

The mediating role of communication skills in the relationship between phubbing and marital intimacy among couples.

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Abstract

Aim: This study aimed to investigate the mediating role of communication skills in the relationship between phubbing and marital intimacy among couples in Neka city.

Method: The research method was a descriptive correlational research with a structural equation approach. The statistical population included all couples in Neka city, from which a sample of 150 couples was selected using the convenience sampling method. To collect research data, Barton's Communication Skills Questionnaire (1998), Chotpitayasunondh and Douglas's Phubbing Questionnaire (2018), and Thompson and Walker's Marital Intimacy Questionnaire (1983) were used. Descriptive statistics methods (frequency, mean, standard deviation, and normality of data) were used to analyze the data in SPSS version 26, and path analysis method via SmartPLS was employed to examine model fit.

Result: The results of data analysis indicated that the GOF, NFI, and SRMR indices were in a favorable state, and the conceptual model of the research had a good and desirable fit. Phubbing has a negative and significant effect on marital intimacy ($\beta = -0.65$, $p < 0.001$), phubbing had a negative and significant effect on communication skills ($\beta = -0.51$, $p < 0.001$), communication skills have a positive and significant effect on marital intimacy ($\beta = 0.56$, $p < 0.001$), and communication skills also play a mediating role in the relationship between phubbing and marital intimacy ($\beta = 0.56$, $p < 0.001$).

Conclusion: The findings show that communication skills play a key role in couples' marital intimacy and mediate the effects of phubbing. Therefore, paying attention to and strengthening communication skills in couples can reduce the negative effects of phubbing and lead to increased intimacy between couples.

Keywords: Couples, Marital Intimacy, Phubbing

Introduction

Marital intimacy is one of the most important variables in marital life, which provides the basis for the individual's satisfaction and dissatisfaction with life and increases the commitment and compatibility of couples (Han et al., 2025). Marital intimacy has been defined as feelings based on love and affection, the satisfaction of emotional and psychological needs, and the enhancement of happiness and satisfaction in married life (Stinjak, 2025; Wang & Zhao, 2022). Mosley and Parker (2023) also defined it as the ability to communicate with others and express emotions. In fact, marital intimacy is the main motivation for forming a marital relationship and shows the degree of closeness and care that partners have for one another (Mahmoud et al., 2024).

Communication skills are a variable that can affect marital intimacy (Jabri et al., 2016). Communication skills refer to behaviors through which a person can communicate with others and, while expressing positive responses, avoid showing negative responses (Shakerinejad et al., 2014). Communication skills are dynamic processes that require cognitive engagement, the courage to face others, and the transmission and reception of effective messages to others (Xie et al., 2023). Communication skills are skills through which couples will be able to engage in interpersonal interactions, the communication process, and share their information, thoughts, and feelings with others (Yam & Kumcağız, 2021). Communication skills are of great importance for couples, and weakness in this area can lead to various disorders and disputes (MohammadPour et al., 2024). During communication, couples who exhibit phubbing behavior often keep their heads down and use their mobile phones, which leads to a lack of eye contact with their spouse and has many negative consequences (Ayar & Gürkan, 2022). Sari et al. (2023) also showed in their research that one of the variables that is affected by phubbing behavior in couples is their communication skills. Phubbing behavior leads to a decrease in the amount and quality of communication between couples and paves the way for increased marital conflicts and disputes (Sari et al., 2023).

Phubbing, as a negative phenomenon, has a negative impact on communication skills (Aljasir, 2022), romantic relationships (Yam & Kumcağız, 2021) and marital intimacy (Chen et al., 2022). Phubbing, as one of the new disorders in couple relationships, is an emerging phenomenon in the modern world that has

become more prevalent among couples with the advancement of smartphones (Rezaee et al., 2024). The word phubbing is a combination of the words phone and snubbing and refers to excessive smartphone use (Yam & Kumcağız, 2023). This construct is defined as a process in which couples check their mobile phones while talking to each other and avoid interpersonal communication (Yue et al, 2024). Karadağ et al. (2015) define phubbing as the act of looking at one's mobile phone while talking to other people and avoids interpersonal communication. David and Roberts (2021) defined phubbing as a form of social exclusion and interpersonal neglect that is used to indicate a break in social relationships when using a mobile phone. The phubbing construct is a multidimensional and more complex construct than a person's addiction to cyberspace, which includes addiction to mobile phones, texting, social media, and online games (Tanhan et al., 2023). In other words, this construct includes a form of social exclusion and interpersonal neglect that will have a potential negative impact on the social life of couples in terms of the quality of interpersonal relationships (Hassan Esfahani et al., 2021). The phenomenon of phubbing can occur in any context and relationship and can have destructive and negative effects on the person or people who are phubbing, because it creates feelings of rejection and dissatisfaction in the recipient (McDaniel & Wesselmann, 2021).

Nowadays, couples need to experience high-level communication skills and marital intimacy in order to have a successful life. A look at the existing research in this field shows that many couples are preoccupied with mobile phones and phubbing behavior and experience many problems in the field of communication skills and marital intimacy. Despite much attention to phubbing and the importance of the variables of communication skills and marital intimacy, there is a research gap in the field of structural relationships between these variables, and the study of structural relationships between phubbing variables with communication skills and marital intimacy has been neglected. Therefore, this study was conducted with the aim of investigating the mediating role of communication skills in the relationship between phubbing and marital intimacy.

Methods

This research was applied in terms of purpose, and descriptive in terms of method, using the structural equation method. The statistical population of the research included couples in Neka city, and 150 couples were selected as samples based on the convenience sampling method. The method of selecting the samples was as follows: the researcher identified the couples by being present in different situations and, after obtaining their verbal consent to participate in the research, the questionnaire was provided to them. Given that the research population was unlimited, at least 300 people were considered for the sample. The inclusion criteria included the simultaneous presence of both partners in the research and the willingness to participate in the research, and the exclusion criteria comprised the unwillingness of one of the partners to participate in the research and the incompleteness of the questionnaire by one of the partners. A questionnaire was used to collect data. For data analysis, SPSS software version 26 and descriptive and inferential statistics methods (including frequency, mean, standard deviation, Pearson correlation coefficient, skewness and kurtosis) were used. SmartPLS was employed for model fit analysis due to its robustness against non-normal data. (Sarstedt et al., 2018). The partial least squares method was used under SmartPLS software version 3.

Instruments

Communication Skills Questionnaire:

The communication skills questionnaire was designed by Barton (1998) consisting of 18 items and three components: verbal skills (3, 4, 7, 12, 15, 17), listening skills (2, 6, 8, 10, 14, 18), and feedback skills (1, 5, 9, 11, 13, 16). The questionnaire is scored on a five-point Likert scale from strongly disagree (1) to strongly agree (5). The minimum score is 18 and the

maximum score is 90. A score less than 36 indicates low communication skills, a score between 36 and 72 indicates moderate communication skills, and a score above 72 indicates high communication skills. Barton (1998) confirmed the content validity of the questionnaire and reported its reliability as 0.95. Also, in the study of MohammadPour et al. (2024), the content validity of the questionnaire and its reliability were reported to be 0.91. The reliability of this questionnaire in this study was 0.88 calculated using the Cronbach's alpha.

Marital Intimacy Questionnaire:

The Marital Intimacy Questionnaire was designed by Walker and Thompson (1983) to measure marital intimacy consisting of 17 items and as a single component. The questionnaire is scored on a five-point Likert scale from never (1) to always (5). The minimum score is 17 and the maximum score is 85. A lower score means that the couple has low intimacy, and a higher score means that the couple has high intimacy. Thompson and Walker (1983) confirmed its content validity and reported its reliability as 0.85. Also, Arianfar and Etemadi (2016) confirmed the content validity of the questionnaire and reported its reliability as 0.89. The reliability of this questionnaire in this study was 0.76 calculated using the Cronbach's alpha.

Phubbing Questionnaire:

This questionnaire was designed by Chotpitayasunondh and Douglas (2018) consisting of 15 items and four components: nomophobia (1, 2, 3, 4), interpersonal conflict (5, 6, 7, 8), self-isolation (9, 10, 11, 12), and phubbing endorsement (13, 14, 15). The questionnaire is scored on a five-point Likert scale from strongly disagree (1) to strongly agree (5). The minimum score is 15 and the maximum score is 75. A low score means a low level of phubbing and a high score means a high level of phubbing. The

validity of the questionnaire was confirmed by Chotpitayasonand and Douglas (2018) and its reliability was reported to be 0.89.

Results

The sample group of the research study included couples from Neka city, and after removing outliers, the responses of 150 men and 150 women were included in the analysis. The mean and standard deviation of the age of the couples participating in the study were 41.54 and 10.80, and the average duration of their marriage was 5 years.

Table 1. Demographic characteristics of the participating couples

Percentage	Frequency	Category	Variable
50.0	150	Male	Gender
50.0	150	Female	
47.3	142	Diploma	
9.3	28	Associate's Degree	Education Level
32.7	98	Bachelor's Degree	
10.7	32	Master's Degree	
21.3	64	20-30	Age
46.1	138	30-40	
23.3	70	40-50	
9.3	28	50 and above	

As can be seen Table 1, the highest frequency of educational qualifications was a diploma and the lowest frequency was a master's degree. In terms of age, the highest frequency was in the age group between 30 and 40 years and the lowest frequency was in the age group 50 years and above.

Table 2. Mean and standard deviation of research variables

Standard Deviation (SD)	Mean (M)	Variable
7.72	48.11	Phubbing

2.10	14.32	Nomophobia
2.01	12.01	Interpersonal conflict
1.92	11.58	Self-isolation
1.69	10.21	Phubbing endorsement
8.92	69.51	Communication skills
3.33	24.54	Verbal skills
3.14	23.41	Listening skills
2.45	21.56	Feedback skills
8.46	58.18	Marital intimacy

As shown in Table 2, the mean and standard deviation of the phubbing variable were 48.11 and 7.72, the mean and standard deviation of the communication skills variable were 69.51 and 8.92, the mean and standard deviation of the romantic relationships variable were 142.57 and 17.97, and the mean and standard deviation of the marital intimacy variable were 58.18 and 8.46.

Table 3. Pearson correlation coefficients among study variables

Kurtosis	Skewness	Marital intimacy	Communication skills	Phubbing	Variable
2.01	3.78			1	Phubbing
3.78	0.29		1	-0.60**	Communication skills
3.94	1.01	1	-0.50**	-0.55**	Marital intimacy

As demonstrated in the Table 3, there is a negative and significant relationship between phubbing and communication skills ($R = -0.60$, $P < 0.01$), between phubbing and romantic relationships ($R = -0.49$, $P < 0.01$), and between phubbing and marital intimacy ($R = -0.55$, $P < 0.01$). Conversely, there is a positive and significant relationship between communication skills and romantic relationships ($R = 0.43$, $P < 0.01$) and between communication skills and marital intimacy ($R = 0.50$, $P < 0.01$). Additionally, the skewness and kurtosis values of the variables fell outside the -2 to +2 range, indicating that the data were not normally distributed.

Therefore, SmartPLS was employed for model fit analysis due to its robustness against non-normal data.

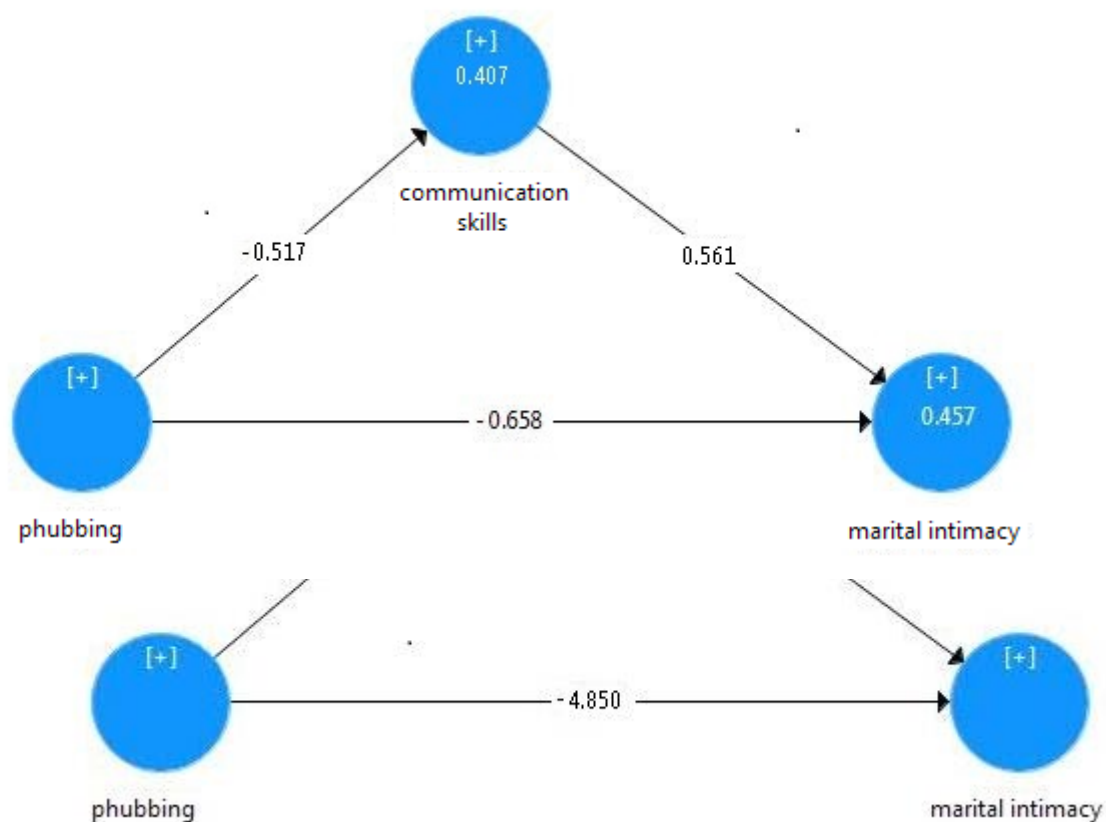


Figure 2. Structural model with significance values

Table 4. Composite reliability, convergent validity, and model fit indices

Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach's Alpha (α)	Questionnaire
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0.71	0.91	0.86	Phubbing
0.81	0.92	0.88	Communication skills
0.74	0.88	0.76	Marital intimacy
Acceptable Threshold	Statistic Value		Fit Index
< 0.08	0.06		SRMR
> 0.90	0.93		NFI
Strong	$\sqrt{0.75 \times 0/42} = 0/56$		GOF

As shown in Table 4, the Standardized Root Mean Square Residual (SRMR) was 0.06, the Normed Fit Index (NFI) was 0.93, and the Goodness-of-Fit (GOF) index or the overall model fit was 0.56, indicating an acceptable model fit. Convergent validity was measured using the Average Variance Extracted (AVE). As presented in Table 4, the AVE values for all three variables exceeded 0.50, confirming sufficient convergent validity. Furthermore, Composite Reliability (CR) and Cronbach's alpha were utilized to evaluate internal consistency and reliability; all values exceeded 0.70 (see Table 4), indicating good internal consistency and reliability.

Table 5. Direct and indirect effects of the structural model

Effect Size	Confidence Interval		Significance	t	Direct Effect	To	From
	0.75	0.25					
0.19	-0.59	-0.45	0.01	-5.98	-0.52	Communication skills	Phubbing
0.31	-0.71	-0.53	0.01	-6.75	-0.66	Marital intimacy	Phubbing
0.24	0.66	0.43	0.01	5.04	0.56	Marital intimacy	Communication skills
	Indirect Effects						
Significance		T	Indirect Effect	To		From	
0.01		3.02	-0.31	Marital intimacy with the mediating role of communication skills		Phubbing	

Based on the results of Table 5, phubbing exerted a significant direct negative effect on communication skills, with a path coefficient of -0.52 and a *t* coefficient of -5.98, and marital intimacy, with a path coefficient of -0.66 and a *t* coefficient of -6.75. Conversely, communication skills had a significant direct positive effect on marital intimacy, with a path coefficient of 0.56 and a *t* coefficient of 5.04. The results of data analysis to examine indirect effects showed that the indirect effect of phubbing on marital intimacy with the mediating role of communication skills is -0.31 and a *t* coefficient of 3.02. Consequently, all research hypotheses were empirically supported. Additionally, obtaining a value of 0.6 for the GOF index indicates that the model has a good fit and the general hypothesis of the research is confirmed.

Discussion

The present study aimed to investigate the mediating role of communication skills in the relationship between phubbing and marital intimacy among a sample of 150 couples selected via convenience sampling. The results of data analysis demonstrated that the conceptual model of the study had a good fit, and all research hypotheses were supported.

The results of the data analysis to examine the first hypothesis of the study revealed that there is a negative and significant relationship between phubbing and marital intimacy. This result is consistent with prior research (Wang & Zhao, 2022), Chen et al. (2022), Khodabakhshi et al, 2021), Xie et al. (2020), and McDaniel and Drouin, (2019) on the negative relationship between phubbing and marital intimacy. To explain the negative relationship between phubbing and marital intimacy, phubbing can be conceptualized as a minor yet chronic relationship stressor. It undermines meaningful communication and relationship satisfaction by disrupting shared attention and evoking feelings of rejection, which directly threatens the core foundations of marital intimacy, namely secure attachment. Essentially, phubbing is a relationship destroyer and acts as a barrier to genuine presence; frequent interruptions from phone-checking leave couples' conversations fragmented and incomplete, leading to communication dissatisfaction. By reducing the quality and depth of self-disclosure between couples, phubbing reinforces feelings of insecurity,

rejection, and loneliness, ultimately lowering intimacy levels. Xie et al. (2020) demonstrated that couples experiencing high levels of phubbing share fewer mutual emotions, display higher smartphone dependency, and exhibit less inclination to cultivate intimate relationships with their partners.

The results of data analysis to examine the second hypothesis of the study indicated that there is a negative and significant relationship between phubbing and communication skills. This result is consistent with the results of studies by Ayar and Gürkan (2022), Sari et al. (2023), and Aljasir, (2022) on the relationship between phubbing and communication skills. In explaining the negative relationship between phubbing and communication skills, individuals preoccupied with their smartphones often become inattentive to their immediate environment, leading to a decline in social interactions. As the frequency of communication decreases, the quality of their relationships, that is communication skills, is weakened. In fact, couples who engage in phubbing behavior become accustomed to virtual relationships and lose the ability to establish real relationships, so their communication skills gradually weaken and become disrupted, and their relationships are seriously damaged (Ayar & Gürkan, 2022). The phubbing phenomenon drives partners toward virtual relationships and deprives them of any real communication. This destructive behavior can even cause relationship tension in couples who possess strong communication skills, because it reduces the areas of real communication between husband and wife and weakens their communication skills.

The results of data analysis to examine the third hypothesis of the study showed that there is a positive and significant relationship between communication skills and marital intimacy. This result is consistent with the results of Jaber et al. (2016) and Sari et al. (2023) studies on the relationship between communication skills and marital intimacy. In explaining the confirmation of this hypothesis, it can be said that communication skills help couples to better express their needs and desires and, by reducing misunderstandings and conflicts, become closer to each other and increase their marital intimacy. People with high communication skills speak to each other with respect, and are able to solve their

communication problems; in result, as the quality of communication increases, their intimacy also increases (Beukeboom & Pollmann, 2021). In fact, these communication skills help couples convey shared positive feelings and emotions to each other and, with positive experiences, enhance the level of intimacy between them.

Based on the results of the study, it is suggested that, in order to improve marital intimacy and romantic relationships between partners, educational packages for optimal use of mobile phones be designed and provided to couples to help them reduce the negative effects and consequences of phubbing, while strengthening their level of marital intimacy and romantic relationships. Additionally, conducting communication skills workshops for couples can improve their communication skills and, consequently, substantially strengthen their marital intimacy. It is also suggested that in premarital educational discussions, couples be taught about digital media literacy and the responsible use of mobile phones in order to reduce phubbing between partners.

Limitations

First, it should be noted that this study was conducted among couples in Neka city and caution should be exercised when generalizing the results to other regions. Second, the variables were measured using self-report instruments, which may have been affected by other factors (e.g., social desirability bias). Therefore, future research should incorporate multiple assessment methods.

Conclusion

In conclusion, the results of this study demonstrated that phubbing has a significant negative effect on both communication skills and marital intimacy, whereas communication skills positively influence intimacy. Furthermore, the mediating role of communication skills was found to be strong and significant. This means that communication skills are reduced

under the influence of a spouse's phubbing, and consequently, marital intimacy also decreases.

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- Aljasir, S. (2022). Present but absent in the digital age: testing a conceptual model of Phubbing and relationship satisfaction among married couples. *Hum. Behav. Emerg. Technol.*, 10(4), 1–11.
- Ayar, D., & Gürkan, K. P. (2022). The effect of nursing students' smartphone addiction and phubbing behaviors on communication skill. *CIN: Computers, Informatics, Nursing*, 40(4), 230–235.
- Bartone, P. T. (1999). Hardiness protects against warrelated stress in Army Reserve forces. *Consulting Psychology Journal: Practice and Research*, 51(2), 72–76
- Beukeboom, C. J., & Pollmann, M. (2021). Partner phubbing: Why using your phone during interactions with your partner can be detrimental for your relationship. *Computers in Human Behavior*, 124, 106932.
- Bühler, J. L., & Orth, U. (2025). Terminal decline of satisfaction in romantic relationships: Evidence from four longitudinal studies. *Journal of Personality and Social Psychology*, 25(2), 236–247.
- Chen, Z., Gong, Y., & Xie, J. (2022). From phubee to phubber: The transmission of phone snubbing behavior between marital partners. *Information Technology & People*, 35(4), 1493–1510.
- Chotpitayasunondh, V., & Douglas, K. (2018). The effects of "phubbing" on social interaction. *Journal of Applied Social Psychology*, 48(1), 58–69.
- David, M. E., & Roberts, J. A. (2021). Investigating the impact of partner phubbing on romantic jealousy and relationship satisfaction: the moderating role of attachment anxiety. *J. Soc. Pers. Relat.*, 38(6), 3590–3609.
- Han, Y., Li, X., Song, W., & He, Y. (2025). Young adult partner phubbing and relationship satisfaction: The mediating role of attachment anxiety and the moderating role of constructive conflict coping style. *Front. Psychol.*, 16(2), 1490363.
- Hassan Esfahani, M., Khanjani, M., & Bazram, A. (2021). The factor structure and psychometric properties of Generic Scale of Phubbing (GSP). *Quarterly of Educational Measurement*, 12(46), 7–26. [persian]
<https://doi.org/10.22054/jem.2022.64299.3313>
- Jaberi, S., Etemadi, O., & Ahmadi, S. (2016). Investigation of structural relationship between communication skills and marital intimacy. *Research in Cognitive and Behavioral Sciences*, 5(2), 143–152. [persian]
- Karadağ, E., Tosuntaş, Ş., Erzen, E., Duru, P., Bostan, N., Şahin, B., Çulha, İ., & Babadag, S. (2015). Determinants of phubbing, which is the sum of many virtual addictions: A structural equation model. *Journal of Behavioral Addictions*, 10(2), 123–132.

- Khodabakhsh, S., & Le Ong, Y. (2021). The impact of partner phubbing on marital quality among married couples in Malaysia: Moderating effect of gender and age. *Aloma: Revista de Psicologia, Ciències de l'Educació i de l'Esport*, 39(1), 9–16.
- MacDonald, G., Thapar, S., Ryan, W. S., Chung, J. M., Hoan, E., & Park, Y. (2025). Why do you want a romantic relationship? Individual differences in motives for romantic relationship pursuit. *Personality and Social Psychology Bulletin*, 4(3), 321–332.
- Mahmud, I., Supramaniam, K., Jahan, N., Begum, A., & Masud, A. (2024). Dark side of mobile phone technology: Assessing the impact of self-phubbing and partner-phubbing on life satisfaction. *Interdisciplinary Journal of Information, Knowledge, and Management*, 18(2), 893–914.
- McDaniel, B. T., & Drouin, M. (2019). Daily technology interruptions and emotional and relational wellbeing. *Computers in Human Behavior*, 99(18), 258–265.
- McDaniel, B. T., & Wesselmann, E. (2021). “You phubbed me for that?” Reason given for phubbing and perceptions of interactional quality and exclusion. *Hum. Behav. Emerg. Technol.*, 3(1), 413–422.
- MohammadPour, H., Haji Alizadeh, K., & Barghi Irani, Z. (2024). Finding a model for the structural relationships of parental communication patterns and communication skills in adolescents with the mediating role of cognitive emotion regulation and mindfulness. *QJFR*, 21(3), 101–122. [persian] <http://qjfr.ir/article-1-2271-fa.html>
- Mosley, M. A., & Parker, M. L. (2023). The phubbing problem: A dyadic exploration of the moderating role of partner phubbing on attachment and couple satisfaction. *Computers in Human Behavior*, 149(2), 1–13.

References

- Rezaee, M., Izanloo, B., Abbasi, N., & Bashirnezhad Dastjerdi, H. (2024). Determining the psychometric properties and measurement invariance of the Partner Phubbing Scale. *Journal of Applied Psychological Research*, 15(2), 271–293. [persian] <https://doi.org/10.22059/japr.2023.349223.644398>
- Sari, L., Nurbayani, S., & Kurniawati, Y. (2023). The influence of the phubbing phenomenon on social skills in developing life skills among social sciences education students at the Indonesian University of Education. *Didaktika: Jurnal Kependidikan*, 12(4), 1153–1160.
- Sarstedt, M, Bengart, P, Shaltoni, AM, et al. (2018) The use of sampling methods in advertising research: A gap between theory and practice. *International Journal of Advertising* 37(4): 650–663.
<https://doi.org/10.1080/02650487.2017.1348329>

- Shakerinejad, G., Zandieh, A., Hatamzadeh, N., Sharhani, A., & Mazaheri, M. (2022). The effect of online educational intervention based on the Extended Theory of Reasoned Action on interpersonal communication skills of health care workers. *Payesh*, 21(4), 409–420. [persian] <http://payeshjournal.ir/article-1-1854-fa.html>
- Sitinjak, C. (2025). Cultural nuances and marital intimacy: Exploring sexual fantasies, communication, and personality in Indonesian couples. *Bulletin of Counseling and Psychotherapy*, 7(1), 123–139.
- Tanhan, F., Özok, H. İ., & Kaya, A. (2023). Mediating and moderating effects of cognitive flexibility in the relationship between social media addiction and phubbing. *Curr Psychol*, 43(2), 192–203.
- Walker, A.J. and Thompson, L. (1983). Intimacy and intergenerational aid and contact among mothers and daughters. *Journal of Marriage and the Family*, 45(4), 841–849. <https://doi.org/10.2307/351796>
- Wang, X., & Zhao, K. (2022). Partner phubbing and marital satisfaction: The mediating roles of marital interaction and marital conflict. *Social Science Computer Review*, 41(4), 112–123.
- Xie, J., Luo, Y., & Chen, Z. (2023). Relationship between partner phubbing and parent–adolescent relationship quality: A family-based study. *International Journal of Environmental Research and Public Health*, 20(1), 304–314.
- Xie, X., Tang, X., Rapp, H., Tong, D., & Wang, P. (2020). Does forgiveness alleviate depression after being phubbed for emerging adults? The mediating role of self-esteem. *Computers in Human Behavior*, 109(2), 106–116.
- Yam, F. C., & Kumcağız, H. (2023). Investigation of psychological factors affecting the phubbing behavior of young adults with different structural equation models. *MANAS Sosyal Araştırmalar Dergisi*, 12(3), 1087–1105.
- Yue, H, Gao, S, Feng, F, Wu, F, Bao, H and Zhang, X .(2024), Linking adolescents' phubbing to depression: the serial mediating effects of peer relationship quality and psychological need frustration. *Front. Public Health* 12:1420151. doi: 10.3389/fpubh.2024.1420151