



Research Article

Mediating Role of Self-Esteem on the Association Between Fraternity Engagement and Social Behavior

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ABSTRACT

This study was directed to evaluate the mediating role of self-esteem on the association between fraternity engagement and social behavior of the collegiate and alumni members of a Greek-lettered Filipino organization in 2024–2025. It bridged the gap by describing the perceived level of self-esteem, fraternity engagement, and social behavior of the respondents, tested the difference between the collegiate and alumni members' self-esteem, fraternity engagement, and social behavior, tested if self-esteem and fraternity engagement significantly influence the respondents' social behavior. Researchers used the descriptive, comparative, and correlational causal designs. There were 119 respondents selected by simple random sampling surveyed using valid and highly reliable instruments. Researchers used the mean, standard deviation, Mann-Whitney U-test, and multiple linear regression and mediated regression using bootstrap technique. This study revealed very high levels of self-esteem, fraternity engagement, and social behavior among the respondents. Collegiate and alumni members' levels of self-esteem, fraternity engagement, and social behavior were not significantly different. Furthermore, fraternity engagement influenced self-esteem, while self-esteem and fraternity engagement significantly influence the respondents' social behavior. Self-esteem was a significant mediator in the relationship between fraternity engagement and social behavior. This study had intense implications for the organization's national and local leaders and future researchers.

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INTRODUCTION

The societal concern of social behavior among Sigma Alpha Epsilon Philippines-International collegiate and alumni members is a critical consideration, impacting interpersonal relationships, academic or work performance, and overall well-being. Recognizing the global complexities of fraternity engagement, particularly in influencing students and employees, there is a call for research that delves into local contexts, such as those found in the Philippines. This need for more nuanced investigations becomes apparent, highlighting the challenges faced by collegiate alumni members in shaping their social behavior within the specific cultural and structural frameworks of fraternities.

Building upon this imperative for research, existing literature underscores the pivotal roles of self-esteem and fraternity engagement in shaping students' social behavior [1]. Despite numerous studies globally and locally exploring individual connections between these variables, there remains a gap in understanding their comprehensive interplay. To address this, the present study aimed to focus specifically on Sigma Alpha Epsilon Philippines-International collegiate and alumni members, offering a detailed evaluation of how self-esteem and fraternity engagement uniquely contribute to social behavior patterns in this context.

The legal framework in the Philippines, enacted on April 27, 2022, underlines the significance of fostering a positive learning environment. This legislation emphasizes the importance of promoting student welfare and conducive learning environments [2]. This legal mandate motivates the researchers to explore factors that influence the social behavior of both collegiate and alumni members, especially those affiliated with Sigma Alpha Epsilon Philippines-International. The study thus seeks to contribute insights that align with legal mandates, enhance the educational experiences of students, and fall within the parameters of existing laws. The researchers believed that the findings of this study could be a basis for Greek-lettered organizations, including the Sigma Alpha Epsilon Philippines-International, on how to maintain or improve the social behavior of their members by considering their members' self-esteem and fraternity engagement. It could also contribute to the body of knowledge by giving explanations for existing theories.

The foundation of this research is Albert Bandura's social learning theory, which asserts that learning occurs via observation, imitation, and modeling. Bandura's theory argues that various elements, such as attention, motivation, attitudes, and emotions, influence learning. The concept

elucidates the dynamic interaction between cognitive and environmental elements that impact the learning processes of individuals. According to the notion, learning takes place when individuals watch the outcomes of others' behavior [3]. Another theory that complements in explaining human behavior and learning processes in this context is the cognitive development theory proposed by Jean Piaget. Piaget's theory suggests that individuals actively construct their understanding of the world through their experiences, which includes observing and interacting with the environment. According to Piaget, cognitive development occurs in stages, with each stage characterized by distinct ways of thinking and understanding the world [4].

Seeking to fill gaps in existing literature, the study takes a focused approach by providing a comprehensive examination of the mediating role of self-esteem on the association between fraternity engagement and social behavior. While previous studies have explored these variables independently, a notable dearth exists in understanding how self-esteem acts as a mediator within the specific context of fraternity engagement and social behavior. This study also filled the gap by evaluating the difference between the collegiate and alumni members' self-esteem, fraternity engagement, and social behavior. By addressing these gaps, the research not only contributes to advancing the existing knowledge base but also offers insights that inform interventions aimed at fostering healthier social dynamics among Sigma Alpha Epsilon Philippines-International collegiate and alumni members.

The researchers in this study directed to evaluate the mediating role of self-esteem on the association between fraternity engagement and social behavior of the collegiate and alumni members of Sigma Alpha Epsilon Philippines-International. To be specific, the researchers pursued to describe the perceived level of self-esteem, fraternity engagement, and social behavior of the respondents, test if there is a significant difference between the collegiate and alumni members' self-esteem, fraternity engagement, and social behavior, evaluate if self-esteem and fraternity engagement significantly influence the respondents' social behavior, and explore if there is a mediating effect of the respondents' perceived level of self-esteem on the association between fraternity engagement and social behavior.

METHODOLOGY

The researchers employed descriptive, comparative, and correlational causal designs in this study. Descriptive design was used to describe the level of self-esteem, fraternity engagement, and social behavior, while comparative was used to test the significant difference between the collegiate and alumni members' self-esteem, fraternity engagement, and social behavior. Lastly,

correlational causal was used to test the relationship and influence of self-esteem and fraternity engagement on social behavior. Also, the researchers evaluated the mediating role of self-esteem on the association between fraternity engagement and social behavior. The respondents of this venture comprised of active and registered collegiate and members of Sigma Alpha Epsilon Philippines-International during 2024-2025. The researchers determined the sample size for the study through the utilization of G Power software. The study's sample size was calculated to be 119, with an effect size of 0.15, a probability of error of 0.05, and a power of 0.95.

The researchers employed simple random sampling technique to pick the samples for the study. There were 14 and 105 collegiate and alumni member respondents of this study, respectively. To authentically represent the makeup of active and registered members within Sigma Alpha Epsilon Philippines-International during the 2024–2025 academic year, 105 alumni members and 14 collegiate members were carefully selected for this study. Each participant was given an equal chance to participate in the selection process, which was impartially ensured by using a straightforward random sample technique. The distribution of collegiate and alumni members within the fraternity at the time was the basis for these numbers, which were not selected at random. In addition, the G Power software was used to calculate the sample size with the goal of achieving statistical power while taking the required power level, effect size, and likelihood of error into account. The researchers utilized researchers-made questionnaire on perceived level of self-esteem, fraternity engagement, and social behavior. The instrument's Part 1 gathered data concerning the respondents' self-esteem (11 items). Further, Part 2 gathered the respondents' fraternity engagement (11 items), while Part 3 collected data concerning the respondents' social behavior (11 items). The instrument was recorded using a 4-point Likert scale (3.26 - 4.00 Strongly Agree/Very High Level, 2.51 - 3.25 Agree/High Level, 1.76 - 2.50 Disagree/Low Level, and 1.00 - 1.75 Strongly Disagree/Very Low Level). The validity and reliability of the instrument were assessed through the implementation of the convergent validity and internal consistency methods, respectively. The results of convergent validity revealed that the all the items under self-esteem, fraternity engagement, and social behavior are valid ($r > 0.55$, $p < 0.001$). Furthermore, the results of reliability testing showed that the instruments on self-esteem ($\alpha = 0.92$) and social behavior ($\alpha = 0.93$) reached very high reliability, while fraternity engagement reached high reliability ($\alpha = 0.89$). The researchers started collecting data

as soon as they were convinced that the instruments were valid and highly reliable.

Before conducting the survey, the researchers obtained authorization from the organization's national president. Following approval, the researchers distributed the survey link to the chapter presidents along with an informed consent letter for respondents. The researchers handled the collected data with secrecy and solely used it for the study's objectives, ensuring survey participation was optional. Ethical review was ensured through the ethics board who have run the review of this paper.

The researchers used the weighted mean and standard deviation to determine the values of self-esteem, fraternity engagement, and social behavior of the respondents. Kolmogorov-Smirnov test was used to determine the normality of data. The results showed that self-esteem, fraternity engagement, and social behavior data were not normally distributed ($p < 0.05$). The Mann-Whitney U-test was used to test the significant difference between the collegiate and alumni members' self-esteem, fraternity engagement, and social behavior. Then, the researchers used Multiple Linear Regression using bootstrap technique to test if fraternity engagement and self-esteem significantly influence the respondents' social behavior. Finally, Mediated Regression using bootstrap technique was used to test the mediating role of the respondents' perceived level of self-esteem on the association between fraternity engagement and social behavior. Statistical Package for the Social Sciences (SPSS) trial version 26 [12] and Jamovi version 2.5 [13, 14] were utilized by the researchers to perform the computations on the data. The researchers utilized the SPSS software to employ statistical methods such as weighted mean, standard deviation, Kolmogorov-Smirnov test, Mann-Whitney U-test, and multiple linear regression using bootstrap technique. Additionally, Jamovi software was employed to apply mediated regression utilizing the bootstrap technique.

RESULTS AND DISCUSSION

Results

This study identified the respondents' perceived level of self-esteem, fraternity engagement, and social behavior. It also compared the collegiate and alumni members' self-esteem, fraternity engagement, and social behavior. It further evaluated if fraternity engagement and self-esteem significantly influence the respondents' social behavior. Finally, researchers tested if there is a mediating effect of the respondents' perceived level of self-esteem on the association between fraternity engagement and social behavior. Table 1 displays the perceived level of self-esteem, fraternity engagement, and social behavior.

Table 1. Perceived Level of Self-Esteem, Fraternity Engagement, and Social Behavior of the Respondents

| Variables | Mean | Std Dev | Verbal Interpretation |
|-------------------------|------|---------|-----------------------|
| • Self-Esteem | 3.64 | 0.41 | Very High Level |
| • Fraternity Engagement | 3.35 | 0.51 | Very High Level |
| • Social Behavior | 3.67 | 0.44 | Very High Level |

Legend: 3.26 - 4.00 Very High Level, 2.51 - 3.25 High Level, 1.76 - 2.50 Low Level, and 1.00 - 1.75 Very Low Level

The outcomes of the data gathering portray that the respondents obtained very high levels of self-esteem ($\bar{x}=3.64$, $SD=0.41$), fraternity engagement ($\bar{x}=3.35$, $SD=0.51$), and social behavior ($\bar{x}=3.67$, $SD=0.44$). It signifies that Sigma Alpha Epsilon Philippines-International collegiate and alumni members displayed a very high level of self-value and confidence. They also showed a high level of loyalty through their involvement in the organization's significant activities. Ultimately, the respondents' demonstrated a very good level of interaction with individuals in their school or workplace and in their respective communities.

engagement, self-esteem, and social behavior. The Mann-Whitney U-test results exposed that the probability values generated concerning the difference between the collegiate and alumni members' levels of self-esteem, fraternity engagement, and social behavior were greater than the level of significance (0.05). It signifies that there was no statistically significant difference between the collegiate and alumni members' level of self-esteem, fraternity engagement, and social behavior ($p>0.05$). It is evident from the mean ranks of collegiate and alumni members that their level of self-esteem, fraternity engagement, and social behavior were close to each other.

Table 2 depicts the difference between the collegiate and alumni members' level of fraternity

Table 2. Test of Difference between the Collegiate and Alumni Members' Level of Fraternity Engagement, Self-esteem, and Social Behavior

| Variables | Mean Rank | z-value | p-value | Conclusion |
|------------------------------|-----------|---------|---------|---------------------------|
| Self-esteem | | | | |
| • Collegiate | 65.36 | -0.636 | 0.525 | No significant difference |
| • Alumni | 59.29 | | | |
| Fraternity Engagement | | | | |
| • Collegiate | 62.54 | -0.294 | 0.769 | No significant difference |
| • Alumni | 59.66 | | | |
| Social Behavior | | | | |
| • Collegiate | 67.75 | -0.915 | 0.360 | No significant difference |
| • Alumni | 58.97 | | | |

Significant if $p<0.05$

Table 3 demonstrates the test of influence of self-esteem and fraternity engagement on the social behavior of the respondents.

Table 3. Test of Influence of Fraternity Engagement and Self-esteem on Social Behavior

| Predictor Variables | Beta | SE | z-value | p-value | Conclusion | r^2_{adj} |
|-----------------------|-------|-------|---------|---------|----------------------------|-------------|
| Constant | 0.404 | 0.367 | 1.728 | 0.267 | | |
| Self-esteem | 0.601 | 0.088 | 8.767 | 0.001 | With significant influence | 0.627 |
| Fraternity Engagement | 0.322 | 0.105 | 5.865 | 0.002 | With significant influence | |

Dependent Variable: Social Behavior; Significant if $p<0.05$; ANOVA for Regression ($F_{(2,116)}=100.23$, $p<.001$), $f^2=1.68$

Multiple linear regression analysis using bootstrap technique was performed to examine which predictors have the most influence on the social behavior of the respondents. Regression analysis showed that self-esteem ($\beta=0.601$, $SE=0.088$, $p=0.001$) was the most influential predictor of social behavior, followed by fraternity engagement ($\beta=0.322$, $SE=0.105$, $p=0.002$), with a very large effect size ($f^2=1.68$). This result indicates that when the respondents' self-esteem and fraternity engagement increase, their social behavior also moves in the same direction. The ANOVA result for regression showed that there was a significant linear association among fraternity

engagement, self-esteem, and social behavior of the respondents ($F_{(2,116)}=100.23$, $p<0.001$). The adjusted r^2 of 0.627 indicated that the predictors contributed a 62.7% variance to social behavior. In summary, the estimated regression model is as given below:

$$\text{Social behavior} = 0.404 + 0.601 * \text{Self-esteem} + 0.321 * \text{Fraternity Engagement}.$$

Table 4 and Figure 1 demonstrate the mediating role of self-esteem on the relationship between fraternity engagement and social behavior.

Table 4. The Mediating Role of Self-esteem on the Relationship between Fraternity Engagement and Social Behavior

| Effects | Beta | SE | z | p | 95% ci | | % Mediation |
|---------------------------------------|-------|-------|------|--------|--------|-------|-------------|
| | | | | | Lower | Upper | |
| • Direct Effects FE→SB | 0.321 | 0.105 | 3.07 | 0.002 | 0.122 | 0.525 | 59.4 |
| • Indirect Effects FE→SE→SB | 0.220 | 0.063 | 3.48 | <0.001 | 0.101 | 0.360 | 40.6 |
| • Total Effects FE→SB | 0.542 | 0.113 | 4.78 | <0.001 | 0.308 | 0.742 | 100.0 |

FE=Fraternity Engagement, SE=Self-esteem, SB=Social Behavior

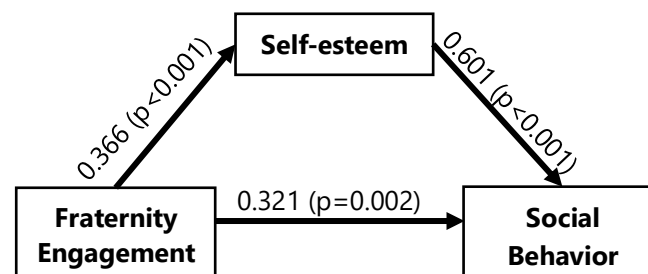


Figure 1. The Mediating Role of Self-esteem on the Relationship between Fraternity Engagement and Social Behavior

The results of Mediated regression using bootstrap technique show that the path (direct effect) from fraternity engagement to self-esteem was positive and significant ($\beta=0.366$, $SE=0.094$, $p=0.001$), representing that self-esteem increases as fraternity engagement increases. Additionally, the path (direct effect) from fraternity engagement to social behavior was positive and significant ($\beta=0.321$, $SE=0.105$, $p=0.002$), indicating that respondents scoring higher on fraternity engagement are more likely to have higher social behavior. It denotes a direct relationship between fraternity engagement and social behavior in the presence of self-esteem. Meanwhile, the direct effect of self-esteem was also positive and significant ($\beta=0.601$, $SE=0.088$, $p<0.001$), suggesting that the respondents

scoring higher on self-esteem are more likely to obtain higher social behavior. The total effect shows that the combined influence of the direct effect of fraternity engagement on social behavior and the indirect effect flowing through self-esteem was also positive and significant ($\beta=0.542$, $SE=0.113$, $p<0.001$).

Furthermore, the indirect effect was tested using non-parametric bootstrapping. If the null of zero (0) falls between the lower and upper bound of the 95% confidence interval, then the inference is that the population indirect effect is zero. If zero is outside the confidence interval, then the indirect effect is inferred to be non-zero. In this case, the unstandardized indirect effect ($IE=0.220$, $SE=0.063$) is statistically significant: 95% CI = (0.101, 0.360). This

indicates the rejection of the null hypothesis. Self-esteem statistically mediated the relationship between fraternity engagement and social behavior ($z=3.48, p<0.001$). In other words, the relationship flows from fraternity engagement to self-esteem, and then to social behavior. Further, the model revealed that self-esteem contributed 40.6% mediation effect between fraternity engagement and social behavior. The model shows partial mediation since fraternity engagement influenced self-esteem, self-esteem influenced social behavior, and fraternity engagement influenced social behavior. It also shows complementary mediation since the sign of direct and indirect effects is the same.

Discussion

The results of this study reveal a striking alignment with the existing literature on self-esteem, fraternity engagement, and social behavior among collegiate and alumni associated with Sigma Alpha Epsilon Philippines-International. Notably, the study indicates that these individuals displayed notably high levels of self-esteem, underscoring their strong sense of self-worth and confidence. This finding resonates with the wealth of local and global research emphasizing the pivotal role of self-esteem in influencing various facets of student life, including academic performance and overall well-being [5]. Furthermore, the study highlights a significant level of fraternity engagement among the respondents, indicating active participation in the organization's activities. This corresponds with prior research that has identified fraternity engagement as a means of fostering a sense of belonging and shared identity among members [5]. Additionally, the study's observation of very good levels of social behavior among the collegiate and alumni members underscores the importance of considering cultural values, peer relationships, and extracurricular activities in shaping social interactions [6]. Generally, these findings reinforce the interconnectedness of self-esteem, fraternity engagement, and social behavior, emphasizing the need for a nuanced understanding of student experiences within the specific context of Sigma Alpha Epsilon Philippines-International.

The results of the Mann-Whitney U-test reveal intriguing insights that align with the existing literature on self-esteem, fraternity engagement, and social behavior among collegiate and alumni members associated with Sigma Alpha Epsilon Philippines-International. Firstly, concerning self-esteem, fraternity engagement, and social behavior, the study found no statistically significant difference between collegiate and alumni members. This finding resonates with the broader discussion which emphasized the universality of self-esteem and the shared

sense of commitment and belonging within fraternity organizations [7]. The similarity in self-esteem, fraternity engagement, and social behavior levels between collegiate and alumni members suggests a continuity of values and experiences across different stages of membership, reinforcing the enduring impact of fraternity affiliation on individuals' sense of self-worth and community involvement.

However, the significant difference observed in social behavior between collegiate and alumni members diverges from the related literature's expectation. While the authors highlighted the multifaceted influences on social behavior, including cultural norms and relationships, they did not specifically anticipate differences between the members of the group [8]. The higher level of social behavior among collegiate members than alumni members suggest potential shifts in social dynamics as individuals transition from active collegiate involvement to alumni status. This finding underscores the importance of considering the evolving nature of social interactions within fraternity organizations over time and the need for tailored approaches to support members' social development at different stages of their membership journey.

This study's multiple linear regression analysis using bootstrap technique sheds light on the intricate relationships between self-esteem, fraternity engagement, and social behavior among collegiate and alumni members of Sigma Alpha Epsilon Philippines-International. The results reveal that self-esteem emerges as the most influential predictor of social behavior, followed by fraternity engagement, with both factors exhibiting statistically significant effects. This finding corroborates the discussions in a study [9], which underscored the importance of self-esteem and fraternity engagement in shaping social behaviors among students and alumni members.

The regression model derived from the analysis, which predicts social behavior based on self-esteem and fraternity engagement, provides a quantitative framework for understanding the dynamics at play. It highlights that as self-esteem and fraternity engagement increase, social behavior tends to move in the same direction. This aligns with the broader discussion regarding the interwoven nature of these factors and their collective influence on student experiences within fraternity organizations [10].

The results of the mediated regression analysis using bootstrap technique align closely with the discussions presented in the literature regarding the mediating role of self-esteem in the relationship between fraternity engagement and social behavior. As highlighted in the local

study [1], engagement in extracurricular activities, including fraternity involvement, can significantly impact individuals' collective self-esteem and academic outcomes. Similarly, a study delves into the influence of fraternity membership on traditional masculinity ideologies and behaviors, emphasizing the importance of understanding how these factors intersect with individuals' self-esteem [11].

The findings of the mediated regression analysis further support the notion that self-esteem plays a crucial mediating role in shaping the impact of fraternity engagement on social behavior. By demonstrating that fraternity engagement positively influences self-esteem, which subsequently influences social behavior, the study contributes to our understanding of the underlying mechanisms involved in this relationship.

CONCLUSION

This study found that the respondents had very high levels of self-esteem, fraternity engagement, and social behavior. Researchers discovered that the collegiate and alumni members' levels of social behavior were statistically significantly diverse, and the collegiate members' social behavior was higher than that of the alumni members', while no statistically significant variance was found between the collegiate and alumni members' levels of self-esteem and fraternity engagement. Moreover, it was found that self-esteem and fraternity engagement influence social behavior, implying that the level of social behavior increases as the self-esteem and fraternity engagement of the respondents increases. The social learning and cognitive development theories provided additional evidence that it is possible to acquire social interaction skills through environmental observation, imitation, and modeling. Undoubtedly, individuals actively shape their comprehension of the world using their experiences, encompassing activities such as environmental observation and interaction. This study suggests maintaining the organization's community projects, meetings, and social affairs as the members show high involvement. To maintain a very good level of social behavior among the organization's members, maintaining a high level of self-esteem is suggested by the organization's national and local leaders. This study acknowledges the constraints associated with the perceived levels of self-esteem, fraternity engagement, and social behavior among Sigma Alpha Epsilon Philippines-International members. While this study provides valuable insights into the factors influencing fraternity engagement and social behavior among Sigma Alpha Epsilon Philippines-International members, it is important to note

that the findings of the study is specific to the context and sample population studied, and generalization to other settings may be done cautiously. Additionally, the study's cross-sectional design limits the ability to establish causal relationships between variables. Future research employing longitudinal or experimental designs could provide further insights into these dynamics.

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