



Does Shyness Foster Online Connections? An Analysis of Its Role in Relationship Initiation

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Abstract. Relationships developed online represent a new way for individuals to form personal connections with others. Shy individuals feel more comfortable interacting online because there is no direct evaluation when interacting with others. The purpose of this study is to examine the relationship between shyness and the initiation of online relationships. This study employed a quantitative research method with a cross-sectional design. The population in this study consists of young adults who use online media. The sample was selected using non-probability sampling, specifically convenience sampling (accidental sampling), comprising 100 participants. Analysis was conducted using simple and multiple linear regression. The results indicate that online relationship initiation does not have a significant effect on shyness ($\beta = -0.128$; $p = 0.205$). In the multiple regression model, only the romantic dimension had a significant effect and was negatively correlated with shyness ($\beta = -0.429$; $p = 0.014$), whereas friendship and sex were not significant. The coefficient of determination ($R^2 = 0.072$) indicates that the contribution of relational variables to shyness is relatively small. These findings suggest that romantic relationships in online relationships have the potential to serve as a protective factor against social inhibition. This study enriches the literature on the psychological dynamics of initiating online relationships by emphasizing the importance of relationship depth over the mere existence of social connections.

Keywords: Online Relationship; Psychological Dynamics; Romantic Relationships; Shyness; Young Adults.

1. INTRODUCTION

Online relationships are a new phenomenon that has become an integral part of today's society. Online platforms provide a space for individuals to interact with others without revealing the insecurities they may feel in face-to-face interactions, such as physical appearance, which can hinder an individual's ability to socialize. People are particularly drawn to online relationships due to a strong desire to form connections. Additionally, the vastness of the virtual world offers freedom and easy access to the outside world (Wolak et al., 2003). The individuals involved in these online relationships are often those who struggle with face-to-face interactions (McKenna & Bargh, 1998).

The way online relationships begin and develop varies depending on where individuals meet in the digital world. Various online platforms are available for individuals to meet online, which can lead to the development of friendships, romantic relationships, or even sexual relationships. These services allow individuals to create profiles where they can provide personal information, such as photos, age, gender, personality, hobbies, and so on (Whitty & Carr, 2017). The number of people involved in online relationships is on the rise. A study by Parks & Floyd (in Carpenter et al., 2020) shows that two out of three people have formed a personal relationship with someone they met online. The number of individuals participating in online relationships will continue to rise because online platforms are easily and widely accessible. More than a third of marriages in the United States stem from online meetings;

many friendships begin on social media; and some people end their relationships because they find it easy to find a partner online (Harris, 2016). According to Hootsuite & We Are Social (as cited in Baun & Rahayu, 2023), social media users in Indonesia are dominated by those aged 18–24 often referred to as young adults who rank as the second-largest user group in the country. According to APJII (2020), internet users aged 19–34 or young adults account for 98.64% of the total.

Online relationships form the foundation of personal happiness within the context of contemporary social cohesion that is, an individual's ability to create a safe environment through the fulfillment of life's needs (Harris, 2016). Online relationships have become a tangible space for the development and learning of young people, particularly in early adulthood, where they can freely express themselves and face the major challenges of their age namely, taking on responsibilities across various aspects of social and personal life, including romantic relationships (Brown & Bobkowski, 2011; Shulman & Connolly, 2013). Research on online behavior among young adults was conducted by Subrahmanyam & Smahel (2011), which found that young adults primarily use the internet to communicate and develop their relationships.

There are various factors that lead individuals to engage in online relationships, namely shyness, gender, self-confidence, and the duration of online relationship involvement. Shyness is a self-concept disturbance that is more prevalent among women. Women face issues related to a lack of social support from their friends and difficulties in face-to-face relationships (Ward & Tracey, 2004). For individuals with high levels of shyness, online relationships are easier to maintain than face-to-face ones. This is because online relationships do not require face-to-face interaction and involve more communication than face-to-face conversations. It is possible that shy individuals may be more successful at interacting online than in person (Ward & Tracey, 2004). Shy individuals feel more comfortable communicating online because there is no immediate evaluation when interacting with others (Bardi & Brady, 2010). Roberts et al (in Appel & Gnambs, 2018) note that in online media, shy individuals can hide or enhance their appearance during interactions. Shy individuals view online media as a space where they can interact with others without worrying about being seen as strange or ridiculed.

Shyness is a state experienced by individuals in social situations, characterized by feelings of awkwardness, low self-confidence, and anxiety. This can lead individuals to experience negative emotions that cause them to withdraw from their social environment (Rubin & Asendorpf, 2014). According to Henderson and Zimbardo (2014), there are four aspects of shyness: 1) Behavioral, such as daydreaming, speaking in a soft and unclear voice,

avoiding eye contact with the person being spoken to, and feeling nervous when interacting with others; 2) Physiological, such as a dry mouth, feeling weak, trembling, increased heart rate, feeling nauseous and dizzy, and feeling undervalued by others; 3) Cognitive, such as self-blame, believing oneself to be stupid, and being a perfectionist due to fear of being negatively judged by others; 4) Affective, such as feeling inferior, sad, excessively anxious, lonely, and even depressed.

There are several factors that are believed to influence shyness, including: 1) Experiences of social rejection, authoritarian parenting, and the environment; 2) Internet dependency or internet addiction; and 3) Feelings of loneliness. Shy individuals face obstacles in their daily lives, such as difficulty forming relationships with others, difficulty expressing themselves, difficulty thinking clearly, experiencing anxiety and loneliness, leading to depression, and even causing social anxiety (Zimbardo, 1977). There is some support for the assumption that these online relationships serve as an alternative for shy individuals. Curtis (in Ward & Tracey, 2004) discusses how one of the main attractions of online relationships for participants is the minimal social risk, as individuals do not have to meet their partners in person. Participants in this study were more willing to initiate conversations with strangers than with people they met in real life. McKenna (in Ward & Tracey, 2004) found that socially anxious individuals are more likely to form relationships through online media. Shy individuals are more likely to participate in online relationships than less shy individuals.

Research on the relationship between shyness and online relationship engagement has been previously examined by Ward & Tracey (2004). The primary focus of this study involved examining the relationship between shyness and specific aspects of online relationship engagement. This study also included the variables of relationship satisfaction, social support, number of friends, and interpersonal competence. The population in this study was also college students. The study by Baker & Oswald (2010) also examined the relationship between the use of online sites among shy individuals. The online site used in the study focused solely on the Facebook application. This study included the variables of social support, loneliness, and friendship quality. There are differences between this study and previous research. This study focuses exclusively on shyness in the context of online relationships. Since the sample in this study consists entirely of college students, future research could explore whether these findings also apply to individuals outside the student population who engage in online relationships. The population of this study includes not only college students but also young adult women who use online platforms. From a young age, women in Indonesia have been shaped by values steeped in patriarchal ideology. They are positioned as shy, weak, submissive figures, confined

to domestic affairs. This patriarchal environment discourages women from taking an active role in the public sphere. Consequently, their voices both in private and public spaces go unheard. Furthermore, the media reinforces certain stereotypes about how women should behave and present themselves, thereby depriving them of the freedom to express themselves in accordance with their own identities and imaginations (Kristina, 2014).

2. METHOD

The method used in this study is a quantitative research method with a cross-sectional design. The population in this study consists of young adult women who actively use online media (dating apps, Instagram, Twitter, Facebook, and others). Their daily social media usage also exceeds 3 hours. Based on a study conducted by We Are Social in 2020 (as cited in Sinaga & Aritonang, 2023), Indonesians spend an average of approximately 3 hours and 46 minutes per day actively using social media via their mobile phones. The sample was drawn from the population using a non-probability sampling technique, specifically convenience sampling (accidental sampling). The sample size for this study was determined using the Lemeshow formula because the population size is unknown or infinite, resulting in a sample of 100 respondents.

The instrument used in this study is a shyness scale developed by Ahmad Ridfah and Sitti Murdiana, which was reviewed and utilized by Muh Septian Syukur. This measurement tool is considered reliable, with a Cronbach's alpha coefficient of 0.858. The raw variance explained by the measures is 32.5%. The response options were Very Disagree, Disagree, Neutral, Agree, and Very Agree. The Online Relationship variable was measured using the Online Relationship Initiation Scale. The scale consists of 9 items; six items assess perceived involvement and success in online relationships, scored from 1 = never to 5 = often, while three items compare the development of online relationships with offline ones, scored from 1 = not at all to 5 = much easier. A reliability coefficient of ≥ 0.80 is adequate for research; validity was analyzed using exploratory factor analysis (EFA) and McDonald's omega hierarchical analysis. The data analysis techniques used were simple regression and multiple linear regression. The normality assumption test was conducted using the Shapiro-Wilk test.

3. RESULT AND DISCUSSION

Result

Table 1. Result of the Regression Analysis of Shyness.

Model	R	R ²	Adjusted R ²	RMSE
M ₀	0.000	0.000	0.000	14.53
M ₁	0.128	0.016	0.006	14.49

Note: M₁ includes Oris.

The results of the regression analysis show that shyness has a very small contribution to the intensity of online relationships ($R^2 = 0.016$). This means that only 1.6% of the variation in the intensity of online relationships can be explained by shyness. The low adjusted R^2 value (0.006) indicates that the model has very weak predictive power.

Table 2. Result of the Regression Analysis of Shyness to Online Relationships.

Model	Sumber Variasi	Sum of Squares	df	Mean Square	F	p
M ₁	Regression	341.3	1	341.3	1.627	0.205
	Residual	20564.8	98	209.8	–	–
	Total	20906.1	99	–	–	–

The results of the regression analysis indicate that shyness makes a very small contribution to the intensity of online relationships. The model incorporating shyness yielded an R value of 0.128, with an R^2 of 0.016 and an adjusted R^2 of 0.006, meaning that shyness explains only about 1.6% of the variation in the intensity of online relationships. The decrease in RMSE from 14.53 to 14.49 indicates a minimal improvement in predictive accuracy. Overall, these findings suggest that shyness is not a strong predictor of online relationship intensity.

Table 3. Result of the Regression Analysis.

Model	R	R ²	Adjusted R ²	RMSE
M ₀	0.000	0.000	0.000	14.53
M ₁	0.128	0.016	0.006	14.49

Note: M₁ includes Oris.

The results of the regression analysis show that adding the shyness variable to the model yields an R value of 0.128, with an R^2 of 0.016 and an adjusted R^2 of 0.006. This indicates that shyness explains only 1.6% of the variation in the intensity of online relationships. The decrease in RMSE from 14.53 to 14.49 indicates a very minimal improvement in predictive ability. Overall, the contribution of shyness to the intensity of online relationships is relatively weak.

Table 4. Result of the Pearson Correlation Analysis.

Variable 1	Variable 2	Pearson's r	p	VS-MPR [†]
Shy	Oris	-0.128	0.205	1.132

[†] Vovk-Sellke Maximum p-Ratio: Based on the p-value, the maximum possible odds in favor of H_1 over H_0 equals $1/(-e p \log(p))$ for $p \leq .37$ (Sellke, Bayarri, & Berger, 2001).

The results of the Pearson correlation analysis indicate that there is a weak negative correlation between shyness and the intensity of online relationships ($r = -0.128$); however, this correlation is not statistically significant ($p = 0.205$). This suggests that the level of shyness does not correlate significantly with the intensity of online relationships.

Table 5. Result of the Shapiro-Wilk Test for Bivariate Normality.

Variable 1	Variable 2	Shapiro-Wilk	p
Shy	Oris	0.826	< .001

The results of the Shapiro–Wilk test for bivariate normality showed a W value of 0.826 With $p < 0.001$. These results indicate that the assumption of normality is not met, meaning the data are not normally distributed in a bivariate context.

Table 6. Result of the Regression Analysis of the Shyness to Variable Frn, Shy, Sex.

Model	R	R ²	Adjusted R ²	RMSE
M ₀	0.000	0.000	0.000	14.53
M ₁	0.268	0.072	0.043	14.22

Note: M₁ includes Frn, Rom, Sex.

The results of the regression analysis show that the model incorporating the shyness variable along with Frn, Rom, and Sex (M₁) yielded an R value of 0.268, with an R² of 0.072 and an adjusted R² of 0.043. This indicates that the model explains 7.2% of the variation in the intensity of online relationships. Additionally, there was a decrease in RMSE from 14.53 to 14.22, indicating an improvement in predictive ability compared to the model without predictors, although the contribution remains relatively small.

Table 7. Result of the ANOVA Test.

Model	Sum Variasi	Sum of Squares	df	Mean Square	F	p
M ₁	Regression	1502	3	500.6	2.477	0.066
	Residual	19404	96	202.1	–	–
	Total	20906	99	–	–	–

The results of the ANOVA test indicate that the regression model including the variables Frn, Rom, and Sex is not significant at the 0.05 level, $F(3, 96) = 2.477$, $p = 0.066$. Nevertheless, the p-value, which is close to the significance threshold, suggests a potential relationship; however, the model as a whole cannot yet be deemed statistically significant.

Table 8. Result of the Regression Coefficient Analysis.

Model	Predictor	Unstandardized	Standard Error	Standardized	t	p
M ₀	(Intercept)	85.170	1.453	–	58.609	< .001
M ₁	(Intercept)	97.864	6.324	–	15.474	< .001
	Frn	0.043	0.856	0.009	0.050	0.960
	Rom	-2.270	0.907	-0.429	-2.503	0.014
	Sex	1.142	0.781	0.271	1.461	0.147

The results of the regression coefficient analysis indicate that the Rom variable has a significant effect on the intensity of online relationships ($\beta = -0.429$; $t = -2.503$; $p = 0.014$), with a negative relationship. Meanwhile, the Frn variable ($\beta = 0.009$; $p = 0.960$) and the Sex variable ($\beta = 0.271$; $p = 0.147$) did not show a significant effect. These findings indicate that, in the tested model, only the Rom dimension contributes significantly to predicting the intensity of online relationships.

Discussion

This study aims to examine the role of shyness in the initiation of online relationships and to explore how the dimensions of Friendship, Romance, and Sex relate to these dynamics. The results indicate that the contribution of these variables to Shyness is relatively small. However, the findings demonstrate that the romantic relationship dimension (Rom) has a significant influence. This implies that shyness does not play a major role in online relationships in general, but becomes significant when the relationship is romantic and more intimate. These findings suggest that social inhibition has a greater impact on relationships involving emotional depth compared to general social interactions.

Theoretically, shyness is a form of social inhibition associated with an individual's tendency to feel uncomfortable, awkward, and anxious about social evaluation (Leary & Kowalski, 1995). In offline situations, shy individuals tend to have difficulty initiating relationships due to their fear of social rejection. However, the dynamics of online relationship initiation can be different. The Hyperpersonal Communication model (Walther, 1996) suggests that online communication allows individuals to selectively control their self-presentation. Shy individuals feel safer because they are not communicating face-to-face and there is less pressure from direct evaluation.

The results of the study indicate that shyness does not have a significant effect on online relationship initiation (Oris). This means that a general tendency toward online relationships is not directly determined by the level of shyness. This finding aligns with McKenna, Green, and Gleason (2002), who explain that individuals with inhibited social tendencies are indeed more

interested in online interactions, but the level of intimacy formed is more determined by self-disclosure than by individual personality characteristics.

The regression results indicate that the shyness variable (Shy) does not have a significant effect on friendship (Frn). This suggests that one's orientation toward friendships is not directly related to an individual's level of shyness. Theoretically, friendship does play a role in social development and self-adjustment. However, not all forms of social relationships possess sufficient emotional depth to influence personality structure (Rubin et al., 2009). Therefore, the influence of friendship on shyness may be more indirect in nature.

Online friendships often serve as the starting point for the formation of interpersonal relationships (Valkenburg & Peter, 2009). Research conducted by Antheunis, Valkenburg, and Peter (2007) indicates that interpersonal attraction in online communication develops through message exchange and increased interaction frequency, rather than through relationship labels. Therefore, friendship in an online context is more instrumental in nature and does not directly reduce shyness. Shyness has a significant negative influence on romantic variables (Rom). Thus, the higher the shyness score, the lower the level of romantic interest. This means that the more shy an individual is, the lower their intention to form romantic relationships. Conversely, the less shy an individual is, the higher their intention to form romantic relationships. This finding is consistent with Attachment Theory (Bowlby, 1969; Hazan & Shaver, 1987), which states that secure romantic relationships can form positive internal working models regarding oneself and others. Individuals who feel accepted and valued in intimate relationships tend to have higher social security, thereby reducing fear of negative evaluation.

Furthermore, according to the Online Disinhibition Effect perspective (Suler, 2004), which posits that online romantic interactions may increase self-disclosure due to relative anonymity and control over communication, this can accelerate the formation of emotional closeness, particularly for individuals who face social barriers in offline relationships. According to the Romantic Development in Digital Contexts perspective (Fox & Warber, 2013), social media and online platforms serve as spaces for exploring romantic identity among young adults. This process can enhance interpersonal competence and reduce social inhibition.

Shyness does not show a significant effect on the Sex variable. According to Peter Valkenburg (2007), sexual dimensions often serve as a motivation for exploring online relationships. However, sexual motivation is not always related to levels of social anxiety. Individuals can have sexual motivation in online interactions without experiencing significant changes in their level of shyness. Thus, shyness is more closely related to evaluative concern than to sexual orientation.

The relatively low values of the multiple regression model indicate that the primary factors underlying shyness likely stem from intrapersonal variables such as social anxiety, self-esteem, behavioral inhibition, and rejection sensitivity. These findings support a biopsychosocial approach, in which relational factors act as moderators rather than primary determinants. In online relationship initiation, shyness does not entirely act as a barrier. On the contrary, online platforms can function as a form of social compensation, whereby individuals with social limitations offline utilize social media to build relationships (Valkenburg & Peter, 2009). However, only the romantic dimension (Rom) showed a significant contribution in reducing shyness.

This study has limitations, including a low coefficient of determination, a cross-sectional design that does not allow for causal conclusions, and the use of self-report instruments that are susceptible to social bias. Future research could employ a longitudinal design, include mediating variables such as self-esteem or attachment style, and examine the role of the intensity of digital platform use.

4. CONCLUSION

This study indicates that shyness does not play a significant role in the initiation of online relationships; thus, the tendency to initiate online relationships is not directly determined by an individual's level of social inhibition. Partially, only the romantic dimension exhibits a significant negative influence, suggesting that individuals with higher levels of shyness tend to have lower intentions to form romantic relationships. Meanwhile, the friendship and sex dimensions do not have a significant influence. These findings suggest that the role of shyness in the context of online relationships is contextual and limited. Online interaction can serve as a means of social compensation, but it does not directly reduce social inhibition except in the context of more intimate relationships, such as romantic ones. Overall, shyness is more influenced by intrapersonal factors than relational factors in the dynamics of online relationships.

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