guardians had No Education (Mean = 14.54) reported significantly lower scores than adolescents whose mothers or female guardians completed Grades 9-10 (Mean = 18.37), Grades 11-12 (Mean = 19.43), College Diploma (Mean = 18.84), First Degree (Mean = 18.80) or Master of Arts Degree (Mean = 19.18). Likewise, on Achievement Orientation, adolescents whose mothers or female guardians had No Education (Mean = 23.38) reported significantly lower scores than adolescents whose mothers or female guardians completed Grades 11-12 (Mean = 26.94) or First Degree (Mean = 26.18).

In a similar manner, Active Recreational Orientation ($F_{(7, 451)} = 4.122$; $p = .000$; $\eta^2 = .060$), Achievement Orientation ($_{.05}F_{(7, 451)} = 3.214$; $p = .002$; $\eta^2 = .048$), and Independence ($_{.05}F_{(7, 451)} = 2.236$; $p = .030$; $\eta^2 = .034$) components of the FE were found to differ significantly with regard to Family's Overall Monthly Income. Tukey's Post Hoc Test revealed that on Active Recreational Orientation, adolescents whose families earn an overall monthly income of Less than 500 Birr (Mean = 15.18) reported significantly lower scores than adolescents whose family had monthly income of 10001-15000 Birr (Mean = 19.00) or Greater than 15000 Birr (Mean = 19.30). Adolescents from families of 500-1000 Birr overall monthly income (Mean = 16.61) also reported significantly lower scores than adolescents from families that earn Greater

than 15000 Birr (Mean = 19.30) on Active Recreational Orientation. Similarly, on Achievement Orientation Tukey's Post Hoc Test indicated that adolescents whose families earn an overall monthly income of Less than 500 Birr (Mean = 22.88) reported significantly lower scores than adolescents whose families earn 2001-4000 Birr (Mean = 26.93), 10001-15000 Birr (Mean = 26.38) or Greater than 15000 Birr (Mean = 26.14). Likewise, on Independence component of the FE, Tukey's Post Hoc Test found that adolescents whose families earn an overall monthly income of Less than 500 Birr (Mean = 15.47) reported significantly lower scores than adolescents whose family earns 6001-10000 Birr (Mean = 18.58), 10001-15000 Birr (Mean = 18.68) or Greater than 15000 Birr (Mean = 18.69).

Discussions

Characteristics of the Adolescents' Family Environments

The first objective of the present study was to assess characteristics of the adolescents' FEs. For the three components in the Relationship Dimension, the FEs of the adolescents were found to be characterized relatively more by Conflict and less by Expressiveness. These findings indicate that a relatively greater number of the sampled adolescents experience aggression and conflict in their families and that only a few of the adolescents express their feelings openly. Indeed, the quality of family social relationships may be in jeopardy as only a few adolescents may have been experiencing optimum levels of Cohesion and Expressiveness and less Conflict in their families. Consistent with the findings of the present study, Galata and Belay (2023) examined FEs of Amharic and Afan Oromo speaking participants using the Conflict Subscale of the FES and found that a considerable number of school-going adolescents experience conflict in their families. FE's orientation towards Conflict found in the present study

may be explained by the prevalence of family violence in Ethiopia. For instance, the WHO (2005) reported that 71% of ever-partnered Ethiopian women experience physical and sexual violence, in one or the other form over their lifetime. Moreover, Agumasie and Bezatu (2015) reviewed 15 empirical studies in the Ethiopian context and concluded that more than 60% of women experience domestic violence. Divorce, the legal dissolution of a marriage, may be considered as a consequence of family violence. Tilson and Larsen (2000) point out that 45% of first marriages in Ethiopia end in divorce within 30 years, 28% within the first 5 years, 34% within 10 years, and 40% within 20 years. More recently, Mekonnen et al. (2019) found that 46.5% of the households they studied were divorced. These high levels of domestic violence and divorce rate may partly be attributed to the low level of emotional expression among the family members. Indeed, Mekonnenet al. indicated that lack of open discussion and misunderstanding between the couple were among the causes of divorce. It is unfortunate for Ethiopian children and adolescents that most of them (WHO reports it to be 67%) witness or directly experience (Mihret & Heinrichs, 2024; Mekuriyaw, 2018) domestic violence in their families.

While Achievement was found to be emphasized in a relatively greater number of families, Independence was found to be the less stressed component within the Personal Growth Dimension. These findings imply that the FEs encourage competition in school and work activities in the adolescents, while relatively few FEs encourage self-sufficiency, assertiveness and making own decisions among the adolescents. These findings appear to be consistent with Abesha's (2012) study which found higher levels of academic motivation among Ethiopian higher education students. Abesha reported that although the Ethiopian culture is collectivistic (which is theoretically expected to

place less importance on competition and achievement), it attaches high importance to academic achievement. Yalew (2004) also found that the Ethiopian society attaches high value to education, and thus, perhaps to achievement or mastery. Due to the increases of human population at an alarming rate from time to time (especially in developing countries like Ethiopia) and the accompanying struggles to meet survival needs in a world where resources are limited, competition seems to be pervasive. People compete in schools, in sports fields, in markets, to get employed, to get promoted and even to get a mate. Thus, it will be less surprising to find families press their adolescent members towards achievement. But whether the achievement that families in this study encourage in the adolescents is the classical competitive individualistic achievement (i.e., n-ach, which focuses on individual striving, agency and competition with others) or the socially oriented achievement motive (Kagitcibasi, 2017) has to be investigated in the future.

Similarly, regarding orientations in the System Maintenance Dimension, Control was found to characterize relatively greater number of families than Organization. This implies that a relatively larger proportion of the families emphasize enforcing and following rules and procedures. One possible explanation for the prevalence of Control is the authoritarian parenting style which has been predominant in Ethiopia (Abraham, 1996 & Habtamu, 1979 cited in Reda, 2014; Dame, 2014). Empirical studies (e.g., Kagitcibasi, 2017) have demonstrated that higher level of control is common whenever childrearing does not stress the development of individualistic independence in the child (i.e., in collectivist cultures). Although research has indicated that authoritarian parenting (which is obedience and control oriented) may not debilitate the development of positive outcomes in collectivist

cultures as it does in individualist cultures, in line with Kagitcibasi, whether the type of Control found to be predominant in the present study is dominating (dysfunctional) or order-keeping and caring (functional) has to be investigated in the future. Nonetheless, it can be argued that a FE with high level of control coupled with a high level of conflict may not provide optimal quality for the development of positive outcomes. Indeed, a very few number of adolescents (1.26%) reported scores less than the mean of the conflict and control orientations and scores greater than the mean of the other eight orientations. This implies that a considerable number of adolescents in the present study may not be experiencing a balanced and overall high-quality FE.

Differences in the Components of the FES as a Function of Demographic Variables

The second objective of the present project was to examine variations in the 10 components of the FE with respect to demographic variables. The present study found no statistically significant sex differences in the components which implies that male and female adolescents perceived their FEs in a similar manner. Other studies using the FES as a measure of FE also did not find significant sex differences. For example, Mohanraj and Latha (2005) found that although Indian girls perceived more conflict in the family and boys perceived more control, the sexes did not show substantial disparities in most of the subscales of the FES. Likewise, women and men did not exhibit remarkable differences in the Portuguese version of the FES (Vianna et al., 2007). Furthermore, gender appeared to have no effect on student ratings of FE in their launching homes (Ladd, 1988).

On the other hand, considerable differences were observed in five of the ten components of the FES with regard to school type. Families that sent their adolescent

children to government schools were found to experience more Conflict and Expressiveness than families which send their adolescents to private schools. On the other hand, families that sent their children to private schools tend to be characterized more by Active Recreational Orientation, Intellectual Cultural Orientation and Organization than those families which send their adolescents to government schools. In Ethiopia, families that sent their children to private schools appear to be better than families which send their children to government schools in terms of, among other things, level of their income. This is probably why they could afford to pay monthly schools fees that private schools require. Of course, there is a general belief among the people that private schools provide more quality education than the government schools do. Generally, these findings appear to be consistent with other studies which found that families with higher incomes are more likely to establish FEs strongly oriented toward personal growth, especially intellectual and recreational activities and organizations (Boake & Salmon, 1983; Moos & Moos, 2009).

Also, Moral Religious Emphasis was found to differ with respect to family structure. More to the point, adolescents who live with their father and stepmother reported lower scores than adolescents who live with both of their biological fathers and mothers, only their mothers, stepfather and mother, grandparents and parents and grandparents. This finding indicates that families that are led by father and stepmother give less emphasis to moral and religious activities than the other family structures. Furthermore, with respect to father's or male guardian's educational level, considerable variations were found in Cohesion, Conflict, Active Recreational Orientation, and Intellectual Cultural Orientation in such a way that the higher the level of education, the higher the Cohesion, Active Recreational Orientation, Intellectual Cultural

Orientation and the lower the level of Conflict. Similar results were found in Active Recreational Orientation, Achievement Orientation and Organization with regard to mother's or female guardian's educational level. These findings imply that educational level may play important roles in increasing Cohesion, Intellectual Cultural Orientations, Achievement Orientation and Organization and in reducing Conflict in a family. Boake and Salmon (1983) also found statistically significant positive relations between father's educational level and Active Recreational Orientation and Intellectual Cultural Orientations.

The present study also found considerable variations in the Active Recreational Orientation, Achievement Orientation and Independence components of the FES with respect to the family's overall monthly income in such a way that the higher the family's income, the higher the scores on these subscales. These findings indicate that family's level of income may help to increase recreational and achievement orientations, and independence that adolescents experience in their families. The difference observed in Active Recreational Orientation in the present study support Boake and Salmon's (1983) study which reported statistically significant and positive relation between income and this component of the FE.

Conclusions and Implications

The present study sought to examine characteristics of adolescents' FE. In light of the findings of the study Conflict, Achievement Orientation, and Control appear to be the salient features of relatively greater number of the adolescents' families. In general, families of the adolescents seem to provide a less balanced overall FE quality. Likewise, adolescents attending government and private schools and those who live

with families of different structures with differing fathers' and mothers' educational levels and family income tend to experience different FEs.

The implications of the findings of the present study are manifold. First, some families (particularly those characterized by Conflict and Control) need interventions to improve FEs. Second, attempts should be made by concerned bodies (e.g., governmental and nongovernmental organisations) to help parents remain intact, increase fathers' and mothers' educational levels, and family income (i.e., family's socio-economic status in general) because these variables appeared to be related to more positive FEs in the present study.

The present study has also important implications for future research. First, although internal consistency (reliability) of the subscales was improved in the present main study due to refinements made based on the results of the pilot study, indices of reliability for Expressiveness, Intellectual Cultural Orientation and Control Subscales were found to be particularly worrisome (see Table 3). Thus, future researchers should pay attention to reliabilities of these subscales in particular and to the other subscales in general. Second, the non-random selection of the schools used in the present study limits generalizability of results of the study implying the need for random and representative schools in future studies. Third, future large-scale studies should be conducted not only on adolescents in the Addis Ababa city but also adolescents living in rural areas. Populations other than adolescents (such as husbands and wives in a family) can also be targeted for study. Third, the link between FEs and proximal and distal outcomes should be examined in future studies. For instance, the relationship between adolescents' FE and academic achievement, wellbeing, emotional intelligence,

social intelligence, bullying, violent behavior, altruistic behavior, nonviolent behavior, peaceful personality and other constructs can be studied.

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References

Abesha Ayele (2012). *Effects of parenting styles, academic self-efficacy, and achievement motivation on the academic achievement of university students in Ethiopia* (Unpublished PhD dissertation). Edith Cowan University, Perth.

Addis Ababa Education Bureau. (2018). *Education statistics annual abstract 2009 E.C. (2016/2017 G.C.).* Addis Ababa: Author.

Agumasie Semahegn & Bezatu Mengistie (2015). Domestic violence against women and associated factors in Ethiopia: Systematic review. *Reproductive Health, 12* (78), 1-12.

Bahiru Zewde (2002). *A history of modern Ethiopia, 1855–1991* (2nd ed.). Addis Ababa: Addis Ababa University Press.

Bell, N. J., Rychener, S. R., & Munsch, J. (2001). Multiple views of the family and adolescent social competencies. *Journal of Research on Adolescence, 11* (4), 375-400.

Biniam Petros (2023). *Intimate partner violence and associated factors among contraceptive users attending public health facilities in Adilo Zuria District, Kambata Tambaro Zone, Southern Ethiopia*(Unpublished master's thesis). Haramaya University.

Birye Dessalegn & Netsanet Balemual (2023). Magnitude of spousal violence and associated factors among midlife women in Ethiopia. *Ethiopian Journal of Health Sciences, 33* (2), 311-320.

Boake, C., & Salmon, P.G. (1983). Demographic correlates and factor structure of the Family Environment Scale. *Journal of Clinical Psychology 39,* 95-100.

Bretherton, I. (2009). Theoretical contributions from developmental psychology. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 275-297). New York: Springer Science + Business Media

Brown, J. A. (2007). Stratified random sampling. In N. J. Salkind (Ed.), *Encyclopedia of measurement and statistics* (pp. 967-971). Thousand Oaks: SAGE Publications, Inc.

Central Statistical Agency (2012). *Statistical report on the 2012 urban employment unemployment survey*. Addis Ababa: Author.

Charalampous, K., Kokkinos, C.M., & Panayiotou, G. (2013). The Family Environment Scale: Resolving psychometric problems through an examination of a Greek translation. *The International Journal of Educational and Psychological Assessment, 13* (2), 81-99.

Chivukula, U., & Agarwal, A. (2016). Family environment and mental well-being among adolescents. *The International Journal of Humanities and Social Studies, 4* (12), 318-322.

Cohen, B. H. (2001). *Explaining psychological statistics* (2nd ed). New York: John Wiley & Sons, Inc.

Crosbie-Burnett, M., & Klei, M. D. (2009). The fascinating story of family theories. In J. H. Bray, & M. Stanton (Eds.), *The Wiley-Blackwell handbook of family psychology* (pp. 37-52). Blackwell Publishing Ltd.

Dame Abera (2014). *Childrearing among the Arsi Oromo: Values, beliefs and practices*. (Unpublished doctoral dissertation). Addis Ababa University.

Fiske, S. T. (2014). *Social beings: Core motives in social psychology* (3rd ed.). John Wiley & Sons, Inc.

Galata & Belay (2023). Disruptive behaviors and family conflict among school adolescents in Harari Regional State. *Ethiopian Journal of Behavioral Studies, 6* (1), 1-29.

Gay, L.R., Mills, G.E., & Airasian, P. (2012). *Educational research: Competencies for analysis and applications* (10th ed.). Boston: Pearson Education, Inc.

Habtamu Wondimu (2005). Family violence in Addis Ababa: Challenges of reconciling culture and human rights in Ethiopia. *EJOSSAH, 3* (2), 27-49.

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis* (7th ed.). New Jersey: Pearson Prentice Hall, Inc.

Hamburg, D.A., & Hamburg, B.A. (2004). *Learning to live together: Preventing hatred and violence in child and adolescent development.* London: Oxford University Press.

Hoekstra, R., Vugteveen J., Warrens, M. J. & Kruyen, P. M. (2018): An empirical analysis of alleged misunderstandings of coefficient alpha. *International Journal of Social Research Methodology*, DOI: 10.1080/13645579.2018.1547523.

Kagitcibasi, C. (2017). *Family, self and human development across cultures: Theory and Applications.* New York: Taylor and Francis.

Kidist Tesfaye. & Sandhu, T. (2020). Family environment and substance use among university students. *International Journal of Scientific and Technology Research, 9* (2), 1530-1535.

Ladd, L.D. (1988). *Differences between young adult perceptions of family environment, family values, sexual behavior, sexual attitudes and attitude toward divorce by gender and family type* (Unpublished Doctoral Dissertation). Oregon State University. Retrieved from r.library.oregonstate.edu/xmlui/bitstream/.../LaddLindaDarmer1989.pdf?

Lewin, K. (1951). *Field theory in social science*. New York: Harper.

Lopeza, E.E., Pereza, S.M., Ochoab, G.M., & Ruiza, D.M. (2008). Adolescent aggression: Effects of gender and family and school environments. *Journal of Adolescence, 31,* 433–450.

Mekonnen, Y., Kassa, K. & Ayalew, M. (2019). Prevalence, causes and consequences of divorce in Bahir Dar City, Ethiopia. *African Journal of Social Work* 9 (*1*), 73-78.

Mekuriyaw, E. (2018). The causes and consequences of family violence against children in Debre Markos Town, Ethiopia. *PEOPLE: International Journal of Social Sciences, 3*(1), 1-16.

Menelik Desta, Negussie Deyessa, Yohannes Hailu, Abenezer Baye, Rodriguez, N., Fish, I., & Garland, A. F. (2022). Harsh physical discipline: Prevalence and associated factors among primary caregivers of pre-school children in Ethiopia. *Int. Journal on Child Malt., 5*:355–374.

Mihret, A.M., & Heinrichs, N. (2024). Intergenerational effects of child maltreatment on adolescents' anxiety and depression in Ethiopia: The important mediating and moderating roles of current psychological distress. *BMC Psychiatry, 24* (126), 1-15. https://doi.org/10.1186/s12888-024-05586-6.

Mitiku Hambisa (2023). Factor structures of the Family Environment Scale (Amharic Version). *Ethiopian Journal of Behavioral Studies 6* (2), 86-118.

Mohanraj, R., & Latha. (2005). Perceived family environment in relation to adjustment and academic achievement. *Journal of the Indian Academy of Applied Psychology*, *31*(1-2), 18-23.

Moos, R. (2003). *The Social Climate Scales: A user's guide* (3rd ed.). Redwood City: Mind Garden, Inc.

Moos, R. H. (1996). Understanding environments: The key to improving social processes and program outcomes. *American Journal of Community Psychology, 24* (1), 193-201.

Moos, R.H., & Moos, B.S. (2009). *Family Environment Scale: Manual development, applications, research* (4th ed.). Palo Alto: Mind Garden, Inc.

Olson, D.H., & DeFrain, J. (2000). *Marriage and the family: Diversity and strengths* (3rd ed.). California: Mayfield Publishing Company.

Omar, K., Musa, R., Hanif, J., Muhammad, N. A., Bujang, A., & Fadhlullah, F. M. (2010). Reliability of Bahasa Malaysia Version of Family Environment Scale and Its Measurement Issues. *ASEAN Journal of Psychiatry, 11* (1), 1-12.

Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS* (4th ed.). New York: McGraw-Hill Companies.

Reda Darge (2014). *Family characteristics as the moderators of the relationship between late adolescents' psychological constructs and interrogative suggestibility in Bahir Dar city administration* (Unpublished doctoral dissertation). Addis Ababa University.

Reis,W., Santos, H.D.,Walbol, M.M., Herring, P., Sherman,C., Dehom,S., Gaio, J. (2021). Perception of family functioning among adolescents that are overweight and obese: A cross-sectional study. *Archives of Pediatrics and Neonatology, 4*(1): 05-13. DOI: https://doi.org/10.22259/2638-5155.0401002.

Repetti, R.l., Taylor, S.E., & Seeman, T.E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin, 128* (2), 330–366.

Saucier, G., Wilson, K.R., & Warka, J. (2007). The structure of retrospective accounts of family environments: Related to the structure of personality attributes. *Journal of Personality Assessment, 88 (*3), 295–308.

Schwartz, S. H. (2006). A theory of cultural value orientations: Explication and applications. *Comparative Sociology*, 5, 137–182. doi:10.1163/156913306778667357.

Schwartz, S.H., & Butenko, T. (2014). Values and behavior: Validating the refined value theory in Russia, *European Journal of Social Psychology, 44*, 799-813.

Shanko,W., Wolday, M., Assefa, N., & Aro, A. R. (2013). Domestic violence against women in Kersa, Oromia Region, Eastern Ethiopia. *Eastern Mediterranean Health Journal, 19*(1), 18-23.

Smith, P. K. (2016). *Adolescence: A very short introduction*. New York: Oxford University Press.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Boston: Pearson Education, Inc.

Tayechalem Moges. (2009). *Legal response to domestic violence in Ethiopia: A comparative analysis.* Budapest: Central European University.

Tilson, D., & Larsen, U. (2000). Divorce in Ethiopia: The impact of early marriage and childlessness. *Journal of Biosocial Science, 32* (3). 355-372.

Vianna, V. P., Silva, E. A., & Souza-Formigoni, M.L. (2007). Portuguese version of the Family Environment Scale: Application and validation. *Rev Saúde Pública, 41* (3), 1–8.

World Health Organisation (2005). *WHO Multi-country Study on Women's Health and Domestic Violence against Women*. URL: http://www.who.int/gender/violence/multicountry/en/.

Yalew Endawoke (2004). *Psycho-educational and family factors that contribute to aggression in schools: Qualitative and quantitative analyses* (Unpublished doctoral dissertation). University of Leipzig, Leipzig.

Yeshiwork, M., Koye, K. & Meseret, A. (2019). Prevalence, causes and consequences of divorce in Bahir Dar City, Ethiopia. *African Journal of Social Work, 9* (1), 72-78.