Interpersonal relationships and communication in romantic relationships vs digitization of life

Komunikacja i relacje interpersonalne w związkach romantycznych a cyfryzacja życia[1]

Katarzyna Kamila Walęcka-Matyja[a] ✉, Julitta Dębska[b]

[a] *Associate Professor Katarzyna Kamila Walęcka-Matyja[1], PhD, https://orcid.org/0000-0001-8222-729X*
[b] *Julitta Dębska[1], MA, https://orcid.org/0009-0008-7214-7024*
[1] *Institute of Psychology, Department of Social Psychology and Family Study, University of Łódź*
✉ *Corresponding author: katarzyna.walecka@now.uni.lodz.pl*

Abstract: The digitization of life turned out to be both necessary and salutary for maintaining the continuity of functioning of societies and individuals during the pandemic. Meetings with people were mostly held remotely, as were medical and legal consultations or shopping. And although tools for online communication were known before 2020, their heyday and widespread use fell on the years of the pandemic crisis. Today, digitization is largely associated with all spheres of human life, including those that relate to the creation of close interpersonal relationships.
The aim of the article is to present the conclusions of scientific considerations on the psychological aspects of interpersonal communication in romantic relationships in the context of the digitization of life. Models and dimensions of communication in romantic relationships and their importance for human functioning are presented. Some psychological aspects of interpersonal communication at three stages of a romantic relationship are discussed, i.e. creating a new, close relationship in the network, duration of the relationship in the digital reality and ending the romantic relationship.
Keywords: digitization of life, online communication, offline communication, romantic relationship

Abstrakt: Cyfryzacja życia okazała się zarówno niezbędna, jak i ważna dla zachowania ciągłości funkcjonowania społeczeństw oraz jednostek w okresie pandemii. Spotkania z ludźmi odbywały się w większości zdalnie, tak jak konsultacje lekarskie, prawnicze czy zakupy. I choć przed 2020 rokiem narzędzia służące do komunikacji w sieci były znane, to ich rozkwit i powszechne wykorzystanie przypadły na lata kryzysu pandemicznego. Współcześnie cyfryzacja w dużym stopniu wiąże się ze wszystkimi sferami ludzkiego życia, także tymi, które odnoszą się do tworzenia bliskich relacji interpersonalnych. Celem artykułu jest przedstawienie wniosków płynących z rozważań naukowych nad psychologicznymi aspektami komunikacji interpersonalnej w związkach romantycznych, w kontekście cyfryzacji życia. Przedstawiono modele oraz wymiary komunikacji w związkach romantycznych oraz ich znaczenie dla funkcjonowania człowieka. Omówiono niektóre psychologiczne aspekty komunikacji interpersonalnej na trzech etapach związku romantycznego, tj. tworzenia nowej, bliskiej relacji w sieci, trwania związku w cyfrowej rzeczywistości oraz zakończenia związku romantycznego.
Słowa kluczowe: cyfryzacja życia, komunikacja online, komunikacja offline, związek romantyczny.

Introduction

The word "communication" originates from the Latin words "communicare" and "communis", which mean sharing, participating and doing something together (Ansari, 2021). Communication means sharing words, messages, intentions, ideas and emotions (Alshenqeeti, 2016; Lamichhane, 2016). People share their thoughts and feelings using their verbal and non-verbal skills (Ansari, 2021). According to De Vito (2016), inter-personal communication is a form of communication between people who are somehow related and mutually dependent, which means that the activities of one of the persons affect the other. Interpersonal communication is necessary for maintaining healthy relationships based on mutual understanding (Ansari, 2021). Without communication neither an individual nor the whole social system could function properly (Ayee, 2013). This process is

---

open and serves not only to pass on information but also to create meanings (Lamichhane, 2016). The acceptance of mutual differences, even those concerning the ways to create messages, is the basis for effective communication (Nehal, 2017). Regardless of the fact whether communication is verbal or non-verbal, its lack makes talking difficult (Venter, 2019). In order to make the exchange of information effective, it is essential to have some communication rules which are respected by the parties (Naumovski, Dana, Pesakovic and Fidanoski, 2016). In the process of two-way communication we expect to find some indicators of its effectiveness (Lusiawati, 2019). Interpersonal communication can affect the future success and is regarded as an important tool for mutual understanding, providing instant feedback and solving problems that result from disagreements and ambiguities (Naumowski et al., 2016; Purnomo et al., 2021). Persons who can communicate properly are able to identify the needs of their communication partners. The people who are engaged in communication hope that it will result in an increase in confidence, mental well-being and mutual satisfaction. A conversation can have a positive or negative influence on someone's emotions (Naumovski et al., 2016). Communication can be considered effective not only if the interlocutors feel comfortable but also if the set goals have been achieved. A great part in effective communication is played by the emotional intelligence (Nguyen, White, Hall, Bell and Ballentine, 2019) and self-confidence of the interlocutor (Rais, 2020).

Both technological progress and digitization of society contribute to dynamic changes taking place in the area of communication (Przywara and Leonowicz-Bukała, 2020). Communication, whose essence is to pass on information, has been significantly modified on all the levels of the McQuail pyramid (McQuail, 2010). In the present study we adopted the assumptions of the mediatization concept (Couldry and Hepp, 2013). It was agreed on that media should be treated as a whole, understood as all the tools used for communicating, without an attempt to identify the influences of individual media or programmes on the recipients. The Internet was treated as both the environment where various users functioned on different platforms and a tool designed for communication. To describe the communication processes taking place online and in

the real world, we used the terms from the current literature on the subject. Communication taking place in the virtual environment is described by researchers as online communication, digital communication and internet-mediated communication. On the other hand, communication taking place in the real world is called offline communication, non-mediated communication, face-to-face communication and traditional communication (Adler, Rosenfeld and Proctor, 2018; Al-Saggaf, MacCulloch and Wiener, 2018; Przywara and Leonowicz-Bukała, 2020). Based on the literature on the subject, we showed the most important differences and similarities between online and offline communication.

1. Specifics of online and offline communication

The biggest difference between face-to-face communication with a partner and its digital form is a lack of non-verbal messages. It has been noticed that direct verbal communication is connected with numerous non-verbal cues, which results in a lower risk of misunderstanding it. A good example can be a situation when a person is talking about a happy event. In such a case their smile, tone of voice, facial expression and body posture confirm the correct understanding of the message. This kind of verbal communication is characterized by so called richness of expression. In the process of communicating by e-mail or social media there are much fewer signals which can help to read verbal messages. Such a message is called colourless and dull (Otondo, van Scotter, Allen and Palvia, 2008). Insufficiency of non-verbal cues can result in poorer understanding between the communicating parties, not getting jokes, as well as creating an idealized image of the interlocutor.

However, it is emphasized that according to the assumptions of the Social Information Processing Theory of J. B. Walther (1992) people communicating by means of modern technology devices, without non-verbal cues, try to adjust their communicating behaviours as much as possible. With time they learn to use available options in a more effective way. It has been noticed that the text message form can help to reveal information which would be difficult to reveal

in a traditional conversation. Written communication is appreciated by young people who, in this way, can better control the way of expressing their thoughts and more strongly engage in the conversation, which, in consequence, leads to strengthening the relationships. Some people consider this form of communication safer, especially when they need to touch difficult issues or solve problems, and therefore it is believed to help to build stronger emotional bonds between the partners. It shall be stressed that the research carried out in this field so far has provided contradictory results concerning the correlation between texting and the satisfaction with a romantic relationship (Pollmann, Norman and Crockett, 2021).

It is believed that although both text messages and other forms of digital communication are helpful in the communication process in romantic relationships, they shall not replace traditional face-to-face communication. They are also connected with the occurrence of specific threats. While texting with your romantic partner, there is often a chance of disagreement resulting from the wrong interpretation of messages. Communication problems are often caused by using abbreviations, punctuation mistakes as well as the lack of non-verbal communication. The incorrect interpretation of text messages can also result from the fact that it is difficult to interpret emotions when accompanying vocalization is missing (Kelly and Miller-Ott, 2018).

Digital communication is also referred to as hyper-personal, since it accelerates the strengthening of a relationship and facilitates discussing personal issues in a conversation. The interlocutors take up issues connected with feelings, beliefs or experiences (Jiang, Bazarova and Hancock, 2011) faster than in a face-to-face conversation. Another feature of this type of communication is asynchronicity. In a direct contact, the talking parties do not have so much time to give a response and correct it before entering it. Asynchronicity also allows the interlocutors to make a choice whether to reply to a message or not. There is a low level of control over the recipient of a message in the aspect of responding to it or giving a reply. Digital communication is also described as

permanent. That is because, the contents of conversations are processed, i.e. typed, recorded, stored or transferred. Such a situation has both advantages and disadvantages. That will certainly make the users be more careful while participating in the communication process with other people. One of the difficulties resulting from the permanence of communication is the phenomenon of *disinhibition*. It means a tendency to spread information regardless of consequences. It has been observed that it takes place more frequently in mediated communication than direct one, just like the phenomenon of *flaming* (the act of sending angry or insulting e-mail) (Adler et al., 2018).

According to Hobbs, Owen and Gerber (2017), new communication technologies in the first place change the way we can meet other people. In many situations popularity may increase opportunities for establishing and maintaining interpersonal relationships. However, it has been stressed that the researchers point to a weaker satisfaction with these relationships as well as smaller attention and mindfulness towards a relationship with another person (Onyeator and Okpara, 2019).

Currently we can indicate the occurrence of social media paradox (Kalsens, 2016). On the one hand, we can observe an increase in the number of tools for communicating with other people, and on the other hand, in numerous scientific findings it has been shown that deteriorating mental well-being and loneliness are becoming a growing problem of modern societies (Akhtar and Khan, 2019). The 21st century is the age of loneliness. People more and more often live next to each other, not with each other. That was confirmed by the results of the study conducted by CBOS, which was presented in the report of 2022, entitled "The feeling of loneliness in adult Poles". It was found out that the majority of the respondents felt lonely (54%). However, this feeling was more frequent in young men in the age range 25-34 years, in people who were not in a romantic relationship, those who have been raised in a family with one parent, people who have no children, those who are unemployed or are looking for a job, who assess their household situation as very difficult and live in big cities.[2]

---

2   https://instytutpokolenia.pl/pdf/SAMOTNOSC_14.11.pdf

2. Models and dimensions of communication in a romantic relationship

A romantic relationship is a specific type of interpersonal relationship. In the literature of the subject it is referred to as a relationship between two people characterized by intimacy, passion and commitment. *Intimacy* is the feeling of closeness, unity and bond in a love relationship. *Passion* means drives leading to a romance, physical attraction, sexual fulfilment. *Commitment* is a conviction that we love the other person and wish to keep this love forever (Sternberg and Weis, 2007).

Psychologists believe that a romantic relationship can be established and developed thanks to, for example, sincere and open communication (Ryś, 1999). The quality of communication to a great extent affects the success of a relationship between two people and the satisfaction with it (Walęcka-Matyja and Szkudlarek, 2019). According to D. Suwalska-Barancewicz and A. Malina (2018), it is essential for the partners who are in a romantic relationship to establish a communication pattern that will enable them to perform everyday duties as well as understand each other on the intimacy level. An effective communication in a dyad consists in solving problems in a way that will encourage mutual understanding and maintaining a close relationship. On the other hand, ineffective strategies are related to hostility, lack of empathy and chaotic problem solving. Proper communication is deemed to be indispensable for each stage of a close relationship. This is because it is an important element of love and commitment. Proper communication is considered to be an effective way to prevent and solve conflicts (Suwalska-Barancewicz and Malina, 2018).

In the related literature there are usually mentioned three basic interpersonal communication models: one-sided, two-sided and three-sided (relational) ones (Adler et al., 2018; Harwas-Napierała, 2014). In the first of them communication is done only from the sender to the recipient. The sender does not care whether the message is received or not, i.e. whether there is any feedback. This is a one-way action, which does not take into account the sphere "between" the people, but only takes place "inside"

the communicating party and is determined by their choices. The two-sided communication model takes into consideration the feedback between the sender and the recipient. It consists in sending and receiving messages. In this sense, communication is understood as a series of causes and effects. In this model there is a distortion of communication in the sphere of assigning responsibility and blame for mistakes in the communication process. It is usually the partner who is blamed for them. Communication in these two models is focused on individual persons and individual behaviours. It looks different in the relational communication model, in which the sender and the recipient focus more on the subject of communication than on each other. It is important what they are doing or can do together. In the three-sided communication model it is essential to create new behaviours which can develop the partners. In this model, the communication responsibility means an ability to respond, not a blame, a mistake or a merit. An individual person can make the matters go in the positive direction. It is noted that these models are not to be found in their pure form (Harwas-Napierała, 2014).

A key factor for proper communication in a romantic relationship is an ability to send clear and comprehensible messages, consistent with the sender's intention (Cutrona and Suhr, 1994). It is also important to be able to communicate in a way close to the assumptions of the relational interpersonal communication model. Adopting the three-sided model shall not imply the need to look for the party who is guilty for the communication problems. Moreover, it shall create better conditions for behaviour modification (Harwas-Napierała, 2014).

M. Plopa (2006) distinguished three significant dimensions of communication in a dyad – support, commitment and depreciation. *Support* means providing each other with positive reinforcements. It includes interest in the partner's everyday activities, accompanying them in difficult situations, providing help with solving problems. Support also means respect and acceptance for the behaviours of the other person. Additionally, it is important for this communication dimension to appreciate the efforts which the partner is taking in order to develop the

relationship as well as the fulfilment of their obligations. *Commitment* is an affiliation of the partner, showing them warm feelings, paying attention to their uniqueness and importance. It is present not only in verbal communication but also in non-verbal one, expressed by such gestures as: hugging, petting, kissing. Commitment in the communication in a relationship also means spicing free time, looking for mutual interests, active listening, meeting the partner's expectations and preventing conflicts. Another important element is gradual discovering information about each other, which helps to better know each other's needs, expectations, moods and emotions. Additionally, Plopa (2017) emphasizes that this aspect of communication in a close relationship is positively influenced by satisfying sexual life. On the other hand, the dimension of *Deprivation* is demonstrated by showing each other hostility. This attitude can include verbal violence, outbursts of anger, insulting, shouting. It is connected with the lack of respect for the right of the partner to remain silent, to refuse to respond, to have different views or to protest. Deprivation in communication also means a desire to dominate the partner, to take control over them and use manipulation. Depreciating of the other person consists in ignoring them, teasing them and lowering their self-esteem (Plopa, 2006). In the study of M. Ryś and others (2020) it was proved that there was a significant correlation between using communication depreciating a person and their belief that they were not loved (Ryś, Greszta and Śledź, 2020).

Numerous psychologists point to a special importance of affective communication in a romantic relationship (Floyd, Pauley and Hesse, 2010; Walęcka-Matyja and Szkudlarek, 2019; Ryś et al., 2020). It is expressed in a verbal and non-verbal way. In the first case, it is done through giving information that you like and love the partner, providing support to the partner as well as complimenting them. Non-verbal signals include touching, displaying affection, care, holding the partner's hand, hugging, petting or kissing. In this way people initiate close interpersonal relationships and accelerate their development. Affective communication contributes to experiencing higher satisfaction with a relationship with another person. Researchers have identified a lot of effects beneficial for the functioning of a human being, related to using affective communication. K. Floyd (2002) indicates that the people characterized by a high intensity of this type of communication are generally happier, socially more active and mentally healthier. On the other hand, the people with a low level of affective communication more often experience stress, depression symptoms and social isolation. It has also been found out that an affective message, which lowers the stress level, influences a human being not only when they receive it but also when they pass it on. It has been proved that there is a significant correlation between emotional communication received from a close person and one's hormone management (Floyd and Riforgiate, 2008).

3. Role of communication in a romantic relationship

The results of numerous studies confirm that proper communication is one of the most important factors determining the feeling of satisfaction with close relationships. In the study of M. Jitaru (2020), the author checked the correlation between satisfaction with a romantic relationship and communication patterns. In order to do that, 121 young women from Romania were tested, using the shortened version of Communication Patterns Questionnaire (Christensen and Heavey, 1990). It was shown that there was a significant correlation between communication patterns and satisfaction with a romantic relationship. Communication patterns also appeared to be a predictor of satisfaction with a close relationship. The findings from the study of Jitaru (2020) are congruent with the previously obtained results, which verified the same correlations (Heavey, Layne and Christensen, 1993; Heavey, Christensen and Malamuth, 1995; Gottman and Krokoff, 1989; Madahi, Samadzadeh and Javidi, 2013). In the study of S. Jolin and others (2022) conducted on 311 Canadian pairs in the period of 1 year, it was found out that the negative communication quality in both the partners was a significant predictor of their satisfaction with the relationship over time (Jolin, Lafontaine, Brassard and Lussier, 2022).

Furthermore, it is believed that an important component of close partner relationships is open communication in the area of sexuality. It is one of the key factors ensuring the maintenance of sexual health and fulfilment of needs (Liberacka-Dwojak and Izdebski, 2021). A multi-level meta-analysis conducted by A. B. Mallory (2022) showed a positive correlation between communication concerning sexuality and satisfaction with a romantic relationship as well as sexual satisfaction (Mallory, 2022).

Psychologists agree that the quality of communication in a romantic relationship plays an important part in the mental health of the partners. In the study of M.G. Pereira and others (2022) some correlations were discovered between communication in romantic relationships and mental and physical health. The surveyed group consisted of 298 students living in the USA who were engaged in a romantic relationship in the time of the research. The results of the analysis showed a positive correlation between the communication pattern in a dyad and their mental and physical health as well as a negative correlation between a destructive way of communication and the state of health, both mental and physical. It was also proved that the partners who used more destructive communication patterns were less willing to forgive and forget. The authors emphasize the importance of therapeutic measures designed for improving communication skills. First of all, it is essential to strive to reduce the use of destructive communication patterns in a dyad and develop the capacity to forgive (Pereira et al., 2022).

In the last twenty years, the development of digital media has caused significant changes in many spheres of everyday life, including partner relationships. The Internet is not only a virtual place of partners' meetings, but it also affects the existing relationships in a significant way, e.g. helping to maintain long-distance relationships. However, new technologies are also connected with some threats, which can lead to the breakup of a relationship. In the further part of this study we analysed the issue of the influence of communication technologies on the psychological aspects of romantic relationships – from its initial stages to some behaviours after the breakup.

4. Psychological aspects of online communication at the stage of establishing a romantic relationship

Currently we are observing an increase in the use of smartphones. According to F.C. Yam (2023), these devices have a lot of functions which enable individuals to satisfy their needs. Thanks to their phones, people can join social networks, play favourite games, do shopping, look up information and learn, using the Internet for all the activities (Soni, Upadhyay and Jain, 2017). One of the consequences of this phenomenon is addiction to technologies (Davey et al., 2018).

Until recently the Internet users needed a special environment consisting, for example, of a desktop or a laptop, to be able to make a bank transfer or order some food online. At the moment, thanks to smartphones, barriers of this kind have been eliminated. Due to this fact, people can be continuously occupied with their phones even if they communicate face-to-face with another person (Al-Saggaf et al., 2018).

In 2020 there were 3.8 billion of active social media users, which accounts for 49% of the whole world population. They spent approximately 2 hours and 24 minutes a day on these platforms (We Are Social & Hootsuite, 2020).

Due to the widespread availability of the Internet, there have appeared quite new solutions for dating, which has significantly changed its face. In 2019 30% of the American population declared using dating platforms online, 23% of whom met with the potential partners offline. What is more, 12% of the users had serious relationships or got married with the persons they had met online (Bernard, Vintila and Tudorel, 2020).

The Internet is an unlimited space, where an individual can find a lot of potential partners. In the digital world, the number of candidates as well as related interaction opportunities is much bigger than in the offline reality where direct interactions take place. We can meet new people not only through dedicated applications, like Tinder, but also on different social platforms, such as Facebook or Instagram. They are willingly chosen by the users to create romantic inter-

actions. That affects the candidate selection process (Finkel, Eastwick, Karney, Reis and Sprecher, 2012; Hobbs et al., 2017; Ward, 2017).

Online dates are a social media service, which focuses on providing the users with opportunities of entering into romantic relationships, including long-term ones (Breward, Hassanein and Head, 2017). Some researchers checked people's motivation for using this type of services. The main reasons include: sex, friendship, romantic relationship, travelling together, willingness to improve self-esteem and entertainment (Ranzini and Lutz, 2017; Ward, 2017).

According to R. Buhas (2014), a key factor which can make a relationship established online develop and turn into a romantic one is communication. What is important is an open, sincere dialogue and providing true information about yourself. Thanks to communication continuity and sincerity, the people who met online build trust to each other and increase the likelihood of success of their romantic relationship. The respondents who took part in the study of Buhas (2014) emphasized the role of emotional support. Good communication helps the users to make a decision to transfer the relationship to everyday life and meet offline. An important factor for meeting offline is also a geographical distance. Except the quality of communication and the distance, other motivators for making a decision to continue the relationship in the real world appeared to be: trust, intimacy and the feeling of mutual love (Buhas, 2014).

The results of the research conducted by B. Nayar and S. Koul (2021) confirm the fact that the success of online dating depends on the trust between the users and the degree of intimacy that they have managed to create during the online communication. Therefore, it is important to be open for the interlocutor, reveal some information about yourself and build communication based on mutual trust. The greater the trust to the interlocutor, the bigger the chance for the success of the new relationship (Nayar and Koul, 2021).

Some interesting research findings were obtained by T. van der Zanden with others (2022), showing a positive impact of the originality of a text posted on a dating portal on the impression it made on the

users. The messages considered original were characterized by an interesting style, unusual metaphors and revealing some personal information. It appeared that this kind of text originality was positively correlated with the assessment of the intelligence and the sense of humour of its authors. Also, an important thing for making a positive impression in the Internet is to use a flawless language in online messages. Linguistic errors visible on a dating profile have a clearly negative influence on how attractive a potential partner may seem to another person (van der Zanden, Schouten, Mos and Krahmer, 2020).

A barrier for the creation of new romantic relationships on the Internet can be the fact that the young adults looking for love online can become victims of cybercrime and abuse connected with cyber-dating (Deans and Bhogal, 2019). It happens that some people fabricate information about themselves or hide some inconvenient facts (Chen, Yuan, Feng and Archer, 2021). It has been proved that people sometimes create an image of the ideal self. Men usually tend to falsify the information about their income, the purpose why they want to enter into contact and their stature. Women, on the other hand, more often provide untrue information about their weight. Moreover, they often post photos in which they look more attractive than in reality. In order to achieve this effect, they retouch the photos (Prieler and Kohlbacher, 2017).

Interesting results were obtained in the study carried out on a group of 309 Chinese users of dating portals (Peng, 2020). It was proved that as many as 83% of the respondents entered false information to their profiles. For example, a man who was 173 cm tall ticked the stature of 175 cm in his profile. That shows how the users may try to increase their attractiveness using little lies in order to encourage potential partners to enter in contact with them. The most frequent manipulation used by the respondents was posting an inauthentic profile photo. In their profiles the examined daters more often used lies and ambiguities than evasion and omission. Interpreting this behaviour, we may think that withholding information probably does not allow us to draw other people's attention effectively. For example, the answer "I do not know" or leaving an empty box

while answering the question about your stature will give the impression of insincerity. On the other hand, giving a false answer enhancing the attractiveness of the profile user can be encouraging for making a contact (Peng, 2020).

It is stressed that the people who use dating services are characterized by a lower level of self-esteem than the ones who do not do that (Bernad et al., 2020).

The researchers also checked whether there were correlations between personality traits and using dating services and applications. The studies carried out by E. Timmermans and E. de Caluwé (2017) proved that the single people who used Tinder were more extravert and open to new experiences than the singles who did not use it. On the other hand, the single people who did not use Tinder obtained higher scores for the trait of conscientiousness than the single users of Tinder. No statistically significant differences were found between the compared groups of examined people in the area of agreeableness and neuroticism (Timmermans and de Caluwé, 2017).

From the application point of view, it is important for the developers of dating services to plan and implement effective solutions which will help to take care of the safety of the users (Mosley and Lancaster, 2019).

5. Psychological aspects of online communication at the stage of an ongoing romantic relationship

Currently, with technological progress and increasing digitization of the society we can observe some changes that take place in the realization of social roles, in the area of establishing interpersonal relationships and in communication (Przywara and Leonowicz-Bukała, 2020). The researchers particularly draw our attention to increasing problems in interpersonal communication (Davey et al., 2018). Since, people seem to be continuously occupied using their phones, even in the situation when they are communicating with another person face-to-face (Al-Saggaf et al., 2018). We observe a gradual increase of this phenomena as well as a decrease of commitment in a direct interaction when compared with the time spent with the

smartphone (Luk et al., 2018; Yam and Kumcagız, 2020). To distinguish such behaviours from the problematic use of the smartphone, the researchers have introduced a new term – *phubbing* (Yam and Ilhan, 2020). It is a combination of the words "phone" and "snubbing". This state is described as focusing attention on the smartphone during a face-to-face interaction and characterized by a decreased interest in the surroundings. It is more about spending time following the contents on the phone than communicating directly with the people who are next to you (Luk et al., 2018; Youarti and Hidayah, 2018). It is believed that phubbing has a negative influence on interpersonal communication (Chotpitayasunondh and Douglas, 2018). Behaviours of this type can also cause problems in romantic relationships (Krasnova, Abramova, Notter and Baumann, 2016; Carvajal, 2017; Roberts and David, 2016; Vanden Abeele, 2020; Wang, Xie, Wang, Wang and Lei, 2017), as they make people feel ignored and worthless. There has been found a correlation between phubbing and marital satisfaction (Carvajal, 2017). Moreover, it is worth paying attention to the fact that the people who are characterized by a high intensity of phubbing also show a high level of the feeling of loneliness (Błachnio and Przepiórka, 2019).

The researchers of this phenomenon also suggested a term which refers to the degree in which individuals are distracted by their smartphones during a direct communication with their romantic partners – *partner phubbing* (Roberts and David, 2016). That includes situations in which the partner often breaks up communication to check messages in their smartphone and refocuses attention on this content. Partner phubbing makes the partners feel psychologically neglected (Wang et al., 2017). Research shows that this kind of behaviours has a negative impact on romantic relationships (González-Rivera et al., 2018; Krasnova et al., 2016; Roberts and David, 2016). Phubbing is a serious problem and a more and more common risk factor for the durability of interpersonal relationships, including the romantic ones (Yam, 2023).

Some interesting results concerning the understanding of the effects of texting in romantic relationships were presented in the study of D. Halpern and J. E. Katz (2017). The results of the two-wave, repre-

sentative panel study, carried out a year apart, were formulated in three main conclusions. First, it was proved that compulsive or intensive text messaging might lead to the worsening of the quality of a close romantic relationship. On the one hand, a contact by a mobile phone is a symbol of commitment for the couples (Juhasz and Bradford, 2016). With the use of digital communication they can support and be emotionally available for each other even if they are physically absent. Smartphones can also play a positive part at the stage of building a romantic relationship when the partners are physically apart from each other. On the other hand, the study showed that the negative impact of text messaging on the quality of a relationship prevailed, especially if this activity was done frequently and in the presence of an important person. Text messaging can make individual persons become less sensitive to the needs of other people, which leads to conflicts and decreases the level of intimacy. The second conclusion from this study referred to a negative influence of texting in the presence of the partner on intimacy in the relationship. Intimacy, according to Halpern and Katz (2017), is an interactive process initiated by the fact that a person reveals their important matters, needs and emotions. Their partner responds to that and this interaction leads to a greater understanding, the sense of being appreciated and taken care of during the relationship. A necessary condition for the development of a close relationship is demonstrating mindfulness by the partner. Although text messaging takes only a small part of a day, the user is forced to share their attention between the phone screen and a face-to-face interaction with the close person. As a result of such a competition you will have to break up the direct conversation in order to send a message. The researchers formulated the hypothesis that considering the upper limits of cognitive resources engaged in social behaviours, using electronic devices in the presence of the partner may have a harmful influence on the intimacy level in the relationship. The study results indicate a cognitive withdrawal of the partner from the face-to-face interaction during text messaging, which decreases mutual openness since it is read as a lack of empathy. There are two clear differences between text messaging and using other media, for example television. Firstly, smartphones are more adjusted to individual needs, which significantly affects the inclinations developed by the people. Secondly, the interaction with other users is more cognitively involving than other kinds of media. People show a tendency to respond to communication initiatives and feel obliged to reply to what the other person is writing/saying. Therefore, it is more difficult to regulate our own behaviour in this respect than in case of using other media, especially those of a one-way nature. Thirdly, the results of the study allow us to find a causation between text messaging and a lower assessment of the quality of a romantic relationship (Halpern and Katz, 2017).

Another cause of conflicts in romantic relationships can be the way in which the partners use social media. Especially, if they differ in respect of the needs related to expressing themselves online and sharing private information. There can appear a disagreement about the relationship status shared on Facebook. If the partner describes their status as "single" and does not post any photos with their partner, that can be interpreted as the will to attract potential admirers.

Another behaviour which can cause tension in romantic relationships is monitoring the partner in social media. Some people create false profiles to check the activity of their partner on the Internet. It sometimes happens that a wrong interpretation of messages, comments, posted photos and likes inevitably leads to conflict (Arikewuyo, Abdulbaqi, Omoloso, Lasisi and Arikewuyo, 2020).

The study of Hammond and Chou (2015) proved that the Facebook users who often update their statuses and profiles are more strongly concentrated on the activity online than on their partners. They can be more interested in sharing their experiences with their friends from the Internet than communication and building the relationship with the romantic partner. The people who often think about interaction on Facebook become less inclined to make efforts in order to maintain a good quality of a romantic relationship than those who do that less often (Hammond and Chou, 2015).

Another threat related to new communication technologies is online betrayal. Social media make it possible to communicate online with alternative

partners, which can lead to problems in a relationship, separation or even a divorce (McDaniel and Drouin, 2017). In the study of G. M. Lazarescu and M. Vintila (2021), the authors identified some variables which allow us to predict with high probability some behaviours that can indicate someone's infidelity committed in the online environment. The first of them is the time spent in social media. The more time a person spends in social media, the more likely it is for them to enter into a romance. The second factor is the degree in which technology intervenes in our everyday lives. The more the partners use the opportunities created by the Internet, instead, for example, spending this time talking with the romantic partner, the more likely it is, at least for one of them, to engage in a competitive interpersonal relationship on the Internet (Lazarescu and Vintila, 2021).

6. Psychological aspects of online communication at the stage of ending a romantic relationship

The Internet plays an important role also at the stage of ending a romantic relationship. It has been proved that parting with the partner translates to behaviours demonstrated by social media users. L. Fejes-Vékássy, A. Ujhelyi and L. Faragó (2022) examined how the activity of Instagram users changed depending on the phase of a relationship. It was noticed that a new romantic relationship diverted their attention from the online space, which translated to a decreased activity on Instagram. The users in the first phase of the relationship were inclined to post more significant and private contents. At this stage only the acquaintances perceived as very important were shared on the platform. On the other hand, the role of Instagram increased at the stage of parting with the partner. After breaking up the relationship, the users usually used the social media platform to follow the activity of their ex-partners and their new other halves. The users could send direct messages to their ex-partners and the frequency of this activity grew. In this way, for example, some photos important for the recipient were sent. Apart from that, the motives of the shared contents and photos changed. The users

tried to post materials in which they looked attractive and wanted to show their best side. Their motivation was to show their ex-partners how attractive they were and how many likes and positive comments they got. After parting, the majority of the respondents removed the photos connected with their previous relationship, only few of them decided to keep them longer (Fejes-Vékássy et al., 2022).

A negative phenomenon which is getting particularly stronger on the Internet is *ghosting*. It means a practice of breaking up a romantic relationship without any explanations and communication. The person who chooses this form of ending a relationship without notice disappears from the life of their partner just like a ghost (LeFebvre, 2017; LeFebvre et al., 2019). This kind of parting is facilitated by new technologies. It is easier to notice some signs indicating a threat of being rejected by the romantic partner in a face-to-face contact. People communicate in different ways that their need of a close relationship is unfulfilled, which makes them want to enter into contacts with new partners. In case of ghosting, the partners end their relationship by sending a text message or gradually reducing online interaction until it completely disappears. Ghosting seems easier than breaking up face-to-face. It has been noticed that young people use such a method of ending a relationship, especially at its early stage (Pancani, Aureli and Riva, 2022). Ghosting is also a popular practice of withdrawing from friendships on dating portals and applications. This behaviour is not necessarily connected with bad intentions. But for the people affected by ghosting, it is a particularly unpleasant experience and connected with a decrease in self-esteem and well-being (Timmermans, Hermans i Opree, 2021). The research on the correlation between attachment styles and ghosting shows that the victims of ghosting are usually persons with the anxious ambivalent attachment style whereas the ones who prefer ghosting as the form of ending a relationship are people characterized by the avoidant attachment style (Powell, Freedman, Williams and Green, 2021).

Another disadvantageous activity that appears in social media connected with ending a close relationship is *orbiting*. It is stressed that this phenomenon takes place in the online world. It means that after

parting the orbiting persons are still active in the online community of their ex-partners. They view the history of their entries, post comments, likes, share their posts. Such behaviours are difficult to interpret for the ex-partner and they increase their confusion. The recipients may think that this is an attempt to fix the relationship. But orbiting is only a temporary activity of following, controlling the ex-partner without any will to enter into direct communication. That has a negative impact on the affected person's well-being (Pancani et al., 2022).

A very serious threat that affects the ex-partners in the virtual reality is *cyberstalking*. It is a form of stalking by means of digital technologies. It can include such activities as: threatening messages, buying and selling goods online under the name of the victim, creating fake accounts on social media and internet sites under the name of the victim, posing as someone else in order to win the victim's trust and obtain some information about them, posting online adverts on behalf of the victim and sharing their contact data on the Internet (Eichenberg, Huss and Küsel, 2017).

The persons for whom the romantic parting is a traumatic experience will probably follow the online activity of their ex-partners. This kind of activity may delay emotional recovery. The people who experience a high level of suffering caused by breaking up the relationship should consider giving up their habit of following the ex-partners on social media temporarily or for ever (Fox and Tokunaga, 2015).

In some countries it is possible to apply for an online divorce if it is uncontested. New technologies are also used in family mediations. In 2009 in the Netherlands, there was a pilot project which consisted in conducting mediations in divorce cases by means of online tools. This project was assessed by the participants. Only a small number of the couples used of the help of a legal adviser during the online mediation. The majority of the surveyed couples (79%) declared that they had managed to work out an agreement acceptable for both the parties. The very form of online mediation got a positive assessment from the respondents. An online meeting can help couples to focus on the most important things. Emotional aspects of the conflict have a weaker influence on the developed solutions than in case of offline meetings. If it is too painful for one of the partners to face the other one, this form enables carrying out a conversation without vision. When you know the other person well, a lack of non-verbal communication shall not make it difficult to read the other party's intentions (Eichenberg et al., 2017).

Conclusion

In modern times a person needs to be able to adapt to social functioning in two parallel, interpenetrating worlds, i.e. the real offline one, where direct interpersonal interactions are taking place, and the online one with mediated interactions which are typical of this kind of reality. That brings about the need to continuously improve and update the skill of using new media in everyday life. Considering the impact of modern communication technologies on the quality of interpersonal relationships, the researchers take two completely different stands. Cyberpessimists think that the magic of internet contacts has a destructive influence on the sense of community. Moreover, unlimited availability of communication devices during meetings lowers the quality of contact and suppresses conversation in the same way as continuous availability of people contributes to establishing artificial relationships (Onyeator and Okpara, 2019). On the other hand, cyberoptimists assume that the relationships initiated online can be equally deep and satisfying as the ones established in the real world (Grieve, Indian, Witteveen, Tolan and Marrington, 2013). They believe that it is not so important to replace the real world relationships with the Internet ones but rather to extend and strengthen them.

Psychologists emphasize the role and importance of interpersonal relationships developed on the basis of the proper communication process. It is believed that although the way of communicating and maintaining romantic relationships is being modified, their essence remains unchanged. The values resulting from close interpersonal relationships are of a timeless and universal nature, regardless of the fact whether they are established in the online or offline

world. Since they contribute to better health, greater satisfaction with life as well as reduce the feeling of loneliness and anxiety (Ansari, 2021; Grieve et al., 2013; Walęcka-Matyja and Janicka, 2021).

Establishing a close interpersonal relationship is a fundamental need of a human being, their self-esteem being an indicator of how it is ful-filled. The sense of being accepted, appreciated and included in a wider network of interpersonal relationships is indispensable to feel satisfaction with life. In romantic relationships people are able to satisfy the needs which are important for their proper development, such as the need of love, security, belonging, intimacy, affirmation, acceptance, close contact, emotional support and meaning (Parol, 2013). It has been found out that the persons who assess their relationships as satisfying more often put their partner's needs above their own ones. In compatible romantic relationships based on attachment and intimacy, the partners demonstrate respect for the different needs of the

parties (Dakowicz, 2011). The level of meeting the needs indirectly reflects the intensity of the partner's empathy. The higher it is, the greater the satisfaction with the relationship. That is because empathy affects the quality of the communication process, conflict solving as well as the readiness to take up actions which lead to satisfying the needs of a close person. Since, communication based on feelings and emotions includes an element of active listening connected with attention focused on the feelings and attitudes of the interlocutor. Its aim is to take the perspective of the close person and offer support (Floyd, 2002).

The problem matter of online and offline communication in romantic relationships taken up in the possibly multifaceted way in this article does not exhaust the wide range of related issues. However, it makes us reflect upon its modern form and some effects resulting from it and it also indicates some possible activity directions in the area of providing psychological support.

Bibliography

Adler, R.B, Rosenfeld, L.B. & Proctor, II R.F. (2018). *Relacje interpersonalne. Procesy porozumiewania się.* Poznań: Wydawnictwo Rebis.

Akhtar S. & Khan A. (2019). Internet usage and associated factors among college students in Saudi Arabia. *International Journal of Community Medicine and Public Health*, *6*(6), 2331–2334. https://doi.org/10.18203/2394-6040.ijcmph20192293

Al-Saggaf, Y., MacCulloch, R. & Wiener, K. (2018). Trait boredom is a predictor of phubbing frequency. *Journal of Technology in Behavioral Science*, *1–8*(3), 245–252. https://doi.org/10.1007/s41347-018-0080-4

Alshenqeeti, H. (2016). Are emojis creating a new or old visual language for new generations? A socio-semiotic study. *Advances in Language and Literary Studies*, *7*(6), 56–69. http://www.journals.aiac.org.au/index.php/alls/article/view/2823

Ansari, A. (2021). The Role of Interpersonal Communication Skills in Human Resource and Management. *International Journal of Science and Research*, *10*(11), 916–922.

Arikewuyo, A.O., Abdulbaqi, S.S., Omoloso, A.I., Lasisi, T.T. & Arikewuyo, H.O. (2022). Evaluating the use of social media in escalating conflicts in romantic relationships. *Journal of Public Affairs*, *22*(1). https://doi.org/10.1002/pa.2331.

Ayee, E.S.A. (2013). Human communication revisited – A biblical perspective. *Koers 78*(1), 1–16. https://doi.org/10.4102/koers.v78i1.549

Bernard, B.-C., Vintila, M. & Tudorel, O. (2020). Self-Esteem in Online Dating. *Agora Psycho-Pragmatica*, *14*(2), 123–135.

Błachnio, A., & Przepiórka, A. (2019). Be aware! if you start using Facebook problematically you will feel lonely: Phubbing, loneliness, self-esteem, and Facebook intrusion. A cross-sectional study. *Social Science Computer Review*, *37*(2), 270–278. https://doi.org/10.1177/0894439318754490

Breward, M., Hassanein, K. & Head, M. (2017). Understanding consumers' attitudes toward controversial information technologies: a contextualization approach. *Information Systems Research*, *28*(4), 760–774. https://doi.org/10.1287/isre.2017.0706

Buhaş, R. (2014). A Qualitative Approach of Online Relationships. *Annals of University of Oradea, Fascicle Sociology–Philosophy & Social Work*, *13*, 29–48.

Carvajal, E.T. (2017). Families and technologies. What about the phubbing in Mexico? *Horyzonty Wychowania*, *16*(37), 59–69. https://doi.org/10.17399/HW.2017.163704

Chen, Q., Yuan, Y., Feng, Y., & Archer, N. (2021). A decision paradox: benefit vs risk and trust vs distrust for online dating adoption vs non-adoption. *Internet Research*, *31*(1), 341–375. https://doi.org/10.1108/INTR-07-2019-0304

Chotpitayasunondh, V., & Douglas, K.M. (2018). Measuring phone snubbing behavior: Development and validation of the generic scale of phubbing (GSP) and the generic scale of being phubbed (GSBP). *Computers in Human Behavior*, *88*, 5–17. https://psycnet.apa.org/doi/10.1016/j.chb.2018.06.020.

Christensen, A. & Heavey, C. (1990). Gender and social structure in the demand/withdraw pattern of marital conflict. *Journal of Personality and Social Psychology*, *59*(1), 73–81.

Couldry, N. & Hepp, A. (2013). Conceptualizing mediatization: contexts, traditions, arguments. *Communication Theory*, *23*(3), 191–202. http://doi.org/10.1111/comt.12019

Cutrona, C.E. & Suhr, J.A. (1994). Social support communication in the context of marriage: An analysis of couples, supportive interactions. in: B.R. Burleson, T.L. Albrecht, I.G. Sarason (eds.), *Communication of Social Support: Messages, Interactions, Relationships, and Community*, 113–135. Thousand Oaks, CA: Sage Publications.

Dakowicz, A. (2011). Potrzeby indywidualne małżonków zadowolonych i niezadowolonych ze swojego związku. *Edukacja*, *3*, 99–105.

Davey, S., Davey, A., Raghav, S.K., Singh, J.V., Singh, N., Blachnio, A., & Przepiórka, A. (2018). Predictors and consequences of "Phubbing" among adolescents and youth in India: An impact evaluation study. *Journal of Family & Community Medicine*, *25*(1), 35–42.

Deans, H. & Bhogal, M.S. (2019). Perpetrating cyber dating abuse: a brief report on the role of aggression, romantic jealousy and gender. *Current Psychology*, *38*(5), 1077–1082. https://doi.org/10.1007/s12144-017-9715-4

DeVito, A.J. (2016). *The Interpersonal Communication*. Essex: Pearson.

Eichenberg, C., Huss, J., & Küsel, C. (2017). From Online Dating to Online Divorce: An Overview of Couple and Family Relationships Shaped Through Digital Media. *Contemporary Family Therapy*, *39*(4), 249–260. https://doi.org/10.1007/s10591-017-9434-x

Fejes-Vékássy, L., Ujhelyi, A., & Faragó, L. (2022). From #RelationshipGoals to #Heartbreak – We use Instagram differently in various romantic relationship statuses. *Current Psychology*, *41*(10), 6825–6837. https://doi.org/10.1007/s12144-020-01187-0

Finkel, E.J., Eastwick, P.W., Karney, B.R., Reis, H.T. & Sprecher, S. (2012). Online Dating. *Psychological Science in the Public Interest*, *13*(1), 3–66. https://doi.org/10.1177/1529100612436522

Floyd, K. (2002). Human Affection Exchange: V. Attributes of the Highly Affectionate. *Communication Quarterly,* *50*(2), 135–152. https://doi.org/10.1080/01463370209385653

Floyd, K. & Riforgiate, S. (2008). Affectionate communication recevied from spouses predicts stress hormone levels in healthy adults. *Communication Monographs,* *75*(4), 351–368. https://psycnet.apa.org/doi/10.1080/03637750802512371

Floyd, K., Pauley, P.M. & Hesse, C. (2010). State and Trait Affectionate Communication Buffer Adults' Stress Reactions. *Communication Monographs, 77*(4), 618–636. https://psycnet.apa.org/doi/10.1080/03637751.2010.498792

Fox, J. & Tokunaga, R.S. (2015). Romantic Partner Monitoring after Breakups: Attachment, Dependence, Distress, and Post-Dissolution Online Surveillance via Social Networking Sites. *Cyberpsychology, Behavior, and Social Networking*, *18*(9), 491–498. https://doi.org/10.1089/cyber.2015.0123

González-Rivera, J., Segura-Abreu, L., & Urbistondo-Rodríguez, V. (2018). Phubbing in Romantic Relationships: Cell Phone Use, Couple Satisfaction, Psychological Well-Being and Mental Health. Interacciones, 4(2), 81-91. https://doi.org/10.24016/2018.v4n2.117

Gottman, J., & Krokoff, L. (1989). Marital interaction and satisfaction: A longitudinal view. *Journal of Consulting and Clinical Psychology*, *57*(1), 47–52. https://psycnet.apa.org/doi/10.1037/0022-006X.57.1.47

Grieve, R., Indian, M., Witteveen, K., Tolan, G.A. & Marrington, J. (2013). Face-to-face or facebook: can social connectedness be derived online? *Computers in Human Behavior, 29*(3), 604–609. https://doi.org/10.1016/j.chb.2012.11.017

Halpern, D., & Katz, J.E. (2017). Texting's consequences for romantic relationships: A cross-lagged analysis highlights its risks. *Computers in Human Behavior, 71*, 386–394. https://psycnet.apa.org/doi/10.1016/j.chb.2017.01.051

Hammond, R., & Chou, H.-T. G. (2015). *Using Facebook: Good for Friendship but Not So Good for Intimate Relationships*. De Gruyter. https://doi.org/10.1515/9783110473780-006

Harwas-Napierała, B. (2014). Specyfika komunikacji interpersonalnej w rodzinie ujmowanej jako system. (W:) I. Janicka, H. Liberska (red.), *Psychologia rodziny*, 47-72. Warszawa: PWN.

Heavey, C., Layne, C., & Christensen, A. (1993). Gender and conflict structure in marital interaction: A replication and extension. *Journal of Consulting and Clinical Psychology*, *61*(1), 16–27. https://psycnet.apa.org/doi/10.1037/0022-006X.61.1.16

Heavey, C., Christensen, A., & Malamuth, N. (1995). The longitudinal impact of demand and withdrawal during marital conflict. *Journal of Consulting and Clinical Psychology*, *63*(5), 797–801. https://psycnet.apa.org/doi/10.1037/0022-006X.63.5.797

Hobbs, M., Owen, S., & Gerber, L. (2017). Liquid love? Dating apps, sex, relationships and the digital transformation of intimacy. *Journal of Sociology*, *53*(2), 271–284. https://doi.org/10.1177/1440783316662718

Jiang, C.L., Bazarova, N.N., & Hancock, J.T. (2011). The disclosure-intimacy link in computer-mediated communication: An attributional extension of the hyperpersonal model. *Human Communication Research*, *37*(1), 58–77. https://doi.org/10.1111/j.1468-2958.2010.01393.x

Jitaru, M. (2020). Determinants of Women's Couple Satisfaction: Communication Patterns, Ambivalent Sexism and Sex Roles. *International Journal of Education & Psychology in the Community*, *10*(1/2), 7–20.

Jolin, S., Lafontaine, M.-F., Brassard, A., & Lussier, Y. (2022). Which comes first? Associations between communication patterns and relationship satisfaction in couples over a 1-year period. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*. https://psycnet.apa.org/doi/10.1037/cbs0000342

Juhasz, A., & Bradford, K. (2016). Mobile phone use in romantic relationships. *Marriage & Family Review*, *52*(8), 707–721. http://dx.doi.org/10.1080/01494929.2016.1157123

Kalsens, B. (2016). The Social Media Paradox Explained: Comparing Political Parties' Facebook Strategy Versus Practice. *Social Media + Society*, 1–11. https://doi.org/10.1177/2056305116644616

Kelly, L., & Miller-Ott, A.E. (2018). Perceived Miscommunication in Friends' and Romantic Partners' Texted Conversations. *Southern Communication Journal*, *83*(4), 267–280. https://doi.org/10.1080/1041794X.2018.1488271

Krasnova, H., Abramova, O., Notter, I., & Baumann, A. (2016). Why phubbing is toxic for your relationship: Understanding the role of smartphone jealousy among "Generation Y" users. Research Papers, 109. https://aisel.aisnet.org/ecis2016_rp/109

Kujath, C.L. (2011). Facebook and MySpace: Complement or substitute for face-to-face interaction? *Cyberpsychology, Behavior, and Social Networking, 14*(1-2), 75–78. https://doi.org/10.1089/cyber.2009.0311

Lamichhane, Y.R. (2016). Non-verbal skills: Unavoidable in communication. *Repositioning*, *1*(1), 91–98. https://doi.org/10.3126/repos.v1i0.16046

Lăzărescu, G.M., & Vintilă, M. (2021). The Necessity of Couple Education Regarding the Impact of Online Infidelity on Romantic Relationships. *Bulletin of the Transilvania University of Brasov. Series VII: Social Sciences. Law, 14 (63)*(2), 307–316. https://doi.org/10.31926/but.ssl.2021.14.63.2.13

LeFebvre, L.E. (2017). Phantom lovers: Ghosting as a relationship dissolution strategy in the technological age. (In:) N.M. Punyanunt-Carter & J.S. Wrench (eds.), *Swipe right for love: The impact of social media in modern romantic relationships*, 219–236. Lanham: Rowman & Littlefield.

LeFebvre, L.E., Allen, M., Rasner, R.D., Garstad, S., Wilms, A., & Parrish, C. (2019). Ghosting in emerging adults' romantic relationships: The digital dissolution disappearance strategy. *Imagination, Cognition and Personality*, *39*(2), 125–150. https://doi.org/10.1177/0276236618820519

Liberacka-Dwojak, M., & Izdebski, P. (2021). Psychospołeczne wyznaczniki komunikacji seksualnej: przegląd badań. *Seksuologia Polska*, *19*, 1–12. https://doi.org/10.5603/SP.2021.0002

Luk, T.T., Wang, M.P., Shen, C., Wan, A., Chau, P.H., Oliffe, J., Lam, T.H., & Chan, S.S. (2018). Short version of the smartphone addiction scale in Chinese adults: Psychometric properties, sociodemographic, and health behavioral correlates. *Journal of Behavioral Addictions*, *7*(4), 1157–1165. https://doi:10.1556/2006.7.2018.105

Lusiawati, I. (2019). Public Service in Interpersonal Communication. *International Journal for Educational and Vocational Studies*, *1*(5), 484–488. https://doi.org/10.29103/ijevs.v1i5.1719

Madahi, M., Samadzadeh, M., & Javidi, N. (2013). The Communication Patterns & Satisfaction in Married Students. *Procedia–Social and Behavioral Sciences*, *84*, 1190–1193.

Mallory, A.B. (2022). Dimensions of couples' sexual communication, relationship satisfaction, and sexual satisfaction: A meta-analysis. *Journal of Family Psychology*, *36*(3), 358–371. https://doi.org/10.1037/fam0000946

McDaniel, B.T., Drouin, M., & Cravens, J. (2017). Do you have anything to hide? Infidelity-related behaviors on social media sites and marital satisfaction. *Computers in Human Behavior*, *66*, 88–95. https://doi.org/10.1016/j.chb.2016.09.031

McQuail, D. (2010). *McQuail's Mass Communication Theory*. New Delhi.

Mosley, M.A. & Lancaster, M. (2019). Affection and abuse: technology use in adolescent romantic relationships. *American Journal of Family Therapy*, *47*(1), 52–66. https://doi.org/10.1080/01926187.2019.1586592

Naumovski, V., Dana L.-P., Pesakovic, G. & Fidanoski, F. (2016). Why interpersonal communication is important in public administration? Współczesne Problemy Ekonomiczne, 1(14), 55-77. https://doi.org/10.38104/vadyba.2022.1.05

Nayar, B., & Koul, S. (2021). From likes to love trust catalyzing the digital romantic journey. *Global Knowledge, Memory and Communication*, *70*(1/2), 173–186. https://doi.org/10.1108/GKMC-01-2020-0002

Nehal, R. (2017). Measuring the impact of interpersonal written communication on employability potential in HR sector: A case for writing a research proposal. https://www.researchgate.net/publication/342110073_Measuring_the_impact_of_interpersonal_written_communication_on_employability_potential_in_HR_sector_A_case_for_writing_a_research_proposal_Raashid_Nehal

Nguyen, T., White, S., Hall, K., Bell., R., L. & Ballentine, W. (2019). Emotional Intelligence and Managerial Communication. *American Journal of Management*, *19*(2), 54–63. https://doi.org/10.33423/ajm.v19i2.2068

Onyeator, I. & Okpara, N. (2019). Human Communication in a Digital Age: Perspectives on Interpersonal Communication in the Family. *New Media and Mass Communication*, *78*, 35–45, https://doi.org/10.7176/NMMC

Otondo, R.F., van Scotter, J.R., Allen, D.G. & Palvia, P. (2008). The complexity of richness: Media, message, and communication outcomes. *Information & Management, 45*(1), 21–30. http://dx.doi.org/10.1016/j.im.2007.09.003

Pancani, L., Aureli, N., & Riva, P. (2022). Relationship Dissolution Strategies: Comparing the Psychological Consequences of Ghosting, Orbiting, and Rejection. *Cyberpsychology*, *16*(2), 87–103. https://doi.org/10.5817/CP2022-2-9

Parol, M. (2013). Potrzeby a relacje między mężczyznami a kobietami. *Kwartalnik Naukowy Fides et Ratio*, *2*(13), 5–15. https://www.stowarzyszeniefidesetratio.pl/Presentations0/01Parol2013.pdf

Peng, K. (2020). To be attractive or to be authentic? How two competing motivations influence self-presentation in online dating. *Internet Research*, *30*(4), 1143–1165. https://doi.org/10.1108/INTR-03-2019-0095

Pereira, M.G., Fontes, L., Vilaça, M., Machado, J.C., Fincham, F., Costa, E., & Taysi, E. (2022). Communication, Forgiveness and Morbidity in Young Adults Involved in a Romantic Relationship. *International Journal of Psychology and Psychological Therapy*, *22*(2), 165–175. https://www.ijpsy.com/volumen22/num2/613.html (access: 05.02.2023).

Plopa, M. (2006). *Więzi w małżeństwie i rodzinie. Metody badań*. Kraków: Oficyna Wydawnicza „Impuls".

Plopa, M. (2017). Kwestionariusz Satysfakcji Seksualnej. *Polskie Forum Psychologiczne*, *22*(4), 519–543. https://doi.org/10.14656/PFP20170401

Pollmann, M.M. H., Norman, T.J., & Crockett, E.E. (2021). A daily-diary study on the effects of face-to-face communication, texting, and their interplay on understanding and relationship satisfaction. *Computers in Human Behavior Reports*, *3,* https://doi.org/10.1016/j.chbr.2021.100088

Powell, D.N., Freedman, G., Williams, K.D., Le, B. & Green, H. (2021). A multi-study examination of attachment and implicit theories of relationships in ghosting experiences. *Journal of Social and Person.al Relationships*, *38*(7), 2225–2248. https://doi.org/10.1177/02654075211009308

Prieler, M., & Kohlbacher, F. (2017). Face-ism from an International Perspective: Gendered Self-Presentation in Online Dating Sites Across Seven Countries. *Sex Roles*, *77*(9–10), 604–614. https://doi.org/10.1007/s11199-017-0745-z

Przywara, B., Leonowicz-Bukała, I. (2020). Bądźmy w kontakcie. Współczesna cyfrowa komunikacja permanentna. *Zeszyty Prasoznawcze*, t. 63, 3(243), 9–32 https://doi.org/10.4467/22996362PZ.20.019.12090

Purnomo, E., Ma'mun, A., Kusmaedi, N., Hendrayana, Y., Hidayat, Y., Jermaina, N. & Marheni, E. (2021). Profile: Interpersonal Communication Skills for Future Coaches. *International Journal of Human Movement and Sports Sciences*, *9*(5), 964–972. https://doi.org/10.13189/saj.2021.090518

Raport. Poczucie samotności wśród dorosłych Polaków, CBOS https://instytutpokolenia.pl/pdf/SAMOTNOSC_14.11.pdf (access: 09.03.2023).

Rais, M., R. (2020). Contribution of Self Confidence and Peer Conformity to Interpersonal Communication. *Journal of Educational and Learning Studies*, *3*(1), 75–83. https://doi.org/10.32698/0992

Ranzini, G. & Lutz, C. (2017). Love at first swipe? Explaining Tinder self-presentation and motives. *Mobile Media and Communication*, *5*(1), 80–101. https://doi.org/10.1177/2050157916664559

Roberts, J.A., & David, M.E. (2022). Partner phubbing and relationship satisfaction through the lens of social allergy theory. *Personality and Individual Differences*, *195*, 111–676. https://doi.org/10.1155/2022/6432445

Ryś, M. (1999). *Psychologia małżeństwa w zarysie*. Warszawa: Centrum Metodyczne Pomocy Psychologiczno-Pedagogicznej MEN.

Ryś, M., Greszta, E., Śledź, K. (2020). The feeling of being loved and the language of communication of young adults. *Kwartalnik Naukowy Fides et Ratio*, *2*(42), 47–76. https://doi.org/10.34766/fetr.v42i2.316

Soni, R., Upadhyay, R., & Jain, M. (2017). Prevalence of smart phone addiction, sleep quality and associated behaviour problems in adolescents. *International Journal of Research in Medical Sciences*, *5*(2), 515–519. http://dx.doi.org/10.18203/2320-6012.ijrms20170142

Sternberg, R.J. & Weis, K. (2007). *Nowa psychologia miłości.* Taszów: Moderator.

Suwalska-Barancewicz, D., & Malina, A. (2018). Samoocena i styl przywiązania jako predyktory oceny zachowań komunikacyjnych własnych oraz partnera. *Psychologia Rozwojowa*, *23*(3), 65–82. https://doi.org/10.4467/2084 3879PR.18.017.9358

Timmermans, E., & De Caluwé, E. (2017). To Tinder or not to Tinder, that's the question: An individual differences perspective to Tinder use and motives. *Personality and Individual Differences*, *110*, 74–79. https://doi.org/10.1016/j. paid.2017.01.026

Timmermans, E., Hermans, A.-M., & Opree, S.J. (2021). Gone with the wind: Exploring mobile daters' ghosting experiences. *Journal of Social and Personal Relationships*, *38*(2), 783–801. https://doi.org/10.1177/0265407520970287

Vanden Abeele, M. (2020). The social consequences of phubbing: A framework and a research agenda. (In:) R. Ling, G. Goggin, L. Fortunati, S.S. Lin, & Y. Li (eds.), *Handbook of mobile communications, culture, and information*, 158–174. Tilburg University: Oxford University Press.

van der Zanden, T., Schouten, A.P., Mos, M.B. J., & Krahmer, E.J. (2020). Impression formation on online dating sites: Effects of language errors in profile texts on perceptions of profile owners' attractiveness. *Journal of Social and Personal Relationships*, *37*(3), 758–778. https://doi. org/10.1177/0265407519878787

van der Zanden, T., Schouten, A.P., Mos, M.B. J., & Krahmer, E.J. (2022). Originality in online dating profile texts: How does perceived originality affect impression formation and what makes a text original? *PLoS ONE*, *17*(10). https://doi. org/10.1371/journal.pone.0274860

Venter, E. (2019). Challenges for meaningful interpersonal communication in a digital era. *Theological Studies*, *75*(1), a5339. https://doi.org/10.4102/hts.v75i1.5339

Walęcka-Matyja, K. & Janicka, I. (2021). *Rodzina jako wartość. Analiza psychologiczna wartości rodzinnych*. Łódź: Wyd. Uniwersytetu Łódzkiego.

Walęcka-Matyja, K., & Szkudlarek, A. (2019). Psychologiczne predyktory zadowolenia z bliskiego związku interpersonalnego. Rola komunikacji emocjonalnej. *Kwartalnik Naukowy Fides et Ratio*, *38*(2), 50–73. https://doi.org/10.34766/ fetr.v2i38.66

Walther, J.B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, *19*(1), 52–90. https://doi. org/10.1177/009365092019001003

Wang, X., Xie, X., Wang, Y., Wang, P., & Lei, L. (2017). Partner phubbing and depression among married Chinese adults: The roles of relationship satisfaction and relationship length. *Personality and Individual Differences*, *110*, 12–17. https:// psycnet.apa.org/doi/10.1016/j.paid.2017.01.01.

Ward, J. (2017). What are you doing on Tinder? Impression management on a matchmaking mobile app. *Information, Communication and Society*, *20*(11), 1644–1659. https://doi. org/10.1080/1369118X.2016.1252412

We Are Social, & Hootsuite. (2020). Digital 2020: Global digital report 2020. https://datareportal.com/reports/digital-2020-global-digital-overview (access: 13.03.2023).

Yam, F.C., & Ilhan, T. (2020). Holistic technological addiction of modern age: Phubbing. *Current Approaches in Psychiatry*, *12*(1), 1–15. https://doi.org/10.18863/pgy.551299.

Yam, F.C., & Kumcagız, H. (2020). Adaptation of general phubbing scale to Turkish culture and investigation of phubbing levels of university students in terms of various variables. Addicta: *Turkish Journal on Addictions*, *7*(1), 48–60. https:// doi.org/10.5152/addicta.2020.19061

Yam, F.C. (2023). The Relationship Between Partner Phubbing and Life Satisfaction: The Mediating Role of Relationship Satisfaction and Perceived Romantic Relationship Quality. *Psychological Reports*, *126*(1), 303–331. https://doi. org/10.1177/00332941221144611

Youarti, I.E., & Hidayah, N. (2018). Perilaku phubbing sebagai karakter remaja generasi Z. *Jurnal Fokus Konseling*, *4*(1), 143–152.