RESEARCH ARTICLE

Extracurricular Activity Involvement on the Compassion, Academic Competence, and Commitment of Collegiate Level Students: A Structural Equation Model

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Abstract: Extracurricular activities (ECAs) performed outside the realm of a student's academic activities such as sports, drama, music, and dance play an integral part in their educational experience and positive youth development. Nevertheless, there is a paucity of studies exploring the interrelationship of ECA involvement on the compassion, academic competence, and commitment of collegiate students. Hence, this study determined the influence of ECA involvement on the compassion, academic competence, and commitment of collegiate students. Employing a covariance-based structural equation modeling, a descriptive-correlational design was conducted among 365 consenting collegiate students who completed standardized instruments to measure their ECAs profile, compassion, academic competence, and commitment. Results showed that the *breadth* of ECA involvement, which refers to the total number of organizations that a respondent is a member of, had an indirect, positive effect on compassion ($\beta = 0.06$, $p < 0.05$) and commitment ($\beta = 0.06$, $p < 0.05$) and a direct, negative influence on academic competence ($\beta = -0.14$, $p < 0.05$). Although social- and arts-related ECAs promoted compassion ($\beta = 0.16$, $p < 0.01$) and commitment ($\beta = 0.26$, $p < 0.05$), respectively, sports-related ECAs deterred academic competence ($\beta = -0.12$, $p < 0.05$). The model highlights that although ECA involvement may bring positive outcomes, participation in numerous organizations may hinder academic competence, an understanding that accentuates the need for institutional policies and guidelines on ECA involvement of collegiate students.

Keywords: extracurricular activities, compassion, academic competence, commitment, structural equation modeling

INTRODUCTION

Extracurricular activities (ECAs) are natural and essential parts of one's college life (Civitci, 2015). Defined as activities that fall outside the realm of the normal curriculum of a school or university education and are performed by students (Fares et al., 2016), ECAs are generally voluntary, nonpaying, social, and philanthropic compared to the mandatory and scholastic academic activities. According to Civitci (2015), ECAs may be divided into four categories: physical exercise, which includes gym- and sport-related activities; music-related activities like playing an instrument, being in a choir or a band, or listening to music; reading; and social activities, which encompass political or religious involvement, university club involvement, community service, and volunteering.

According to the Student Involvement Theory by Astin (1999), the learning and personality of students improve when their experience and involvement in various activities increase. These activities encompass an array of endeavors including absorption in academic work, participation in ECAs, and interaction with faculty and other institutional personnel (Astin, 1999). This theory values a student's time and energy and considers it as the most important institutional resource that can be affected by different educational policies and practices (Astin, 1999). Thus, it is important to know how situations related to a student's participation in universities reflect upon their personal and social development to increase the quality of education and life in universities, including their participation in ECAs.

Studies conjectured that ECA involvement is beneficial to students because it positively affects their educational experience, youth development, and academic and social preparation (Adeyemo, 2010; Oberle et al., 2019). A plethora of literature noted that students who are involved in ECAs have better academic competence, defined in this study as the overall scholastic preparation of collegiate students, regardless of their background and prior achievement, various parenting, volunteering, and home learning (Bartkus et al., 2012; Lipscomb, 2009; Muscalu & Dumitrascu, 2014; Simon, 2014; Stephens & Schaben, 2002; White et al., 2018. As a result, ECA involvement contributes to positive career development (Pinto & Ramalheira, 2017) and nurtures interpersonal skills. This, in turn, increases employability and improves attendance, behavior, and the well-roundedness of students (Fares et al., 2016; Reeves, 2008). Hence, ECA involvement may constitute a haven where students aim to utilize and, perhaps, refine and develop their interpersonal skills.

In the same vein, ECA involvement is positively associated with better social values by enhancing their sense of identity, well-being, and belongingness; mental health; social networks; and social balance (Billonid et al., 2020; Oberle et al., 2019; Winstone et al., 2020). Two social outcomes that have also been positively associated with ECA involvement are compassion and commitment. Compassion, defined as "*the feeling and acting with deep empathy and sorrow for those who suffer*" (Figley, 2002), is one of the five Cs among youth, which is positively affected by ECA involvement (Annu & Sunita, 2013). Through the involvement in these activities, the youth can show care and compassion towards other individuals (Annu & Sunita, 2013). Similarly, commitment or the affective, behavioral, and cognitive attachment (Scannell & Gifford, 2010) is positively affected by ECA involvement. ECAs participation helps in developing leadership skills and fosters the sense of obligation and responsibility, a characteristic that also promotes positive social relationship among the youth (Scannell & Gifford, 2010).

Despite the positive effects of ECAs, several negative outcomes have been noted. Several students perceive that ECAs are mere distractions and hindrance to their academic requirements, causing them extra time for studying and coursework commitments (Thompson et al., 2013). In addition, students feel pressured by their professors and parents to drop their ECAs to meet their academic expectations (Broh, 2002). Students also struggle balancing their time with their ECAs and academics (Broh, 2002) and may compromise their performance in either endeavor.

As a significant factor to a student's academic and social preparation, it is imperative to explore the nature of ECA involvement among collegiate students. Despite this presented literature, most existing studies on ECA involvement included primary and secondary education students who are school-age and adolescent, while the knowledge among collegiate students remains empirically underexplored. Bearing in mind that collegiate students are being prepared for their eventual adult lives outside the university campus,

it is imperative how ECA involvement affects their academic preparation and social values.

This study provides baseline information on the influence of ECA involvement on the commitment, academic competence, and compassion of collegiate students, and this knowledge and the provided structural model can be utilized by educators and administrators in developing appropriate educational strategies, policies, and guidelines that govern the involvement of students in ECAs.

Study Aims and Hypotheses

From the abovementioned assertions, this study determined the influence of ECA involvement on the compassion, academic competence, and commitment of collegiate students and addressed the following questions: (1) *what is the influence of ECA involvement on the compassion, academic competence, and commitment of collegiate students*, and (2) *what is the final parsimonious model illustrating the interaction among these variables*? As illustrated in the theoretical model of the study (Figure 1), listed below are the research hypotheses of this study:

- **H_1:** ECA involvement profile (duration, intensity, breadth, and nature) influences the compassion of collegiate students.
- **H_2:** ECA involvement profile (duration, intensity, breadth, and nature) influences the academic competence of collegiate students.
- **H_3:** ECA involvement profile (duration, intensity, breadth, and nature) influences the commitment of collegiate students.

METHODS

Research Design

A cross-sectional, descriptive-correlational design was used to determine the influence of ECA involvement profile on compassion, academic competence, and commitment of collegiate students. The research model developed upon review of pertinent articles (Adeyemo, 2010; Annu & Sunita, 2013; Bartkus et al., 2012; Billonid et al., 2020; Lipscomb, 2009; Muscalu & Dumitrascu, 2014; Oberle et al., 2019; Simon, 2014; Stephens & Schaben, 2002; White et al., 2018 is presented in Figure 1.

Setting and Study Participants

This study included a total of 365 collegiate students who were at least 18 years old, were regular and full-time status according to their degree and year level, and were an active member of any local (college-based) or university-wide organization for at least one semester. Post hoc power analysis for linear regression analysis was conducted using GPower version 3.1.9.4. Results revealed that with a sample of 365 respondents, 18 predictors, a significance level of 5% (two-tailed), and an estimated effect size f^2 of 0.08, the acquired power was 93.54%, which denotes that the acquired samples are adequate.

This study was conducted in a higher education institution in Manila, Philippines, that offers various baccalaureate and graduate courses through its 22 institutes, colleges, and faculties. From these 22 centers, only 15 institutes, colleges, or faculties offer baccalaureate degrees. Respondents were recruited

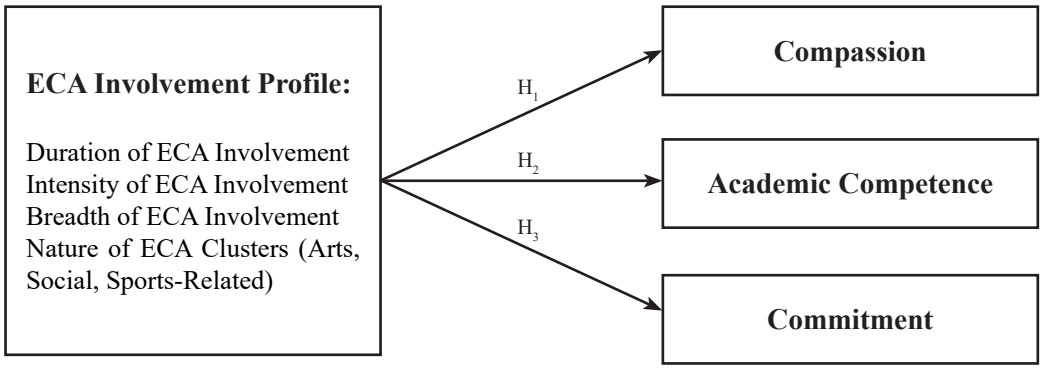

Figure 1. Theoretical Model of the Influence of ECA Involvement on Compassion, Academic Competence, and Commitment

through a two-stage sampling technique. The 15 colleges, which offer baccalaureate courses, were first stratified into four according to the alignment of degrees they offer: arts, business, health allied, and science and technology. Afterwards, at least two colleges from each stratum were randomly selected. From the selected college, at least eight sections were randomly selected. Data were gathered between August and November 2017.

Research Instruments

A three-part survey questionnaire, composed of the respondent information sheet, the Compassion Scale, and the University Commitment Scale, was used to collect self-reported data. On the other hand, an abstraction form was used to record the general weighted average, the proxy measure for academic competence, through the respective administrative offices of each college. The general weighted average is estimated by computing the weighted mean grade of all core, major, and minor courses taken by a student according to the equivalent unit load of each course.

The respondent information sheet was used to profile the respondents' demographic and ECA involvement profile. The demographic characteristics included the respondent's age, sex, year level, and course. In contrast, ECA involvement profile was measured in four dimensions: *nature, breadth, intensity,* and *duration*. *Nature* refers to the type of ECA that respondents are involved in, and it is categorized into three clusters: arts-related, sports-related, and social-related ECA (Ivaniushina & Aleksandrov, 2015; Fares et al., 2016). *Breadth*, on the other hand, refers to the total number of organizations that respondents are members of. *Intensity*, which was measured in terms of hours per week, refers to the amount of time allotted by a respondent for their organization. Lastly, *duration* is the length in months that the respondents have been a member of their respective organization.

The second section of the survey questionnaire was the Compassion Scale by Pommier (2010). It is a 24-item, 5-point Likert scale questionnaire that measures compassion in six dimensions: *kindness, indifference, mindfulness, disengagement, common humanity,* and *separation.* Among these dimensions, three are naturally negative while the remaining three are positive. Previous studies have shown that the instrument has good reliability, with a Cronbach's alpha of 0.90 (Strauss et al., 2016). The University Commitment Scale, a 21-item self-reported questionnaire by Davis (2014), was the last part of the survey questionnaire. It measures commitment in three areas—*affective, continuance,* and *normative commitment*—using a 7-point Likert scale, indicating their degree of agreement with each statement. Davis (2014) reported a high overall scale reliability of 0.92, with high subscale reliability coefficients ranging from 0.78 to 0.85.

Since English is the medium language of instruction and assessment in the selected university, the questionnaires were no longer translated to the local language. However, these questionnaires were initially evaluated by a panel of content experts to ensure contextual relevance of all items. In addition, the questionnaires were pretested among 20 eligible respondents, yielding Cronbach's alpha values of 0.78 and 0.86 for the Compassion Scale and University Commitment Scale, respectively.

Data Collection Procedure

Ethical clearance and institutional approval were initially secured. Upon approval of the randomly selected colleges, we coordinated with their respective administrative offices to acquire the number of enrolled students per year level and section. Then, eight sections per college were randomly selected using the fishbowl technique, and all eligible respondents in these sections were included in the study. In coordination with the representative of each class, we visited them during their break or free time and oriented them about the study's background. After securing written informed consent, we distributed the survey questionnaire and stayed with the respondents should they need assistance. Most respondents completed the questionnaires in approximately 30 minutes. However, to avoid conflict with their class schedule, some questionnaires were retrieved one day after distribution through the assistance of their class representative. We assessed all forms for completeness before sealing in a coded envelope.

Statistical Analysis

The IBM® Statistical Package for Social Sciences (SPSS®) and AMOS version 20® (IBM Corp., Armonk, NY) were used for all statistical analyses, and a p-value ≤ 0.05 was considered statistically significant. Mean, standard deviation, median, interquartile range, frequency, and percentage summarized the demographic characteristics, ECA involvement profile,

compassion, academic competence, and commitment scores. The structural equation model, using maximum likelihood estimation, was also used to determine the interrelationship among ECA involvement profile, compassion, academic competence, and commitment. Univariate, bivariate, and multivariate assumptions such as data normality, data outliers, and linearity and multicollinearity were initially tested using box plots, Mahalanobis distance, and correlation analysis. For continuous-level, dependent variables (commitment, academic competence, compassion), the association was measured using standardized regression (beta) coefficient, while odds ratio was utilized for categorical variables (*nature* of ECA cluster). The following indices were used to appraise model fit: chi-square-degrees-of-freedom ratio (χ^2/df) $\leq$3.00, root mean square error of approximation $\leq$ 0.08, comparative fit index $\geq$ 0.90, goodness-of-fit index $\geq$ 0.90, and a higher parsimonious normal fit index (Byrne, 2010). Path analysis was also employed to identify indirect effects among variables.

Ethical Consideration

Ethical approval was initially sought from the University of Santo Tomas College of Nursing Ethics Review Committee (USTCON-2017-SR21). Corresponding institutional approvals from the different institutes, colleges, and faculties were also secured. Written informed consent was secured after providing full disclosure about the study background. There was no faculty or professor during the data collection to avoid any form of coercion or undue influence. All completed survey questionnaires were placed in sealed, coded envelopes, which were stored in a locked cabinet accessible only to the team. All data were also encoded in a password-encrypted laptop.

Table 1

*Demographic and Extracurricular Activity (ECA) Involvement Profile of the Respondents (*N = *365)*

Characteristic	Frequency (*f*)	%	Mean (SD) or Median (IQR)
Age (Year)			19.12 (±0.89)
Sex			
Male	126	34.52%	
Female	239	65.48%	
Year Level			
Third Year	229	62.74%	
Fourth Year	134	36.71%	
Fifth Year	2	0.55%	
Course or Program			
Allied Health Courses	105	28.77%	
Arts Courses	62	16.99%	
Business Courses	80	21.92%	
Science and Technology Courses	118	32.33%	
Organizational Position			
Officer	197	53.97%	
Member	168	46.03%	
Organizational Involvement			
Arts-Related ECA Cluster	243	66.58%	
Social-Related ECA Cluster	221	60.55%	
Sports-Related ECA Cluster	84	23.01%	
Breadth of ECA Involvement (Counts)			2 (1 − 3)
Intensity of ECA Involvement (Hours/Week)			7.21 (±9.54)
Duration of ECA Involvement (Months)			15.68 (±13.09)

Table 2

*Descriptive Statistics and Correlation Coefficient among Variables (*N = *365)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Academic Performance	—														
Kindness (Compassion)	−0.05	—													
Indifference (Compassion)	0.50	−0.47†	—												
Common Humanity (Compassion)	0.01	0.15†	−0.13*	—											
Separation (Compassion)	0.01	−0.38†	0.59†	−0.14†	—										
Mindfulness (Compassion)	−0.03	0.54†	−0.29†	0.25†	−0.31†	—									
Disengagement (Compassion)	0.05	−0.40†	0.63†	−0.05	0.62†	−0.28†	—								
Affective (Commitment)	0.01	0.10	0.03	0.05	0.02	0.03	−0.01	—							
Continuance (Commitment)	−0.05	0.02	−0.10	0.12*	−0.12†	0.02	−0.06	0.20†	—						
Normative (Commitment)	0.07	0.04	−0.0.8	0.07	−0.02	0.02	−0.04	0.31†	0.35†	—					
Breadth of ECA Involvement	0.01	0.03	0.06	0.010	−0.02	0.04	−0.05	0.16†	0.06	0.12	—				
Intensity of ECA Involvement	−0.02	0.05	−0.01	0.06	−0.04	0.15†	−0.11*	0.11*	0.03	0.02	0.15†	—			
Duration of ECA Involvement	0.03	0.04	−0.08	0.06	−0.14†	0.02	−0.13*	0.07	−0.05	−0.08	0.21†	0.26†	—		
Arts-Related ECA Cluster	−0.02	−0.10	0.06	0.04	−0.01	−0.04	0.02	0.14†	0.27†	0.01	0.21†	0.06	0.10	—	
Social-Related ECA Cluster	0.07	0.12*	−0.06	−0.02	−0.14†	0.08	−0.15†	0.02	−0.11*	0.08	0.38†	0.03	−0.01	−0.42†	—
Sports-Related ECA Cluster	0.09	−0.05	0.14†	−0.12*	−0.09	−0.01	0.13*	0.07	−0.11*	0.05	0.21†	−0.06	0.01	−0.15†	0.02
Mean	2.11	4.15	2.11	4.53	2.00	4.15	2.06	4.32	4.67	4.55	2.22	7.21	15.68	—	—
Standard Deviation	0.31	0.66	0.63	0.48	0.64	0.57	0.63	0.68	0.82	0.86	±1.28	±9.54	±13.09	—	—

*Significant at 0.05.

†Significant at 0.01.

RESULTS

Demographic and ECA Involvement Profile of the Respondents

As depicted in Table 1, most respondents were female (65.48%), were in the third year of their degrees (62.74%), and were enrolled in a course involved in science and technology (32.33%). The mean age of the respondents was 19.12 (±0.89).

In terms of ECA involvement profile, more than half were officers of their respective organizations (53.97%), and 66.58% of the respondents were involved in arts-related ECAs. As for *breadth* of involvement, the median number of organizations in which respondents were involved was 2 (Interquartile Range (IQR) = 1 − 3). The average *intensity* and *duration* of involvement were 7.21 hours per week (SD = 9.54) and 15.68 months (SD = 13.09), respectively.

Descriptive Statistics

The descriptive statistics and correlation analyses of the study variable are presented in Table 2. As presented, the positive domains of compassion were rated positively indicating higher *kindness, common humanity,* and *mindfulness* among respondents. Similarly, all negative domains had low scores, ranging from 2.00 to 2.11, denoting low *indifference, separation,* and *disengagement* attributes. All the dimensions of commitment were positively rated, with scores ranging from 4.55 to 4.32 from a 7-point rating scale. Academic competence was also slightly above its midpoint value, with a mean score of 2.11 (SD = 0.31).

Hypothesized Model

Analysis of the hypothesized model (Figure 2) indicated that it had poor fit since the minimum parameter thresholds were not met (Table 3). In addition, several tested paths had nonsignificant associations ($p > 0.05$), while several modification indices indicated additional regression paths and covariances. Hence, the model was trimmed and respecified.

Emerging Model

After trimming and respecification, the emerging model (Figure 3) showed excellent fit parameters (Table 3). The model also shows that social-related ECA cluster positively and directly affected compassion ($\beta = 0.16$, $p = 0.010$), while sports-related ECA cluster had a negative, direct influence on academic competence ($\beta = -0.12$, $p = 0.014$). On the other hand, arts-related ECA cluster directly and positively influenced commitment ($\beta = 0.26$, $p = 0.039$).

Table 3

*Goodness-of-Fit Statistics of the Hypothesized and Emerging Models (*N = *365)*

Model	Chi-Square			RMSEA		CFI	GFI	**PNFI**
	χ^2	**df**	χ^2/**df** (***p*-value**)	**RMSEA** (***p*-value**)	**95% CI**			
Parameter Thresholds for Good Model	—	—	≤3.00 (>0.05)	≤0.08 (>0.05)	—	≥0.90	≥0.90	EM > HM
Parameter Thresholds for Excellent Model	—	—	≤2.00 (>0.05)	≤0.05 (>0.05)	—	≥0.95	≥0.95	
Hypothesized Model	526.38	93.00	5.66 (0.0001)	0.113 (0.0001)	0.10, 0.12	0.61	0.87	0.44
Emerging Model	155.74	95.00	1.64 (0.0001)	0.042 (0.869)	0.03, 0.05	0.95	0.95	0.69

Note. χ^2/df = chi-square-degrees-of-freedom ratio, RMSEA = root mean square error of approximation, CFI = comparative fit index, GFI = goodness-of-fit index, PNFI = parsimonious normal fit index.

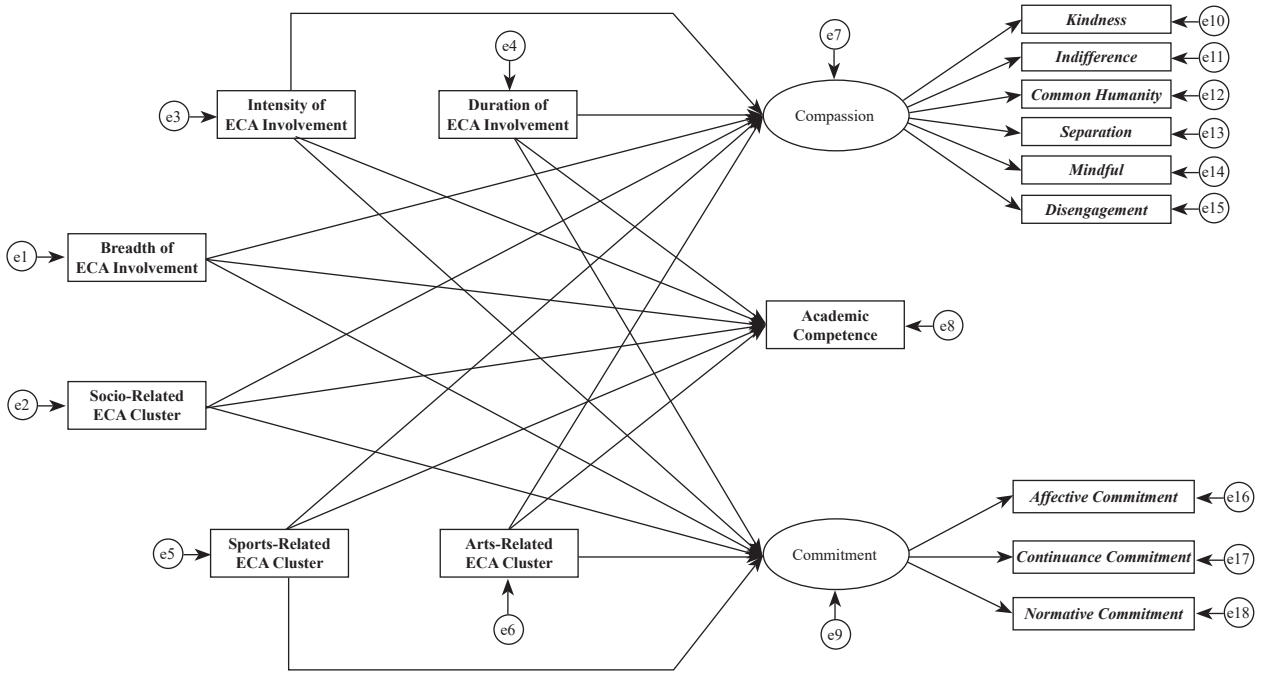

Figure 2. Hypothesized Model of the Interrelationship among ECA Involvement Profile, Compassion, Academic Competence, and Commitment (N = 365)

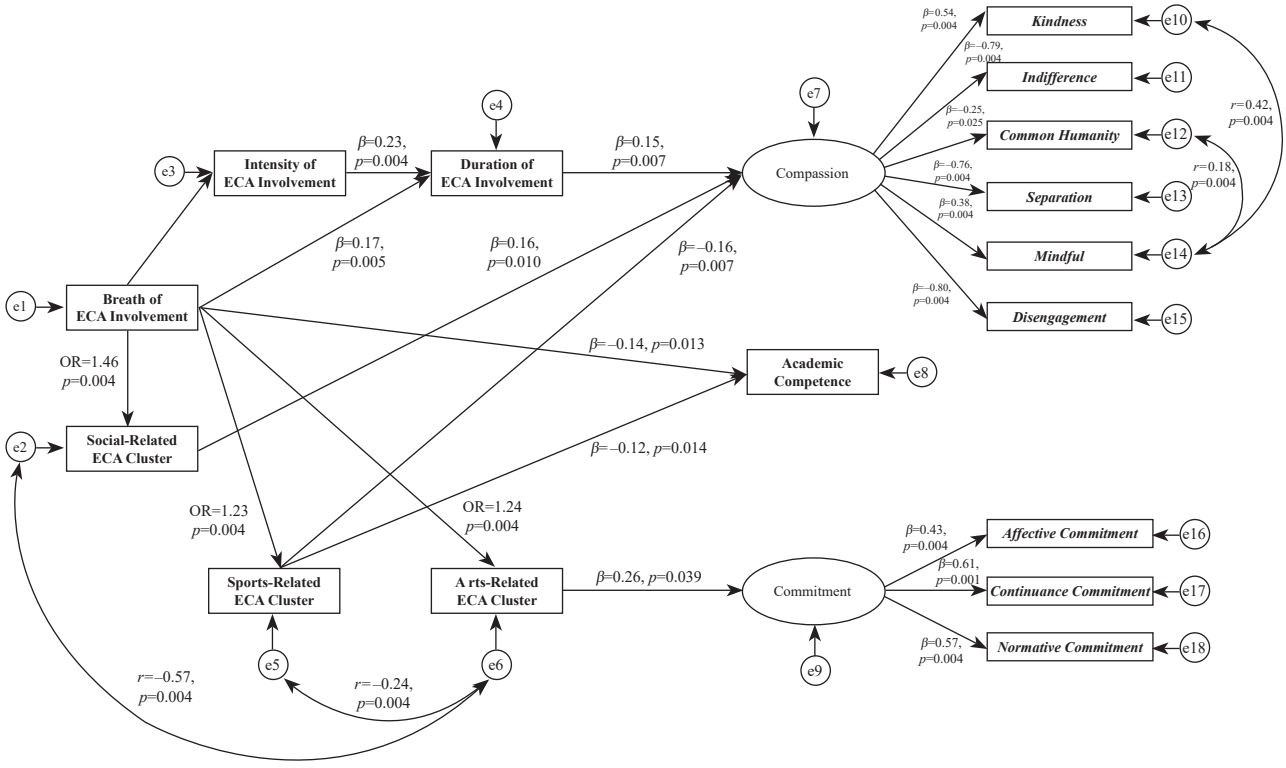

Figure 3. Emerging Model of the Interrelationship among ECA Involvement Profile, Compassion, Academic Competence, and Commitment (N = 365)

Table 4

*Path Analysis of the Interrelationship among ECA Involvement Profile, Compassion, Academic Competence, and Commitment (*N = *365)*

	Breadth of ECA Involvement			Intensity of ECA Involvement			Duration of ECA Involvement			Arts-Related ECA Cluster			Sports-Related ECA Cluster			Social-Related ECA Cluster		
	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct	Total
Intensity of ECA Involvement	—	0.15†	0.15†	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Duration of ECA Involvement	0.03†a	0.17†	0.21†	—	0.23†	0.23†	—	—	—	—	—	—	—	—	—	—	—	—
Arts-Related ECA Cluster	—	0.22†	0.22†	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sports-Related ECA Cluster	—	0.21†	0.21†	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Social-Related ECA Cluster	—	0.38†	0.38†	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Commitment	0.06*b	—	0.06*	—	—	—	—	—	—	—	0.26*	0.26*	—	—	—	—	—	—
Compassion	0.06*c	—	0.06*	0.03†c	—	0.03†	—	0.15†	0.15†	—	—	—	—	−0.16†	−0.16†	—	0.16†	0.16†
Academic Performance	−0.03*d	−0.14*	−0.17†	—	—	—	—	—	—	—	—	—	—	−0.12*	−0.12*	—	—	—

[a]Mediator variable: intensity of ECA involvement.

[b]Mediator variable: arts-related ECA cluster.

[c]Mediator variable: duration of ECA involvement.

[d]Mediator variable: sports-related ECA cluster.

*Significant at 0.05 level.

†Significant at 0.01 level.

The *duration* of ECA involvement directly influenced compassion (β = 0.15, p = 0.007). In contrast, *intensity* of ECA involvement directly affected *duration* (β = 0.23, p = 0.004) and had a small, indirect effect on compassion (β = 0.03, p = 0.007) through the *duration* of ECA involvement. Among the ECA involvement profiles, *breadth* had the most diverse influence, directly affecting *intensity* (β = 0.15, p = 0.005), *duration* (β = 0.17, p = 0.005), social-related ECA cluster (odds ratio (OR)= 1.46, p = 0.004), arts-related ECA cluster (OR = 1.24, p = 0.004), sports-related ECA cluster (OR = 1.23, p = 0.004), and academic performance (β = −0.14, p = 0.013). In addition, *breadth* of ECA involvement had small, indirect effects on compassion (β = 0.06, p = 0.045), academic competence (β = −0.03, p = 0.014), and commitment (β = 0.06, p = 0.039) through the mediation of *duration*, sports-related ECA cluster, and arts-related ECA cluster, respectively.

DISCUSSION

This study determined the influence of ECA involvement on the compassion, academic competence, and commitment of collegiate students. In general, the structural model illustrated that the *duration, intensity, type,* and *breadth* of ECA involvement influence compassion, academic competence, and commitment and emphasizes to educators and administrators the need for institutional policies and guidelines governing the participation of students in ECAs. These guidelines and policies should focus on the appropriate and judicious monitoring of collegiate students and should be facilitative rather than restrictive or punitive to support the holistic growth of students and to avoid compromising their academic performance.

Results showed that longer *duration* and greater *intensity* of ECA involvement increased compassion, and these findings may be attributed to the time it takes to imbibe the abovementioned trait. According to Feldman and Rafaeli (2002), shared understanding and human connection develop through constant human interaction over prolonged periods. As collegiate students participate longer in an organization, they gradually understand and embody its core values and contribute to the development of its stakeholders. This finding is further supported by previous literature suggesting that ECA involvement leads to positive youth development, which encompasses the construct of compassion (Annu & Sunita, 2013; Gardner, et al., 2008; Morrissey & Werner-Wilson, 2005).

Among the different types of ECA clusters, only social-related ECAs positively influenced compassion, a finding consistent with the argument of Dyson et al. (2017). Social-related ECAs involve organizations inclined into politics, religious affairs, community service, and volunteer activities (Fares et al., 2016), which allow students to reflect on their experiences, to become aware of their feelings (Claxton-Oldfield & Claxton-Oldfield, 2007), to appreciate the culture of others (Callister & Plante, 2015), and to enhance their prosocial attitudes, values, and identities (Penner et al., 2005; Riedel, 2002) and, ultimately, nurture compassion (Callister & Plante, 2015; Dyson et al., 2017). Lilius et al. (2015) even posited that participating in relational organizations or activities fosters compassion capability or the ability to be aware of someone's suffering, be moved by it, and respond to it accordingly.

In the same vein, arts-related ECAs positively affected commitment, which may be due to the perseverance and patience nurtured by arts-related activities, a finding aligned with the hypothesis of Marsh and Kleitman (2002). Adeyemo (2010) even conjectured that involvement in arts-related activities such as dancing, singing, and literary works develops greater commitment over the years. Arts-related activities also motivate students to pursue their interests (Stevenson & Clegg, 2011) and allow fulfillment of two needs—the need for competence and the need for relatedness—as they strive harder with people of the same talent and curiosity (Fredricks et al., 2002). The involvement in arts-related ECAs, in turn, nurtures the capacity to commit to activities until completion.

On the other hand, sports-related ECAs negatively affected both compassion and academic competence, which can be explained by the competitive and time-demanding nature of sports activities. Studies posited that the competitive nature of sports may lead to several negative outcomes including poor morale and academic performance (Doty, 2006; Fraser-Thomas, 2007). This nature of sports often pressures athletes and can make them feel inadequate, unattached, and vulnerable (Fraser-Thomas, 2007). Gardner and Janelle (2002) even argued that aggression is acceptable in the sports environment; however, this is a notion that raises concern for those in a nonsports environment. To add to this, the pressure to win a game inadvertently leads

to less time for studying and more time for practice and training, causing athletes to struggle balancing their academic and nonacademic activities, with the former often being sacrificed (Broh, 2002; Grimit, 2014). This finding raises awareness of educators and necessitates judicious monitoring and support to prevent compromising academic competence and compassion among collegiate students.

Focusing on the emerging model, it is important to mention that the *breadth* of ECA involvement had the most diverse effect and influenced different aspects of ECA involvement profile, compassion, academic competence, and commitment. Results showed that *breadth* of ECA involvement negatively affected academic competence, that is, increasing the number of organizations leads to lower academic performance, and this result may be attributed to two causes. First, the time that students allot for their academics may be cut off with the considerable number of ECAs they have. Second, students may have trouble in balancing multiple activities and inadvertently compromise their academic performance (Fredricks, 2012). These findings are consistent with the Self-Complexity Theory (Linville, 1982), which posits that individuals who commit all their resources to a particular activity, in this case ECAs, are less capable of coping with stressful events. It should also be noted that although most studies showed a positive association between ECA involvement and academic performance, these were conducted among high school students (Fredricks & Eccles, 2006; Knifsend & Graham, 2012). The academic demands among collegiate students are greater than high school students and necessitate more time and effort among collegiate students who highly value their academics to retain college admission and avoid school dropout. Thus, collegiate students with multiple organizations may spend more time in ECAs, thus potentially compromising their academic activities. This finding, therefore, accentuates the need to implement institutional policies and guidelines on the sensible number of activities or organizations that students can participate in. Studies recommended that students may have low to moderate levels of ECA participation (approximately two to four activities) to promote positive school affect and academic performance, and high ECA involvement (beyond five activities) is discouraged since academic performance abruptly declines with an increasing number of ECAs (Fredricks, 2012; Fredricks & Eccles, 2006; Knifsend & Graham, 2012). Although such a recommendation was given among adolescent students, it is an avenue that can be adopted and tested among collegiate students.

It is also notable that the *breadth* of ECA involvement indirectly affected both commitment and compassion. Commitment was positively influenced through the mediation of arts-related ECA cluster, and this result may be explained by the patience that one develops through participation in several arts-related activities (Fredricks et al., 2002; Stevenson & Clegg, 2011). As collegiate students participate in arts-related ECAs, they observe and embody several values that allow them to continue pursuing their interest until completion. Likewise, compassion increases with higher *breadth* through social-related ECAs, which may be attributed to the self-reflective nature of social-related activities. Participating in various socially inclined activities allows students to see the perspective of people from various walks of life (Callister & Plante, 2015), allowing them to gain insight of others' situations and to develop empathy and compassion (Lilius et al., 2015).

Limitation

Despite the results of this study, it has certain limitations. First, the cross-sectional nature of the study does not completely guarantee the causality among variables. Second, this study was only conducted in a single university in the Philippines, which may not be generalizable to other academic institutions. Third, academic competence was measured using general weighted average, which took the mean standing from admission to the point of data collection. As such, certain semesters were included in the computation even though students may have not yet participated or became a member of any organization or ECA. Lastly, self-reported questionnaires were utilized; thus, over- and underreporting of estimates may be possible.

Conclusion

This study offers evidence on the influence of ECA involvement, particularly the *nature, breadth, intensity,* and *duration*, on the compassion, academic competence, and commitment of collegiate students.

Although ECA involvement is beneficial to improve compassion, involvement in multiple organizations may compromise a student's academic competence. However, involvement in social- and arts-related ECA clusters may promote compassion and commitment among students, while sports-related ECAs may deter academic competence and compassion.

The proposed structural model gives administrators and educators an insight on the interrelationship of ECA involvement, commitment, academic competence, and commitment, which can be used in the development of appropriate educational strategies. One of these key strategies is to implement institutional policies and guidelines on the sensible number of organizations that a student can participate in or become a member of. Moreover, collegiate students involved in sports-related ECA clusters should be judiciously monitored and supported to prevent compromising their academic competence. These policies and guidelines should be facilitative rather than restrictive or punitive to support the holistic growth of students and to avoid compromising any student outcome.

Declaration of Ownership

This report is our original work.

Conflict of Interest

None.

Ethical Clearance

This study was approved by the University of Santo Tomas College of Nursing Ethics Review Committee (USTCON-2017-SR21)

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