
RESEARCH ARTICLE

Interpersonal Communication Competence: The Role of Sex, Parenting Styles, and Attachment Styles

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ABSTRACT

An individual's capability and capacity for interpersonal communication is heavily dependent on environmental, personal, and social factors. This study explores the effects of sex, parenting styles experienced, and attachment styles on the interpersonal communication competence of adolescents. A sample of 240 senior high school students from De La Salle University Integrated School Manila was selected through convenience sampling. Results reveal that adolescent senior high school students are above average in overall interpersonal communication competence. They are excellent in the emotional support dimension of ICC and above average in the initiation, negative assertion, disclosure, and conflict management dimensions. Sex, parenting styles of mothers and fathers, and attachment style have no significant effect on the initiation and negative assertion dimensions of ICC. However, sex has significant effects on the emotional support and conflict management dimensions of ICC. Data show that females are significantly better at emotional support and conflict management regardless of attachment style, except for adolescents with an anxious attachment style, where males are better than females at emotional support and conflict management. On the other hand, only sex has a significant effect on the overall ICC of adolescent senior high school students.

KEYWORDS

Adolescent, Interpersonal Communication Competence, Parenting style, Attachment style, Sex.

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1. Introduction

Communication is an inescapable process of navigating the world and is essential for connecting with different people. It is a social process that enables transmitting information, interactions, and situational adaptation (Rickheit & Strohner, 2008). Interpersonal communication is evident throughout one's life, with many aspects of daily life heavily relying on interactions with fellow human beings. Conversation through language is the most common way of communication, and the comprehension of such interaction is reliant on more elements other than language (Shabbir & Ishaq, 2019).

Interpersonal Communication Competence (ICC) refers to a person's impression or judgment of one's ability to handle interpersonal relationships in communication settings to engage in a clear and meaningful interaction (Rubin & Martin, 1994; Shabbir & Ishaq, 2019). One's competence and capability in communication are heavily influenced by individual experiences, as well as physiological and psychological traits, which may prove helpful or destructive when an individual attempts to communicate with others (Shabbir & Ishaq, 2019).

An individual's age and maturity play an important role in communication competence (Shabbir & Ishaq, 2019). Social and emotional competencies contribute to effective interpersonal communication during adolescence, and the formation of these competencies is based on the adolescents' predispositions, skills, and other individual resources (Tufeanu, 2015).

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The sex of an individual has been shown to have an impact on their ICC as well. Although it is difficult to determine whether biological sex or specific gender norms influence behaviors and beliefs about relationships, studies have shown a significant difference in how males and females perceive and employ ICC (Buhrmester et al., 1988; Kunkel & Burleson, 1999; Sias et al., 2003; Koesten, 2003).

Parental factors influence many aspects of communication competence (Lee, 2021), as an individual's childhood is where they develop skills, thinking, and behavior that are perpetual in adulthood (Berk, 2015). Many attributes and aspects of one's communication begin at this stage. The way parental figures discipline, educate, and engage with the children entrusted to their care are categorized as parenting styles and have a noticeable impact on the competence and development of human beings in their care (Berk, 2015; Leung & Tsang Kit Man, 2014). Parenting styles are divided into four categories: authoritative, authoritarian, permissive, and neglectful. They are distinguished based on the balance of responsiveness and demandingness (Baumrind, 1991). The parenting style employed on a child has been shown to influence their ICC due to the environment and discipline that a child has gotten accustomed to in their early years (Shabbir & Ishaq, 2019).

Attachment styles are learned bonding behaviors and patterns in reaction to the child-rearing that an individual has received in their developmental years (Huang, 2022). It can be classified into four types: secure, avoidant, anxious, and disorganized. One's attachment style has been found to be associated with ICC (DiTommaso et al., 2003; Jenkins-Guarnieri et al., 2012; Guerrero & Jones, 2003).

Various studies have examined the relationships between ICC, sex, parenting styles, and attachment styles, with much of the research centered on Western countries or East and Central Asia. Many of these studies were outdated and did not tackle the ICC of adolescents and their sex sufficiently (Koesten, 2003; Tufeanu, 2015; Lee, 2021). Hence, this study will contribute to the existing literature on ICC and youth studies by examining and comparing the differences in ICC among adolescent senior high school students and determining the effects of their sex, parenting styles experienced, and attachment styles on ICC.

2. Literature Review

The literature reviewed in this study has revealed that multiple factors come into play in developing ICC, making it highly multifaceted and extensive to study. Literature indicates that parenting style, attachment style, and sex have a substantial influence and relation to ICC.

2.1 Interpersonal Communication Competence

Interpersonal Communication Competence, or ICC, is the capacity to communicate appropriately and efficiently with others (Bochner & Kelly, 1974). It is the reciprocal exchange of verbal and non-verbal cues in everyday face-to-face social situations (Barnlund, 1968). One's interpersonal communication skills are measured through the effectiveness and appropriateness of transferring messages to others (Spitzberg, 2015; Srihari & Goggi, 2022). Most ICC methods differ in terms of a particular combination of motivation, knowledge, skills, outcomes, and evaluations (Spitzberg, 2013). Motivational approaches focus on social anxieties or goals, and knowledge-based approaches highlight the cognitive processing of communicative action. Skills-based approaches emphasize the behavioral skills that indicate outstanding performance, and outcomes-based approaches concentrate on the extent to which communication satisfies or deviates from expectations or how successfully it achieves specific goals.

Researchers have utilized the Interpersonal Competence Questionnaire (ICQ) to measure ICC by assessing five domains of communication competence: initiation, the act of initiating interactions and relationships; disclosure, the ability to reveal personal information; negative assertion, asserting displeasure with others; emotional support, providing comfort and advice, and conflict management, the management of response during a disagreement (Buhrmester et al., 1988). The five domains broadly cover essential interpersonal domains to analyze individuals' ICC comprehensively.

2.2 Sex and Interpersonal Communication Competence

In the studies of Buhrmester et al. (1988), Koesten (2004), and Kunkel and Burleson (1999), differences were found between how males and females perceive and use interpersonal communication competence and its dimensions. Buhrmester et al. (1988) found evidence that men and women use different communication skills depending on the sex of their relational partner. Females were reported to be more competent in conflict management with other females than males, while males reported higher scores for self-disclosing and managing conflict with females rather than other males (Koesten, 2004). Kunkel and Burleson (1999) found that both men and women prefer emotional support from female providers. These studies provide substantial evidence that depending on the sex of the relationship partner, males, and females use specific communication skills differently and have different expectations about interpersonal relationships.

2.3 Factors affecting Interpersonal Communication Competence

ICC is a multifaceted skill molded by various social and environmental factors. Literature suggests that parenting style, attachment style, and sex have a substantial influence and relation to ICC. It was identified that parents influence the ICC of their children through the practices they apply in child-rearing. Reciprocal engagement between parent and child will determine how a child externalizes and internalizes behaviors, and the flexibility of parents in establishing guidelines tailored towards their child's needs and personality improves their child's ICC. Studies have revealed that traits of responsive parenting, such as conscientiousness, openness, and extraversion, were associated with social competence (Lianos, 2015), which agrees with findings that less attractive individual characteristics are associated with detrimental parenting practices (Khaleque & Rohner, 2005).

Numerous studies have also found that attachment styles and ICC are related. Studies pointed out that those with a secure attachment have a higher ICC, while those with disorganized attachment exhibited lower ICC than avoidant and anxious attachments. However, it was found that because securely attached individuals are definite of themselves and their needs, they do not need to pay attention to the social cues of others. This occurrence is vice versa for anxious attachment.

Studies found how males and females perceive and use specific interpersonal communication competencies, particularly how they enact different communication skills depending on the sex of their relational partner.

Furthermore, the significant connections between the three factors emphasize the intersectionality between the different factors, which may be utilized in attaining a more comprehensive idea of ICC in adolescents. For instance, sex affects both parenting styles and attachment styles, so there may be differences in ICC based on these factors.

2.3.1 Parenting Styles

Parenting styles are the behavior of parental figures toward how they discipline, teach, and connect with the children in their care (Leung & Tsang Kit Man, 2014). There are four parenting styles: authoritarian, authoritative, permissive, and neglectful. All four types are determined based on the parent's parental responsiveness and control (Gafoor & Kurukkan, 2014).

The authoritarian parenting style forces strict and unyielding rules on children. Any disobedience is directly met with punishment to protect and keep the children secure (Jadon & Tripathi, 2017). Studies have shown that children raised with an authoritarian parenting style have low self-esteem and problem-solving skills (Jadon & Tripathi, 2017) and, have worsened the children's later mental health (Uji et al., 2014).

Authoritative parenting establishes an environment with fair guidelines and expectations for children to learn while providing them warmth and attention according to their needs (Bibi et al., 2013; Berg, 2011; Klein & Ballantine, 2001). According to Klein and Ballantine (2001), authoritative parenting without corporal punishment has the most favorable results and minor problems for children in the present; those who were raised authoritatively also performed better in measures of competence, self-perceptions, social development, and mental health compared to other parenting styles (Bibi et al., 2013). The authoritative parenting style was found to have the most likelihood of a child having better ICC. A research of 200 adolescent participants found that authoritative parenting corresponds positively with communication competence (Shabbir & Ishaq, 2019). An authoritative parenting style effectively evaluates a child's needs and adapts connection, regulation, and autonomy as expressed in communally responding, establishing the foundation for social and communication potentials to thrive (Barber & Harmon, 2002). Authoritative parents were more prone to engage children in environments that foster their interpersonal competence and help their children become more socially skilled when interacting with peers. Because of this, they were less likely to display externalizing and internalizing difficulties (Hart et al., 2003). Dalton III et al. (2006) found that young adults who experienced a more positive parenting approach during their childhood had greater quality in relationships.

The permissive parenting style is a type of parenting that does not guide children to regulate their behaviors. Although they establish warmth towards the child, they give the child complete freedom to act however they like unless it involves physical harm (Alizahdeh et al., 2011; Bibi et al., 2013). Those who have parents with a permissive parenting style typically have trouble in relationships and have internalizing or externalizing behavior problems (Bibi et al., 2013; Berg, 2011; Alizahdeh et al., 2011).

The neglectful parenting style does not support, encourage, or provide warmth toward their child, nor does it guide or supervise the child's behavior (Maccoby & Martin, 1983). The absence of responsiveness and control results in overall uninvolved in the child's developing years (Baumrind, 1991). Children from households of neglectful parenting display the most maladaptive task-avoidant strategy: typical of them were both high levels of passivity and task-irrelevant behavior (Aunola et al., 2000).

Most studies show more parental reactions to gender-based differences and gender-specific behaviors and activities. In the research of Russell et al. (1988), males often receive corporal punishments and "short-fuse" type responses from fathers, which

indicates an authoritarian pattern, whereas females receive more reasoning or induction, which indicates an authoritative pattern. Additionally, the research findings of Biswas and Sharma (2019) showed that fathers were more likely to parent their daughters in an authoritarian style, while mothers were more likely to parent their sons in an authoritative style. On the other hand, males believed their parents treated them less favorably than females, whereas mothers and fathers raised females more strictly and with higher attentiveness. In some circumstances, cultures with more rigidly enforced gender norms and traditional patriarchal societies may be more likely to exhibit inequalities between father and mother parenting. Studies conclude that mothers are more compassionate than fathers, which is likely consistent with the idea that mothers are perceived as having a caregiver role rather than fathers, who are frequently seen as having a provider role (Gerson, 2002). Moreover, according to Williams et al. (1992), males are educated to be instrumentally proficient, whereas females are encouraged to be expressive and affectionate. Both sexes are believed to experience different relationship patterns as physical strategies are used with males and inductive strategies with females.

Srihari and Goggi (2022) found a significant difference in ICC between parenting styles. Parents influence the ICC of children depending on the styles and practices they portray in their parenting. Reciprocal engagement will be the determinant of a child's externalizing and internalizing behaviors, as it was found that parents who maintain flexibility in establishing guidelines based on their child's needs and personality improve their ICC (Dumas & LaFreniere, 1995; Hart et al., 2003). The study by Lianos (2015) also found that there were beneficial attributes associated with responsive parenting, such as conscientiousness, openness, and extraversion.

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A permissive and an authoritarian parenting style was found to be adversely connected with effective communication (Hart et al., 2003). Authoritarian parenting increases the probability of a child lacking ICC (Olsen et al., 2002; Hart et al., 2003). Parents who use harsh punishment to regulate their children's behavior have long-term consequences, such as trouble controlling themselves and less effective peer interaction (Fabes et al., 2001). Meanwhile, permissive parenting was found to have mixed results. Although they are much more socially adjusted and possess low internal problems compared to authoritarian parenting, they possess high externalizing behavior (Barber & Olsen, 1997).

2.3.2 Attachment Styles

A caregiver's sensitivity to an infant's separation response, the infant's behavioral patterns in response to a short or long-term absence from their caregiver, and the infant's response to their caregiver's return are all indicators of an infant's attachment that will influence their later development and attachments (Bretherton, 1992; Ainsworth & Bowlby, 1991; McLeod, 2017). During social interactions, people use attachment styles to express how they regard others and themselves (Bartholomew, 1990). Attachment has four types: secure, avoidant, anxious, and disorganized. Three attachment styles, secure, avoidant, and anxious, were distinguished by Ainsworth (1979), while disorganized were distinguished by Main and Solomon (1990).

Secure attachment occurs due to the caregiver's attentiveness to the infant's signals and constantly meets the infant's emotional needs (Bretherton, 1992; Ainsworth & Bowlby, 1991; Bartholomew & Horowitz, 1991; Huang, 2022). Those who have secure attachments have the ability to set proper boundaries, ask for help, and can quickly recover from disappointments. They have the tendency to feel safe and stable in their close relationships (Robinson et al., 2023),

Avoidant attachment is a behavior that occurs because the parents are not likely to meet the infant's emotional needs (Ainsworth, 1979; McLeod, 2018; Huang, 2022). Those with an avoidant attachment tend to withdraw when an individual attempts to form a closer relationship with them (Robinson et al., 2023). They may not be able to support others during stressful events and have difficulty expressing themselves to others (Cherry, 2020).

Anxious attachment style occurred as the infant received inconsistent attention from their caregiver concerning their emotional needs (Ainsworth, 1979; McLeod, 2018). Those who have an anxious attachment yearn for the feeling of closeness with others but are not able to fully depend on them as they fear the person doesn't like them. They have difficulty setting boundaries and need to be assured constantly and receive a lot of attention from close relationships (Robinson et al., 2023).

The disorganized attachment happens when a child feels comforted yet scared of their caregiver (Main and Solomon, 1990; Huang, 2022; McLeod, 2017; Cherry, 2020). Those with a disorganized attachment have difficulty in calming their emotions, making relationships with others feel unsafe. They may act insensitively towards others and refuse to be accountable for their actions, and while they desire safe and secure relationships, they feel undeserving of love and are afraid to get hurt (Robinson et al., 2023).

A few studies have found a general difference in attachment style between males and females. The studies of Pauletti et al. (2015), Schmitt and Jonason (2014), and Del Giudice (2015) have commonly found that males are more likely to have an avoidant attachment, and females are more likely to have an anxious attachment. Del Giudice (2019) found that males were more likely to have an avoidant attachment because they scored higher in self-reliance, while females were likely to have an anxious attachment due to the higher scores in preoccupation and neediness. In the study of Pauletti et al. (2015), however, when minimizing the scope of maternal behavior, children who experienced high levels of maternal hostility were revealed to have no sex differences in avoidance but had small sex differences in anxious attachments. Del Giudice (2019) found that males displayed a higher likeness towards disorganized attachment, and he mentioned that early disorganization was a pre-stage of avoidant attachment in adolescence. Although studies have shown slight differences in avoidant, anxious, and disorganized attachment between males and females, there was no difference between males and females in terms of secure attachments.

Individuals who were securely attached had higher levels of ICC than those who were not, according to the findings of four studies (DiTommaso et al., 2003; Le Poire et al., 1999; Jenkins-Guarnieri et al., 2012; Guerrero & Jones, 2003). DiTommaso et al.'s (2003) study found that although secure attachment had a balanced set of social skills, they were likely to display aloofness, and they had a lowered need to attend to the social cues of others. In contrast, they showed that although anxious attachment had an imbalanced set of social skills, they were more likely to cater to the needs of others. In another study, avoidant attachment, in contrast with anxious attachment, was associated negatively with initiating relationships. It was also found that anxious attachment was not negatively correlated with giving emotional support and guidance as the avoidant attachment was (Jenkins-Guarnieri et al., 2012). In the study of Guerrero and Jones (2005), disorganized attachment had relatively high scores on social sensitivity and relatively low scores on sociability/expressiveness compared to anxious and avoidant attachments. This suggests that those with a secure attachment can approach relationships without worrying about what others think. Although secures showed the least distinctive profile, their collective scores placed them relatively high in social expressivity and low in social sensitivity (Guerrero & Jones, 2005).

3. Methodology

3.1 Research Design

This is a quantitative study that utilizes an ex post facto research design to investigate the effects of sex, parenting styles, and attachment styles on the ICC of senior high school students. It is also a descriptive study that examines (1) the ICC of senior high school students, (2) the parenting styles experienced by senior high school students, and (3) their attachment styles. An online survey was employed to gather the data.

3.2 Population and Sampling

The sample for the survey consisted of 240 senior high school students, 98 males, and 142 females, enrolled in the Integrated School of De La Salle University Manila for the academic year 2022-2023. The respondents were selected from a population of 2,446 students using convenience sampling. The researchers distributed the online survey through emails to possible participants. To gather more respondents, the researchers reached out to individuals available on social media and in person to encourage them to participate in the study.

3.3 Instrumentation

The instrument for the quantitative part of the study is a self-administered online survey questionnaire created with Google Forms. The survey consists of scales that were adopted and adapted from the studies of Buhrmester and Furman (1988), Robinson et al. (2001), and Van Oudenhoven et al. (2003). The questionnaire consists of five sections: the introductory section, the basic demographic information, the Interpersonal Competence Questionnaire, the Parenting Style Questionnaire, and the Attachment Style Questionnaire.

Section 1 of the questionnaire is an introductory section that provides an overview of the survey and informed consent. The survey's introduction provides a brief description of the study, an overview of the researchers, and an invitation to complete the survey. This section also provides the participants with informed consent, discloses pertinent information and guidelines about participating in the study, and secures the respondents' consent.

Section 2 asks for the basic demographic data from participants. This includes the strand and block, age, and sex of the respondents.

Section 3 covers the Interpersonal Competence Questionnaire from Buhrmester and Furman (1988). This instrument measures the respondents' ICC. The scale is divided into five sections: Initiation, Negative Assertion, Disclosure, Emotional Support, and Conflict Management. It consists of 40 items that discuss experiences in relationships. The participants would indicate on a five-point scale how well they describe themselves and their usual interactions with others. The reliability of the scale was $\alpha = 0.86$ for Initiation, $\alpha = 0.77$ for Negative Assertion, $\alpha = 0.81$ for Disclosure, $\alpha = 0.87$ for Emotional Support, and $\alpha = 0.78$ for Conflict Management (Giromini et al., 2016)

Section 4 presents the items from the Parenting Style Questionnaire (PSQ) adapted from Robinson et al. (2001). The original questionnaire is focused on the perspectives of the parents, often referring in first person to their interactions with their child. The study's questionnaire adapted the PSQ to the children's perspectives by changing the pronouns used in the statements. This instrument determines the parenting style that the participants experienced. It measures whether they experienced authoritarian, authoritative, permissive, or neglectful parenting styles depending on which category of the PSQ the respondents have the highest mean score on. It consists of 35 items that detail parenting behavior; items 1 to 13 cover authoritative parenting styles, items 14 to 26 cover authoritarian parenting styles, items 27 to 30 cover permissive parenting styles, and items 31 to 35 cover neglectful parenting styles, which the participants would answer using a 5-point scale of how well it describes their parents. The reliability of the scale was $\alpha = 0.63$ (Önder & Gülay, 2009).

Section 5 presents the Attachment Style Questionnaire (ASQ) from Van Oudenhoven et al. (2003). This instrument determines the attachment style of the participants. It measures whether they have a secure, avoidant, anxious, or disorganized attachment style depending on which category of the ASQ the respondents had the highest mean score on. It consists of 22 items that describe an individual's relationship with others and themselves; items 1 to 8 cover the secure attachment style, items 9 to 12 cover the avoidant attachment style, items 13 to 18 cover the anxious attachment style, items 19 to 22 covers the disorganized attachment style, which the participants would indicate on a five-point scale how well it describes themselves. The reliability of the scale was $\alpha = 0.580$ for secure, $\alpha = 0.695$ for avoidant, $\alpha = 0.668$ for anxious, and $\alpha = 0.586$ for disorganized (Fitriana & Fitria, 2016), indicating that the results it procured in previous studies are quite reliable and consistent.

Pre-testing has been performed on the initial instrument by students from different universities to determine the average time required to complete the questionnaire, ensure the clarity of the instructions, questions, and response options, and identify issues and areas for improvement in the initial questionnaire. Based on the pre-testing results, the questionnaire was revised and finalized.

3.4 Data Collection

Data Collection began on February 10, 2023, until April 20, 2023. The data collection took place for 10 weeks. In the first week, the researchers emailed the respondents to participate in the study and complete the questionnaire. A link to the online survey via Google Forms was included. The informed consent form and the questionnaire were included. The participants were first asked to read and answer the informed consent form and then chose to proceed with answering the questionnaire. Upon submitting the online survey, the respondents received a message stating that they had completed the questionnaire.

Follow-up messages were sent in the second week to accomplish the survey. Another follow-up message was sent during the third through ninth week to meet the questionnaire's required number of respondents.

3.5 Data Analysis

The first step for data analysis was scoring the different scales for each respondent to determine the levels of ICC of senior high school students, parenting styles experienced, and attachment styles. Descriptive statistics - specifically the mean and standard deviation - were used to determine the total ICC and its various dimensions among the adolescents in the sample. On the other hand, frequencies and percentages were used to determine the type of parenting style experienced and attachment styles.

To examine whether there was a significant difference between males and females in their ICC, the independent samples t-test was utilized. The chi-square goodness of fit test was used to find out if there is a significant difference in the distribution of male and female adolescents across the different types of maternal and paternal parenting styles and attachment styles.

To determine whether sex, parenting styles experienced, and the attachment style of an adolescent had a significant effect on the total ICC of senior high school students and its dimensions, the study utilized a Factorial Analysis of Variance (ANOVA). IBM SPSS and JMP statistical software were used to accomplish these statistical tests.

3.6 Ethical Considerations

The researchers observed the following ethical considerations while conducting this research: respect for persons, security of data, beneficence, and voluntary participation. Informed consent was obtained from the study participants to ensure that these ethical

principles were followed. The informed consent form explained the objectives of the study, scope, benefits, risks, and the purpose of the data to be collected. The participants were assured that their identity throughout the study would be anonymous, and any data that was collected from them would remain confidential. Moreover, they were informed that their participation in the study was voluntary and that they could withdraw from the study at any point in time. The data gathered was safely stored in a Google Drive folder that was accessible only to the researchers. After the researchers have presented to the panelists and published their paper, the data gathered will be disposed of after 12 months.

4. Results and Discussion

4.1. Interpersonal Communication Competence of Senior High School Students

Regardless of sex, the results of the survey reveal that adolescent senior high school students in the sample have an above average total ICC (See Table 1). From a total possible score of 200, signifying excellent ICC, the mean score of the adolescent senior high school students is 140.35 (SD = 0.19). These findings suggest that senior high school students are able to interact with others in an exceptionally appropriate and effective manner.

Among the five dimensions of ICC, the senior high school students are excellent in emotional support ($M = 32.83, SD = 1.29$). It means that they are especially adept at providing comfort, reassurance, and compassion by listening attentively, empathizing with others, taking proper actions, and giving appropriate responses to those who are experiencing hardships. Studies have tackled this aspect of emotional support, affirming that adolescents' developing ability to care for others and respond to emotional needs is a marker of long-term functioning (Allen et al., 2016). They are above average in conflict management ($M = 30.79, SD = 0.08$). They are also above average in initiation, that is, starting and continuing interactions with others ($M = 25.42, SD = 0.43$), negative assertion or expressing their thoughts and feelings, and taking action in negative situations ($M = 25.73, SD = 0.20$), and disclosure or conveying and confiding their beliefs and emotions with others ($M = 25.57, SD = 0.55$).

Table 1
Descriptive Statistics of The Interpersonal Communication Competence of Adolescent Senior High School Students

Dimensions	Total (N = 240)		Qualitative Interpretation
	M	SD	
Initiation	25.42	0.43	Above Average
Negative Assertion	25.73	0.20	Above Average
Disclosure	25.57	0.55	Above Average
Emotional Support	32.83	1.29	Excellent
Conflict Management	30.79	0.08	Above Average
Total	140.35	0.19	Above Average

Note. For Dimensions: M = 8 - 10.99 (Poor), M = 11 - 20.99 (Average), M = 21 - 30.99 (Above Average), M = 31 - 40 (Excellent); For Total ICC: M = 40 - 79.99 (Poor), M = 80 - 119.99 (Average), M = 120 - 159.99 (Above Average), M = 160 - 200 (Excellent).

Independent sample t-tests reveal that there is no significant difference in the ICC of males and females across all dimensions except for the Emotional Support Dimension ($t(238) = 3.16, p = .001, d = 0.41$), with females ($M = 33.74, SD = 4.13$) scoring significantly higher than males ($M = 31.92, SD = 4.75$) (See Table 2). The mean difference between males and females is 1.82, which is a small to moderate size effect ($d = 0.41$), and the estimated population mean difference is between 0.68 and 2.96. Thus, we can be 95% confident that the mean Emotional Support score for females in the selected senior high school population will be significantly higher than that of male senior high school students. These results suggest that females are more adept at listening attentively, showing empathy for others, and acting and responding appropriately to those who are experiencing hardships.

Table 2

T-Test Analysis on Interpersonal Communication Competence between Males and Females

Variables	Males (n = 98)		Females (n = 142)		95% Confidence Interval Mean Difference		t	p-value	Effect Size	
	M	SD	M	SD	Lower Bound	Upper Bound			d	Qualitative Interpretation
	Initiation	25.72	5.98	25.12	6.20	24.60			26.10	-0.75
Negative Assertion Dimension	25.88	5.76	25.59	5.74	25.00	26.40	0.38	0.71 ^{ns}	-0.05	Very small
Disclosure Dimension	25.96	4.55	25.18	5.37	24.90	26.10	-1.17	0.24 ^{ns}	-0.15	Very small
Emotional Support Dimension	31.92	4.75	33.74	4.13	32.40	33.60	3.16	.001 ^{***}	0.41	Small to moderate
Conflict Management Dimension	30.73	4.29	30.85	4.01	30.30	31.30	0.22	0.83 ^{ns}	0.03	Very small
Total ICC Score	140.21	18.96	140.49	18.03	138.00	143.00	0.11	0.91 ^{ns}	0.01	Very small

Note. * (p ≤ .05), ** (p ≤ .01), *** (p ≤ .001), ns (p ≥ .05)

4.2. Parenting Styles of Fathers Experienced by Senior High School Students

Results of the study show that the majority of senior high school students have fathers with an authoritative parenting style, and one-fourth have fathers with an authoritarian parenting style (Table 3). Only very few have fathers with a neglectful parenting style. These findings suggest that most of the senior high school students view their father’s parenting style as nurturing, responsive, and supportive yet firm, and a few view their father’s parenting style as uninvolved, lacking responsiveness and demandingness and providing no guidance for them.

A chi-square goodness of fit test shows that there is a significant difference in the distribution of senior high school students across the different paternal parenting styles ($\chi^2 = 189.29$, $df = 4$, $p = .001$), with adolescents generally inclined to perceive their father’s parenting style as authoritative (52.08%) or authoritarian (25.00%). The same pattern is evident for both males ($\chi^2 = 78.12$, $df = 4$, $p = .001$) and females ($\chi^2 = 111.66$, $df = 4$, $p = .001$) (See Table 3).

Table 3
Descriptive Statistics and Chi-Square Goodness of Fit Test (Paternal Parenting Style)

Parenting Style of Fathers	Males (N = 98)		Females (N = 142)		Total (N = 240)	
	Frequency	%	Frequency	%	Frequency	%
Authoritative	52	53.06%	73	51.41%	125	52.08%
Authoritarian	23	23.47%	37	26.06%	60	25.00%
Permissive	13	13.27%	21	14.79%	34	14.17%
Neglectful	5	5.10%	7	4.93%	12	5.00%

Combination	5	5.10%	4	2.82%	9	3.75%
Chi-Square Goodness of Fit	χ^2	df	p-value	χ^2	df	p-value
	78.122	4	< .001***	111.662	4	< .001***

Note. * ($p \leq .05$), **($p \leq .01$), ***($p \leq .001$), ns ($p \geq .05$)

4.3. Parenting Styles of Mothers Experienced by Senior High School Students

Table 4 shows that a large majority of the senior high school students perceive their mothers as having an authoritative parenting style (70.42%). This suggests that most of the senior high school students view their mother’s parenting style as firm yet nurturing, responsive, and supportive. Only a few view their mother’s parenting style as permissive or neglectful. This supports the finding that mothers typically implement an authoritative parenting style (Smetana, 1995).

The chi-square goodness of fit test shows a significant difference in the distribution of senior high school students across the different maternal parenting styles ($\chi^2 = 394.29$, $df = 4$, $p = .001$), with adolescents generally inclined to perceive their mother’s parenting style as authoritative (70.42%) or authoritarian (15.83%). The same pattern is seen for both males ($\chi^2 = 119.96$, $df = 3$, $p = .001$) and females ($\chi^2 = 220.47$, $df = 4$, $p = .001$) (See Table 4).

Table 4
Descriptive Statistics and Chi-Square Goodness of Fit Test (Maternal Parenting Style)

Parenting Style of Mothers	Males (N = 98)		Females (N = 142)		Total (N = 240)	
	Frequency	%	Frequency	%	Frequency	%
Authoritative	71	72.45%	98	69.01%	169	70.42%
Authoritarian	15	15.31%	23	16.20%	38	15.83%
Permissive	5	5.10%	8	5.63%	13	5.42%
Neglectful	7	7.14%	9	6.34%	16	6.67%
Combination	0	0.00%	4	2.82%	4	1.67%
Chi-Square Goodness of Fit	χ^2	df	p-value	χ^2	df	p-value
	119.959	3	< .001***	220.465	4	< .001***

Note. * ($p \leq .05$), **($p \leq .01$), ***($p \leq .001$), ns ($p \geq .05$)

4.4. Attachment Styles of Senior High School Students

Results of the study revealed that among the four categories of attachment styles, a substantial proportion of senior high school students identify their attachment style as anxious (39.33%) and disorganized (32.22%), and very few senior high school students identify their attachment style as avoidant (10.88%) (See Table 5). These results indicate that the majority of senior high school students are wary of getting close to others and often worry whether their relationships with their loved ones are genuine or reciprocated (Cherry, 2022), and a few are reluctant or unable to express their thoughts and feelings towards others, and limit their emotional and social connections in relationships (Cherry, 2022),

A chi-square goodness of fit test shows that there is a significant difference in the distribution of senior high school students across the different attachment styles ($\chi^2 = 48.95$, $df = 3$, $p = .001$). Overall, adolescents were inclined to exhibit anxious (39.33%) or disorganized (32.22%) attachment styles. The same pattern is true for males ($\chi^2 = 28.24$, $df = 3$, $p = .001$) and females ($\chi^2 = 22.79$, $df = 3$, $p = .001$) (See Table 5).

Table 5
Descriptive Statistics and Chi-Square Goodness of Fit Test (Attachment Style)

Attachment Styles	Males (N = 97)			Females (N = 142)			Total (N = 240)		
	Frequency	Percentage		Frequency	Percentage		Frequency	Percentage	
Secure	18	18.56%		24	16.90%		42	17.57%	
Anxious	42	43.30%		52	36.62%		94	39.33%	
Avoidant	7	7.22%		19	13.38%		26	10.88%	
Disorganized	30	30.93%		47	33.10%		77	32.22%	
Chi-Square Goodness of Fit	χ^2	df	p	χ^2	df	p	χ^2	df	p
	28.24	3	< .001	22.79	3	< .001	48.95	3	< .001

4.5. Effects of Sex, Parenting Styles, and Attachment Styles on Interpersonal Communication Competence

To determine whether sex, paternal parenting style, maternal parenting style, and attachment style have an effect on an individual's total ICC score and its various dimensions, a factorial ANOVA was utilized.

Initiation and Negative Assertion. The results of the factorial ANOVA revealed that sex, parenting style of mothers, parenting style of fathers, and attachment style had no significant main effects and no significant two-way and three-way interaction effects on the initiation and negative assertion dimensions of interpersonal communication competence.

Disclosure. Of the three independent variables, only attachment style had a significant main effect on the senior high school student's disclosure dimension score of ICC ($F(1) = 3.69, p = .013$) (See Table 6).

Table 6
ANOVA Test for Disclosure Dimension of Interpersonal Communication Competence

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2612.41 ^a	76	34.37	1.60	.007
Intercept	30033.46	1	30033.46	1395.97	.000
Sex	5.60	1	5.60	0.26	.61 ^{ns}
Parenting Style of Fathers	46.54	4	11.63	0.54	.71 ^{ns}
Parenting Style of Mothers	153.08	4	38.27	1.78	.14 ^{ns}
Attachment Style	238.08	3	79.36	3.69	.01 ^{**}

Sex * Parenting Style of Fathers	51.55	4	12.89	.60	.66 ^{ns}
Sex * Parenting Style of Mothers	161.92	3	53.97	2.51	.06 ^{ns}
Sex * Attachment Style	53.48	3	17.83	.83	.48 ^{ns}
Parenting Style of Fathers * Attachment Style	132.22	10	13.22	.62	.80 ^{ns}
Parenting Style of Mothers * Attachment Style	239.40	9	26.60	1.24	.28 ^{ns}
Parenting Style of Fathers * Parenting Style of Mothers	206.28	11	18.75	.87	.57 ^{ns}
Sex * Parenting Style of Fathers * Attachment Style	63.36	4	15.84	.74	.57 ^{ns}
Sex * Parenting Style of Mothers * Attachment Style	17.66	3	5.89	.27	.84 ^{ns}
Sex * Parenting Style of Fathers * Parenting Style of Mothers	14.95	2	7.47	.35	.71 ^{ns}
Parenting Style of Fathers * Parenting Style of Mothers * Attachment Style	66.17	4	16.54	.77	.55 ^{ns}
Sex * Attachment Style * Parenting Style of Fathers * Parenting Style of Mothers	.00	0			
Error	3485.34	162	21.51		
Total	161482.00	239			
Corrected Total	6097.75	238			

Note. *(p ≤ .05), **(p ≤ .01), ***(p ≤ .001), ns(p > .05)
a. R Squared = .428 (Adjusted R Squared = .160)

A Duncan post-hoc analysis was conducted to determine where the difference in the attachment styles was, and the results show that there is a significant difference in the disclosure scores of senior high school students with a secure attachment style ($M = 28.91, N = 42$), compared to those with an avoidant attachment style ($M = 22.19, N = 26$) (See Table 7). These results suggest that adolescents with a secure attachment style are more capable of expressing their thoughts and feelings. On the other hand, students with an avoidant attachment style are not as likely to divulge their thoughts and feelings toward others, which coincides with the defining characteristics of both of the attachment styles. This result supports previous studies that indicate a significant predictive influence of the secure attachment style on disclosure and a negative relationship between the avoidant attachment style and disclosure (Hammonds et al., 2020). From these findings, adolescents with secure attachment styles are more likely to disclose more intimate information because they are not overly worried about what others think of them, as compared to those with avoidant attachment styles, who are untrusting, fear rejection, or becoming too close to others.

Table 7
Duncan Post-Hoc Comparison Between Attachment Style and Disclosure

Attachment Style	N	Subset		
		1	2	3
Secure	42			28.90

Anxious	94		25.28	
Disorganized	77		25.03	
Avoidant	26	22.19		
Sig.		1.00	0.80	1.00

Means for groups in homogenous subsets are displayed.

Emotional Support. The results of the Factorial ANOVA indicated that sex has a significant effect on a senior high school student's ability to provide emotional support ($F(1, 162) = 12.02, p = .001$) (See Table 11). Females provide better emotional support ($M = 34.04, SD = 0.54$) compared to males ($M = 31.11, SD = 0.63$). These findings suggest that female senior high school students are more adept at providing proper care, reassurance, and compassion toward others, which supports the findings of Kunkel and Burleson (1999), who state that both men and women prefer emotional support from female providers as well.

Table 8
Factorial ANOVA Test Between Sex, Parenting Styles, and Attachment Styles on Emotional Support

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1744.43 ^a	76	22.95	1.22	.15
Intercept	50723.44	1	50723.44	2704.30	.00
Sex	225.45	1	225.45	312020	.001***
Father's Parenting Style	26.05	4	6.51	.347	.85 ^{ns}
Parenting Style of Mothers	131.48	4	32.87	1.75	.14 ^{ns}
Attachment Style	117.80	3	39.27	2.09	.10 ^{ns}
Sex * Attachment Styles	158.17	3	52.72	2.81	.04*
Sex * Parenting Style of Fathers	48.74	4	12.19	.65	.63 ^{ns}
Sex * Parenting Style of Mothers	10.06	3	3.35	.18	.91 ^{ns}
Attachment Styles * Parenting Style of Fathers	211.66	10	21.17	1.13	.34 ^{ns}
Attachment Styles * Parenting Style of Mothers	162.46	9	18.05	.96	.47 ^{ns}
Parenting Style of Fathers * Parenting Style of Mothers	160.18	11	14.56	.78	.66 ^{ns}
Sex * Attachment Styles * Parenting Style of Fathers	85.88	4	21.47	1.15	.34 ^{ns}
Sex * Attachment Styles * Parenting Style of Mothers	65.45	3	21.82	1.16	.33 ^{ns}
Sex * Parenting Style of Fathers * Parenting Style of Mothers	16.95	2	8.47	.45	.64 ^{ns}
Attachment Styles * Parenting Style of Fathers * Parenting Style of Mothers	187.04	4	46.76	2.49	.045*
Sex * Attachment Styles * Parenting Style of Fathers * Parenting Style of Mothers	.00	0			
Error	3038.57	162	18.76		
Total	264988.00	239			

Corrected Total

4782.10

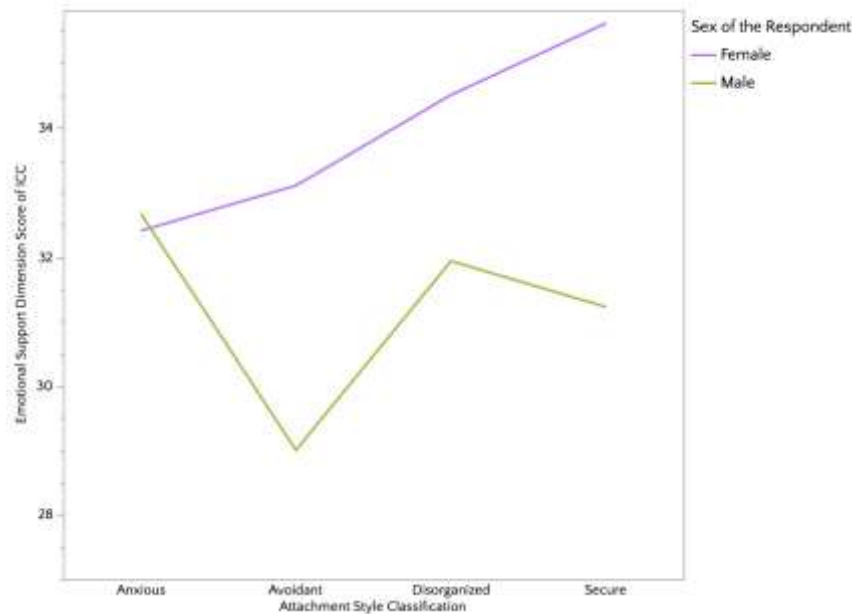
238

Note. * ($p \leq .05$), ** ($p \leq .01$), *** ($p \leq .001$), ns ($p > .05$)
 a. R Squared = .365 (Adjusted R Squared = .067)

There is also a significant interaction effect between the sex and the attachment style of senior high school students on emotional support ($F(3) = 2.81, p = 0.041$). Figure 2 shows that with the exception of adolescents with an anxious attachment style, female adolescents are better at providing emotional support than males. Females with a secure attachment style are the most adept at emotional support, while males with an avoidant attachment style are the least competent in expressing empathy in relationships. In contrast, however, males with an anxious attachment style are better at providing emotional support than females with an anxious attachment style.

These findings support the study of Del Giudice (2019), which found that males with an avoidant attachment style would turn to themselves rather than depend on others for support in emotionally vulnerable situations, which indicates that they may not know how to exhibit the appropriate support in emotionally-sensitive environments. The results on the emotional support of those with a secure attachment style support and contrast the findings of Guerrero and Jones (2005), who found that individuals with a secure attachment style are not as able to provide emotional support compared to those with an anxious attachment style. The reason why females with a secure, avoidant, and disorganized attachment style scored higher than males is likely because females are generally better at emotional support than males, which supports the findings in the study of Kunkel and Burleson (1999). However, males with an anxious attachment style scored higher than females, likely because of who these males are providing emotional support for; as the study of Koesten (2004) suggests, males are better at giving support to females compared to other males.

Figure 2
Interaction Effect of Sex & Attachment Style on Emotional Support



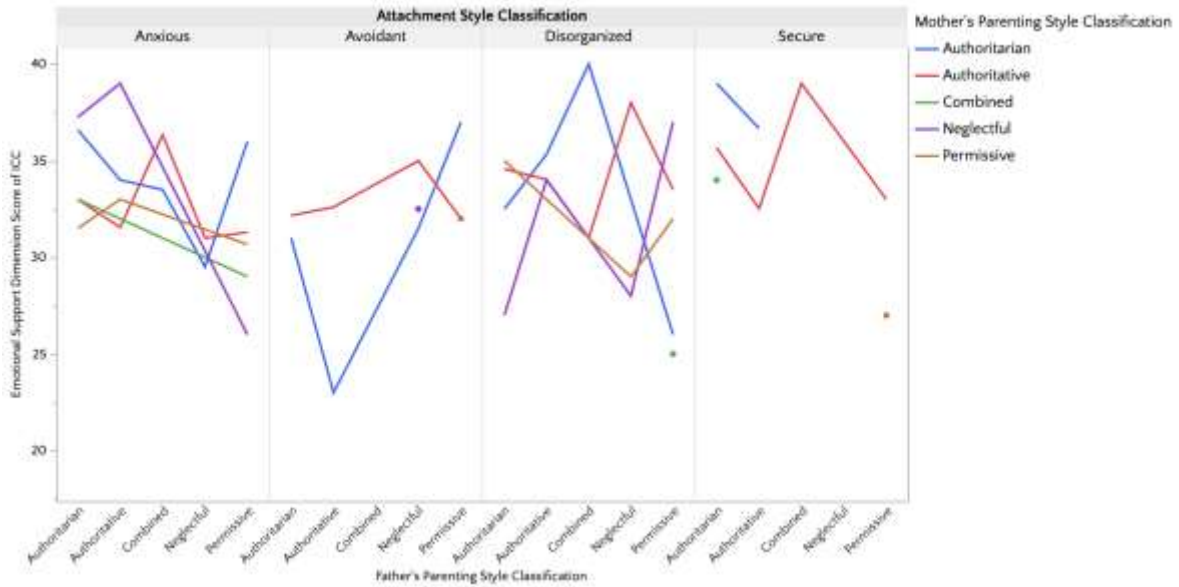
Note. This figure demonstrates the Emotional Support Scores of males and females per attachment style.

The results of the factorial ANOVA also show that there is a significant 3-way interaction effect between the father’s parenting style, the mother’s parenting style, and attachment styles on emotional support ($F(4) = 2.49, p = 0.045$). Adolescents who yearn for affection yet feel that they are undeserving of love (Disorganized Attachment) with fathers who possess combined characteristics of the parenting styles (Combined) and mothers who enforce strict and inflexible rules (Authoritarian) provide the best emotional support compared to other attachment styles and parenting style combinations. While adolescents who tend to withdraw from establishing close relationships with others (Avoidant attachment), who have fathers who provide fair guidelines and are responsive to their needs (Authoritative), and mothers who turn to punishment when rules are disobeyed (Authoritarian) are not as able to provide emotional support compared to other parenting styles and attachment style combinations (See Figure 3).

These results suggest that the different parenting style combinations that have an overall balanced parental responsiveness and parental control tend to have higher emotional support abilities. This is supported by the studies of Dumas & LaFreniere (1995), Hart et al. (2003), Lianos (2015), and Barber and Olsen (1997), which found that overall positive and flexible parenting is most likely to result in adults with high social consciousness. Attachment styles, on the other hand, affect emotional support in a similar pattern to the studies of DiTommaso et al. (2003), Le Poire et al. (1999), Jenkins-Guarnieri et al. (2012), and Guerrero and Jones (2003 and 2005) which found that those with secure attachment showed lower social sensitivity, anxious attachment showed higher levels of social support, avoidant attachment was negatively associated with emotional support, and disorganized attachment having relatively high scores on social sensitivity.

Figure 3

Three-Way Interaction between Paternal Parenting Style, Maternal Parenting Style, and Attachment Style on Emotional Support.



Note. This figure demonstrates the Emotional Support Scores of different attachment styles per parenting style experienced.

Conflict Management. The results of the analysis indicate that sex, parenting styles, and attachment styles have no significant main effects on their conflict management score. While the sex of the adolescent and their attachment style have a significant interaction effect on their conflict management score (See Table 9). Pairwise comparisons of the means revealed in the graph show significant interactions between the sex of the respondent and their attachment style ($F(3, 162) = 3.48, p = 0.02$) (See Figure 4).

Table 9

Factorial ANOVA Test Between Sex, Parenting Styles, and Attachment Styles on Conflict Management

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1123.599 ^a	76	14.78	.82	.84
Intercept	43374.26	1	43374.26	2399.18	.00
Sex	62.89	1	62.89	3.48	.06 ^{ns}
Father's Parenting Style	66.43	4	16.61	.92	.46 ^{ns}
Parenting Style of Mothers	97.25	4	24.31	1.35	.26 ^{ns}
Attachment Style	33.35	3	11.12	.62	.61 ^{ns}

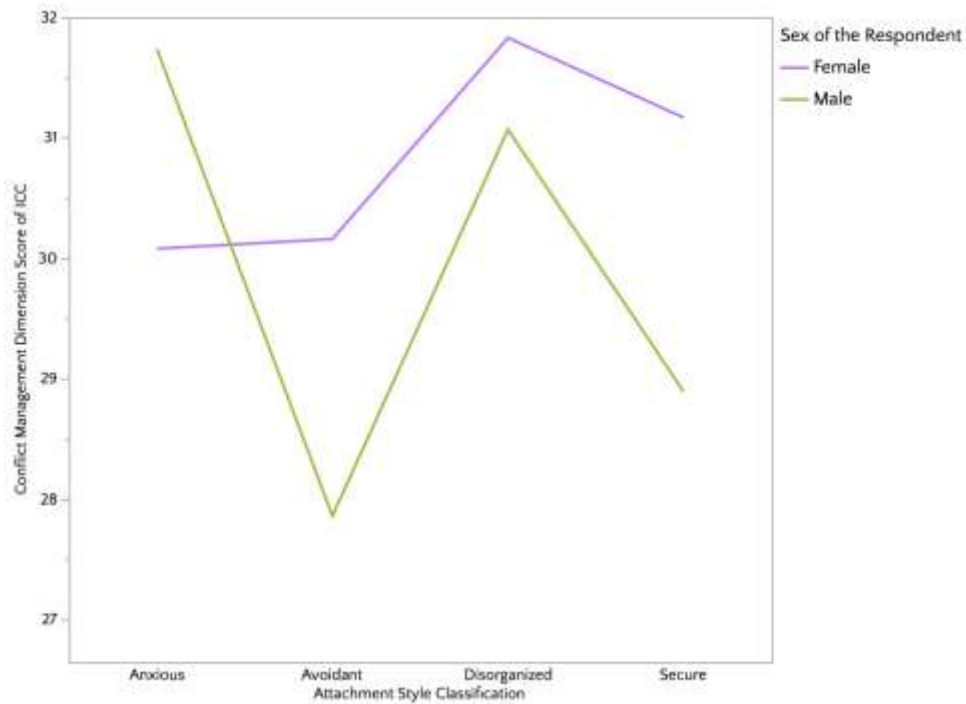
Sex * Attachment Styles	188.59	3	62.86	3.48	.017*
Sex * Parenting Style of Fathers	57.17	4	14.29	.79	.53 ^{ns}
Sex * Parenting Style of Mothers	36.48	3	12.16	.67	.57 ^{ns}
Attachment Styles * Parenting Style of Fathers	145.53	10	14.55	.81	.62 ^{ns}
Attachment Styles * Parenting Style of Mothers	180.78	9	20.09	1.11	.36 ^{ns}
Parenting Style of Fathers * Parenting Style of Mothers	191.86	11	17.44	.97	.48 ^{ns}
Sex * Attachment Styles * Parenting Style of Fathers	18.71	4	4.68	.26	.90 ^{ns}
Sex * Attachment Styles * Parenting Style of Mothers	73.52	3	24.51	1.36	.26 ^{ns}
Sex * Parenting Style of Fathers * Parenting Style of Mothers	4.96	2	2.48	.14	.87 ^{ns}
Attachment Styles * Parenting Style of Fathers * Parenting Style of Mothers	92.77	4	23.19	1.28	.28 ^{ns}
Sex * Attachment Styles * Parenting Style of Fathers * Parenting Style of Mothers	.000	0			
Error	2928.76	162	18.08		
Total	230765.00	239			
Corrected Total	4052.36	238			

Note. *(p ≤ .05), **(p ≤ .01), ***(p ≤ .001), ns(p > .05)
a. R Squared = .277 (Adjusted R Squared = -.062)

Figure 4 reveals that, with the exception of adolescents with an anxious attachment style, females are better than males in conflict management. It is significant to note that males with avoidant attachment styles are least capable of managing conflict. In contrast, males with anxious attachment styles are better in conflict management than females with anxious attachment styles (Figure 4).

The findings indicate that although females are able to identify, address, and resolve disputes better than male senior high school students, males with anxious attachment styles are better at managing conflicts compared to females with the same attachment style. These results support the findings in the study of Koesten (2004) and Buhrmester et al. (1988) that females were reported to be more competent in managing conflicts as it is shown that females implement different communication skills when managing conflicts compared to their male counterparts. Meanwhile, males with anxious attachment styles are better at conflict management than females with anxious attachment styles, possibly because males are expected to conceal their feelings (Del Giudice, 2019) and be unaffected, which makes them appear more objective and better at handling conflicts. Meanwhile, females are expected to express their emotions and show preoccupation with situations (Del Giudice, 2019), which may be viewed as more destructive in managing conflicts.

Figure 4
Interaction Effect of Sex & Attachment Style on Conflict Management



Note. This figure demonstrates the Conflict Management Scores of males and females per attachment style.

Total Interpersonal Communication Competence. Of all the independent variables, only the sex of the adolescent has a significant main effect on their total ICC score ($F(1, 162) = 3.96, p = 0.05$) (See Table 10).

Table 10

Factorial ANOVA Test Between Sex, Parenting Styles and Attachment Styles on Total Interpersonal Communication Competence

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	29161.96 ^a	76	383.71	1.21	.16
Intercept	889974.14	1	43374.26	2801.95	.00
Sex	1256.73	1	1256.73	3.96	.048*
Father's Parenting Style	1061.39	4	265.35	.84	.51 ^{ns}
Parenting Style of Mothers	2469.38	4	617.35	1.94	.11 ^{ns}
Attachment Style	1655.50	3	551.83	1.74	.16 ^{ns}
Sex * Attachment Styles	1190.76	3	396.92	1.25	.29 ^{ns}
Sex * Parenting Style of Fathers	1163.83	4	290.96	.92	.46 ^{ns}
Sex * Parenting Style of Mothers	873.09	3	291.03	.92	.43 ^{ns}
Attachment Styles * Parenting Style of Fathers	1599.65	10	159.97	.50	.89 ^{ns}
Attachment Styles * Parenting Style of Mothers	2891.02	9	321.23	1.01	.43 ^{ns}

Parenting Style of Fathers * Parenting Style of Mothers	2791.93	11	253.81	.80	.64 ^{ns}
Sex * Attachment Styles * Parenting Style of Fathers	516.97	4	129.24	.41	.80 ^{ns}
Sex * Attachment Styles * Parenting Style of Mothers	487.18	3	162.40	.51	.68 ^{ns}
Sex * Parenting Style of Fathers * Parenting Style of Mothers	105.60	2	52.80	.17	.85 ^{ns}
Attachment Styles * Parenting Style of Fathers * Parenting Style of Mothers	1565.36	4	391.34	1.23	.30 ^{ns}
Sex * Attachment Styles * Parenting Style of Fathers * Parenting Style of Mothers	.000	0			
Error	51455.58	162	317.63		
Total	4787725.00	239			
Corrected Total	80617.55	238			

Note. * ($p \leq .05$), ** ($p \leq .01$), *** ($p \leq .001$), ns ($p > .05$)
a. R Squared = .362 (Adjusted R Squared = .062)

Although both males and females have an above average total ICC, among the sexes, female senior high school students have a higher total ICC ($M = 139.99$, $SD = 2.22$) compared to male senior high school students ($M = 135.90$, $SD = 2.60$). These findings suggest that females are overall noticeably more capable of effectively and appropriately communicating with others than male students, which coincides with the findings of the studies of Buhrmester et al. (1988), Koesten (2004), and Kunkel and Burleson (1999) which show that females are better at communicating with others compared to males.

5. Conclusions

Based on the study’s findings, the following conclusions can be made:

First, adolescent senior high school students, regardless of sex, are above average in their overall interpersonal communication competence (ICC). They are excellent in providing emotional support and above average in initiation, negative assertion, disclosure, and conflict management.

Second, female adolescents are significantly better at providing emotional support and managing conflict than male adolescents regardless of attachment style, except for adolescents with anxious attachment styles, where males are better than females at emotional support and conflict management. However, females with secure attachment styles are most competent in providing emotional support and managing conflict than their male counterparts.

Third, there is a significant 3-way interaction effect between the father’s parenting style, the mother’s parenting style, and attachment styles on emotional support.

Fourth, sex, parenting styles of mothers and fathers, and attachment styles have no significant effect on the ability of adolescents to initiate and continue interactions with others (initiation), express their thoughts and feelings, and take action in negative situations (negative assertion).

Lastly, only sex has a significant effect on the total ICC of adolescent senior high school students, with female adolescents more adept and effective in communicating with others than male adolescents.

Although this study expounds on the understanding of ICC in adolescents, it still has some limitations that could be further improved in future research. First, the study focuses solely on the roles of sex, parenting style, and attachment styles on ICC; it doesn’t consider other factors such as socioeconomic status and gender. Second, the study examines a select group of adolescents from one private school in Manila—in a highly urbanized city and an institution composed mostly of students from middle and upper socioeconomic classes. Third, the study utilizes a quantitative research design.

The following suggestions are proposed for future research in order to enhance the understanding of the roles of sex, attachment styles, and parenting styles on adolescents ICC of the study and deepen the comprehension of ICC of adolescents:

1. Consider other factors that may affect ICC, like socioeconomic status and gender.
2. Considering that the study's sample was limited to senior high school students from a single private university in a highly urbanized setting, expand the age range of adolescents and target those residing in both urban and rural residences.
3. Explore the role of sex, parenting styles, and attachment styles on ICC using mixed-methods to have a deeper understanding of quantitative results.

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