Research Paper

Factors Influencing Adolescents in Emotionally Unhealthy Relationships

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ABSTRACT

This study investigates the nature of emotionally abusive relationships among adolescents, focusing on various psychological factors such as intermittent reinforcement, social inequity, cognitive dissonance, the foot-in-the-door phenomenon, self-esteem, and social support system. In this quantitative approach, the self-report questionnaire was administered to 122 adolescents, aged 12-21. We obtained data from them pertaining to their experiences in emotionally unhealthy romantic relationships. Significant findings for the various factors being tested were found. There was also a comparative analysis of attachment styles and their influences on relationship dynamics with some noteworthy findings in style differences within this group. Using this research, we aim to aid the understanding of the influence of various factors influencing adolescents in emotionally unhealthy relationships as well as applying our research to have real-life benefits via the formation of interventions and social support systems geared towards helping adolescents in emotionally unhealthy relationships.

During the journey of emotional development, adolescents are greatly influenced by their romantic relationships. A study by Gunnar Karakurt and Kristin E. Silver (2013) adds further depth to this discussion, emphasizing that women of younger age groups are at a more elevated risk of experiencing emotional abuse. This increased level of vulnerability among young women results from the heightened emphasis they place on their romantic relationships over their independence, leading them to be at greater risk of emotional abuse, especially through isolation tactics. Contrastingly, this pattern of risk is less prevalent in older women due to their typically higher self-esteem and the presence of more extensive support systems. Supporting these findings, research by the NSPCC and the University of Bristol (2009) provides further evidence of gender disparities when it comes to experiencing emotional abuse. The study found that 75% of adolescent girls reported some form of emotional abuse, whereas only 50% of adolescent boys did, highlighting the trend that women are more likely to be victimized in unhealthy relationships.

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However, there have been sufficient studies contradicting this, which suggests potential high male victimization in IPV. Schumacher and Slep's study (2004) examined self-reported verbal aggression in 10th-12th grade students and found that 94% of females acknowledged that they had been verbally abusive towards their partners. Females were more frequently likely to make their partners feel guilty and less frequently likely to make them feel inferior (West & Rose, 2000). Likewise, Williams, Ghandour, and Kub's study (2008) found that the perpetration of emotional abuse by female college students ranged between 40-80%.

This, along with the previous research that suggested female victimization to be more likely in adolescents, or romantic relationships in general, highlights the emphasis on approaching the topic of Emotional Abuse in relation to gender with a complete lack of gender bias.

Adolescents perceive emotional abuse as less severe and the lack of awareness contributes to their decision to stay in an emotionally unhealthy relationship (Francis & Pearson, 2019) which is also suggested by the study carried out by Molidor and Tolman (1998) which found that over half the boys they interviewed reported laughing or ignoring IPV, while girls were more likely to perceive the abusive acts as serious, with large portions either crying or trying to defend themselves. Some teenage victims might transform from victims to abusers in future relationships to maintain interpersonal relationships, indicating a potential cycle of abuse perpetuation. The perpetrators tend to be anxious and fear being abandoned, explaining the emotional abuse to be a defense mechanism keeping the relationship intact and gaining a sense of security, potentially influencing the victim's decision to stay in the relationship (Guo, 2021). Hence, it is crucial for teenagers to establish healthy relationship patterns right from the start of their dating experiences as unhealthy, violent relationships during this critical period can have both immediate and long-lasting consequences for the adolescents moving into adulthood.

How adolescents develop attachment to each other is also one of the significant factors shaping the relationship dynamics they share with their partners. Attachment in the parent-child relationship significantly influences adult romantic relationships, affecting behavior, cognition, and emotions throughout life. According to Attachment Theory, developed by John Bowlby and Mary Ainsworth (1991), early attachment experiences shape an Internal Working Model of Attachment, which guides relationship behaviors and expectations. Although this model is generally stable, it can evolve with new experiences. Bowlby identified four attachment styles: **secure, preoccupied/avoidant, dismissing/anxious-ambivalent, and fearful/disorganized**. Individuals with a secure attachment style have a positive self-image and view others positively, enabling them to seek close, trusting relationships. Those with a preoccupied/avoidant style have a negative self-image but view others positively, leading to dependence and anxiety in relationships. The dismissing/anxious-ambivalent style is marked by a positive self-image and a negative view of others, leading to a preference for independence and emotional distance. Finally, the fearful/disorganized style involves a negative self-image and a negative view of others, resulting in difficulties with trust and intimacy. Throughout this study, one of the focuses will be to screen if the varying models of self and others are influencing the significance of the factors being studied in this study for each individual attachment style.

A well-researched factor on the topic of emotionally unhealthy relationships in adolescents is **self-esteem** and how it correlates with emotional abuse. One of the aims of our research will be to find the relationship between emotional abuse in relationships and self-esteem. As research argues that the self can both influence and be influenced by one's close

relationships (e.g., Aron & Aron, 1996; Drigotas et. al., 1999; Kelley, 1983; Murray, Holmes, & Griffin, 2000), it remains one of the important factors to look into while studying the topic. Further research by Gomez-Lopez, Ruiz & Viejo (2019) also found that violence occurring within the relationship (dating violence) has emerged as a highly significant negative variable for well-being, being associated with symptoms of anxiety, depression, stress, and low levels of self-esteem and life satisfaction, among other symptoms for both victims and perpetrators. We will use Pearson's Correlation Coefficient on the adolescent sample we collected to find the correlation between Emotional Abuse and Self-Esteem.

Bringing the focus to the primary factors we will be studying; **Intermittent reinforcement** is a form of conditioning, that can keep individuals from being unable to leave unhealthy relationships as these are linked to reward circuits in the brain which are associated with addiction. Previous research has been able to link relationships with a lot of unpredictability, such as dopamine-inducing because intermittent reinforcement used by the partner feeds the individual's dopamine system. This sense of unpredictability makes them crave rewards and therefore, engage in behaviors that they believe would create opportunities to receive further rewards (Carnes, 2019). This can then result in a cycle of abuse which is hard to break free from because the partner demonstrates random acts of empathy which are then perceived as justification by the victim for the partner's negative behaviors. These also provide a sense of hope to the individual that the partner will change, and that the relationship will become better again by returning to the honeymoon phase of the cycle (Carnes, 2019). Supportively, research was done by Mcnulty et al. (2017) to see if they could improve couples' feelings towards each other through classical conditioning. They found that when a positive image such as a photo of a puppy was placed next to a photo of their partner, they were more likely to have more positive reactions to their partner compared to a neutral photo like a photo of buttons.

Therefore, we aim to investigate the significance and dynamics of intermittent conditioning in emotionally unhealthy relationships. We hypothesize that intermittent reinforcement used by the partner can influence the individual into perceiving the relationship to be heading towards a positive trajectory and leading them to ignore the negative traits of their partner, despite their dissatisfaction with the relationship.

We now shift our focus to a proposed interconnected phenomenon, where multiple factors converge to exert a significant influence on individuals within emotionally unhealthy relationships. Couples who perceive their relationship as equitable tend to experience greater satisfaction compared to those who feel they are either over-benefiting or under-benefiting (Utne, Traupmann & Greenberger, 1984). This observation is consistent with the Social Equity Theory (Adams, 1963), which suggests that individuals are motivated to maintain their relationships based on whether they perceive the inputs of the relationship to be balanced with the outputs. The theory explains that equity does not mean equality in terms of the rewards and costs but instead refers to the balance between what each person in the relationship contributes and receives. When individuals within relationships feel as if their input and the rewards they receive are balanced, they are more likely to perceive the relationship as satisfying and fair. An individual's perception of equity can evolve during the course of the relationship, for example, it's common for partners to not let inequity early on immediately impact satisfaction and commitment; however, it can accumulate over time, leading to greater dissatisfaction and relationship instability later on (Sprecher, 2001). Additionally, a longitudinal study found that initial inequity doesn't always predict future satisfaction, but as time progresses, under-benefited partners experience greater distress and

are more likely to attempt to restore balance (DeMaris, 2007). Therefore, a frequent and persistent imbalance can lead to dissatisfaction in the relationship (Walster, Berscheid & Walster, 1978). As dissatisfaction with the relationship goes on, it can induce cognitive dissonance. Cognitive dissonance (Festinger, 1957) is caused when psychological tension arises as a result of an individual's behaviors conflicting with their inner beliefs. To try and resolve this tension, individuals may alter their beliefs in order to align them with their behavior or vice versa by altering their behavior to try and achieve consistency between the two. In the context of romantic relationships, this may lead individuals to question many elements of the relationship such as their investment of time, effort, and emotions which threaten their view of the relationship trajectory. Questioning the trajectory of the relationship can cause the individual to alter their behavior to align with their thoughts, which could be defined as withdrawing from the relationship or breaking up with their partner, on the other hand, a change in their belief to maintain consistency with actions would be to make efforts towards a change in their perception of inequity in the relationship to look at it as more equitable. This may include forgiving their partner too readily for mistakes that they wouldn't usually forgive or normalizing their partner's unacceptable behavior. Furthermore, repeated occurrences of individuals readily forgiving their partners' mistakes in an emotionally unhealthy relationship can initiate a cycle of Foot-in-the-Door Effect, which brings us to our next proposed hypothesis. The Foot-In-The-Door effect is a psychological tactic used for persuasion where an individual is requested by another to complete a minute task which is then followed by a significantly larger one. This idea was first discovered and researched by Freedman & Fraser (1966) and is based on the idea of constancy and the theory of self-perception. Their experiment found that participants were 135% more likely to agree to completing a larger request after completing a smaller one, in comparison to participants who were initially asked to complete the larger request. Further research into this effect by Sherman (1980) found support for the idea that consistency in completing requests can lead to the Foot-In-The-Door effect. We look at this effect in our study in terms of forgiveness and hypothesize that repeated occurrences of easy forgiveness by individuals towards their partners could later turn them to increasingly accept their partner's negative behaviors or relationship dissatisfaction by forgiving their partners for severe actions that could seriously jeopardize the relationship. In turn, this could potentially lead to a harmful cycle that makes it difficult for individuals to leave the emotionally unhealthy relationship.

Lastly, the final factor we are exploring is the nature of the individual's social support system. We base our hypothesis on Duck's Phase Model of Relationship Breakdown which is a theory that describes the stages of a relationship's dissolution. According to psychologist Duck (1982, 1998), the model suggests that a relationship breaks down into a series of four phases:

- **Intrapsychic Phase:** The individual begins to feel dissatisfied with the relationship and internally questions its viability.
- **Dyadic Phase:** The dissatisfaction is openly communicated to the partner, leading to discussions about the relationship's future.
- **Social Phase:** The relationship issues become public as friends and family are involved, often accelerating the breakdown.
- **Grave-Dressing Phase:** After the relationship ends, the individual seeks to rationalize the breakup, often framing themselves positively to attract future partners.

The focus of our research is on the relationship between the Dyadic Phase and the Social Phase. Rollie & Duck (2006) stated it is possible to return to any earlier phase rather than linear movements across the phases. Building upon this, we hypothesize that individuals who had a social circle to share their relationship issues with and their peers who reacted positively to the discussions of the issues may approach the issues within the relationship with positive tools such as communicating properly with the partner or breaking up. If the individuals did not have anyone to talk to about the issues due to them distancing from their friends and family because of heightened commitment by completely focusing on the emotionally abusive relationship, they may approach the issues with negative tools such as ignoring their issues or not breaking up. **Dickson (1995)** found that the 'social phase' is highly subjective to individual differences, especially in relation to age, indicating that while friends and relatives tend to see teenagers' break-ups as less serious and wouldn't put much effort into reconciling partners, the ending of relationships by older couples is seen as more distressing and those close to the couple put more effort into bringing them back together. That could be one limitation to this suggested correlation. However, previous studies have found the influence of social circles to be an indicator of the abused individual's decision to remain in or leave an abusive relationship, positively correlating the presence of strong positive social circles and those who discuss their relationship issues with these to be more likely to receive support and encouragement to leave emotionally abusive relationships. (Walters, 1995; Baholo, 2012). We will analyze the result of this association based on our adolescent sample.

METHODOLOGY

Aim

To study how various factors influence adolescents in emotionally unhealthy relationships; screening further the prevalence of the factors within the different attachment styles.

Objective

The objective of this study is to test the hypotheses on our sample of adolescents and explore the hypothesized factors as functions of age and gender too. We will also focus on exploring the relationship between our hypothesized factors. Furthermore, the study aims to find out how differently hypothesized factors exist in each attachment style.

Definition

Defining when the adolescence period starts is subject to cultural and individual differences, WHO (2019) defines 'Adolescents' as individuals within the age range of 10-19 years. However, the American Academy of Pediatrics (2019) states that adolescents start dating at an average age of 12 and a half for girls and 13 and a half for boys. Many psychological studies have defined the age range to be 12-21 for their adolescent sample size (Kaiser et. al., 2023; Rasskazova & Sadovnichaja, 2023). Since our study will focus on adolescent relationships, we will define the adolescence period as 12-21 years of age

Hypotheses
- **Intermittent Reinforcement Hypothesis**: Intermittent reinforcement in relationships influences the individuals to perceive the intermittent reinforcement demonstrations to cause the relationship to head towards a positive trajectory and ignore their partner's negative traits, despite the individual's dissatisfaction with the relationship.
- **Attachment Style Hypothesis**: Different attachment styles (secure, preoccupied/ avoidant, dismissing/anxious-ambivalent, and fearful/disorganized) influence how

individuals' approach and respond to emotionally unhealthy relationships, with varying levels of significance depending on the attachment style.

- **Equity Perception Hypothesis**: Perceived inequity in relationships causing relationship dissatisfaction leads individuals in emotionally unhealthy relationships to experience tension between their thoughts and actions due to cognitive dissonance.
- **Foot-in-the-Door Effect Hypothesis**: The Foot-in-the-Door effect can perpetuate cycles of forgiveness for the emotionally abused and dissatisfied individual's partner's mistakes, leading individuals to normalize unacceptable behaviors and find it hard to not forgive for severe mistakes that threaten the stability of the relationship.
- **Social Support System Hypothesis**: The presence or absence of a supportive social network influences how individuals address issues within their relationship, with the presence of a social circle leading to healthier approaches towards the issues within the relationship and the absence of a social circle leading to negative approaches like ignoring issues or staying in the relationship without any issue addressal.

Sample

The present study was administered to 122 individuals who believed to have been emotionally abused in their relationships; of which 42 were males and 80 were females. The age range was 12-21. For participants under the age of 18, we required them to acquire parental consent before taking the questionnaire. There was no time frame for the completion of the questionnaire and the participants were free to take a break or refrain from taking the questionnaire in any case of emotional discomfort. Furthermore, the individuals were provided with relevant resources for helplines that they could contact if they felt any sort of discomfort from the questionnaire. The sample was collected through volunteer sampling by placing this questionnaire on online communities and we used snowball sampling by asking the volunteers to share the questionnaire with their peers. To avoid spam in our sample, we required the individuals to log into their e-mail accounts to complete the questionnaire. The questionnaire was completed with everyone's consent.

Tools

To conduct this research, three standardized tests were used: An Emotional Abuse Questionnaire, An Attachment Style Questionnaire, and Rosenberg's Self-Esteem Scale, along with various other follow-up questions related to the hypotheses.

- **The Emotional Abuse Questionnaire (EAQ)** was developed by Neil Jacobson and John Gottman (1998), who were both experts in the field of Domestic Violence. The internal consistency is .92. It is a 28-item Likert scale used to measure emotional abuse responses on a 4-point scale. We assessed the internal consistency of the scale, which was part of the questionnaire that included various other scales and additional questions, using Cronbach's alpha, to determine whether factors such as 'participant fatigue' or the tendency of shorter questionnaires to have better-quality sample sizes influenced the reliability of the EAQ. The result was a Cronbach's alpha of .89, indicating the EAQ still possessed high reliability.
- **The Attachment Style Questionnaire (ASQ)** was first developed by Van Oudenhoven, Hofstra & Bakker (2003) in Dutch but later modified and translated into English by Elzbieta Polek (2008).
- **Internal Consistency for the Questionnaire** was tested by Regina Mosterman & Jacomijn Hoftsra. (2015) and it was found to be Secure Style = 0.75; Preoccupied Style = 0.80; Fearful Style = 0.79; Dismissing Style = 0.62 in Cronbach's alpha.

- **Rosenberg's Self-Esteem Scale (RSE)** was developed by Morris Rosenberg (1965). It is a 10-item Likert scale with items answered on a four-point scale. The RSE demonstrates a Guttman scale coefficient of reproducibility of .92, indicating excellent internal consistency. Test-retest reliability over a period of 2 weeks reveals correlations of .85 and .88, indicating excellent stability.

ANALYSIS & DISCUSSION

Descriptive Statistics

		N	Minimum	Maximum	Mean	Standard Deviation
GENERAL	**Emotional Abuse**	122	28.00	140.00	83.473	26.923
	Self-Esteem	122	2.00	27.00	14.5492	5.57459
	Valid N (Listwise)	122				
MALE	**Emotional Abuse**	42	28.00	140.00	83.511	27.372
	Self-Esteem	42	6.00	27.00	15.6667	5.01056
	Valid N (Listwise)	42				
FEMALE	**Emotional Abuse**	80	28.00	140.00	83.441	26.847
	Self-Esteem	80	2.00	24.00	13.9625	5.79271
	Valid N (Listwise)	80				

Correlation between the variables Emotional Abuse & Self-Esteem.

CORRELATION			
		Emotional Abuse	**Self-Esteem**
Emotional Abuse	**Pearson Correlation**	1	-.199*
	Sig. (2-Tailed)		.028
	N	122	122
Self-Esteem	**Person Correlation**	-.199*	1
	Sig. (2-Tailed)	.028	
	N	122	122
*Correlation Is Significant at the 0.05 Level (2-Tailed)			

Correlation in the Male sample (12-21) between the variables Emotional Abuse & Self-Esteem.

CORRELATION			
		Emotional Abuse	**Self-Esteem**
Emotional Abuse	**Pearson Correlation**	1	.118
	Sig. (2-Tailed)		.456
	N	42	42
Self-Esteem	**Person Correlation**	.118	1
	Sig. (2-Tailed)	.456	
	N	42	42

Correlation in the Female sample (12-21) between the variables Emotional Abuse & Self-Esteem.

CORRELATION		Emotional Abuse	Self-Esteem
Emotional Abuse	**Pearson Correlation**	1	-.348**
	Sig. (2-Tailed)		.002
	N	80	80
Self-Esteem	**Person Correlation**	-.348**	1
	Sig. (2-Tailed)	.002	
	N	80	80
**Correlation Is Significant at the 0.01 Level (2-Tailed)			

Summary of Correlations among Emotional Abuse, and Self-Esteem

1. **General Population:** Emotional Abuse and Self-Esteem: A small but significant negative correlation (r = -0.199, p = 0.028) indicates that higher emotional abuse is linked to lower self-esteem.
2. **Gender-Specific Samples:**
   - **Males (Aged 12-21):** A very weak positive correlation (r = 0.118, p = 0.456) was found, which was not significant.
   - **Females (Aged 12-21):** A moderate and significant negative correlation (r = -0.348, p = 0.002) indicates that higher emotional abuse is associated with lower self-esteem in this group.

The findings suggest that Self-Esteem has a negative correlation with Emotional Abuse. However, when testing gender-specific samples, it was found that the correlation wasn't significant for males, but for females it was a moderately significant negative correlation. Since our general sample had a 21:40 male-to-female ratio, the female sample size might have influenced the general sample finding significantly. Therefore, the finding of the correlation for the female sample size aligns with the study mentioned in the Introduction whereas for men the correlation didn't align. To add to this, it should be mentioned that within the context of our research, it wasn't specified if the individuals had low self-esteem before the emotionally abusive relationship. Hence, to fully understand the influence of self-esteem and emotional abuse on one another and their dynamic, further research would be required.

We tested the correlation between Individuals who self-reported Emotional Abuse or No Emotional Abuse and the consistency of the reports with their results on the Emotional Abuse Questionnaire (EAQ) in order to verify with the findings mentioned in the Introduction of our study that found Adolescents to have a lack of awareness regarding Emotional Abuse or perceive it as less serious leading them to stay in the relationships. We used the method of Phi Coefficient to quantify the correlation, and the coefficient was found to be approximately **0.168 (Table 1)**. This suggests a weak positive correlation between self-reporting Emotional Abuse or No Emotional Abuse and the result of the standardized EAQ. However, since our research is primarily focused on Adolescents, we do not have any varying age demographic sample to conduct a comparative analysis in relation to age.

Fearful and Preoccupied Attachment Style individuals were the highest to score Low Self-Esteem on the test with 60% of total Fearful individuals and 57% of total Preoccupied

individuals. On the other hand, Secured and Dismissive scores were the highest to have Normal Self-Esteem on the test with 81% of total Secured individuals and 65% of total Dismissive individuals. This aligns with previous research that states individuals with Fearful and Preoccupied attachment styles have a negative model of self, whereas individuals with Secured and Dismissing have a positive model of self.

We tested to see if there is any significant association between emotional abuse and being cheated on. The findings suggested that individuals in emotionally abusive relationships were not necessarily cheated on (Table 2: **Odds Ratio** = 1.74, **p-value**: 0.179). However, we did find the association that individuals who had been cheated on during the relationship were significantly more likely to hope for a successful/healthy patch-up with their partner after the relationship had ended as opposed to those who had no cheating from any sides in the relationship. (Table 3: **Odds Ratio** = 0.38, **p-value**: 0.028). Upon testing emotional abuse with hopes for a successful patch-up, we found no significant association.
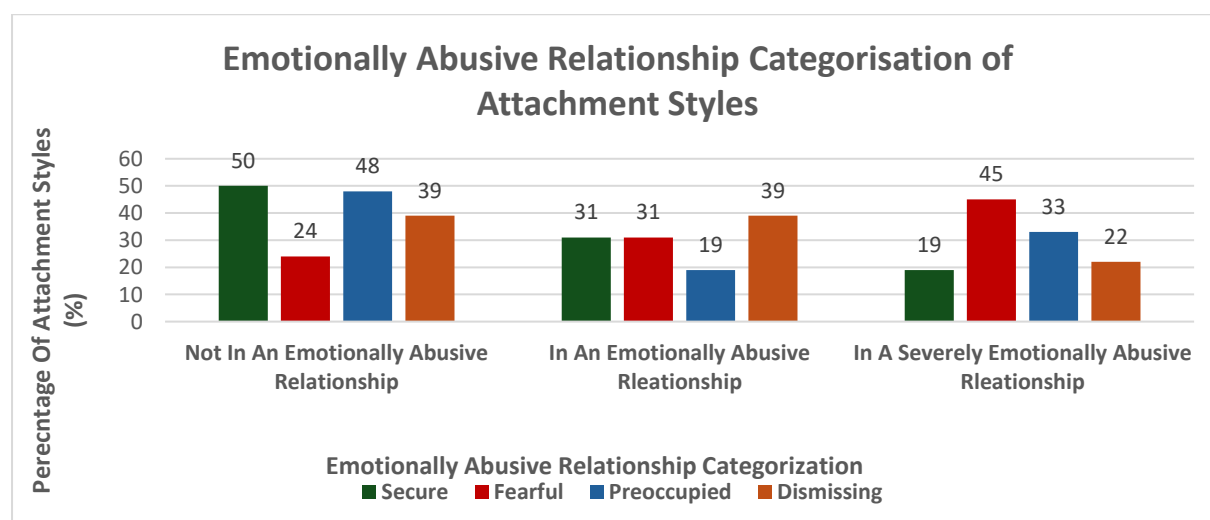

Figure 1: Association between Attachment Style and Relationship Emotional Abuse

Secure individuals were most likely to not be in an abusive relationship (Figure 1), which is reflective of the traits of the secured attachment style discussed in the Introduction. These individuals have a balance between how they perceive themselves and how they perceive others which could make them more likely to identify and break free from abusive relationships as they are able to recognize the good and bad in themselves and of their romantic partners.

65% of total individuals were found to be in emotionally abusive relationships; 37% of the individuals in Severe Emotional Abuse. The high quantity could be because, during sample collection, we invited individuals who believed they were emotionally abused during their relationship and hence the finding does not suggest that adolescent romantic relationships are generally prone to emotional abuse. We further tested emotional abuse with gender specifics and found 64% of all males to report emotional abuse in their relationships; 33% of it being severe emotional abuse. For females, it was 65% of the sample that reported emotional abuse in their relationship; 39% of it being severe emotional abuse.

This suggests that Men and Women are equally likely to be victims of emotional abuse in relationships, which challenges the societal stereotype that males are not susceptible to or experience emotional abuse in relationships. Therefore, our findings indicate a contradiction

to the studies mentioned about the difference in male and female samples being prone to emotional abuse in the Introduction of this paper. Furthermore, it is important to acknowledge that men also tend to under-report abuse as discussed earlier in the paper- due to men failing to recognize abuse or see it as serious. Thus, putting more emphasis on the notion that there should not be any bias as to which gender is more vulnerable to any form of violence in the relationship and that it is essential to approach studies about IVP with a complete lack of this bias.

Through self-report, we also compared the various types of abuse individuals faced and found Verbal Abuse to be the most common type of abuse in relationships, with 79% of Men reporting it and 88% of Women. For Physical Abuse, we found 33% of Men reporting it as opposed to 12% of Women. This finding from our study also suggests a challenge to the societal stereotype of men not being subjected to Physical Violence.
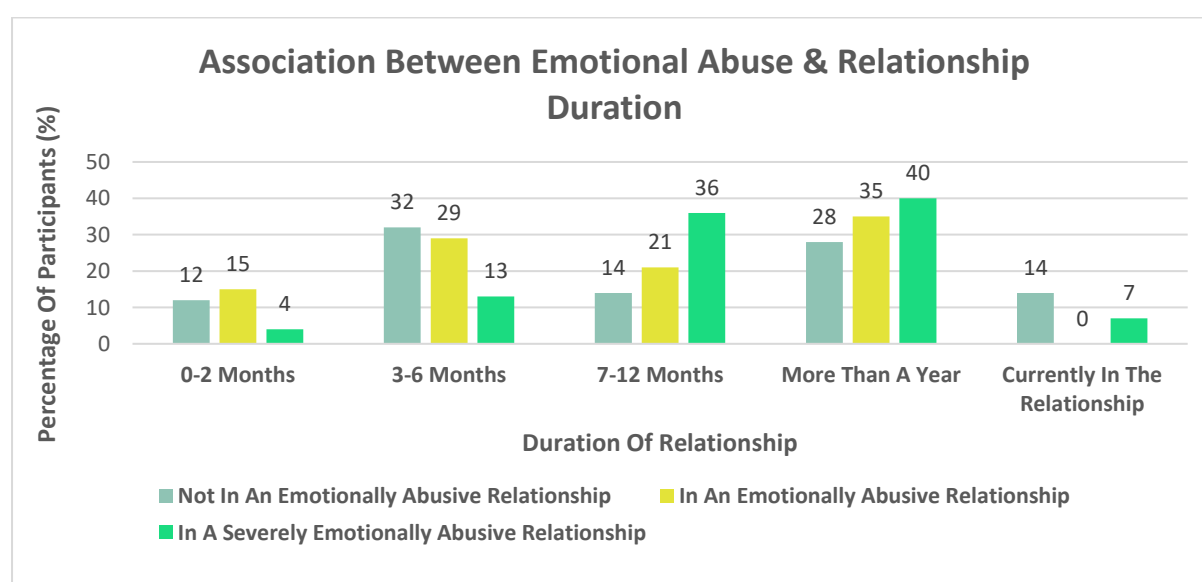

Figure 2: Association between Emotional Abuse and Relationship Duration

There is a significant association between respondents who were reported as being in a 'Severely Emotionally Abusive Relationship' or 'Emotionally Abusive Relationship' and the duration of the relationships as opposed to those not in an emotionally abusive relationship (Table 4: **Odds ratio**: 2.43, **p-value**: 0.038). However, the duration of the relationship was found to be positively correlated with the intensity of the emotional abuse in the relationship (Table 5: χ^2 = 9.80, **p-value**:0.007) but the association between relationships that were emotionally abusive (excluding severe abuse) and no emotional abuse in relation to duration is not significant. (Table 5: **Odds ratio**: 1.34, **p-value**: 0.637). This suggests that individuals with Severe Emotional Abuse were most likely to have longer relationships as 40% of total individuals with Severe Emotional Abuse in their relationships reported the relationship duration to be More Than a Year and 36% reported the duration to be 7-12 Months (Figure 2).

While testing for the association that young women are more prone to heightened commitment to their relationship which makes them more vulnerable to emotional abuse, we compared data of men and women who reported heightened investment into their romantic relationships and putting less effort into their friends and family, and we found that 78.6% of men and 76.25% of women reported it. We further compared the data of men and women

who reported heightened investment with the abusive nature of their relationships to test the association that women are more vulnerable to emotional abuse due to heightened investment. It was found that 63.6% of men and 70.5% of women with heightened commitment were found to be in emotionally abusive relationships (Table 6: z-score: 0.68, p-value: 0.5). This suggests that both males and females in adolescent emotionally unhealthy relationships are equally likely to engage in heightened commitment and further report being in an emotionally unhealthy relationship. Thus, our findings misalign with the previous studies pertaining to this issue explained in the Introduction.

Moving on to the factor of Intermittent Reinforcement, we gathered data from individuals who reported feeling dissatisfaction in the relationship due to a lack of effort from the partner and who further reported their partner displaying characteristics of Intermittent Reinforcement. We included relationship dissatisfaction to confirm the association of how intermittent reinforcement could contribute to changing the dissatisfied individual's perception of the relationship. We found that 59% of the total individuals reported the above-mentioned. We then tested the data for individuals who reported feeling both like the relationship was now in a positive trajectory and would improve because of the acts of love performed by their partner at unpredictable intervals (Intermittent Reinforcement) and how many reported that these acts led to them ignoring their partner's negative traits. The result was a significant association (Table 7: **Odds Ratio** = 12.53, **p-value**: 0.001) suggesting that individuals reporting dissatisfaction within the relationship and their partner displaying Intermittent Reinforcement can lead them to have beliefs such as feelings of the relationship headed towards improvement and ignoring the partner's negative traits, that does not align with their initial feelings of dissatisfaction. Furthermore, out of those who would start ignoring the negative traits of their partner after they demonstrated the random acts of love 37% of the relationships lasted more than a year, 19.5% for 7-12 months, and 10% were still in the relationship during the collection of the sample for the study.

This reflects the findings we found in the Introduction of our study regarding Intermittent Reinforcement which stated that individuals felt hope after receiving acts of empathy over unpredictable intervals and began justifying their partner's negative behaviors.

However, it would have been beneficial to gather qualitative research in order to gather data on the types of justifications individuals had for their partner's negative traits and behaviors. Furthermore, as mentioned by another study in our Introduction which indicated that individuals who were subjected to Intermittent Reinforcement engaged in behaviors that they perceived would lead them to more positive outcomes, future research should investigate this by studying how many participants actually started to put themselves in situations similar to the previous ones where they received random acts of love after their partner displayed negative behaviors in order to receive further acts of love and the types of behaviors; along with other potential factors influencing this process.
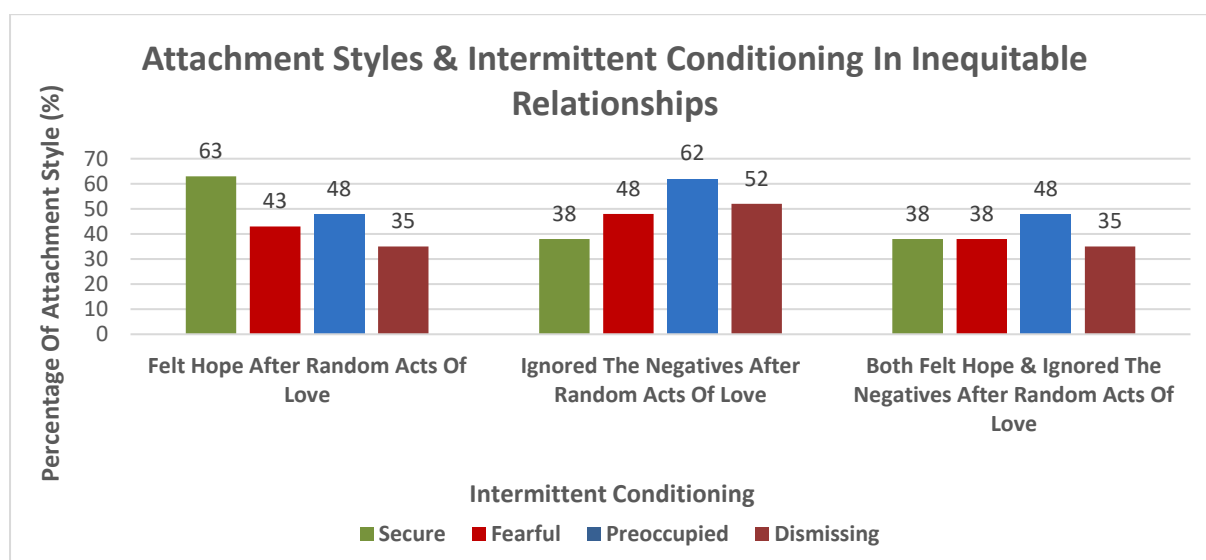
Figure 3: Association between Attachment Styles and Intermittent Conditioning in Inequitable Relationships

Shifting the focus to the next hypothesis, 66.5% of total Individuals reported the relationship as inequitable and 86.5% of them reported experiencing misalignment of beliefs & actions (Cognitive Dissonance). We compared the data for who the individuals blamed for issues within the relationship before and after the break-up. There was a significant association that individuals who had blamed themselves during the relationship would change their opinion after the relationship had ended when compared to those who either blamed their partner, both of them, or blamed neither of them during the relationship. (Table 8: **Odds Ratio** = 0.30, **p-value**: 0.0136). This suggests that there was Cognitive Dissonance at play for people who blamed themselves for the issues during the relationship and changed their views after the break-up. However, there was no significant association between misalignment of beliefs & actions and readily forgiving partners for mistakes (Table 9: **Odds Ratio:** 2.083, **p-value:** 0.301), suggesting that experiencing Cognitive Dissonance doesn't necessarily equate the individual forgiving their partner's mistakes readily.

When analyzing responses from individuals who reported feeling pressured into complying with their partner's requests- requests they had initially found to be excessive but agreed to anyway as they had previously complied with smaller, similar requests- and also reported that this applied to their act of readily forgiving their partner for mistakes, there was a statistically significant link to their responses about finding it difficult not to forgive their partners for severe issues that could jeopardize the relationship (Table 10: **Odds ratio:** 10.67, **p-value:** 0.00024) suggesting that individuals readily forgiving their partner's mistakes may find it difficult to not forgive more severe mistakes due to Foot-In-The-Door-Effect.

Furthermore, there is a significant association between individuals with Emotional Abuse in their relationship reporting Foot-In-The-Door Effect as opposed to individuals not in an emotionally abusive relationship reporting Foot-In-The-Door Effect. (Table 11: **Odds ratio:** 2.91, **p-value:** 0.0077). This can cause the individual to stay in the relationship for a prolonged period as discussed in the finding before where the duration of relationships was found to be positively correlating with the intensity of emotional abuse.

Moving on to the topic of heightened commitment, 81% of individuals in emotionally abusive relationships reported heightened commitment, for which we tested if the heightened commitment has an association with distancing from friends and family. The result was a significant association (Table 12: **Odds ratio:** 21.23, **p-value:** 0.00000924) suggesting that heightened commitment led to the adolescents distancing from their friends and family to focus on the romantic relationship entirely despite the emotional abuse. We also found that 59.5% of individuals in emotionally abusive relationships had someone to talk to and 66% of them reported experiencing positive reactions from their peers when talking about relationship issues, suggesting that even though the adolescents had distanced themselves from their friends and family, they still had someone to communicate about their relationship problems with and have positive reactions from the conversations.

Further testing the association between emotionally abused individuals with the presence of a social circle and how it affects the way the abused individuals approach issues within the relationship, we found that there was significance behind the association that the presence of a strong social system led to positive outcomes for the individual such as communicating about the issues with the partner or breaking up with them; whereas individuals with the lack of a social circle due to heightened commitment to the relationship would ignore the issues by not communicating about it and not break up (Table 13: **Odds ratio:** 3.68, **p-value:** 0.0344), suggesting that a strong social support system can help individuals in such relationships approach the issues with better tools. This aligns with the study mentioned in the Introduction pertaining to the presence of social support systems and individuals leaving emotionally abusive relationships after communicating and receiving praise or encouragement from the social system. However, further research should be done to understand how the presence of a social support system that discourages or reacts negatively to the individual in an emotionally abusive relationship can influence the individual's approach to the relationship.
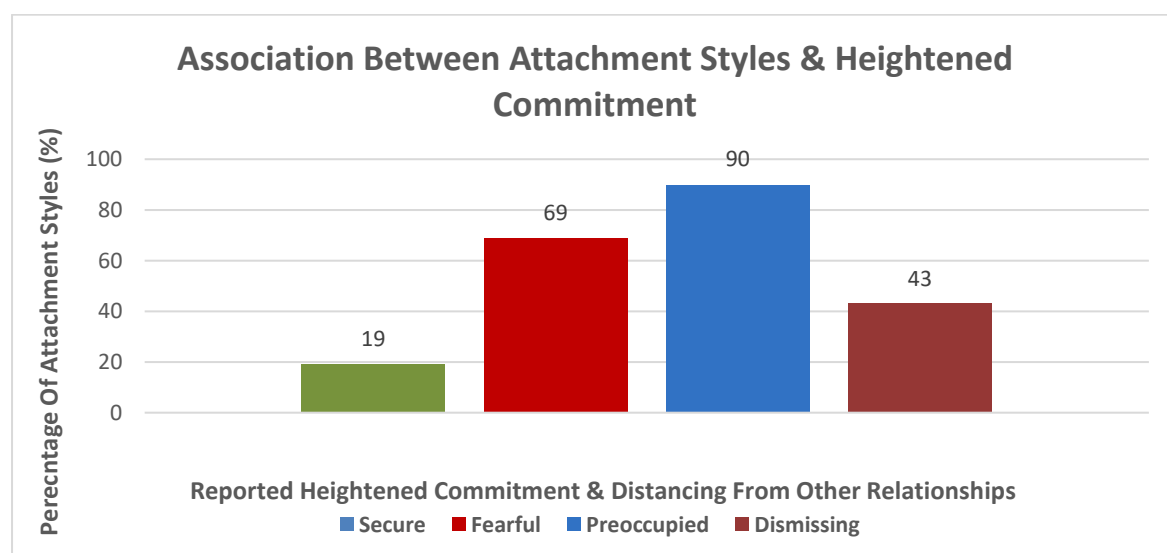

Figure 5: Association between Attachment Styles and Heightened Commitment which caused individuals to become Distant from other relationships.

Figure 5 shows the association between attachment styles and heightened commitment within the relationship which caused individuals to grow distant from their other relationships. It shows that individuals with a Preoccupied attachment style are the most likely to heavily invest in their romantic relationships, often distancing themselves from

other relationships as a result of their intense need for closeness and reassurance. However, securely attached individuals are least likely to experience this heightened level of commitment because of their approach to relationships being balanced and confident in nature, which allows them to maintain strong relations within and outside their romantic partnerships with family and friends. Those with a fearful attachment style often experience ambivalence towards intimacy, which may demonstrate some heightened level of commitment but tend to pivot between wanting closeness and withdrawing. However, dismissing individuals may also demonstrate heightened commitment as their focus on independence can cause them to distance themselves from other relationships as they balance their desire for autonomy with the demands of maintaining a partnership. Additionally, secured individuals have a positive model of others and so might refrain from isolation from friends and family more than Dismissing despite their inclination for independence.

CONCLUSION

Through this research, we have been able to achieve an understanding of emotionally unhealthy adolescent relationship dynamics. We found a positive significant relationship between the intensity of Emotional Abuse and the duration of the relationships.

Our findings suggested a contradiction to previous studies that found women to be at more risk for emotionally unhealthy relationships and experience heightened commitment but instead found that men and women were quite equal in numbers. Furthermore, suggesting a challenge to the societal stereotype, our research found that men were more likely to report being subject to physical violence in relationships than females.

However, the research found, when testing the correlation between Emotional Abuse and Self-Esteem with gender samples, a very weak positive non-significant correlation for men, whereas for women a moderate and significant negative correlation was found between the two. This suggests that although men are women are equally likely to be involved in an emotionally abusive relationship, the abuse does not necessarily have a stronger negative effect on men's self-esteem than it does for women. Therefore, there is a crucial need for more research into understanding how different types of abuse exist in both males and females and how each influences individuals in relationships.

In the case of Intermittent Reinforcement, a significant association was found between being subject to Intermittent Reinforcement and starting to perceive the relationship as moving towards a positive trajectory or the dissatisfied individual ignoring the relationship or their partner's issues. There was also a strong link found for Individuals who blamed themselves during the relationship later changing their views after the breakup, suggesting cognitive dissonance leading the individuals to undermine or ignore their dissatisfaction during the relationship. However, we found that this did not equate to the individuals easily forgiving their partners for the mistakes the partners had committed.

Following on this, we did however find that individuals reporting their compliance towards easily forgiving their partners for mistakes over and over again later found it hard to not forgive their partner for severe mistakes that threatened the relationship, suggesting that Foot-In-The-Door-Effect could be applied to this. Furthermore, this pattern was found to be significantly prevalent for individuals in Emotionally Abusive Relationships as opposed to those who were not in one.

Finally, we found a significant finding suggesting that individuals in emotionally abusive relationships who had a strong social support system would approach the relationship with positive tools such as communication or breaking up with the partner, whereas individuals in emotionally abusive relationships who reported distancing from friends and family as a result of the heightened commitment would ignore their issues and not break up. Additionally, it was also found that those who reported heightened commitment were significantly likely to distance themselves from their friends and family. This signifies the need for a strong social support system to navigate emotionally abusive relationships with positive tools.

Moving on to the topic of Attachment Styles, Fearful and Preoccupied Attachment Styles individuals were the most to have Low Self-Esteem, whereas Secured and Dismissing were the highest to have Normal Self-Esteem. Secured also were the least likely to be in an emotionally abusive relationship. Furthermore, preoccupied reported heightened commitment the most whereas Secured were the least to report it. This is reflective of the various attachment style's unique model of self and others. Although we make an attempt to explain the reasoning behind the findings, it is important to acknowledge the complexity of the workings of Attachment Styles and further research should be done to understand how different attachment styles might act in emotionally unhealthy relationships.

For the factors that we did not screen with Attachment Styles in the paper, we did not find any significant differences between the data for each Attachment Style in relation to the factors. Therefore, not all factors studied in this research influenced the Attachment Styles differently.

Limitations:
- **Cross-Sectional Design:** The study's cross-sectional design limits its ability to establish causality or observe changes over time. Additionally, the responses of the participants to the questionnaire are largely retrospective which can introduce biases such as Recall Bias, Selective Memory, and also Temporal Ambiguity which can make it challenging to establish the exact timing and sequence of events, making it difficult to infer causality. This limitation is significant for the study because emotionally unhealthy adolescent relationships are dynamic and may evolve, making it difficult to capture the long-term effects of the identified factors.
- **Collection:** The study relies on self-reported data by the participants, which can introduce several biases and inaccuracies. Participants may consciously or unconsciously alter their responses due to social desirability bias, where they respond in a way that they believe is more socially acceptable or favorable. Moreover, the use of Google Forms as a tool for collecting the samples brings about the lack of a controlled environment for the participants to answer in, which can lead to answers lacking depth and proper thought, impacting the sample quality. Additionally, the use of volunteering and snowball sampling methods can introduce selection bias. Individuals who volunteer for the study are recruited through peers who may not be representative of the broader adolescent population. While we did try to tackle this by posting on numerous platforms, the bias may still be present which may result in a sample that is skewed towards individuals with certain characteristics or experiences, limiting the generalizability of the findings.
- **Uncontrolled Factors & Variables:** The study might not control confounding factors and variables such as previous trauma, mental health status, cultural

differences, and family background that could influence the relationship between the factors studied and the outcomes. The existence of these uncontrolled variables could introduce bias, making it difficult to isolate the effects of the specific factors under investigation. Therefore, the study's findings might not extensively capture the complexity of the influences on adolescents' involvement in emotionally unhealthy relationships.

- **Attachment Styles:** Although attachment styles were able to be linked to some of our factors, the findings lack previous research findings to ensure reliable explanations. Since our study isn't completely exclusive to attachment style's influence on factors, to better understand the influence in actions and behaviors of our participants with different attachment styles, it would have been beneficial to gather qualitative data to paint more of a picture of what factors and dynamics they experienced and why.
- **Applicability of the Findings**: The study's sample was focused on adolescents, limiting the applicability of the findings to other age ranges, cultural backgrounds, family backgrounds, mental health status, etc.

Suggestions for the Future
- **Balanced Sample**: Future studies can benefit from a more balanced sample size in terms of age and gender so that the dynamics of the various factors of emotionally unhealthy relationships can be studied through the different stages of adolescence in both males and females.
- **Controlling Confounding Variables:** Future studies should develop control over further confounding variables such as culture, upbringing, trauma, etc. This allows for a more conclusive analysis and helps to moderate potential variables that can influence the relationship between our studied factors and their outcomes.
- **Longitudinal Research**: Using a longitudinal design would allow us to observe and track changes in the relationship dynamics over time. This provides insights into how factors such as attachment style, intermittent conditioning, self-esteem, equity, etc can influence the persistence of emotionally unhealthy relationships. Longitudinal studies are also good for establishing causality so that there is a better understanding of the long-term effects of emotionally unhealthy relationships.
- Mixed-Methods Approach: Incorporating both qualitative such as interviews and quantitative data gathered from our closed-question questionnaire would help us to gather more detailed data and shed light on the complexities of emotional abuse that a standardized questionnaire may miss. This would allow us to explore deeper into the participants' lived experiences in emotionally abusive relationships and therefore give us a more holistic understanding of them.
- **Attachment Styles**: Further research should be done to understand the complex workings of Attachment Styles and their various manifestations in different contexts in emotionally unhealthy relationships.
- **Develop and Test Interventions:** Further research could focus on developing interventions that help adolescents recognize and leave emotionally unhealthy relationships. This could manifest in many ways such as educational programs in schools, peer support networks and counselling services that are specifically catered towards adolescents. Evaluating the effectiveness of these interventions helps to provide proven strategies for reducing the prevalence and impacts of emotionally unhealthy relationships.

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Conflict of Interest

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APPENDIX

Table 1: Contingency Table Data for Individuals who self-reported Emotional Abuse/No Emotional Abuse and their Results acc. To The Standardized EAQ. (Phi Co-efficient Test)

	In Emotional Abuse acc. To EAQ	Not In Emotional Abuse acc. To EAQ	Total
Self-Reported Emotional Abuse	73	34	107
Did not Self-Report Emotional Abuse	6	9	15
Total	79	43	122

Table 2: Contingency Table Data for Emotional Abuse in Relationships categorization and Likelihood of being cheated on. (Fisher's Exact Test)

	Cheated On (Yes)	Cheated On (No)	Total
Emotionally Abusive Relationship (Yes)	34	45	79
Emotionally Abusive Relationship (No)	13	30	43
Total	47	75	122

Table 3: Contingency Table Data for being Cheated on and Hopes for Reunion. (Fisher's Exact Test)

Being Cheated on and Hoping for Successful Reunion	Hoped for Reunion (Yes)	Hoped for Reunion (No)	Total
Cheated on by partner	30	30	60
No cheating involved from any side	34	13	47
Total	64	43	107

Table 4: Contingency Table Data for Emotional Abuse and Duration of Relationships. (Fisher's Exact Test)

Emotional Abuse and Duration of Relationships	Stayed ≥ 7 Months	Stayed < 7 Months	Total
Emotionally Abusive Relationships	53	23	76
Not Emotionally Abusive Relationships	18	19	37
Total	71	42	113 (Excluded "Currently in the Relationship)

Table 5: Contingency Table Data for Intensity of Emotional Abuse in Relationships and the Duration of the Relationship.

Intensity of Emotional Abuse and Duration of Relationships	Stayed ≥ 7 Months	Stayed < 7 Months	Total
Severe Emotional Abuse	34	8	42
Emotional Abuse	19	15	34
No Emotional Abuse	18	19	37
Total	71	42	113

Table 6: Contingency Table for the association that Females with Heightened Commitment tend to be in Emotionally Abusive Relationships in contrast to Males with Heightened Commitment. (Z-Test for difference between two proportions)

	In An Emotionally Abusive Relationship	Not in An Emotionally Abusive Relationship	Total
Females With Heightened Commitment	43	18	61
Males With Heightened Commitment	21	12	33
Total	64	30	94

Table 7: Contingency Table Data for Individuals with Dissatisfaction in the Relationship about the partner's lack of effort (Social Inequity) and the partner displaying Intermittent Reinforcement behavior and its relationship with Positive Trajectory and Ignorance towards Negative Traits. (Fisher's Exact Test)

Dissatisfied with the Relationship and Partner displayed acts of love in an unpredictable manner	Ignored Negative Traits (Yes)	Ignored Negative Traits (No)	Total
Positive Trajectory (Yes)	47	2	49
Positive Trajectory (No)	15	8	23
Total	62	10	72

Table 8: Contingency Table Data to show the Change in Views of who was to blame During/After. (Fisher's Exact Test)

Change in Blame BEFORE and AFTER Breakup	Kept The Same View	Changed Views	Total
Blamed Self	9	13	22
Blamed Partner	25	8	33
Blamed Both	40	20	60
Blamed No One	5	2	7
Total	79	43	122

Table 9: Contingency Table Data for Individuals reported Misalignment of Beliefs & Actions and Forgave Partners Easily. (Fisher's Exact Test)

Misalignment of Beliefs & Actions and Ready Forgiveness	Forgiving Easily	Not Forgiving Easily	Total
Misalignment of Beliefs & Actions	50	20	70
No Misalignment of Beliefs & Actions	6	5	11
Total	56	25	81

Table 10: Contingency Table Data for Easy Forgiveness due to Foot in the Door effect and its effect on forgiving even for serious issues. (Fisher's Exact Test)

Foot in the Door Effect and hesitance to not forgive for Severe Issues	Forgave Serious Issues (Yes)	Forgave Serious Issues (No)	Total
Foot in the Door Effect (Yes)	48	18	66
Foot in the Door Effect (No)	3	12	15
Total	51	30	81

Table 11: Contingency Table Data for Foot in the Door Effect and Emotional Abuse Categorization. (Fisher's Exact Test)

Emotional Abuse and Foot in the Door Effect	Reported Foot in the Door Effect	Did Not Report Foot in the Door Effect	Total
Emotional Abuse	50	29	79
No Emotional Abuse	16	27	43
Total	66	56	122

Table 12: Contingency Table Data for Heightened Commitment and Distancing from Family/Friends. (Fisher's Exact Test)

Heightened Commitment and Distancing	Heightened Commitment	No Heightened Commitment	Total
Distancing from Friends and Family (Yes)	49	2	51
Distancing from Friends and Family (No)	15	13	28
Total	64	15	79

Table 13: Contingency Table Data for Social Support and how it affected the handling of the relationship issues. (Fisher's Exact Test)

Social Support and its effect on Relationship Handling	Positive Outcomes (Yes)	Positive Outcomes (No)	Total
Had Someone to Talk To (Yes)	28	19	47
Had Someone to Talk To (No)	6	15	21
Total	34	34	68