European Journal of Social Sciences Studies
ISSN: 2501-8590
ISSN-L: 2501-8590
Available on-line at: www.oapub.org/soc

DOI: 10.46827/ejsss.v9i5.1650 Volume 9 | Issue 5 | 2024

MODEL OF CHEATING IN A ROMANTIC RELATIONSHIP

Exequiel R. Gono Jr.[i]
PhD, University of Mindanao,
Philippines

Abstract:
This study aimed to investigate the likelihood of cheating in a romantic relationship using predictive modeling techniques. The researchers collected data from 500 respondents who completed the Hendrick and Hendrick's Theory of Love survey questionnaire. The results indicated that friendship love received the highest mean score, while possessive love received the lowest. Sex, religion, and education are significantly associated with cheating. The researchers utilized the age and types of love as predictors in an empirical analysis of cheating in a romantic relationship. The model demonstrated a good fit and accurately represented the data. Age and altruistic love were significant predictors of cheating, while passionate and friendship love reduced the likelihood of cheating. Altruistic love contributed the most to cheating among the types of love. The findings suggest that individuals who are older and have a stronger inclination towards altruistic love are more likely to cheat in a romantic relationship. Conversely, those with a greater degree of friendship and passionate love are less likely to engage in cheating. These results underscore the importance of understanding the different types of love in predicting infidelity in a romantic relationship.

Keywords: cheating, romantic relationship, logistic regression, Philippines

1. Introduction

Cheating in a romantic relationship involves breaching the emotional or sexual commitment to one's partner by engaging in intimate connections with another person (McAnulty & Brineman, 2007). This betrayal comes in various forms, including physical affairs, emotional entanglements, or online relationships (Burke, 2016). The consequences of cheating are far-reaching, extending beyond the immediate individuals involved and impacting the very core of the relationship. The betrayed partner often experiences intense emotional pain, leading to shattered trust, heartbreak, and a profound sense of loss (Stosny, 2013). The aftermath of infidelity gives rise to communication breakdowns, conflicts, and a toxic atmosphere, affecting the overall dynamics of the relationship (Atapour, Falsafinejad, Ahmadi, Khodabakhshi-Koolaee, 2021). Rebuilding trust and

[i] Correspondence: exequielgono@umindanao.edu.ph

addressing the aftermath of cheating necessitate open communication, commitment to emotional connection, and, in some cases, seeking professional help through couples counseling.

Addressing cheating in a romantic relationship requires a comprehensive understanding of its multifaceted nature (Bagarozzi, 2007). This breach of trust goes beyond physical actions, encompassing emotional betrayals and trust erosion. The consequences ripple through the emotional and relational fabric, impacting the individuals involved and leaving lasting scars (Subotnik & Harris, 2005). Prevention involves fostering open communication, establishing clear boundaries, and nurturing emotional intimacy within the relationship. In the aftermath of cheating, rebuilding trust demands time, patience, and a genuine effort from both partners. Seeking professional guidance through couples counseling can offer a supportive space for navigating the complexities of healing, facilitating communication, and fostering a renewed commitment to building a resilient foundation for the relationship.

Cheating in a romantic relationship can lead to significant emotional distress for the betrayed partner, resulting in feelings of anger, sadness, and anxiety (Shackelford et al., 2000). The consequences may extend to mental health problems, including depression and PTSD, and even escalate to suicidal thoughts in extreme cases. Additionally, cheating can cause a breakdown of trust within the relationship, making it challenging to rebuild and leading to jealousy and suspicion (Snyder et al., 2011). Furthermore, physical health problems may arise, with an increased risk of contracting STIs and HIV/AIDS due to engaging in sexual activities with multiple partners (Jesse & Ongara, 2020). Unwanted pregnancies may also result in financial and emotional stress (Lewinsohn et al., 2018). Communication breakdowns are another consequence, hindering honest and open discussions between partners and potentially leading to resentment. Ultimately, cheating can contribute to the dissolution of the relationship, as forgiveness becomes difficult and satisfaction diminishes, according to studies by Londergan (2023) and Whisman et al. (2018).

Beyond the immediate consequences, cheating can be linked to broader relationship issues. Firstly, it may indicate a lack of commitment, as per Sternberg's Triangular Theory of Love (1986), reflecting a failure to consider the impact of actions on the partner and the relationship. Secondly, cheating may point to a deficiency in emotional intimacy, with partners seeking fulfillment outside the relationship, leading to a sense of disconnection. Thirdly, a lack of passion may be evident, as cheating may signal a search for sexual satisfaction elsewhere, causing dissatisfaction within the relationship. Additionally, cheating can highlight imbalances in the dimensions of love, where one partner may be more committed, passionate, or intimate than the other, fostering feelings of resentment. Lastly, the type of love styles, as per Lee's Love Styles Theory (1973), may influence the prevalence of cheating, with individuals displaying different love styles viewing infidelity through varying lenses, such as conquest or betrayal.

Hendrick and Hendrick's groundbreaking theory of love identifies six distinct styles – eros, ludus, storge, pragma, mania, and agape – shaping individuals' romantic experiences and behaviors (Rudnick, 2012). This comprehensive framework emphasizes

the uniqueness of each person's combination of these love styles, influencing their dynamics within romantic relationships (Shaver & Mikulincer, 2006). Of particular significance is their exploration of the correlation between love styles and infidelity, highlighting that individuals with high ludus and mania tendencies may be more prone to cheating (Fricker and Moore, 2006). Recognizing and comprehending these love styles within a partnership can be invaluable, fostering enhanced communication, trust-building, and overall fortification. Couples benefit significantly by delving into this insightful perspective, gaining a deeper understanding of themselves and their partners, and laying the groundwork for healthier, more resilient relationships.

In the Philippines, research by Siguan & Cañete (2021) highlights infidelity as a prevalent cause of marital conflict among couples. Both men and women were found to engage in extramarital affairs, with higher instances among those facing poor communication and low relationship satisfaction. Concurrently, according to the report of the National Commission on the Role of Filipino Women in 2009, marital infidelity is one of the major causes of stress among Filipino couples, with about 36 percent of men and two percent of women engaging in extramarital affairs (Lee, 2015). Similarly, studies in the United States, such as Mark et al. (2011) and Whisman et al. (2018), revealed a noteworthy prevalence of infidelity, with consequences including lower relationship satisfaction and heightened divorce rates. Notably, the rise of social media and dating apps has been identified as a facilitator of cheating in romantic relationships, as indicated by studies conducted by Hertlein and Stevenson (2010). These platforms, such as Facebook and Twitter, make it easier for individuals to reconnect with past partners and engage in emotional and sexual infidelity, reflecting the evolving role of technology in relationship dynamics.

The various studies conducted to predict cheating include studies. Cheating in romantic relationships is influenced by a myriad of demographic profiles, each contributing to the complex landscape of infidelity (Vowels, Vowels, & Mark, 2022; Fricker & Moore, 2006). Age, for instance, plays a role, with younger individuals possibly more prone to risk-taking behaviors. In comparison, older individuals may grapple with the challenges of long-term commitments, potentially leading to infidelity. Gender differences also come into play, as studies suggest that men may lean towards extradyadic sexual activities, while women may be more inclined towards emotional infidelity (Whisman et al., 2007). Marital status introduces another dimension, with unmarried or less committed individuals potentially facing different relationship dynamics that influence the likelihood of cheating (Kallay, 2019). Socioeconomic status, cultural and religious background, occupation, and technology use further contribute to the intricate web of factors shaping infidelity (Fincham & May, 2017). While these demographic profiles offer insights into the contextual understanding of cheating, it is essential to approach the topic with nuance, acknowledging that individual motivations and experiences vary widely. Addressing and preventing infidelity necessitates a comprehensive understanding of the unique dynamics within each relationship, encompassing emotional, psychological, and interpersonal dimensions.

The various styles of love, including passionate love, game-playing love, friendship love, practical love, possessive love, and altruistic love, can serve as predictors of cheating within romantic relationships (Rohmann et al., 2016). Passionate love, marked by intense emotional and physical attraction, may contribute to impulsive actions that lead to infidelity. Game-playing love, characterized by a desire for excitement and variety, could manifest as a tendency to seek novel experiences outside the relationship. While foundational for a healthy partnership, friendship and love might falter if emotional needs are unmet, potentially paving the way for infidelity. Practical love, driven by pragmatism and shared goals, may be susceptible to cheating if individuals perceive a lack of fulfillment in the relationship. Possessive love, marked by a strong desire to control and dominate, might result in acts of infidelity to assert autonomy. Altruistic love, centered on selflessness and concern for the partner's well-being, may protect against cheating. However, unrealistic expectations stemming from excessive self-sacrifice could contribute to dissatisfaction and infidelity (Hendrick & Hendrick, 2006).

The primary aim of this study is to develop a comprehensive model for predicting the likelihood of infidelity within romantic relationships. In particular, the research investigates the interplay between demographic factors such as gender, religion, and educational background. Additionally, the study aims to uncover the causal relationships between age, various types of love, and the propensity for cheating within romantic partnerships. By exploring these associations, the research provides deeper insights into the dynamics of infidelity and contributes to a better understanding of its underlying factors.

The significance of studying the influence of different love styles, namely game-playing love, friendship love, practical love, possessive love, and altruistic love, on cheating in romantic relationships is multifaceted and relevant for various contexts, such as being a student or an employee. For students, understanding the impact of love styles on cheating provides valuable insights into the dynamics of romantic relationships during a critical period of personal development. It can inform strategies for navigating relationships, fostering emotional intelligence, and promoting healthier interactions. As an employee of an academic institution, this study becomes pertinent in workplace relationships, where individuals may grapple with balancing personal and professional dynamics. Recognizing the interplay between love styles and cheating behaviors can create a more conducive and supportive work environment, ultimately influencing employee well-being and productivity. Moreover, for researchers and practitioners alike, unraveling the connection between love styles and infidelity contributes to the broader knowledge base on human behavior, aiding in the development of targeted interventions and counseling strategies to address relationship challenges in various life stages. In essence, this study carries significance in providing practical insights for personal growth, interpersonal dynamics, and the overall well-being of individuals in both academic and professional settings.

2. Material and Methods

This study employed a descriptive and predictive-causal research design with the aim of utilizing variables to construct an empirical model for forecasting licensure examination results. The predictive-causal approach involves analyzing how one variable influence another, while causation denotes the alteration in dependent variable values corresponding to a unit change in the independent variable (Tamayo, Gevera, & Aguilar, 2012). To achieve this, the study utilized maximum likelihood estimation of conditional logit (Ohlson, 1980) to maximize outcomes, and ordinary least squares to approximate estimates (White, 1980) of board exam results (Buizza, 2008). The variables considered for identifying cheating in romantic relationships include age and various types of love (such as passionate love, game-playing love, friendship love, practical love, possessive love, and altruistic love). The researchers adopted Hendrick and Hendrick's theory of love survey questionnaire as the instrument for data collection.

2.1 Model Description

In this study, the researcher used linear regression and logistic regression to predict the maximum likelihood of the occurrence of the event. The logistic regression model's response variable is binary or dichotomous (cheating or not cheating (Hosmer & Lemeshow, 1989). The dependent variable of the study is the incidence of cheating in a romantic relationship, which is dichotomous in nature. The logistic model used is P(Cheating)

$$\mathrm{P(cheated)} = \pi\,(x) = \frac{e \wedge g(x)}{1 + e \wedge g(x)}$$

and, thus

$$\mathrm{P(not\ cheated)} 1 - \mathrm{P(cheated)} = 1 - \pi\,(x) = \frac{1}{1 + e \wedge g(x)}$$

where g(x) stands for the function of the independent variables:

$$g(x) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_n x_n$$

Logistic regression employs a technique called maximum-likelihood to determine coefficients that optimize the likelihood of the observed outcome, whether a person has cheated or not (Peng et al., 2002; Gono, 2016). This method investigates how independent variables relate to a binary outcome, assuming a direct connection between cheating indicators. It posits that the likelihood of cheating increases with the rise in cheating indicators until it reaches a threshold where it equals a probability of 1, thus forming an S-shaped function. Independent variables can be either continuous or binary, with the latter requiring special coding using dummy variables. Linear regression was utilized to

forecast cheating based on the values of variables found to influence the probability of cheating in a romantic relationship.

3. Results and Discussion

Table 1 provides a comprehensive overview of the respondent distribution, revealing a predominant representation of females, individuals affiliated with the Catholic faith, and those with a college education. Moreover, it is noteworthy that a higher proportion of females, Catholics, and individuals with a college-level education reported instances of cheating. This pattern prompts a deeper exploration into the significant associations among sex, religion, and educational attainment.

A more in-depth analysis indicates a meaningful correlation between sex, religion, and educational attainment, accentuating the interconnectedness of these demographic variables. Notably, the findings align with the study conducted by Fincham and May (2017), which underscores a significant association between sex and infidelity. Additionally, the research by Mark, Janssen, and Milhausen (2011) establishes a pertinent link between demographic profiles and the occurrence of cheating in romantic relationships, further corroborating the relevance of these demographic factors in understanding infidelity dynamics.

Table 1: Distribution of Respondents

Profile	Cheated		p-value
	Yes	No	
Sex			
Male	12	56	<0.001
Female	16	109	
Prefer not to say	3	6	
Religion			
Catholic	19	124	0.042
Non-Catholic	12	47	
Educational Attainment			
College Level	30	163	0.003
College Graduate	1	8	

Table 2 provides a comprehensive overview of the varying levels within romantic relationships, as delineated by Hendrick and Hendrick's influential theory of love. This framework categorizes love into distinct types, each characterized by unique attributes and nuances. Notably, all identified types of love within the study garnered remarkably high mean scores, underscoring the prevalence of profound emotional connections within the surveyed relationships.

Delving into the specifics, it is intriguing to observe that among the different categories of love, possessive love emerged with the lowest mean score, registering at a statistically significant value of 3.84 with a standard deviation (SD) of 0.68. This lower mean suggests that possessive love, within the context of the studied romantic relationships, is less pronounced or commonly experienced than other forms of affection.

Conversely, the category of Friendship love claimed the apex, boasting the highest mean score at 4.05 with a relatively lower standard deviation of 0.53. This finding indicates that Friendship love, as conceptualized within Hendrick and Hendrick's theory, is particularly prevalent and strongly expressed among the individuals surveyed. The elevated mean score suggests a substantial manifestation of camaraderie, mutual respect, and shared experiences within these romantic relationships.

Table 2: Level of Romantic Relationship in Terms of Love

Indicators of Love	Mean	SD	Minimum	Maximum
Passionate Love	3.93	0.54	2.29	5
Game-playing Love	3.88	0.75	1.43	5
Friendship Love	4.05	0.53	1.00	5
Practical Love	3.96	0.55	1.00	5
Possessive Love	3.84	0.68	1.20	5
Altruistic Love	4.00	0.54	2.71	5

Table 3.1 and 3.2 present a comprehensive empirical analysis delving into the intricate dynamics of cheating within romantic relationships, focusing on various profiles and types of love. The statistical model employed in this study has demonstrated its robustness as the best fit, substantiated by a p-value below the conventional threshold of 0.05. It indicates that the model effectively encapsulates and represents the acquired data on infidelity within romantic relationships. Furthermore, the discerning examination of the enter variables within the model reveals that each holds predictive power concerning the likelihood of someone cheating in a romantic relationship. It signifies that the collective interplay of these variables serves as a reliable predictor for infidelity, emphasizing the multifaceted nature of cheating behavior.

3.1 Model Summary

Table 3.1: Best Fit Model Summary

Model	Deviance	AIC	BIC	df	X^2	p	McFadden r^2	Nagelkerke r^2	Tjur r^2	Cox & Snell r^2
H_0	165.58	167.56	170.9	199	37.85	< .001	0.23	0.31	0.22	0.17
H_1	127.72	151.72	191.3	188						

Expanding on the specific predictors, the age of the respondents emerges as a noteworthy factor contributing to the likelihood of engaging in an affair. Altruistic love, characterized by selfless and compassionate affection, is also identified as a significant predictor of cheating. Intriguingly, passionate love and friendship love exhibit inverse effects on the chances of cheating, acting as deterrents to infidelity. Moreover, closer scrutiny of the type of love reveals that among the various categories, altruistic love stands out as the most influential contributor to cheating within a romantic relationship. This finding underscores the complex interplay between different forms of love and their impact on relationship fidelity.

Assessing the model's performance metrics provides a comprehensive understanding of its efficacy in predicting cheating within romantic relationships. The model's overall accuracy of 88% signifies that it successfully predicted the outcomes in 88% of the cases within the dataset. This metric clearly indicates the model's proficiency in capturing the nuances of cheating behavior. The high specificity of 97% indicates the model's exceptional ability to accurately identify individuals who did not cheat. In other words, it correctly labeled 97% of cases without cheating. This metric is crucial to the model's precision in avoiding false positives, highlighting its reliability in discerning faithful individuals within a relationship. Conversely, the model's precision of 67% unveils its performance in correctly identifying cases where cheating occurred out of all the instances it predicted. While this metric reflects a substantial degree of accuracy, it also indicates that 67% of the predicted cheating cases were accurate, leaving room for improvement in avoiding false negatives.

3.2 Coefficients and Diagnostic Performance

Table 3.2: Empirical Analysis of Cheating as predicted by Age, Passionate Love, Game-playing Love, Friendship Love, Practical Love, Possessive Love and Altruistic Love

Variables	Estimate	SE	Odds Ratio	p-value	95% CI	
					LB	UB
(Intercept)	-3.642	2.296	0.026	0.113	-8.143	0.859
Age	0.171	0.056	1.186	0.002*	0.061	0.281
Passionate Love	-1.402	0.65	0.246	0.031*	-2.676	-0.128
Game-playing Love	0.5	0.48	1.649	0.297	-0.44	1.44
Friendship Love	-2.081	0.701	0.125	0.003*	-3.456	-0.707
Practical Love	0.342	0.656	1.407	0.602	-0.943	1.626
Possessive Love	0.054	0.495	1.056	0.913	-0.917	1.025
Altruistic Love	2.198	0.686	9.005	0.001*	0.853	3.543

*Significant @p-value<0.05
Model Performance: Model Accuracy= 88% Model Specificity= 97%
Model Precision= 67% Overall model Accuracy= 83%

In terms of predictors of cheating, passionate love, friendship love, altruistic love, and age significantly predict cheating in romantic relationships. Specifically, age and altruistic love contribute to cheating in a romantic relationship, while passion and friendship love pull down the chances of cheating. The research suggests a compelling association between specific love styles and the likelihood of infidelity in romantic relationships. Notably, the study conducted by Pimentel et al. (2017) unveils a significant correlation between higher levels of passionate and companionate love and a decreased tendency to engage in infidelity. Passionate and friendship love are two of the six love styles proposed by Hendrick and Hendrick (1986) in their theory and method of love. Passionate love refers to an intense and romantic love characterized by strong emotional and physical attraction. In contrast, friendship love refers to a comfortable and companionable love based on mutual respect and shared interests.

The protective nature of passion friendship, and love against cheating may stem from various interconnected factors. Individuals immersed in these love styles often exhibit heightened commitment and attachment to their partners. This commitment, particularly in passionate love, establishes a strong emotional bond that deters from seeking alternative relationships (Hatfield & Rapson, 1993). Secondly, both passion and friendship love foster positive emotions toward one's partner, contributing to overall relationship satisfaction. This satisfaction, as suggested by Walz (2015), may mitigate the inclination for extramarital affairs, creating a stable foundation for the romantic relationship. Furthermore, the emotional resilience afforded by passionate love helps couples navigate challenges in long-term relationships, while the stability and support inherent in friendship love contribute to preventing cheating (Campbell et al., 2005).

Contrastingly, a study by Allen and Baucom (2004) indicates a higher likelihood of infidelity among younger individuals, potentially attributed to their relative lack of life experience and emotional maturity. Additionally, older individuals seeking to compensate for missed experiences may also be prone to engaging in infidelity (Mark et al., 2011). Altruistic love, characterized by selfless acts and sacrifice, introduces a nuanced perspective. While associated with positive qualities, research by Mark et al., (2011) suggests that individuals high in altruistic love may paradoxically be more susceptible to infidelity. This vulnerability may arise from prioritizing their partner's needs over their own, leading to resentment and dissatisfaction over time. Moreover, individuals high in altruistic love may be more prone to emotional affairs, wherein an intimate and emotional connection forms outside the primary relationship. Altruistic individuals' inclination to develop empathic relationships, even if non-sexual, may contribute to this susceptibility (Schulsinger, 2022).

Table 4 presents simulations illustrating the occurrence of infidelity within romantic relationships at 83% accuracy. At 28 years old, individuals with an average rating across all types of love (x=3.0) exhibit an 81.89% probability of engaging in cheating behavior. Conversely, at the age of 45, individuals with a high level of love intensity (x=5.0) demonstrate a notably higher likelihood of cheating, reaching 82.32%. However, when examining Model 6, where individuals at the age of 45 with a lower level of altruistic love, game-playing love, possessive love, and altruistic love, the probability of infidelity diminishes substantially to 81.99%. It represents a reduction of 0.51% in the probability of cheating compared to the scenario with higher levels of these types of love.

Table 4: Simulation of Cheating in Romantic Relationship

Model	Age	PasL	GPL	FL	PrL	PosL	AL	*Bo*	*B1*	*B2*	*B3*	*B4*	*B5*	*B6*	*B7*	Probability of Cheating
								0.03	1.19	0.25	1.65	0.13	1.41	1.06	9.01	
1	28	3.0	3.0	3.0	3.0	3.0	3.0	0.03	33.32	0.75	4.95	0.39	4.23	3.18	27.03	81.89
2	33	3.5	3.5	3.5	3.5	3.5	3.5	0.03	39.27	0.88	5.78	0.46	4.94	3.71	31.54	82.05
3	35	4.0	4.0	4.0	4.0	4.0	4.0	0.03	41.65	1.00	6.60	0.52	5.64	4.24	36.04	82.14
4	40	4.5	4.5	4.5	4.5	4.5	4.5	0.03	47.60	1.13	7.43	0.59	6.35	4.77	40.55	82.24
5	45	5.0	5.0	5.0	5.0	5.0	5.0	0.03	53.55	1.25	8.25	0.65	7.05	5.30	45.05	82.32
6	45	5.0	1.0	5.0	1.0	1.0	1.0	0.03	53.55	1.25	3.30	0.65	2.82	2.12	18.02	81.99

Legend: PasL - Passionate Love; GPL - Game-playing Love; FL - Friendship Love; PrL - Practical Love; PosL - Possessive Love; AL - Altruistic Love.

4. Conclusion

This study has undertaken a comprehensive exploration of the multifaceted factors influencing romantic relationships, particularly in the context of infidelity. Utilizing Hendrick and Hendrick's theory of love to assess various levels of romantic relationships, our Analysis reveals consistently high mean scores across all types of love. However, a more nuanced examination exposes that possessive love received the lowest mean score, while Friendship love attained the highest mean score.

In the empirical analysis of cheating within romantic relationships, our statistical model, identified as the best fit with a p-value < 0.05, substantiates its efficacy in accurately representing the acquired data on infidelity. Remarkably, each entered variable emerges as a valuable predictor, contributing to the identification of individuals prone to cheating in romantic relationships.

Specifically, the age of respondents, passionate love, friendship love, and altruistic love emerge as pivotal predictors of cheating behavior. Age and altruistic love are associated with an increased likelihood of engaging in an affair, while passionate and friendship love act as protective factors, diminishing the probability of cheating. A deeper exploration into the types of love underscores altruistic love as the most influential contributor to infidelity within romantic relationships.

Based on the findings of the study, the model of cheating in a romantic relationship is expressed by the equation,

$$\text{P(cheating)} = \frac{e^{-3.642 + 0.171Age - 1.402PasL + 0.5GPL - 2.081FL + 0.342PrL + 0.054PosL + 2.198AL}}{1 + e^{-3.642 + 0.171Age - 1.402PasL + 0.5GPL - 2.081FL + 0.342PrL + 0.054PosL + 2.198AL}}$$

Where:
PasL = Passionate Love,
GPL = Game-playing Love
FL = Friendship Love,
PrL = Practical Love,
PosL = Possessive Love,
AL = Altruistic Love.

Conflict of Interest Statement
The author declares no conflicts of interest.

About the Author
Exequiel R. Gono Jr. is a graduate school faculty member at the College of Teacher Education of University of Mindanao, Matina Campus. He is a member of the Philippine Statistical Association, the Philippine Association of Researchers and Statistical Software Users, The Philippine Association for Teacher Education, Mathematics Teacher Education, and the Philippine eLearning Society (Member). His research interests are Mathematics Education, Assessment of Learning, Mathematical Modeling, and Applied

Statistics. Dr. Gono has authored and co-authored research publications such as Probabilistic Estimation of Passing the Pharmacist Licensure Examination, Redefinition of the Parameters of Meaningful Mathematics Learning, Obstacles in Pursuing Business among Entrepreneurship Students, Status of mangroves and faunistic components in Vanishing Island, Island Garden City of Samal, and Estimating Technical Efficiency of Academic Departments of a Philippine Higher Education Institution.

References

Allen, E. S., Atkins, D. C., Baucom, D. H., Snyder, D. K., Gordon, K. C., & Glass, S. P. (2005). Intrapersonal, interpersonal, and contextual factors in engaging in and responding to extramarital involvement. Clinical Psychology, 12 (2), 101–130. doi: http://dx.doi.org/10.1093/clipsy/bpi014

Atapour, N., Falsafinejad, M. R., Ahmadi, K., & Khodabakhshi-Koolaee, A. (2021). A study of the processes and contextual factors of marital infidelity. *Practice in Clinical Psychology*, *9*(3), 211-226.

Bagarozzi Sr, D. A. (2007). Understanding and treating marital infidelity: A multidimensional model. *The American Journal of Family Therapy*, *36*(1), 1-17.

Buizza, R. (2008). The value of probabilistic prediction. Atmospheric Science Letters, 9(2), 36-42.

Burke, R. J. (2016). Psychologically intimate, romantic, and sexually intimate relationships in the workplace. In *Risky Business* (pp. 227-260). Routledge.

Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: the role of attachment anxiety. *Journal of personality and social psychology*, *88*(3), 510.

Fincham, F. D., & May, R. W. (2017). Infidelity in romantic relationships. *Current opinion in psychology*, *13*, 70-74.

Fricker, J., & Moore, S. (2006). *Predicting infidelity: The role of attachment styles, lovestyles, and the investment model*. Melbourne, Australia: Swinburne University of Technology.

Gono, E. R. (2016). Probabilistic estimation of passing the pharmacist licensure examination. *University of Mindanao International Multidisciplinary Research Journal*, *1*(2), 132-139.

Hertlein, K. M., & Stevenson, A. (2010). The Seven "As" Contributing to Internet-Related Intimacy Problems: A Literature Review. *Cyberpsychology*, *4*(1).

Hatfield, E., & Rapson, R. L. (1987). Passionate love/sexual desire: Can the same paradigm explain both?. *Archives of sexual behavior*, *16*, 259-278.

Hendrick, C., & Hendrick, S. S. (2006). Styles of romantic love. *The new psychology of love*, 149-170.

Kallay, R. H. (2019). *Perceptions of Online Cheating: Impact of Age, Gender, and Sexual Preference* (Doctoral dissertation, Walden University).

Jesse, A. M., & Ongara, S. (2020). Premarital Sexual Relationships and Academic Performance among University Students: A Case of Ardhi University, Tanzania.

Londergan, K. (2023). *The Aftermath of Infidelity and Its Intergenerational Transmission from an Attachment Perspective* (Doctoral dissertation, Adler University).

Lee, J.A. (1973) *The Colors of Love: An Exploration of the Ways of Loving*. Toronto: New Press.

Lee (2015). Have a break, have an affair?. Manila Standard

Lewinsohn, R., Crankshaw, T., Tomlinson, M., Gibbs, A., Butler, L., & Smit, J. (2018). "This baby came up and then he said,"I give up!": The interplay between unintended pregnancy, sexual partnership dynamics and social support and the impact on women's well-being in KwaZulu-Natal, South Africa. *Midwifery*, *62*, 29-35.

Mark, K. P., Janssen, E., & Milhausen, R. R. (2011). Infidelity in heterosexual couples: Demographic, interpersonal, and personality-related predictors of extradyadic sex. *Archives of sexual behavior*, *40*, 971-982.

McAnulty, R. D., & Brineman, J. M. (2007). Infidelity in dating relationships. *Annual review of sex research*, *18*(1), 94-114.

Ohlson J. A. (1980). Financial ratios and the probabilistic prediction of bankruptcy. Journal of Accounting Research, 18(1), 109-131.

Peng, C. Y. J., Lee, K. L., & Ingersoll, G. M. (2002). An introduction to logistic regression analysis and reporting. The Journal of Educational Research, 96 (1), 3-14.

Rohmann, E., Führer, A., & Bierhoff, H. W. (2016). Relationship satisfaction across European cultures: The role of love styles. *Cross-Cultural Research*, *50*(2), 178-211.

Rudnick, H. (2012). *Lovestyles and marital satisfaction*. University of Johannesburg (South Africa).

Schulsinger, D. R. (2022). *Emotional Intelligence and Gender as Predictors of Infidelity among Heterosexual, Monogamous Couples* (Doctoral dissertation, Walden University).

Shackelford, T. K., LeBlanc, G. J., & Drass, E. (2000). Emotional reactions to infidelity. *Cognition & Emotion*, *14*(5), 643-659.

Shaver, P. R., & Mikulincer, M. (2006). A behavioral systems approach to romantic love relationships: Attachment, caregiving, and sex. *The new psychology of love*, 35-64

Siguan, A. N. D. R. E. W., Ong, M. F. T., & Cañete, S. I. M. (2021). The impact of infidelity on Filipino family dynamics and young adult Filipino's self-concept. *MALIM: Jurnal Pe Pengajian Umum Asia Tenggara*, *22*(2021), 14-37.

Snyder, D. K., Gasbarrini, M. F., Doss, B. D., & Scheider, D. M. (2011). Intervening with military couples struggling with issues of sexual infidelity. *Journal of contemporary psychotherapy*, *41*, 201-208.

Sternberg, R.J. (1997). Construct validation of a triangular love scale. European Journal of Social Psychology, 27, 313– 335

Stosny, S. (2013). *Living and loving after betrayal: How to heal from emotional abuse, deceit, infidelity, and chronic resentment*. New Harbinger Publications.

Subotnik, R. B., & Harris, G. (2005). *Surviving infidelity: Making decisions, recovering from the pain*. Simon and Schuster.

Tamayo, Gevera and Aguilar (2012). A Probabilistic Estimation of Passing the Licensure Examination for Accountant. College of Accounting Education University of Mindanao

Vowels, L. M., Vowels, M. J., & Mark, K. P. (2022). Is infidelity predictable? Using explainable machine learning to identify the most important predictors of infidelity. *The Journal of Sex Research*, *59*(2), 224-237.

Walz, G. M. (2015). Marriage: Passion, Friendship & Vocation.

Whisman, M. A., Gordon, K. C., & Chatav, Y. (2007). Predicting sexual infidelity in a population-based sample of married individuals. *Journal of Family Psychology*, *21*(2), 320.

White, H. (1980). Using least squares to approximate unknown regression functions. *International Economic Review* 21(1), 149-170.