# **Research Article**

# The Impact of the Covid-19 Pandemic on Forming New Relationships: Implications for Emotional Intelligence, Theory of Mind, Empathy and Social Media

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# Abstract

As a fallout of the emergence of the COVID-19 pandemic, the whole world was put into isolation. During this period, social media saw a record influx of users who used the technology to stay connected. However, the long-lasting effects of the pandemic on interpersonal relationships and mental health remain a burning topic. Thus, the study aims to examine how the pandemic affected our ability to build new interpersonal relationships in connection to aspects of emotional intelligence such as empathy and Theory of Mind (ToM). Furthermore, the study also examines how the use of social media for communication changed after the pandemic. In total, N = 464 subjects (Age: M = 27.07; 47%, F = 25.9; 53%) participated in the study. Empathy, ToM, social media use for communication before and after the pandemic, and the ability to form new relationships before and after the pandemic suggesting finding of the study indicates a statistically significant positive relationship between empathy and the ability to form new relationships before and after the pandemic, suggesting that empathy outweighs both emotional intelligence and social media usage in building new relationships. However, no significant

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relation was found between ToM and the ability to form new relationships before and after the pandemic. Lastly, no relation was found between ToM, empathy, and the use of social media for communication before and after the pandemic. Future studies should examine how the pandemic may have affected other facets of relationship formation and social interaction dynamics in connection with other aspects of emotional intelligence that have not been covered.

*Keywords:* emotional intelligence; Theory of Mind; empathy; interpersonal relationships; online communication.

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#### Social media and the COVID-19 pandemic

Social media networks can be defined as Internet technological applications that enable users to share digital content and engage in social networking (Leyrer-Jackson & Wilson, 2018). Social media consists of a variety of user-driven applications that facilitate a wide distribution of digital content, online social interaction, and an exchange of ideas and common interests at various levels, including personal, professional, political, as well as societal (Kapoor et al., 2018). In recent years, social media has witnessed significant growth in its user base, and this trend shows no signs of slowing down (Kemp, 2022). Moreover, the COVID-19 pandemic has further fuelled the increase in social media users (Hootsuite and We Are Social, 2021), who often had no other alternatives than social media, not only to maintain stable interpersonal relationships but also to establish new ones. This brings up an important avenue for research to explore how the COVID-19 pandemic influenced the use of

social media for everyday communication and forming new relationships, as well as how COVID-19 affected the ability to form new relationships overall.

#### **Emotional intelligence and ToM**

Emotional intelligence can be defined as the ability to recognise, evaluate, and manage emotions in oneself and others (Drigas & Papoutsi, 2018). Bar-On (2006) distinguishes several key components of emotional intelligence: 1) Self-awareness and self-expression; 2) Social awareness and interpersonal relationships; 3) Emotional management and regulation; 4) Adaptability to change; and 5) Self-motivation. According to Bar-On (2006), a crucial aspect of emotional intelligence is the capacity to perceive both one's own emotions and the emotions of others. The second component, social awareness and interpersonal relationships, can be measured in various ways, such as by recognising emotions through facial expressions, also known as the Theory of Mind (ToM) (Quesque & Rossetti, 2020). In this specific regard, the Reading Mind in the Eves (RMET) test has gained notable recognition as an indispensable assessment tool for evaluating this particular aspect of emotional intelligence (Baron-Cohen et al., 2001). Several studies have already shown how the ability to recognise the emotions of others plays a significant role in forming new relationships, especially in childhood (Halberstadt et al., 2001; Hughes & Dunn, 1998; Schutte et al., 2001). The results suggest that individuals with a higher ability to recognise the mental state of others are more successful in forming new relationships with their peers. However, very little research has been done on the young adult population, and very little is known about how the COVID-19 pandemic affected these relations altogether.

#### Empathy

Empathy is defined as an emotional affective response that is dependent upon the interaction between trait capacities and state influences. The resulting emotion is similar to one's perception (directly experienced or imagined) and understanding (cognitive empathy) of the stimulus emotion, with the recognition that the source of the emotion is not one's own (Cuff et al., 2016). Empathy encompasses a multifaceted range of cognitive, affective, and behavioural processes that allow individuals to connect with and respond to the mental states of others and has profound implications for individual behaviour, social interactions, and group dynamics (Batson et al., 1987; Decety & Cowell, 2014; Eisenberg et al., 2010). Concerning interpersonal relationships, empathy also plays a crucial role in reducing prejudice, promoting inclusivity, and fostering effective communication. From this, it is evident that empathy also plays a critical role in the success of forming and maintaining

close personal relationships, as backed by published studies (Batson & Ahmad, 2009; Grühn et al., 2008; Jo et al., 2020). On the other hand, significant disruptions in empathy and the ability to recognise the emotions of others may impact an individual's social skills, potentially leading to social anxiety (Pittelkow et al., 2021) in combination with other potential negative ramifications caused by the COVID-19 pandemic, such as decreased overall life satisfaction (Pennington, 2021) or increased loneliness due to prolonged social distancing and isolation (Lisitsa et al., 2020). Consequently, individuals with heightened social anxiety and loneliness often rely on social media as a substitute for face-to-face interactions (O'Day & Heimberg, 2021) to compensate for their limited personal relationships.

#### **Research aims and questions**

Therefore, the research aims to address the relationship between emotional intelligence components (i.e., Theory of Mind and empathy) and individuals' ability to form new relationships before and after the COVID-19 pandemic in the young adult population. Furthermore, the study also aims to investigate how the pandemic influenced their propensity to use social media for everyday communication concerning ToM and empathy. Based on these aims, the following research questions were formulated: What is the relation between empathy and the ability to form new relationships before the COVID-19 pandemic?; What is the relation between empathy and the ability to form new relationships after the COVID-19 pandemic?: What is the relation between the Theory of Mind and the ability to form new relationships before the COVID-19 pandemic?; What is the relation between the Theory of Mind and the ability to form new relationships after the COVID-19 pandemic?; What is the relation between empathy and the use of social media for communication before the COVID-19 pandemic?: What is the relation between empathy and the use of social media for communication after the COVID-19 pandemic?; What is the relation between the Theory of Mind and the use of social media for communication before the COVID-19 pandemic?: What is the relation between the Theory of Mind and the use of social media for communication after the COVID-19 pandemic?

## Method

#### **Participants**

The sample consisted of young adults, predominantly Czech university students (for more details regarding socio-demographic data, see Table 1). All respondents participated in the research voluntarily and were given informed consent of participation prior to filling out the questionnaire. The research was conducted using convenience and snowball sampling



methods over a period of time between March and December 2022. For the data collection, a platform developed at the Institute of Social and Health Sciences, Palacký University in Olomouc was used. The study was approved by the Research Ethics Committee of the Faculty of Education, University of Hradec Králové (No. 1/2022). Its procedure complies with the research ethics framework of the Ministry of Education, Youth, and Sports.

In total, N = 825 respondents completed the questionnaire and were subjected to an additional selection process. Respondents who did not complete all questions related to the use of social media for communication and the ability to form new relationships were removed from the dataset (n = 227). Furthermore, respondents who did not complete all items on the TEQ measurement scale were also removed (n = 124). Lastly, respondents who answered inconsistently (> 2) to the questions regarding age, weight, or height were also removed from the dataset (n = 10). This resulted in n = 464 total participants (Age: M = 27.07; 47%, F = 25.9; 53%).

#### Measures

**Toronto Empathy Questionnaire (TEQ)**, developed by Spreng et al. (2009), is a self-report instrument measuring empathy - in particular emotional aspects. For the research, a Czech-validated version of the scale was employed (Novak et al., 2021). It is a very brief and user-friendly instrument with 7 questions rated on a five-point Likert scale from Never (0) to Always (4) creating score range from 0 to 28. A higher total score indicates higher empathy. The internal consistency of the TEQ was good: Cronbach's  $\alpha$  = .85, 95% CI [.83 – .86] and McDonald's  $\omega$ t = .89.

**Reading Mind in Eyes Test (RMET)** by Baron-Cohen et al. (2001) is a self-report measure that focuses on assessing one's ability to recognise the mental state of others. The instrument consists of 36 photographs of human eyes, depicting a range of distinct mental states. For each photograph, respondents choose between one of four possible emotions, only one of which is correct. The Czech-translated version contains 12 items. Therefore, RMET's total score ranges from 0 to 12. A higher total score indicates a higher ability to recognise the mental state of others. The internal consistency of the RMET was below sufficient threshold: Cronbach's  $\alpha = .58$ , 95% CI [.54 – .62] and McDonald's  $\omega t = .62$ .

Furthermore, four other original questions were developed to measure the respondent's experience in forming new relationships before and after the COVID-19 pandemic, as well as their overall social media use for communication: Question 1: "Please rate your ability to

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form new relationships before the start of the COVID-19 pandemic"; Question 2: "Please rate your ability to form new relationships after the coronavirus lockdown in 2021"; Question 3: "Prior to the pandemic, how much did you use social media for communication (either personal or professional) compared to other forms of communication?"; Question 4: "How is it now?" Questions 1 and 2 were rated on a four-point Likert scale ranging from "very good", "rather good", "rather bad" to "very bad" and Questions 3 and 4 were rated on a five-point Likert scale ranging from "mostly", "rather more", "the same as other forms", "rather less" to "minimally".

#### Data analysis

Data analysis was conducted to explore the general characteristics of the study sample and answer research questions. In the first step, a descriptive analysis was calculated. In the second step, binary logistic regression was performed. In the logistic regression analysis, the outcome variables consisted of experiences in forming new relationships before and after the COVID-19 pandemic. Prior to the inclusion of these variables in regression analysis, respondents' answers were dichotomized based on the following rule: "very good" and "rather good" were recoded as "overall good" and "very bad" and "rather bad" were recoded as "overall bad". In addition, items assessing the use of social media to communicate before and after the COVID-19 pandemic were also included in regression models as outcome variables. Prior to the inclusion of these variables in regression analysis, respondents' answers were dichotomized based on the following rule: "mostly", "rather more" and "the same as other forms" were recoded as "similar or more than other forms" while "rather less" and "minimally" were recoded as "less than other forms". In logistic regression, we used empathy and the Theory of Mind as predictors. Due to the repeated use of these two predictors and to decrease the false-positive rate, we lowered the significance threshold to 0.01 in all regression models. Model coefficients in log odds were recalculated to odds ratios with a 95 Confidence Interval. All statistical analyses were conducted in Jamovi (version 2.3) and the R programming environment (version 4.1).



# Results

#### Table 1.

Sociodemographic data

Кеу	Value	n	%
Sex	Female	246	53
	Male	218	47
Education	Primary	13	2.8
	Vocational school	26	5.6
	Secondary school	265	57.1
	Higher vocational school	18	3.9
	University - bachelor	80	17.2
	University - masters	58	15.5
	University - doctorate	4	0.9
Family status	widow/widower	4	0.9
	divorced	7	1.5
	married/In a partnership	57	12.3
	in a relationship	207	44.6
	not in any relationship	189	40.9

#### **Binomial logistic regression**

Table 2 presents the results of the binary logistic regression. It was found that there was no significant relationship between the RMET score and the ability to form new relationships before the start of the COVID-19 pandemic (Model 1). However, a significant association was found with empathy. More specifically, with every one-unit increase in empathy score, the odds of problems in forming new relationships before the start of the COVID-19 pandemic decreased by 0.922 (Model 2).

#### Table 2.

Results of the logistic regression examining the relationship between the ability to form new relationships before the start of the COVID-19 pandemic and RMET, empathy.

						95% Confid	dence Interval
Predictor	Estimate	SE	Ζ	р	Odds ratio	Lower	Upper
Model 1							
Intercept	-0.5563	0.5020	-1.108	.268	0.573	0.214	1.53
RMET	0.0114	0.0513	0.222	.824	1.011	0.915	1.12
Model 2							
Intercept	1.2003	0.4404	2.73	.006	3.321	1.401	7.874
TEQ	-0.0815	0.0214	-3.81	< .001	0.922	0.884	0.961

TEQ = Toronto Empathy Questionnaire, RMET = Reading Mind in Eyes Test

Regression analysis revealed that there was no significant relationship between RMET and the ability to form new relationships after the coronavirus lockdown in 2021 (Table 3, Model 1). However, a significant association with empathy was found. More specifically, with every one-unit increase in empathy score, the odds of problems in forming new relationships after the coronavirus lockdown in 2021 decreased by 0.917 (Model 2).

Regression analysis also indicated that there was no significant relationship between either RMET or empathy in the use of social media for communication prior to the COVID-19 pandemic (Table 3). Similarly, no significant association was found between the use of social media for communication after the COVID-19 pandemic and either RMET or empathy (Tables 4 and 5).

#### Table 3.

Results of the logistic regression examining the relationship between the ability to form new relationships after the coronavirus lockdown in 2021 and RMET, empathy.

						95% Confid	ence Interval
Predictor	Estimate	SE	z	р	Odds ratio	Lower	Upper
Model 1							
Intercept	-0.7917	0.5028	-1.575	.115	0.453	0.169	1.21
RMET	0.0452	0.0513	0.881	.378	1.046	0.946	1.16
Model 2							
Intercept	1.3979	0.4434	3.15	.002	4.047	1.697	9.650
TEQ	-0.0867	0.0215	-4.04	< .001	0.917	0.879	0.956

TEQ = Toronto Empathy Questionnaire, RMET = Reading Mind in Eyes Test

#### Table 4.

Results of the logistic regression examining the relationship between the use of social media for communication prior to the pandemic and RMET, empathy.

						95% Confide	ence Interval
Predictor	Estimate	SE	Z	р	Odds ratio	Lower	Upper
Model 1							
Intercept	-1.50688	0.6381	-2.3616	.018	0.222	0.0635	0.774
RMET	-0.00332	0.0653	-0.0508	.959	0.997	0.8769	1.133
Model 2							
Intercept	-1.73407	0.5611	-3.091	.002	0.177	0.0588	0.530
TEQ	0.00957	0.0267	0.358	.720	1.010	0.9581	1.064

TEQ = Toronto Empathy Questionnaire, RMET = Reading Mind in Eyes Test

#### Table 5.

Results of the logistic regression examining the relationship between the use of social media for communication in the present and RMET, empathy.

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Predictor	Estimate	SE	Z	p	Odds ratio	Lower	Upper
Model 1						·	
Intercept	-1.5150	0.6688	-2.265	.023	0.220	0.0593	0.815
RMET	-0.0222	0.0688	-0.324	.746	0.978	0.8547	1.119
Model 2							
Intercept	-1.2875	0.5640	-2.283	.022	0.276	0.0914	0.834
TEQ	-0.0218	0.0274	-0.796	.426	0.978	0.9272	1.032

TEQ = Toronto Empathy Questionnaire, RMET = Reading Mind in Eyes Test

### Discussion

The results showed a statistically significant positive relation between the level of empathy and the ability to form new relationships before and after the COVID-19 pandemic, without any significant differences between those two time periods, suggesting that empathy is more crucial than emotional intelligence and social media in relationship building. On the other hand, no significant relation was found between the ability to recognise the mental states of others (ToM) and the ability to form new relationships before or after the pandemic. Moreover, no association was found between individuals' propensity to use social media for communication and empathy, or ToM both before and after the COVID-19 pandemic.

A statistically significant positive association has been found between empathy and the ability to build new relationships before or after the COVID-19 pandemic. Additionally, no significant difference has been found, meaning that the COVID-19 pandemic has not affected these relations in any significant capacity. These findings are mutually supported by Qin et al. (2022), whose results indicate that the pandemic conditions were not found to have a significant effect on empathy but also add that social media support may have positively impacted empathy by maintaining it through continuous social support. A positive effect of social media on empathy was also observed in a study by Vossen & Valkenburg (2016), who found an increase in empathy over a 1-year period of social media use in 942 adolescents. The relations between perceived social support, empathy, and prosocial behaviour during the pandemic times have been observed in several other studies, suggesting a deep underlying connection between those concepts (Groep et al., 2020; Haller et al., 2022; Jiang et al., 2021). However, other mediating or related factors are needed to be taken into consideration when assessing these relations, such as resilience and willingness (Groep et al., 2020), social responsibility (Jiang et al., 2021), or overall better well-being and perceived stress (Haller et al., 2022). For instance, Groep et al., (2020) found that the level of empathic concern dropped during the COVID-19 pandemic, but this was mostly due to a lack of perceived opportunity, adding that increased willingness and increased levels of giving and perspective-taking were also observed in their study. The role of empathy in forming and maintaining interpersonal relationships has been examined by Jo et al. (2020), where a static correlation was found between empathy and interpersonal relations and interpersonal communication ability. The role of empathy in building personal relationships was examined in more detail by Grühn et al. (2008), who found a significant association between high levels of empathy and positive relations with others. Moreover, their findings also indicate that individuals with high self-reported empathy perceived interactions with others to be more meaningful and positive. Taken together, the present research concurs with our findings and highlights the critical role of empathy in building and maintaining personal relationships before, during, and after the COVID-19 pandemic. Furthermore, their findings also suggest that the pandemic had little to no negative effect on empathy, and on the contrary, it opened new possibilities to proactively help others.

The results have revealed no significant relation between ToM and the ability to build new relationships both before and after the COVID-19 pandemic. Despite the results of our study,

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Psychological Thought 2024, Vol. 17(2), 391-411 https://doi.org/10.37708/psyct.v17i2.913 the significance of high emotional intelligence and ToM in particular has been observed in practically every stage of human life. A longitudinal study by Caputi et al. (2012) reports lower peer rejection and high peer acceptance relates to emotional intelligence in preschool children, but adds that the prosocial behaviour of the individual played a mediating role in this relationship. These findings are also supported by Caputi et al. (2012), who found a significant relation specifically between Theory of Mind and peer acceptance, particularly in older children. The authors also suggest that the impact of the Theory of Mind on peer acceptance increases with age. In a study by Mavroveli et al. (2009), primary school children with high emotional intelligence scores were reported to have overall better peer competence, better emotion perception accuracy, and were more prone to peer-rated prosocial behaviour. These results coincide with the findings of Petrides et al. (2006), who also report a higher recurrence of prosocial behaviour in primary school children with a high emotional intelligence score. Similar results were also observed in children entering secondary school, where ToM in particular played a significant role in higher peer acceptance and lower peer rejection with lower anxiety levels over time (Ronchi et al., 2020). In a study by Bosacki and Wilde Astington (1999), Theory of Mind was found to be related to better social interaction skills, social understanding, and overall social competence. The importance of emotional intelligence and ToM in particular has also been examined in early to late adolescence (Frederickson et al., 2012; Güler & Turan, 2022; Mavroveli et al., 2007). In all studies, emotional intelligence was found to be significant in relation to social competence and positive peer relationships. Furthermore, emotional intelligence also plays a major role in close and affectionate interpersonal relationships (Brackett et al., 2005; Lopes et al., 2004; Schutte et al., 2001). Studies report that individuals with high emotional intelligence perceived a better quality of interaction with the opposite sex and anticipate greater satisfaction in close, partner, and marital relationships. On the other hand, couples with both partners scoring low on emotional intelligence tended to score low on depth, support, and positive relationship quality and score high on conflict and negative relationship quality. The discrepancy between the results of the present study and existing research may be explained by the social environment from which the respondents were collected (Hughes & Leekam, 2004) as well as the validity of the measurement instrument used.

The results did not reveal any significant association between individuals' propensity to use social media for everyday communication and empathy, or ToM in periods before COVID-19 or after. A study by Schneider et al. (2020), demonstrated congruence with ours and also did not identify any significant association between the aptitude to discern the mental states of

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others and the inclination for online communication. Considering the results of the existing research, the propensity to use social media for online social interaction depends on several other underlying factors, such as age, motive, or level of sociability. For instance, a study by Guan et al. (2019) revealed a significant positive relation between face-to-face communication and higher levels of psychological well-being, but this applied only to older generations and not to individuals aged between 18 and 34 who have used social media regularly since they were born. Furthermore, a study by Valkenburg & Peter (2007) focused on preadolescents and adolescents also revealed age differences in regard to online social media interaction, with 15-year-olds being the most active. This age difference has been observed during the pandemic, where older individuals experienced lower social loneliness compared to younger individuals, who experienced higher loneliness using social media during the pandemic (Bonsaksen et al., 2021). Regarding the motive, the propensity to use social media for online social interaction also often depends on the proportion of already established relationships at earlier ages prior to social media use, as pointed out by Lee (2009). This need to maintain established relationships for online social interaction was also observed in Yang & Brown (2013) as well as Valkenburg & Peter (2007), where socially anxious individuals used social media for online communication less often than did nonsocially anxious respondents, which is in agreement with findings by Lee (2009). These findings are also supported by Zywica and Danowski (2008), who imply that sociability can explain a high social media presence. Therefore, despite the increased use of social media during the COVID-19 pandemic, rather than emotional intelligence, the motive that played a key role, in this case, was the intention to stay in touch or reconnect with family and friends (Pennington, 2021), in combination with other factors such as age, motives, or level of sociability.

#### Implications for practice

The strong statistically significant relation between respondents' level of empathy and their ability to form relationships suggests that fostering empathy skills should be a priority in interpersonal communication training programmes. This finding holds true regardless of the period, pre- or post-COVID-19 pandemic. Practitioners can focus on enhancing individuals' empathetic understanding of others' emotions, needs, and perspectives, which can positively impact their ability to connect with others effectively. The study reveals that the ability to recognise the mental state of others does not significantly contribute to relationship formation, both before and after the pandemic. This finding challenges the assumption that high emotional intelligence, specifically mental state recognition, automatically translates into



better interpersonal communication skills. Practitioners and educators need to reconsider the emphasis placed on mental state recognition and explore other aspects of emotional intelligence that might be more relevant and impactful in fostering relationship-building abilities.

Moreover, the research underscores the stability of the relationship between empathy and relationship formation across the pre- and post-COVID-19 periods. This suggests that the fundamental role of empathy in establishing connections remains consistent, regardless of the changes brought about by the pandemic. As social interactions increasingly rely on digital platforms, practitioners should recognise the enduring value of empathy and find innovative ways to incorporate it into online communication and relationship-building strategies.

Additionally, given the pervasive use of social media, practitioners should consider the potential benefits and drawbacks it may have on individuals' emotional intelligence and relationship-building skills. While the study did not specifically address the influence of social media use, it implies that practitioners should promote mindful and intentional engagement with social media platforms, encouraging users to develop a balanced approach that prioritises empathy and meaningful connections over superficial interactions.

#### Implications for research

One possible avenue for future investigation is to examine the specific behaviours and activities on social media platforms that may hinder relationship formation. It would be valuable to explore whether certain patterns of social media use, such as excessive passive scrolling, self-comparison, or superficial interactions, have a detrimental impact on individuals' ability to establish meaningful connections. Understanding these specific aspects of social media engagement could shed light on potential interventions or strategies to mitigate the negative effects. Moreover, it is important to consider the role of emotional intelligence in relationship between empathy and relationship establishment, no such association was found for the ability to recognise the mental state of others. This discrepancy suggests the need for further investigation into the specific emotional intelligence components that may be more influential in fostering connections in the digital realm.



Additionally, the study's focus on the pre- and post-COVID-19 pandemic periods opens up avenues for comparative research. Exploring potential differences in relationship formation and communication dynamics during and after the pandemic could provide valuable insights into the impact of extraordinary circumstances on social interactions, particularly in the context of increased reliance on digital platforms for communication and connection.

The present study employed a quantitative cross-sectional research design to analyse the relationships between the variables. However, a mixed method might provide an even deeper understanding of the topic, such as how the respondents see or conceptualise empathy or how empathy intertwines with the issue of forming new relationships pre- and post-COVID-19 pandemic.

Furthermore, it would be beneficial to examine potential moderating variables that could influence the relationship between social media use and relationship formation. Factors such as age, personality traits, cultural backgrounds, and individual motivations for using social media platforms might play significant roles in shaping the outcomes. Investigating these moderating factors could provide a more nuanced understanding of the complex interplay between social media use and relationship formation. By delving deeper into the specific behaviours, emotional intelligence components, comparative analyses, and moderating factors, researchers can gain a comprehensive understanding of the complex relationship between social media use and individuals' ability to form meaningful relationships in both online and offline contexts.

#### Limitations

The study design poses several underlying limitations. One of these is the cross-sectional design, which prevents drawing causal links between the measured relations. In the future, this limitation should be addressed via a longitudinal research design. Secondly, since the data were collected using snowball and convenience sampling methods, the generalizability of the study results is significantly limited. The third limitation is posed by the validity of RMET, which has not been validated in the Czech environment yet. This may be one of the reasons why some of the explored relations failed to be detected in the present study. Lastly, due to the precarious nature of online data collection, other factors may have affected participants' willingness to respond.

#### Conclusion

The aim of this study was to examine to what extent social media use in connection with individuals' emotional intelligence influenced the ability to form new relationships and overall communication in interpersonal relationships before and after the COVID-19 pandemic. The results showed that a strong statistically significant relation was found between the level of empathy of respondents and their ability to establish new relationships before as well as after the COVID-19 pandemic, without any significant difference between those two periods. However, no relation was found between one's ability to recognise the mental state of others (ToM) and the ability to establish relationships before and after the COVID-19 pandemic. Furthermore, no statistically significant relation was found between individuals' propensity to communicate via social media and empathy, ToM before and after the COVID-19 pandemic.

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### **Competing Interests**

Authors declare that they have no conflict of interest.

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