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The role of social factors in facilitating pro-social behavior among Arsi Negelle Preparatory school students, Ethiopia

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Abstract

The main aim of this study was to investigate the role of social factors in facilitating pro-social behavior among Arsi Negelle Preparatory school students. The research employed cross-sectional research design of quantitative method. Out of 1170 grade eleven and twelve students, 299 students were selected were selected using stratified systematic random sampling technique. Descriptive statistics were computed to summarize the participants' demographic characteristics and the most observed pro-social behavior type. Independent t -test was also used to test the significance mean difference between gender while one way ANOVA was employed to quantify the family income and parental education in facilitating pro-social behavior among students. The findings showed that among domain of pro-social behavior, complaint was the most observed pro-social behavior while altruism was the least observed pro-social behavior among students. There was a significant mean difference in score of overall pro-social behavior between male and female students. There was also statistically significant difference among respondents in their overall pro-social behavior and all types of pro-social behaviors score facilitated by their mother's and father's level of education. On the other hand, there was statistically insignificant difference among respondents in their overall pro-social behavior scores that can be facilitated by their family/guardian's level of income. As a result, students were mostly involved in helping others in response to a verbal or nonverbal request. Moreover, being male or female and mother's level of education has had an influence in involving pro-social behavior. However, family/guardian's level of income difference has no influence in facilitating overall pro-social behavior. Based on the aforementioned implications, parents, teachers, neighbors, religious leaders, government and non-government bodies are recommended to play a role in promoting pro-social behavior among the students.

Keywords: Pro-social behavior, Complaint.

Introduction

Pro-social behavior has been linked with a variety of positive psychosocial indices. The indices include adequate social competence with peers, increased perspective taking and interactional skills, adequate conflict resolution, and increased levels of empathy and emotional regulation (Eisenberg et al., 2006). However, it may not be called as a helping behavior. This is because "Helping behavior" is the broadest term, including all forms of interpersonal support, whereas the meaning of pro-social behavior is narrower in that the action is intended to improve the situation of the help-recipient. Pro-social behavior usually refers to voluntary actions that are intended to help or benefit another individual or group of individuals (Eisenberg and Mussen, 1989) and defined in terms of consequences intended for another in which the behavior of the actor is directed toward promoting and sustaining a positive benefit for the help recipient (Bierhoff, 2002).

Generally, the influence of the developmental period of the child is influential. However, Middle childhood, is the most significant period for the development of pro-social behavior (Carlo et al., 2007). However, the sex of the child may also play a role in the social development of pro-social behaviors as girls are expected to be more empathetic and pro-social while males are believed to be more achievement's driven and independent (Carlo, 2001**)**.

According to Bandura (1986), children who are exposed to models of pro-social behavior will be more likely to emulate those acts (especially if the model is admired or closely identified with). In a similar vein, providing children with hands-on experiences in pro-social acts may facilitate future pro-social behaviors because such experiences provide rehearsal opportunities. Following these notions, one would expect that parents who model and encourage pro-social behavior might promote pro-social behavior in their children.

Developing our knowledge to facilitate pro-social behaviors is critical as these behaviors do not only have significant implications for others, but also on our understanding of morality and the self. Scholars have moreover identified the need to study this beneficent centered morality in addition to the justice-centered approach, which emphasizes maintaining the law and order of society, in order to develop a more comprehensive understanding of morality (Carlo, 2006).

In recent years, there has been growing interest in understanding the development of pro-social behavior as part of positive youth development. Pro-social behavior like cooperation is crucial to mutual support and social harmony. Helping behavior and volunteering contribute to care giving

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in family and social life while instrumental support renders to others in society. Pro-social behavior can also be an important form of social capital for major national or world events like the Olympic Games (Shek et al., 2007).

In Ethiopian context, it is observable that there is increasing incidences of selfishness, hate speech, inter-ethnic conflict, youth violence and domestic migration of people. Despite many reasons, one factor which aggravates this situation is decrement in the behavior of pro-social behavior. Therefore, to fill the gap, this research tried to investigate the role of socio-demographic factors in facilitating pro-social behavior among Arsi Negelle Preparatory school students.

Methods and Materials

Study area

The study was conducted in Oromia Region, West Arsi Zone, Arsi Negelle Woreda, Arsi Negelle town, which is located 225 km South of Addis Ababa on the way to Hawassa city. The Preparatory school is the only governmental school that encompasses students from different, religion, ethnic group, language, culture and locality. These students are from three kebeles of Arsi Negelle town and many neighboring rural kebeles. This diversification of students in different aspect was an opportunity to investigate psychosocial factors that facilitate pro-social behavior among Arsi Negelle Preparatory students.

Design

Cross-sectional research was a design used in this research. Quantitative approach was an approach used for data analysis. The approach was employed considering the nature of the research questions to describe Psychosocial Factors that facilitate pro-social behaviors by comparisons of means.

Population of the study

In this study, Arsi Negelle Preparatory School students were target population. The target population across sex and grade level is shown below:

Table 1. Study population across sex and grade level

Grade 11						Grade 12						Grand Total	
M		F		Total		M		F		Total			
N	%	N	%	N	%	N	%	N	%	N	%	N	%
495	42.31	222	18.97	717	61.28	300	25.64	153	13.08	453	38.72	1170	100

Sample size and sampling techniques

The sample size of this study was determined using a simplified Slovin's formula that is,

$n = \frac{N}{1+N(e)^2}$ Where, n = the sample size; N = the population size and

e = the level of precision/margin of error expressed as 5%

Accordingly, by applying the above formula, the sample size of the present study was calculated as follows: $n = \frac{1170}{1+1170\ (0.05)^2} = 298.08 \approx 299$

Therefore, the final total participants for this study were 299 *(*male= 203 and female=96) students. Then, this calculated sample size was distributed to each of the selected study areas of gender and grade level proportional to the size of students. Students from both gender and grade level were selected using stratified systematic random sampling technique using list of students taken from school records.

After deciding the sample size of the respondents, the participants of the study were stratified across sex and grade level. Based on the strata, proportional sample size was taken using the following formula.

$ni = \frac{n \times Ni}{N}$ Where ni = sample of strata; n = Total sample size of all strata

Ni = Population of each strata; N = Total population. Therefore, $ni = \frac{299 * 495}{1170} \sim 126$

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Table 2. Proportional sample size across sex and grade level

Grade 11						Grade 12						Grand Total	
M		F		Total		M		F		Total			
n	%	n	%	n	%	n	%	N	%	n	%	n	%
126	42.14	57	19.06	183	61.20	77	25.75	39	13.05	116	38.80	299	100

Instruments for data collection

Socio-demographic measures

The instruments for measuring socio-demographic characteristics of subjects was self-developed and consisted of three items. These items used to gather information about gender, level of parental education and family income.

Measures for pro-social behavior

The instrument employed to measure pro-social behavior is known as Pro-social Tendency measure (PTM). It consists of 21-item questionnaire which includes six different types of pro-social behavior measures: altruistic, emotional, compliant, public, dire, and anonymous. Participants rated how much each statement describes them on a 5-point Likert scale type (1= Does not describe me at all to 5 = Describes me greatly) developed by Carlo and Randall (2002). The altruism scale consists of 3 items and measures voluntary helping behavior, driven solely by concern for another individual. The emotional subscale (4 items) measures helping behavior driven by an emotionally evocative situation. The dire subscale (3 items) measures helping behavior in emergency situations. The compliant subscale (2 items) measures helping when asked. The public scale (4 items) measures helping behavior in front of an audience are likely to be motivated, at least in part, by a desire to gain the approval and respect of others. The anonymous subscale (5 items) measures helping in situations where no one would know you helped. Carlo and Randall (2002) demonstrated that the PTM has adequate internal consistency, reliability, and construct validity. Therefore, this scale was employed to measure pro-social behavior of students among Arsi Negelle preparatory school students.

Pilot study

The other important task, done in the research process, was checking for reliability of the instruments. It was made through conducting a pilot test before administering the instruments to the participants of the study. Based on the pilot's test's result, some modifications were made on the instruments before their administration for target participants. The pilot study was carried out on 50 (male = 34, female = 16) grade twelve and eleven students who could not involve in the main study. Based on the data collected, Cronbach alpha reliability test of the instrument of each scale was measured as it is shown in the Table 3.

Table 3. Cronbach's Alphas reliability for the scales

Scale	Number of items	Reliability coefficient for original scale	Reliability coefficient of pilot study
Altruism	3	0.77	0.79
Emotional	4	0.78	0.72
Dire	3	0.58	0.56
Complaint	2	0.82	0.78
Anonymous	5	0.82	0.74
Public	4	0.78	0.71

As it can be seen in the table 3, the reliability of instruments of pilot study had sufficient cronbach's alpha value for each scales and sub-scales

Study variables

Dependent variable

Pro-social behavior score which has six type was considered as dependent variable of this study.

Independent variables

In this study, socio-demographic characteristics (gender, family income and parental education) were independent variables.

Method of data analysis

The data gathered through self-report questionnaire were coded and entered into the computer and analyzed using SPSS version 20.0 statistical software. The selection of appropriate analysis

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methods were based on the research questions and different assumptions associated with the use of each analytical method was considered.

Different analysis methods were employed for different purposes. One of these was descriptive statistics such as frequencies and percentages that was computed to summarize demographic characteristics of participants. Descriptive statistics of mean specifically were also used to identify the most observed pro-social behavior types among the students. Independent t -test was also used to test the significance mean difference between gender of students and one way ANOVA for family income and parental education in facilitating pro-social behavior among students.

Results

Socio-demographic characteristics of respondents

In general, 299 students of grade eleven and twelve were participated on this study. The socio-demographic data of the respondents are summarized as follows:

Table 4. Demographic characteristics of respondents grade level and age by sex

Grade Level	Sex				Total	
	Male		Female			
	N	%	N	%	N	%
11	126	42.14	57	19.06	183	61.20
12	77	25.75	39	13.04	116	38.80
Total	183	61.20	116	38.80	299	100
Age Group	Sex				Total	
	Male		Female			
	N	%	N	%	N	%
16-18	128	42.80	76	25.41	204	68.23
19-22	75	25.09	20	6.69	95	31.77
Total	203	67.89	96	32.10	299	100

As it can be observed from Table 4, 126 (42.14%) and 57 (19.06%) were male and female respondents from grade eleven respectively. Whereas 77 (25.75%) and 39 (13.04%) were male and female respondents from grade 12, respectively.

In Table 4, regarding age group of respondents, 128 (42.80%) and 76 (25.41%) were male and female respectively in age group of 16-18. Whereas the rest respondents 75 (25.09%) and 20 (6.69%) were male and female respectively in age group of 19-22.

Table 5. Family's/guardian's level of income / month

Family's/guardian's level of income in Birr	N	Percent
Greater than 2000	117	39.13
1000-2000	10	3.34
Less than 1000	53	17.73
Not quantified	119	39.80
Total	299	100

Table 5 shows that 117(39.13%) of the respondent's family/guardian had an income greater than 2000 Birr and followed by 53(17.73%) with an income of less than 1000 Birr, 10(3.34%) had income 1000-2000 and 119(39.80%) did not know their family's income. Therefore, it possible to conclude that larger number of respondents did not know their family's/guardians level of income.

Table 6. Respondents' mother and father level of education

Level of education	Mother's		Father's	
	N	%	N	%
Illiterate	75	25.08	17	5.7
Primary Level (1-8)	105	35.1	134	44.8
Secondary Level (9-12)	64	21.4	76	25.4
Diploma	50	16.7	11	3.7
Degree and above	5	1.7	61	20.4
Total	299	100	299	100

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As it is clearly shown in the table 6 above, of the total respondent's, 105 (35.1%) of respondents' mother's level of education was primary level, 75 (25.08%) were illiterates, 64 (21.4%) were secondary level, 50 (16.7%) were diploma graduate and the remaining 5 (1.7%) were degree and above graduates.

Regarding respondents' father level of education, 134 (44.8%) were at primary level, 76 (25.4%) at secondary level, 61 (20.4%) degree graduates, 17 (5.7%) illiterates and 11 (3.7%) diploma graduates. Therefore, we can say that most of mother's and father's level of education lies on primary school.

The most observed pro-social types among students

To identify the most observed pro-social types among students, the researcher decided to use mean comparisons. Accordingly, mean score of each pro-social type was computed that the highest mean value indicates the most observed pro-social type among students.

Table 7. Descriptive statistics for most observed pro-social behavior types among students

Pro-social behavior types	N	Minimum	Maximum	Mean	Std. deviation
Complaint	299	1	5	3.94	0.96
Anonymous	299	1	5	3.18	0.98
Public	299	1	5	2.69	1.3
Emotional	299	1	5	3.13	0.62
Dire	299	1	5	3.75	0.80
Altruism	299	1	5	2.23	0.75

Table 7 above shows the summary of mean and standard deviation of the most observed type of pro-social behavior. Complaint (M = 3.94, SD = 0.96) was the most observed pro-social behavior type followed by Dire (M = 3.75, SD = 0.80). The rest were anonymous (M = 3.18, SD = 0.98), emotional (M = 3.13, SD = 0.62), public (M = 2.69, SD = 1.37) and the least pro-social behavior was altruism (M = 2.23, SD = 0.75). Therefore, it is possible to conclude that most of students were involved in helping others in response to verbal non-verbal requests whereas involved least in voluntary helping motivated primarily by concern for needs of other.

Gender and pro-social behavior

Independent sample t-test was used to investigate if there was mean difference between male and female students in terms of pro-social Behavior.

In Table 8 and 9: an independent samples t-test was conducted to compare the pro-social behaviors scores for males and females. The finding shows that there was a significant difference in mean scores of overall pro-social behavior for males (M=3.17, SD=.40 and females (M=2.86, SD=.53; t (147.239) = 4.912, P=.000, two- tailed). The magnitude of the differences in the means (mean difference=.30, 95% CI .181 to .425) was moderate (eta squared= .075).

Table 8. Descriptive statistics on gender differences in pro-social behavior

Variables	Sex	N	Mean	Std. Deviation	Std. Error Mean
Overall Pro-social Behavior	Male	203	3.17	0.40	0.02
	Female	96	2.86	0.53	0.05
Complaint	Male	203	4.08	0.96	0.06
	Female	96	3.64	0.88	0.09
Anonymous	Male	203	3.19	1.04	0.07
	Female	96	3.14	0.83	0.08
Public	Male	203	2.24	0.66	0.04
	Female	96	2.20	0.92	0.09
Emotional	Male	203	3.17	0.51	0.03
	Female	96	3.02	0.79	0.08
Dire	Male	203	3.89	0.80	0.05
	Female	96	3.46	0.71	0.07
Altruism	Male	203	3.03	1.35	0.09
	Female	96	1.96	1.07	0.10

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Table 9. Summary of the Independent Sample t-test that compares males and females students in terms of pro-social behavior

Variable		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Overall Pro-social Behavior	Equal variances assumed	8.946	0.003	5.436	297	0.000	0.30365	0.05586	0.19372	0.41359
	Equal variances not assumed			4.912	147.239	0.000	0.30365	0.06182	0.18150	0.42581
Complaint	Equal variances assumed	14.645	0.000	3.737	297	0.000	0.43545	0.11653	0.20612	0.66478
	Equal variances not assumed			3.855	201.937	0.000	0.43545	0.11296	0.21272	0.65817
Anonymous	Equal variances assumed	12.926	0.000	0.420	297	0.675	0.05110	0.12168	-0.18837	0.29057
	Equal variances not assumed			0.455	229.944	0.649	0.05110	0.11218	-0.16994	0.27213
Public	Equal variances assumed	20.080	0.000	0.423	297	0.672	0.03963	0.09359	-0.14456	0.22381
	Equal variances not assumed			0.377	143.042	0.706	0.03963	0.10501	-0.16794	0.24719
Emotional	Equal variances assumed	32.050	0.000	1.959	297	0.051	0.15007	0.07660	-0.00068	0.30081
	Equal variances not assumed			1.687	133.564	0.094	0.15007	0.08895	-0.02586	0.32600
Dire	Equal variances assumed	1.239	0.267	4.449	297	0.000	0.42818	0.09624	0.23878	0.61758
	Equal variances not assumed			4.652	209.087	0.000	0.42818	0.09204	0.24673	0.60963
Altruism	Equal variances assumed	20.332	0.000	6.780	297	0.000	1.06902	0.15766	0.75874	1.37929
	Equal variances not assumed			7.370	231.176	0.000	1.06902	0.14505	0.78323	1.35480

The first component of pro-social behavior result showed that there was a significant difference in mean scores of Complaint for males (M = 4.08, SD = 0.96 and females (M = 3.64, SD = 0.88; t (201.937) = 3.85, P = 0.000, two- tailed). The magnitude of the differences in the means (mean difference = 0.43, 95% CI 0.212 to 0.658) was small (eta squared = 0.05).

Another component of pro-social behavior which is Dire result showed that there was a significant mean difference in scores for males (M = 3.89, SD = 0.80 and females (M = 3.46, SD = 0.71; t (297) = 4.44, P = 0.000, two- tailed). The magnitude of the differences in the means (mean difference = 0.42, 95% CI 0.238 to 0.617) was moderate (eta squared = 0.062).

The other component of pro-social behavior which is Altruism result showed that there was a significant mean difference in scores for males (M = 3.03, SD = 1.35 and females (M = 1.96, SD = 1.07; t (231.176) = 7.37, P = 0.000, two- tailed). The magnitude of the differences in the means (mean difference = 1.05, 95% CI 0.783 to 1.354) was large (eta squared = 0.154).

Therefore, the mean score of males in overall pro-social behavior, complaint, dire and altruism is significantly higher than mean score of females. This implies that being a male facilitates by overall pro-social behavior, complaint, dire and altruism. Whereas there was no significant mean difference between male and female students in the other components of anonymous pro-social behavior males (M = 3.19, SD = 1.04 and females (M = 3.14, SD = 0.831; t (229.944) = 0.455, P = 0.649, two- tailed). Similarly public type of pro-social behavior result showed that there was no significant mean difference between male and female students i.e. males (M = 2.24, SD = 0.66 and females (M = 2.20, SD = 0.92; t (143.042) = 0.377, P = 0.706, two- tailed). Finally, emotional type of pro-social behavior result showed that there was no significant mean difference between male and female students i.e. males (M = 3.17, SD = 0.513 and females (M = 3.02, SD = 0.79; t (133.564) = 1.687, P = 0.094, two- tailed).

Effects of Parent's / Guardian's Level of Education and Income on Pro-social Behavior

One Way ANOVA was used to investigate the effect of parent's/guardians level of education and income in facilitating the overall pro-social behavior and specific types of pro-social behaviors. In Table 10 a one-way ANOVA was conducted to explore the impact of mother's level of education on pro-social behavior of students. Mother's level of education was coded in to five categories (Group 1: Illiterate, Group 2: Primary level, Group 3: Secondary level, Group 4: Diploma and Group 5: Degree and above). There is statistically significant difference at $p<.05$ among respondents in their overall pro-social behavior and all types of pro-social behaviors score that can be facilitated by their mother's level of education: Overall pro-social F (4, 33.605) = 38.645, P = 0.000).The actual difference in mean score between groups was large. The effect size calculated using eta was 0.322, which is large. Post-hoc comparisons using the Tukey HSD test indicted that the mean score for Group 5. (M = 3.35, SD = 0.43) was significantly higher

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from Group 2 (M = 2.77, SD = 0.51), Group 3 (M = 3.04, SD = 0.26), Group 1. (M = 3.18, SD = 0.35), and Group 4. (M = 3.53, SD = 0.22).

Table 10. Summary of One- Way ANOVA for comparison of mother's level of education in facilitating the overall pro-social behavior and specific types of pro-social behaviors

Variable		Sum of Squares	Df	Mean Square	F	Sig.
Over all pro-social	Between Group	21.399	4	5.350	38.645	0.000
	Within Groups	45.013	33.605	0.153		
	Total	66.412	37.605			
Complaint	Between Group	101.933	4	25.483	43.901	0.000
	Within Groups	173.293	44.660	0.589		
	Total	275.226	48.660			
Anonymous	Between Group	167.761	4	41.940	103.593	0.000
	Within Groups	119.028	294	0.405		
	Total	286.790	298			
Public	Between Group	22.402	4	5.601	7.097	0.005
	Within Groups	147.258	10.126	0.326		
	Total	169.660	14.126			
Emotional	Between Group	19.220	4	4.805	12.702	0.000
	Within Groups	95.825	17.076	0.326		
	Total	115.044	21.076			
Dire	Between Group	49.133	4	12.283	22.648	0.000
	Within Groups	142.108	22.06	0.483		
	Total	191.241	26.06			
Altruism	Between Group	291.000	4	54.750	49.492	0.000
	Within Groups	336.657	46.459	1.145		
	Total	555.657	50.459			

Complaint F (4, 44.660) = 43.901, P = 0.000, eta = 0.370, post-hoc = Group 4. (M = 4.85, SD = 0.50) was significantly different from Group 3 (M = 3.29, SD = 0.75), Group 2 (M = 3.54, SD = 0.77), Group 1 (M = 4.42, SD = 0.90) and did not differ significantly from Group 5 (M = 4.10, SD = 0.82).

Anonymous F (4, 294) = 103.593, P = 0.000, eta = 0.584, post-hoc= Group 4 (M = 4.80, SD = 0.649) was significantly different from Group 3 (M = 2.63, SD = 0.63) Group 1 (M = 2.72 SD = 0.50, Group 2 (M = 3.05, SD = 0.69), Group 5. (M = 3.48, SD = 0.92).

Public F (4, 10.126) = 7.097, P = 0.005, eta = 0.132, post-hoc = Group 3 (M = 2.69, SD = 0.48) was significantly different from Group 1 (M = 1.97, SD = 0.59), Group 2 (M = 2.07, SD = 0.91), Group 4 (M=2.31, SD = 0.47) and did not differ significantly from Group 5. (M = 2.45, SD = 1.41).

Emotional F (4, 17.076) = 12.704, P = 0.000, eta = 0.167, post-hoc = Group 4 (M = 3.50, SD = 0.31) was significantly different from Group 1 (M = 2.96, SD = 0.49), Group 2 (M = 2.89, SD = 0.73), Group 3 (M = 3.36, SD = 0.46) and did not differ significantly from Group 5 (M = 3.60, SD = 0.85).

Dire F (4, 22.06) = 22.648, P = 0.000, eta = 0.256, post-hoc= Group 1 (M = 4.34, SD = 0.94) was significantly different from Group 2 (M = 3.35, SD = 0.72), Group 3 (M = 3.51, SD = 0.43), Group 4 (M = 3.96, SD = 0.35) and did not differ significantly from Group 5 (M = 4.13, SD = 0.96).

Altruism F (4, 46.459) = 49.492, P = 0.000, eta = 0.523, post-hoc= Group 1 (M = 3.90, SD = 1.45) was significantly different from Group 2 (M = 1.97, SD = 0.99), Group 3 (M = 3.15, SD = 0.93), Group 4 (M = 1.78, SD = 0.58) and did not differ significantly from Group 5 (M = 2.73, SD = 1.11).

This finding implied that the higher mother's level of education of respondents, the higher overall pro-social behavior, complaint and emotional score. Whereas, the higher mother's level of education of respondents, the lower dire and altruism pro-social types score. Therefore, we can generalize that mother's level of education facilitates the overall pro-social behavior, complaint and emotional pro-social types and adversely contributes to dire and altruism pro-social types.

In Table 11: Like for that of mother's level of education, one-way ANOVA was conducted to explore the impact of father's level of education on pro-social behavior of students. Father's level of education was coded in to five categories (Group 1: Illiterate, Group 2: Primary level, Group 3: Secondary level, Group 4: Diploma and Group 5: Degree and above). There is statistically significant difference at the $p<.05$ among respondents in their Overall pro-social and all types of pro-social behaviors score that can be facilitated by their father's level of education:

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Overall pro-social F (4, 42.545) = 6.460, P = .000). The actual difference in mean score between groups was large. The effect size calculated using eta was 0.103. Post-hoc comparisons using the Tukey HSD test indicted that the mean score for Group 3 (M = 3.32, SD = 0.43) was significantly different from Group 2 (M = 2.95, SD = 0.49) and Group 1. (M = 2.96, SD = 0.55). But did not differ significantly from either from Group 4 (M = 3.13, SD = 0.690) or Group 5. (M = 3.05, SD = 0.22).

Table 11. Summary of One Way ANOVA for comparison of fathers' level of education in facilitating overall pro-social behavior and specific types of pro-social behaviors

Variable		Sum of Squares	df	Mean Square	F	Sig.
Pro-social behavior	Between Group	6.904	4	1.726	6.460	0.000
	Within Groups	59.508	42.545	0.202		
	Total	66.412	46.545			
Complaint	Between Group	44.977	4	11.244	13.499	0.000
	Within Groups	230.249	73.650	0.783		
	Total	275.226	77.650			
Anonymous	Between Group	108.566	4	27.142	31.181	0.000
	Within Groups	178.233	52.647	0.606		
	Total	286.799	56.647			
Public	Between Group	34.494	4	8.623	12.058	0.000
	Within Groups	135.166	42.759	0.460		
	Total	169.660	46.759			
Emotional	Between Group	15.533	4	3.883	9.176	0.000
	Within Groups	99.511	49.279	0.338		
	Total	115.044	53.279			
Dire	Between Group	9.224	4	2.306	4.111	0.004
	Within Groups	182.017	78.181	0.619		
	Total	191.241	82.181			
Altruism	Between Group	71.514	4	17.878	14.490	0.000
	Within Groups	484.143	76.582	1.647		
	Total	555.657	80.582			

Complaint F (4, 73.650) = 13.499, P = 0.000, eta = 0.163, post-hoc= Group 3 (M = 4.48, SD = 0.92) was significantly different from Group 5 (M = 3.36, SD = 0.64), Group 4 (M = 3.59, SD = 0.97) Group 1 (M = 3.70, SD = 1.01) and Group 2 (M = 3.95, SD = 0.92).

Anonymous F (4, 52.647) = 31.181, P = 0.000, eta = 0.378, post-hoc= Group 3 (M = 4.19, SD = 1.06) was significantly different from Group 5 (M = 2.64, SD = 0.66), Group 2 (M = 2.87, SD = 0.54), Group 1 (M = 3.02, SD = 0.902) and Group 4 (M = 3.23, SD = 1.18).

Public F (4, 42.759) = 12.058, P = 0.000, eta = 0.203, post-hoc= Group 5 (M = 2.72, SD = 0.57) was significantly different from Group 2 (M = 1.89, SD = 0.67), Group 3 (M = 2.25, SD = 0.59), Group 4 (M = 2.61, SD = 1.10) and Group 1 (M = 2.64, SD = 0.98).

Emotional F (4, 49.279) = 9.176, P = 0.000, eta = 0.135, post-hoc= Group 3 (M = 3.42, SD = 0.59) was significantly different from Group 2 (M = 2.89, SD = 0.58) and Group 5 (M = 3.29, SD = 0.39). But did not differ significantly either from Group 1 (M = 3.08, SD = 0.98) or Group 4 (M = 3.00, SD = 0.44).

Dire F (4, 78.181) = 4.111, P = 0.004, eta = 0.048, post-hoc= Group 2 (M = 3.88, SD = 0.94) was significantly different from Group 1 (M = 3.31 and SD = 0.93) and Group 5 (M = 3.51, SD = 0.48). But did not differ significantly either from Group 3 (M = 3.78, SD = 0.65) or Group 4 (M = 3.87, SD = 0.67).

Altruism F (4, 76.582) = 14.490, P = 0.000, eta = 0.128, post-hoc= Group 5 (M = 3.18, SD = 0.90) was significantly different from Group 3 (M = 1.92, SD = 0.79) and Group 2 (M = 2.95, SD = 1.64). But did not differ significantly either from Group 1 (M = 2.31, SD = 0.86) or Group 4 (M = 2.78, SD = 1.29).

This finding implied that the higher father's level of education of respondents resulted in the higher overall pro-social score. Whereas higher father's level of education of respondents is resulted in lower altruism type of pro-social behavior score. Therefore, we can say that higher father's level of education facilitates overall pro-social behavior but do not determine altruistic type of pro-social behavior.

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Table 12. Summary of One Way ANOVA for comparison of family/guardian's level of income in facilitating pro-social behavior

Variables		Sum of Squares	df	Mean Square	F	Sig.
Overall Pro-social Behavior	Between Groups	0.853	2	0.427	2.986	0.070
	Within Groups	23.411	22.928	0.132		
	Total	24.264	24.928			
Complaint	Between Groups	23.985	2	11.992	15.624	0.000
	Within Groups	159.176	23.564	0.899		
	Total	183.161	25.564			
Anonymous	Between Groups	30.528	2	15.264	29.216	0.000
	Within Groups	196.775	22.766	1.112		
	Total	227.303	24.766			
Public	Between Groups	12.014	2	6.007	16.649	0.000
	Within Groups	66.743	22.433	0.377		
	Total	78.757	24.433			
Emotional	Between Groups	6.291	2	3.145	19.715	0.000
	Within Groups	38.409	22.084	0.217		
	Total	44.700	24.084			
Dire	Between Groups	42.626	2	22.183	68.400	0.000
	Within Groups	58.396	22.183	0.330		
	Total	101.022	24.183			
Altruism	Between Groups	152.879	2	76.439	79.002	0.000
	Within Groups	181.897	23.680	1.028		
	Total	334.775	25.680			

In Table 12, Even though 119 (38.80%) out of 299 respondents, did not know their family/guardian's level of income, A one-way ANOVA was conducted with available information obtained from the remaining 180 (61.2%) of respondents about their family/guardian's level of income to investigate. There was a statistically significant difference on respondents mean score on overall pro-social behavior and all types of pro-social behaviors that can be facilitated by family/guardian's level of income. Family/guardian's level of income was coded into three categories Group 1: (>2000 birr), Group 2 :(1000-2000 birr) and Group 3:

(below 1000birr). There was statistically insignificant difference at the p>.05 among respondents in their overall pro-social score F (2, 22.928) = 2.986, P = 0.070 that can be facilitated to their family/guardian's level of income. Whereas, there was a statistically significant difference at the p<.05 among the respondents in their complaint, anonymous, public, emotional, dire, and altruism pro-social behavior types, that can be facilitated to their family/guardian's level of income.

Complaint F (2, 23.564) = 15.624, P = 0.000, eta = 0.12, post-hoc = Group 3 (M = 4.71, SD = 0.74) was significantly different from Group 2 (M = 3.55, SD = 1.30) and Group 1 (M = 3.97, SD = 0.99).

Anonymous F (2, 22.766) = 29.216, P = 0.000, eta = 0.13, post-hoc= Group 1 (M = 3.54, SD = 1.24) was significantly different from Group 3 (M = 2.63, SD = 0.23) and did not differ significantly from Group 2 (M = 3.24, SD = 1.20).

Public F (2, 22.433) = 16.649, P = 0.000, eta = 0.15, post-hoc= Group 2 (M = 2.65, SD = 1.23) was significantly different from Group 3 (M = 1.92, SD = .57) and Group 1 (M = 2.47, SD = 0.55).

Emotional F (2, 22.084) = 19.715, P = 0.000), eta = 0.14, post-hoc = Group 1 (M = 3.39, SD = 0.36) was significantly different from Group 3 (M = 2.98, SD = 0.40) and did not differ significantly from Group 2 (M = 3.20, SD = 1.25).

Dire F (2, 22.183) = 68.400, P = 0.000, eta = 0.42, post-hoc= Group 1 (M = 3.72, SD = 0.49) was significantly different from Group 3 (M = 4.77, SD = 0.55) and Group 2 (M = 3.56, SD = 1.25).

Altruism F (2, 23.680) = 79.002, P = 0.000, eta = 0.45, post-hoc = Group 3 (M = 4.58, SD = 0.93) was significantly different from Group 2 (M = 2.26, SD = 1.23) and Group 1 (M = 2.59, SD = 1.03).

The above result revealed that the mean score of overall pro-social behavior did not significantly vary across family/guardian's level of income in the three categories of Group 1: (>2000 birr), Group 2: (1000-2000 birr) and Group 3: (Below 1000 birr). This implied that the mean score of overall pro-social behavior of students from higher family/guardian's level of income were not significantly different from lower family/guardian's level of income. Therefore, we can generalize that family/guardian's level of income did not facilitate overall pro-social behavior.

Whereas, post-hoc result revealed that mean score of Anonymous, Emotional and Dire in Group 1: (>2000 birr) was significantly higher than the mean score of Group 3: (Below 1000 birr). This

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implied that the higher family/guardian's level of income, the higher mean score anonymous, emotional and dire. Therefore, we can say that higher family/guardian's level of income facilitates anonymous, emotional and dire.

The other post- hoc result revealed that the mean score of complaint and altruism in Group 3: (Below 1000 birr) was significantly higher than Group 1: (>2000 birr). This implied that the lower family/guardian's level of income, the higher mean score of complaint and altruism. Therefore, we generalize that lower family/guardian's level of income facilitates complaint and altruism.

Discussion

The most observed types of pro-social behaviors

To describe the most common observed types of pro-social behavior, a descriptive analysis with mean scores of each pro-social type was made. Complaint was the most observed pro-social behavior type followed by dire. Anonymous, emotional, public and altruism were found the least observed pro-social behavior. The present finding agrees with finding of (Davis, 1994) complaint's helping which is more frequent than the spontaneous helping. Much of the research on this type of helping has been conducted with children and adolescents. Moreover, altruism was found the least observed pro-social behavior. This finding is supported with the idea raised by Mayer and Salovey (1997), pro-social acts that are not motivated by the expectation of obtaining external rewards are considered to be altruistic. An altruistic person is concerned and helpful even when no benefits are offered or expected in return. In general, from researcher's view, most people give help when there is direct request from help recipient that most students involve in complaint pro-social type. This implies, as in the study is context pro-social behavior, most likely occur where there is verbal or nonverbal request than other types of pro-social behavior, particularly altruistic type.

Gender and pro-social behavior

To identify whether there is gender difference in pro-social behavior, an independent samples t-test was conducted by comparing male and female in the types of pro-social behaviors. The finding shows that there was a significant mean difference between male and female students in overall pro-social behaviors. Therefore, the mean score of males in overall pro-social behavior is

significantly higher than mean score of females. This finding is different from what is found in Carlo (2001**)** that gender of the child may also play a role in the social development of pro-social behaviors. In general, girls are expected to be more empathetic and pro-social while males are believed to be more achievement driven and independent**.** Once again, the finding of the present study is different from what was found in previous studies of Argaw (2001) and Tafetu (2007) that argued females are altruistic than male and female students scored more pro-social attitude than of male students. Reason for difference between the present study finding and literatures reviews might be due to cultural differences from one society to the other on level of participation of between males and females on pro-social behaviors.

The Parent's / guardian's level of education and pro-social behavior

Regarding mother's level of education in facilitating pro-social behavior among students, to answer this research question, One- way ANOVA was conducted. It was conducted to compare overall pro-social behavior across mother's level of education. The result revealed that there was statistically significant difference among respondents in their overall pro-social behavior score that can be facilitated by their mother's level of education: Post-hoc comparisons using the Tukey HSD test indicted that the mean score for Group 5 was significantly higher from Group 2, Group 3, Group 1, and Group 4. This finding implied that the higher mother's level of education of respondents, the higher overall pro-social behavior.

Concerning father's level of education in facilitating pro-social behavior among students, like that of mother's level of education, One- way ANOVA was conducted. It helped to compare overall pro-social behavior across father's level of education. The result revealed that there was statistically significant difference among respondents in their overall pro-social and all types of pro-social behaviors score that can be facilitated by their father's level of education: Post-hoc comparisons using the Tukey HSD test indicted that the mean score for Group 3 was significantly different from Group 2 and Group 1. But, it was not significantly differ from either Group 4 or Group 5. Generally, this finding showed that higher father's level of education of respondents, resulted in higher overall pro-social behavior score. This finding agrees with Robinson (2009) study that Parent–Child Interaction effects of pro-social behavior. Parents have long-term, profound, and important effects on their teenage children's psychological, emotional, and behavioral problems and also considered that parents' educational attitudes, modeling, award, explanation, cooperation and order will impact on children's development of pro-social

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behavior. From the present study and related literature reviews, we can generalize that as parental education increases there is increase in interactions, communication and free discussions between the child and his/her parents. This will highly contribute to the child's pro-social development.

Family/guardian's level of income and pro-social behavior

Regarding family/guardian's level of income in facilitating pro-social behavior among students, One-way ANOVA was conducted to investigate if there was statistically significant difference on respondents mean score on overall pro-social behavior that can be facilitated by family/guardian's level of income. There was statistically insignificant difference among respondents in their overall pro-social score that can be facilitated by their family/guardian's level of income and the result of the analysis of One- way ANOVA also revealed that the mean score of overall pro-social behavior did not significantly vary across family/guardian's level of income in the three categories of Group 1: (>2000 birr), Group 2: (1000-2000 birr) and Group 3: (Below 1000 birr). This implied that the mean score of overall pro-social behavior of students from higher family/guardian's level of income was not significantly different from lower family/guardian's level of income. Therefore, it can generalized that family/guardian's level of income did not facilitate overall pro-social behavior. The finding of this study reject what was found in Kasser et al. (1995) that adolescents from families with varying socio-economic status were interviewed about their attitudes toward pro-social values such as affiliation and community feeling, as well as the positive societal value of self-acceptance. Adolescents who were raised in lower income communities prized material possessions more than pro-social values compared to their more privileged counterparts. Another contradictory finding with the current study was found in Chen et al. (2013) study that is in understanding of factors impacting children's altruistic behaviors in relation to prosocial behavior, they suggested that especially among rural Chinese preschool children altruistic type of prosocial behavior decreased with increasing family income. In general the present study reflects that family income did not have a significant difference in facilitating pro-social behavior between higher and lower family/guardian's level income while literatures are in support of the idea that higher family/guardian's level income nurtures pro-social behaviors on children and adolescents. Discrepancy between the present finding and literatures might be due to the fact that the value

one society gives for material or finance varies from one society to other. Some society values cultural norms than valuing materials or finances. Therefore, pro-social behavior of adolescents might not be influenced by family/guardian's level of income.

Conclusions

Complaint was the most observed pro-social behavior type and altruism was found the least observed pro-social behavior type of behavior. Therefore, it can be generalized that the students were mostly involved in helping others in response to a verbal or nonverbal request that is complaint pro-social behavior whereas altruism pro-social behavior of a voluntary helping motivated primarily by concern for the needs and welfare of another is the least observed pro-social behavior among Arsi Negelle Preparatory students.

The finding showed that there was a significant mean difference between male and female students in overall pro-social behavior, complaint, dire and altruism. The mean score of males in overall pro-social behavior, complaint, dire and altruism was significantly higher than mean score of females. Therefore, this implies that being a male facilitate overall pro-social behavior, complaint, dire and altruism. Whereas there was no significant mean difference between male and female students in anonymous, public and emotional.

The result of the analysis of variance revealed that there was statistically significant difference among respondents in their overall pro-social behavior and all types of pro-social behaviors score that can be facilitated by their mother's level of education. This finding implied that the higher mother's level of education of respondents, the higher overall pro-social behavior, complaint and emotional score. Whereas, the higher mother's level of education of respondents, the lower dire and altruism pro-social types score. Therefore, we can generalize that mother's level of education facilitates the overall pro-social behavior, complaint and emotional pro-social behavior types and adversely contributes to dire and altruism.

The result revealed that there was statistically insignificant difference among respondents in their overall pro-social score that can be facilitated by their family/guardian's level of income. Whereas, there was statistically significant difference among respondents in their complaint, anonymous, public, emotional, dire and altruism pro-social behavior types that can be facilitated by their family/guardian's level of income. The mean score of overall pro-social behavior did not significantly vary across family/guardian's level of income. This implied that the mean score of overall pro-social behavior of students from higher family/guardian's level of income were not

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significantly different from lower family/guardian's level of income. Therefore, we can generalize that family/guardian's level of income did not facilitate overall pro-social behavior. Whereas, post-hoc result revealed that mean score of anonymous, emotional and dire in Group 1: (>2000 birr) was significantly higher than the mean score of Group 3: (Below 1000 birr). This implied that the higher family/guardian's level of income, the higher mean score anonymous, emotional and dire. Therefore, we can say that higher family/guardian's level of income facilitates anonymous, emotional and dire. The other post- hoc result revealed that the mean score of complaint and altruism in Group 3: (Below 1000 birr) was significantly higher than Group 1: (>2000 birr). This implied that the lower family/guardian's level of income, the higher mean score of complaint and altruism. Therefore, we can generalize that lower family/guardian's level of income facilitates complaint and altruism.

Recommendations

Based on the findings and conclusions, the following recommendations were forwarded:-

- ✓ A complaint pro-social behavior type, which mainly involved in helping others in response to a verbal or nonverbal request was the most observed pro-social behavior type and altruism which is a voluntary helping motivated primarily by concern for the needs and welfare of another was found to be the least pro-social behavior observed among students . Therefore, parents, teachers, neighbors, religious leaders, government and non-government bodies are recommended to promote altruism as it is selfless, pure and the base for social wellbeing of the community specially where there are many needy people reside.
- ✓ Since pro-social behaviors were facilitated by higher parent's level of education, the concerned bodies such as ministry of education, regional education bureau are recommended to strengthen adulthood education in schools.
- ✓ Other researchers who conduct research on similar issue are recommended to conduct study other social, psychological and economic variables which are not addressed by the current research that can affect pro-social behavior.

References

Argaw B. 2001. The altruistic behavior of home-reared, institutionalized and street children. MA thesis. Addis Ababa University. Ethiopia.

Bandura A. 1986. Social foundations of thought and action: A social cognitive theory. National Inst of Mental Health. Engleewood Cliffs, NJ: Prentice Hall.

Bierhoff HW. 2002. Pro-social behavior. Psychology Press. Taylor & Francis Inc. USA.

Carlo G. 2001. Between or within culture variation? Culture group as a moderator of the relations between individual differences and resource allocation preferences. J. Appl. Dev. Psychol. 22(6):559-579.

Carlo G. 2006. Care-based and altruistically-based morality. In: M. Killen & J. G. Smetana (Eds.), Handbook of moral development. Psychology Press, Taylor & Francis Group. USA.

Carlo G, Randall BA. 2002. The development of a measure of pro-social behaviors for late adolescents. J. Youth Adolesc. 31(1): 31–32.

Carlo G, Crockett LJ, Randall BA, Roesch SC. 2007. A latent growth curve analysis of pro-social behavior among rural adolescents. J Res Adolesc 17(2): 301-324.

Chen Y, Zhu L, Chen Z. 2013. Family Income Affects Children's Altruistic Behavior in the Dictator Game. Chinese Academy of Sciences, Beijing. PLoS One. 8(11): 5. e80419.

Davis MH. 1994. Empathy: A Social Psychological Approach. Madison, Wis: Brown & Benchmark Publishers.

Eisenberg N, Fabes RA, Spinrad TL. 2006. Pro-social development. In W. Damon & R. M. Lerner (Series Ed.) & N. Eisenberg (Vol. Ed.), Handbook of Child Psychology: 3. Social, Emotional, and Personality Development. 6th ed.: Wiley. New York.

Eisenberg N, Mussen PH. 1989. The Roots of Pro-social Behavior in Children. Cambridge University Press.UK.

Kasser T, Ryan RM, Zax M, Sameroff AJ. 1995. The relations of maternal and social environments to late adolescents' materialistic and pro-social values. Dev. Psychol. 31(6): 907-914.

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Mayer JD, Salovey P. 1997.What is emotional intelligence? In: P. Salovey & D. Sluyter (Eds.), Emotional development and emotional intelligence: Educational Implications. Basic Books. New York.

Robinson R. 2009. Empathy and pro-social behavior. Social and emotional development in infancy and early childhood. Academic Press, San Diego, CA. USA.

Shek H, Mark H, Merrick J. 2007. Positive Youth Development: Development of a Pioneering Program in a Chinese Context. Freund Publishing House Ltd. London.

Tafetu S. 2007. Factors influencing volunteers helping behavior: The Case of Red Cross Society Youth Volunteers in Addis Ababa. MA Thesis. Addis Ababa University. Ethiopia.