

# Digital Socialligators? Social Media-Induced Perceived Support During the Transition to the COVID-19 Lockdown

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## Abstract

The sudden COVID-19-induced transition from a physical university life to a virtual one was a painful one for many students. Social distancing measures mean more than a simple change from face-to-face to online education. This study investigates how different social aspects, such as the students' psychological sense of community, social capital, and use of social media, facilitated the perceived social support during the transition to the COVID-19 lockdown. Our results not only underline social media's role, but also indicate that the perceived social support, as well as the bonding and bridging social capital, were particularly relevant during the transition process. Our findings are aimed at organizational management by recommending actionable ways in which they could improve social support by organizing computer-supported social networks, social support predictors, and specialized interventions for students with less perceived social support. As such, the study provides unique insights into the COVID-19-induced lockdown situation among students, while offering a transition model that also generalizes to other settings.

## Keywords

social media, social capital, social support, psychological sense of community, COVID-19 lockdown, PLS-SEM

## Introduction

During the COVID-19 lockdown, many businesses were closed, while others (Russo et al., 2021), including universities, reinvented themselves by their moving activities online (Kulikowski et al., 2021).

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Consequently, like employees (Russo et al., 2021), university students worked from home, but they also had to attend classes from there. Furthermore, many students returned to live with their families, while others remained in their university environment. Whatever the case, normal life changed dramatically for all of them. A decrease in well-being and an increase in distress – due to the need to adapt to an unpredictable context – accompanied the transitions to the lockdown (Son et al., 2020). It became clear that such transitions were complex and that those affected could not necessarily manage them alone, but needed assistance, even if they did not have to deal with the challenges that COVID-19-related measures induced (Maunder et al., 2013).

In light of the above, the *social support* concept attracted increasing attention due to its reassessed importance in the pandemic context. Prior research has shown that social support is, for example, negatively related to depression, anxiety (Qi et al., 2020), and fear of missing out (Tandon et al., 2021). The feeling of social support can be fostered in various ways, for example, by establishing *psychological sense of community*, which describes an individual's perception of similarity to a group, an assumed intricate and interwoven relationship with its members, and the willingness to preserve this interdependence by offering or doing for others what the individual expects from the group members. This sense of community confers the feeling that the individual is part of a larger dependable and stable structure (Sarason, 1974). In addition, prior research has underlined *social capital's* role in individuals' social support perception (Cheng et al., 2020), which describes "the networks of relationships among people who live and work in a particular society, enabling that society to function effectively" (Stevenson, 2010). While social support can take various forms and be provided via different channels, social media played a particularly important role during the lockdown (Chakraborty et al., 2021). Social media were used for entertainment, to build or enrich an individual's social capital, or to facilitate education (Prestridge, 2019), working (Xiao et al., 2020), and even for detecting signs of suicidal intentions (Desmet & Hoste, 2018) in order to provide specialized preventive support. Social media are widely considered the key to maintaining social ties and providing important feedback in the form of social support, even from strangers (Bae et al., 2013). Simultaneously, however, social media use might turn young people into what we call "digital socialligators" – ferocious social media consumers who quietly neglect most old-fashioned forms of socialization.

While there is no shortage of research on topics, such as social capital and social media use in everyday life (e.g., Chen et al., 2021; Ellison et al., 2007; Kahai & Lei, 2019), few studies have examined the relevance of these concepts for establishing social support, (e.g., Mishra, 2020). In addition, prior research has not examined the role of individuals' psychological sense of community (Lardier et al., 2019) in this context. However, during the worst of the COVID-19 pandemic, understanding these concepts' interdependencies was particularly relevant (Sun et al., 2020) in order to identify ways to increase students' wellbeing.

By addressing the identified limitations, this study sets out to expand our knowledge of the perceived social support of young adolescents during the COVID-19 lockdown. We do so by building on the work of Thomas et al. (2020), who investigated the influence of different forms of social capital and social media use on students' perceived loneliness during their transition to university life. By extending their work, we develop a comprehensive model of social support aspects, focusing particularly on the processes that the COVID-19 lockdown induced. In doing so, we extend the original model's focus by considering social support in general, rather than a specific feeling (i.e., perceived loneliness). Specifically, we set out to answer the following research question: *What drove university students' perceived social support during the transition to the COVID-19-induced lockdown?* By answering this research question, our paper contributes to the literature in at least three ways. First, we provide empirical evidence of the drivers of university students' perceived social support. Second, we highlight social media's role in the social support mechanism. Third, we offer a general model to help decision-makers initiate

activities to increase individuals' perceived social support in general (Thomas et al., 2020), although our setup relies on the specific circumstances that the COVID-19 pandemic induced.

Our model estimation, using partial least squares structural equation modeling (PLS-SEM), shows that bridging social capital – acquaintances providing connections to related networks – and bonding social capital – close contacts – (i.e., Lee, 2020) are the most important drivers of students' perceived social support. Our results also highlight the importance of having a psychological sense of community to establish these social capital types and social media's role in achieving this aim. Further, our results suggest that institutions and authorities should improve social support by, for example, organizing computer-supported social networks, social support predictors, and specialized interventions for those with less perceived social support. As such, the study provides unique insights into the COVID-19-induced lockdown situation among students, while offering a transition model that could be generalized to other settings.

## Theoretical Framework and Hypotheses

### *Transition and Perceived Social Support*

**Transition.** Many fields recognize transition, which broadly refers to the shift between two development phases, as an important concept. It can be seen as a pathway of inculcation or a trajectory transformation from one identity to another (Gale & Parker, 2014). A large body of literature treats transition as a planned, linear, and predictable developmental process. However, transitions may not be linear, including the development of different identities and different communities (Thomas et al., 2020). A transition is typically associated with the movement between important moments in an individual's life cycle, and often related to education (Gale & Parker, 2014). Student transitions, comprising multifaceted sides – such as the transition to university (Mu & Cole, 2019) or to post-student life (Watson, 2019) – are challenging and popular topics with a long history of academic research (Gale & Parker, 2014). Despite interest in transitioning to higher education, only a few studies have explored situational transitioning (Mikal et al., 2013). Our study treats the transition that the COVID-19 pandemic generated as situational and a “collective transition” (Heaney et al., 2021) here.

**Social support.** The term social support describes an individual's feeling of being “cared for, loved, valued, esteemed” (Cobb, 1976, p. 300) and belonging to a supportive social network of reciprocal responsibility and assistance (Lin et al., 2020). Furthermore, social support plays an important role in a person's adaptation, and, particularly, in his/her well-being (Lin et al., 2020). In the context of a university transition, several studies found that social support can help with health or psychological problems, like loneliness (Lin et al., 2020) or generic mental health problems (Qi et al., 2020).

### *Social Capital*

Social capital is strongly related to interpersonal ties, which differ in strength and depend on time, emotional intensity, intimacy, and reciprocity (Granovetter, 1973). Previous studies defined this concept as an attribute of human beings that is of special importance in higher education (Mishra, 2020). In our study, we include three types of social capital, namely, maintained, bonding, and bridging. *Maintained social capital* is usually defined as the ability to maintain valuable links as one progresses through life's transformations (Ellison et al., 2007). In respect of students, this type of social capital is related to the family, the cohesion of the birth neighborhood, and high school friends. *Bonding social capital* implies consistent ties between various network members who

provide emotional empathy, social support, and confidence (Lee, 2020). This capital relates to actual friends, neighbors, or colleagues. *Bridging social capital* refers to establishing inner network connections with a broad range of people who provide access to diverse outer network opportunities (Lee, 2020). This type of capital assesses the integration and support within a community (Ellison et al., 2007).

### *Psychological Sense of Community*

The psychological sense of community, or, simply, the sense of community, was originally defined by Sarason (1974) as a “feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (McMillan & Chavis, 1986, p. 9). This definition emphasizes three dimensions: self, membership, and entity (Jason et al., 2015). *Self* is the identity and importance that a student experiences, *membership* is the social relationship between students and their current friends, while *entity* relates to belonging to the university/faculty. Andajani-Sutjahjo et al. (2016) draw attention to the idea that students’ sense of community is high. Conversely, Anderi et al. (2020) indicated that this disappeared when COVID-19 social distancing measures were implemented, since they were not allowed to gather with their peers. However, a successful transition requires integration into the community (Schaeper, 2020), which we assumed also applied during the COVID-19 lockdown.

### *Social Media Use*

Social media are a common presence in daily life, having changed the way people interact with their social relationships (Lin et al., 2014). Furthermore, social media are a source of continuous and updated information on various social activities in many networks’ fields of interest (Thomas et al., 2017), which could support interaction between their members (Oh et al., 2014). Sometimes, the use of social media can be more than a habit or automatism, as it can also be used to face critical situations. In global health emergencies, individuals use social media to stay in touch with others for support or entertainment (Nabity-Grover et al., 2020). Manca and Ranieri (2016), however, found that social media use in higher education is still rare, since academics are not as yet convinced about its usefulness for teaching purposes. Furthermore, Novakovich et al. (2017) also found that students resist the idea of using social media for professional practice, despite frequent using social media sites in their daily lives. Rasheed et al. (2020) provide a different picture by noting social media’s popularity among students and researchers.

### *Theoretical Model and Hypotheses*

The need to exchange information is a side of social behavior that enhances individuals’ sense of community (Scheepers et al., 2014). Roengtam et al. (2017) argue that by improving communication between individuals and between the latter and authorities, social media also provide an intrinsic sense of community. Social media platforms are commonly supportive, accepted, and offer users a sense of community, since communities are well-developed in online groups, (Dyson et al., 2016). In summary, individuals’ positive usage experience of social media gives them a sense of belonging to a community (Lin et al., 2014). However, this positive view of social media use is not unanimously shared. Effing et al. (2013), for example, found a negative correlation between social media use and a sense of community. Nonetheless, they acknowledged that they could not explain the paradoxical result. We therefore still assume that social media use is a positive facilitator and derive the following hypothesis:

**H1:** Social media use influences the psychological sense of community positively.

Prior research on various social capital types indicated that all are related to social media use (Lee, 2020) and that social media might be particularly important for people who have difficulties with establishing relationships (Ellison et al., 2007). In general, students use social media to maintain their existing network of friends, but also extend it to include new friendships (Lin et al., 2020). More concretely, Kahai and Lei (2019) point out that Facebook encourages both bridging and bonding social capital for communities of college friends. Recently, Zheng et al. (2020) found that online activities during the pandemic lead to an increase in social capital. However, the authors do not disentangle the different social capital types but rather refer to a generic concept they refer to as internet-based social capital. Broadening this perspective, we hypothesize that the positive effect of social media activities applies to all three social capital types discussed above, namely:

**H2a:** Social media use influences bridging social capital positively.

**H2b:** Social media use influences bonding social capital positively.

**H2c:** Social media use influences maintained social capital positively.

While there is little doubt that the concepts of having a psychological sense of community and social capital are conceptually related, there is practically no empirical evidence for this relationship, let alone with regard to specific social capital types. We argue that people first need to belong to a community to subsequently establish social capital. Specifically, Lardier et al. (2019) found that a sense of community and belongingness provides young people with a collective identity and purpose. Within this community, people, in our case students, are inclined to interact, exchange resources, and support one another, which, consequently, establish social capital. In a similar sense, Mastromartino et al. (2020) note that a sense of membership of a sports fan community contributes to building bridging and bonding social capital. Furthermore, Chen et al. (2021) find that, using WeChat as a social network, the perceived integration is related to three dimensions of students' social capital. Extending this perspective we specifically investigate the impact that this sense of community has on different social capital types. We therefore hypothesize:

**H3a:** The psychological sense of community influences bridging social capital positively.

**H3b:** The psychological sense of community influences bonding social capital positively.

**H3c:** The psychological sense of community influences maintained social capital positively.

Prior research has shown that social capital facilitates individuals' feeling of social support (Cheng et al., 2020). For example, Hsu et al. (2020) find that social capital influences reception and the provision of online support positively. Rung et al. (2017) showed that cognitive social capital has a positive influence on social support. Ho and Lin (2016) noted that the reciprocal exchange of social capital – bridging and bonding – generates emotional support. Furthermore, Kalaitzaki et al. (2020) indicate that close ties (bonding social capital) are positively correlated with perceived social support. Finally, Pang (2019) found that bridging, bonding, and maintained social capital have a direct influence on satisfaction and support. In line with prior research, we therefore hypothesize:

**H4:** Bridging social capital influences perceived social support positively.

**H5:** Bonding social capital influences perceived social support positively.

**H6.** Maintained social capital influences perceived social support positively.

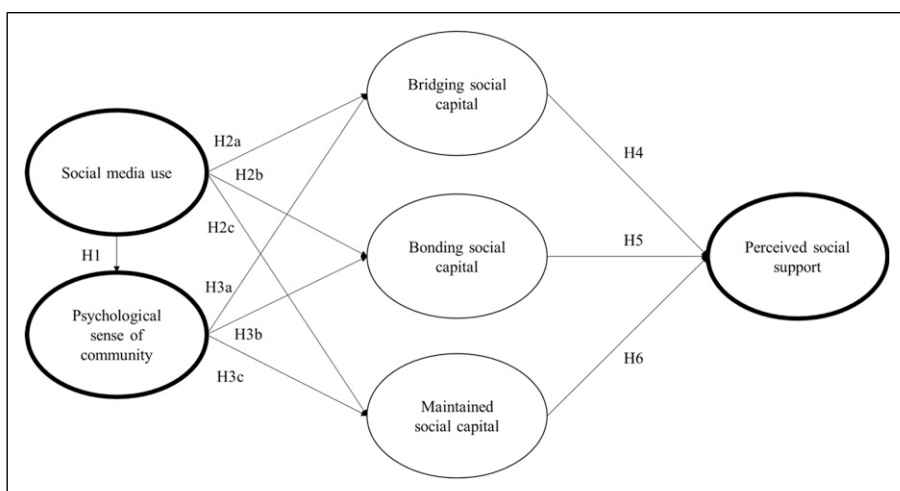
Figure 1 visualizes the hypothesized relationships.

## Methodology

### Measurement and Operationalization

We used established scales to measure all constructs in our model. We measured *social media use* with scales that Ellison et al. (2007) and Thomas et al. (2020) developed, adjusting the items to fit our study's requirements. Specifically, we considered social media use as a reflective-reflective type higher-order construct (HOC; Jarvis et al., 2003) with the three lower-order components, capturing the respondents' liking of different social media types, the social network intensity, and offline to online behavior. We operationalized the respondents' *psychological sense of community* by using a reflective-reflective HOC construct with three lower-order components (self, membership, and entity), which we measured with nine items (Jason et al., 2015). The measures were aimed at capturing the microsystem and macrosystem and were specifically designed to be adapted to various contexts and situations. We measured social capital by using bonding, bridging, and maintained social capital, which Ellison et al. (2007) first used. Finally, our measure of *perceived social support* types drew on Zimet et al. (1988), which Thomas et al. (2020) recently adapted and extended to assess students' satisfaction after 2 months of transitioning to university. We operationalized perceived social support as a reflective-reflective HOC with the three lower-order components capturing aspects related to their family, university, and authorities. Supplementary Table S1 in the Supplementary Material documents all of the item wordings.

We measured the items on a (balanced) Likert scale, which is routinely used to assess responders' perceptions, attitudes, and intentions (Claveria, 2018; Mellor & Moore, 2014). In line with the original studies, we used a 5-point scale with categories ranging from 1 ("totally disagree") to 5 ("totally agree"), which are commonly applied in research (Lietz, 2010). However, we measured the respondents' liking of different social media types by using a 5-point scale with the endpoints being "not at all" and "very much."



**Figure 1.** Research model.

## Data Collection and Methodology

We collected our data in May 2020, 2 months after the COVID-19 lockdown measures were established in Romania. We used Google Forms to distribute our online survey posted on a major Romanian university's e-learning platform. The participants comprised full-time and distance learning students, who filled out the survey voluntarily and anonymously, and, in line with the Helsinki Declaration, provided their informed consent. We collected a total of 544 responses, none of which had any missing values. Of the participants, 229 were males and 316 females, with most having a GPA between 8 and 10 (61.76%). Many of our sample subjects lived with their parents during the lockdown (76.47%), a significant increase from before the lockdown (26.47%). Owing to the COVID-19-induced measures, the majority of students (66.73%) left the city. [Table 1](#) shows the sample demographics.

To assess our sample's representativeness of the Romanian student body, we compared its characteristics with those of the student population. According to the Romanian Ministry of Education [[RME](#)] ([2020](#), p. 7), 74.98% of all students are enrolled in bachelor programs, which is similar to our sample composition (70.96%). A comparison of our sample structure with that reported in [RME](#) ([2020](#), p. 25) suggests that in terms of gender our sample structure (57.90% female) corresponds closely to the student population (58.3% female). In terms of age, our subsample of bachelor students (55.33% under 22 years of age) is close to the ratio of Romanian bachelor student population in respect of that age group (57.40%) ([RME](#), [2020](#), p. 20).

We used PLS ([Wold, 1982](#)), a composite-based approach to SEM that emphasizes prediction when estimating the interrelationships between multiple constructs, to evaluate our model ([Hair et al., 2019, 2022; Sarstedt et al., 2016](#)). Since PLS-SEM is a nonparametric method, it allows for estimating models by using nonnormal data, which also applies to our study – as evidenced by the skewness and kurtosis values larger than 2 in several of the indicators ([Hair et al. 2022](#)). PLS-SEM has gained prominence and is now progressively used in various fields, such as information systems ([Hair et al., 2017](#)), internet use, and electronic services ([Ainin et al., 2017; Hu et al., 2014; Mican et al., 2020b](#)), higher education ([Ghasemy et al., 2020; Sitar-Tăut & Mican, 2021; Sitar-Tăut, 2021](#)), and also in social media-related research ([Bouffard et al., 2021; Hawi & Samaha, 2017; Mican et al., 2020a](#)). We used the SmartPLS 3 software to run our analyses ([Ringle et al., 2015](#)).

To assess our analysis's statistical power, we followed [Hair et al. \(2022\)](#) recommendation by and applied [Kock and Hadaya's \(2018\)](#) inverse square root method. When assuming a minimum path coefficient of 0.15 at a 5% significance level, the required sample size is 275 in order to

**Table 1.** Sample Demographics.

Construct	Groups	Numbers	Percentage, %
Gender	Males	229	42.10
	Females	315	57.90
Degree	Bachelor	386	70.96
	<22 years	301	55.33
	≥ 22 years	85	15.63
	Master	158	29.04
GPA	<8	208	38.24
	8–10	336	61.76
Housing situation	Left the city	363	66.73
	Live with parents (lockdown)	416	76.47
	Live with parents (before lockdown)	144	26.47

achieve a power level of 80%. With 544 observations, our sample size clearly exceeds this threshold.

## Results, Assessment, and Discussion

We relied on the repeated indicators approach, which has routinely been used in a PLS-SEM context, to estimate the HOCs (Becker et al., 2012; Ringle & Straub, 2012). Our model assessment draws on the recommendations in the extant literature (Hair et al., 2019, 2022), taking the HOCs' specific nature into account (Sarstedt et al., 2019). Inference testing relies on bootstrapping with 10,000 subsamples and the percentile method for constructing confidence intervals (Sarstedt et al., 2021).

### Measurement model assessment

Our results support the measures' reliability and validity. With very few exceptions, all the indicators of the three first-order constructs (bonding, bridging, and maintained social capital) have high loadings, supporting their reliability (Table 2). Similarly, most of the relationships between the higher-order and lower-order components exceed the recommended threshold of 0.708 (Table 3). Since the loadings that do not meet the threshold are only slightly below this threshold, we decided to retain the corresponding indicators, also to maintain the measures' content validity (Hair et al., 2022). Likewise, all measures exhibit convergent validity, as evidenced by the average variance extracted values larger than 0.50 (Table 4). The results also show that all first- and higher-order construct measures achieve satisfactory levels of internal consistency reliability (Table 4). Finally, we analyzed the constructs' discriminant validity by computing Henseler et al.'s (2015) heterotrait-monotrait ratio of correlations (HTMT). We find that all except three combinations of constructs have HTMT values lower than the conservative

**Table 2.** Outer loadings of Reflective Constructs.

Construct	Item	Outer Loadings
Bonding social capital	BdSC1	0.812
	BdSC2	0.835
	BdSC3	0.873
	BdSC4	0.757
	BdSC5	0.635
Bridging social capital	BgSC1	0.835
	BgSC2	0.799
	BgSC3	0.747
	BgSC5	0.810
	BgSC6	0.876
	BgSC7	0.777
	BgSC8	0.652
	BgSC9	0.731
	Maintained social capital	MtSC1
MtSC2		0.860
MtSC3		0.721
MtSC4		0.844
MtSC5		0.787

Note. See [Supplementary Table S1](#) for all indicator wordings.

**Table 3.** Outer Loadings of the HOCs.

HOCs	LOCs	Outer Loadings
Social media use	SMU-L	0.772
	SMU-S	0.858
	SMU-O	0.819
Psychological sense of community	PSC-S	0.826
	PSC-M	0.739
	PSC-E	0.884
Perceived social support	PSS-F	0.701
	PSS-U	0.873
	PSS-A	0.680

Note. See [Supplemental Table S1](#) for all indicator wordings.

**Table 4.** Internal Consistency Reliability and Average Variance Extracted measures.

Constructs	Cronbach's Alpha	Composite Reliability	AVE
Higher-order constructs			
Social media use	0.756	0.801	0.668
Liking	0.710	0.838	0.634
Social network intensity	0.841	0.887	0.612
Offline to online behavior	0.775	0.857	0.601
Psychological sense of community	0.753	0.803	0.670
Self	0.716	0.842	0.643
Membership	0.633	0.808	0.592
Entity	0.720	0.842	0.642
Perceived social support	0.633	0.700	0.572
Family	0.816	0.915	0.844
University	0.800	0.870	0.626
Authorities	0.757	0.862	0.682
First-order constructs			
Bonding social capital	0.844	0.889	0.619
Bridging social capital	0.908	0.926	0.610
Maintained social capital	0.868	0.904	0.654

threshold of 0.85 ([Supplementary Table S2](#)). Following [Franke and Sarstedt \(2019\)](#), we computed percentile bootstrap confidence intervals for these combinations, finding that all three HTMT values deviate significantly from 1 at a level of 5% (Bonding social capital – Psychological sense of community - entity: [0.739; 0.866]; Bridging social capital – Psychological sense of community - entity: [0.850; 0.930]; Psychological sense of community - self – Psychological sense of community - entity: [0.769; 0.904]). Jointly, these results clearly support the measures' discriminant validity.

### Structural Model Assessment

In the first step, we tested the structural model for collinearity issues. We found that all VIF values are clearly lower than 3, suggesting that collinearity does not affect the results. In the next step, we considered the model's explanatory power ([Sarstedt & Danks, 2021](#)). The model's target construct

(perceived social support) has an  $R^2$  value of 0.289, which we considered satisfactory in light of similar values in related research, such as 0.200–0.253 in [Lai and Ma \(2016\)](#). Bonding, bridging, and maintained social capital show  $R^2$  values of 0.390, 0.561, and 0.192, respectively, while psychological sense of community has an  $R^2$  value of 0.123. Given the model's complexity (i.e., the number of antecedent constructs), the model's explanatory power can be considered satisfactory ([Hair et al., 2019](#)). We tested the model's predictive power ([Hair & Sarstedt, 2021](#)) by applying [Shmueli et al.'s \(2016\)](#)  $PLS_{predict}$  procedure, using the construct scores from the previous analysis as single-item measures of social media use, the psychological sense of community, and the three social capital constructs. First, we evaluated the  $Q^2_{predict}$  values of the perceived social support's indicators, which were all positive ([Shmueli et al., 2019](#)). In the next step, we compared the items' RMSE values with the naïve linear benchmark model. We found that one of the three indicators has a lower RMSE value in PLS-SEM compared to the linear benchmark analysis. We therefore assume a low to modest predictive power.

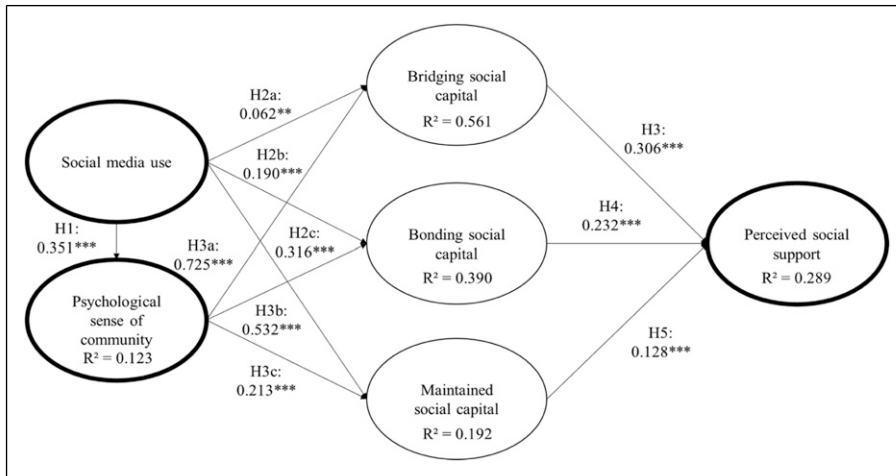
Finally, we evaluated our path coefficients in terms of significance and relevance. All of our hypotheses were confirmed due to our path coefficients' direction and significance. [Table 5](#) shows the corresponding results – [Figure 2](#) shows the research model with path coefficient estimates and  $R^2$  values.

The results show that social media use has a significant impact on the psychological sense of community ( $\beta = 0.351$ ), which is the main driver of social capital building, leading to perceived social support. Based on Generation Y's online behavior as depicted in earlier research ([Tibber et al., 2020](#)), we framed students as “digital socialligators,” which may, however, not be as true as we presumed. Indeed, social media use seems to be an important part of students' lives; however, it might mainly be used to establish a sense of community and belonging. [Lisitsa et al. \(2020\)](#) noted

**Table 5.** Path Coefficients.

Construct	Hypothesized paths	$\beta$	95% Bootstrap Confidence Interval
Social media use	H1: Social media use $\rightarrow$ psychological sense of community	0.351***	[0.270, 0.431]
	H2a: Social media use $\rightarrow$ bridging social capital	0.062**	[0.004, 0.122]
	H2b: Social media use $\rightarrow$ bonding social capital	0.190***	[0.117, 0.265]
	H2c: Social media use $\rightarrow$ maintained social capital	0.316***	[0.239, 0.391]
Psychological sense of community	H3a: Psychological sense of community $\rightarrow$ bridging social capital	0.725***	[0.682, 0.767]
	H3b: Psychological sense of community $\rightarrow$ bonding social capital	0.532***	[0.472, 0.591]
	H3c: Psychological sense of community $\rightarrow$ maintained social capital	0.213***	[0.134, 0.296]
Social capital	H4: Bridging social capital $\rightarrow$ perceived social support	0.306***	[0.215, 0.395]
	H5: Bonding social capital $\rightarrow$ perceived social support	0.232***	[0.143, 0.324]
	H6: Maintained social capital $\rightarrow$ perceived social support	0.128***	[0.059, 0.198]

Note. \*\*\* =  $p < .01$ , \*\* =  $p < .05$ , \* =  $p < .10$ .



**Figure 2.** Research model with path coefficients and  $R^2$  values. Note: \*\*\* =  $p < 0.01$ , \*\* =  $p < 0.05$ , \* =  $p < 0.10$ .

that during the lockdown, social media use increased considerably and this effect led to less social support seeking by students and the younger population.

Furthermore, social media use is important for building bonding social capital ( $\beta = 0.190$ ) and maintained social capital ( $\beta = 0.316$ ), but less so for bridging social capital ( $\beta = 0.062$ ). Our findings are therefore in line with earlier research, in that social media use can also increase social capital (Zheng et al., 2020), particularly in COVID-19 times. Nevertheless, we could not establish that social media use has a pronounced effect on bridging social capital. Ellison et al. (2007) found that Facebook use has a stronger effect on bridging social capital than on bonding and maintained social capital. Conversely, our study shows that social media use has a particularly pronounced impact on maintained social capital. A potential reason for this contradictory finding could lie in the characteristics of the COVID-19 pandemic situation. Ellison et al. (2007) argue that bonding social capital, meaning close ties, cannot be as easily achieved via social media, even though it is more used for making distant contacts. However, during the COVID-19 pandemic, nearly everyone is a distant contact, since government regulations prevented people from meeting in person. Consequently, online networks were one of the ways of maintaining social contacts with people one would usually meet directly (face to face). Owing to the high relevance of bonding (close contacts) and maintained (contacts maintained throughout life's transitions) social capital in our model, we conclude that social media might help students maintain contact with their inner circle, instead of forcing them to seek a relationship with the university as an organizational entity (represented by bridging social capital). This finding is similar to the results of Smith (2016), who concluded that social media is used more for interactions between students rather than for interacting with faculty regarding teaching and learning. Social media is still slightly more influential regarding keeping contact with old friends or friends outside the university. This finding aligns with Thomas et al. (2020), who emphasize that social media use has been identified as maintaining and developing new communities. In other words, students must juggle different identities at the same time – maintaining “old friends” and fitting in with “new fellow students.”

We also find that the psychological sense of community is more important than social media use regarding improving bridging social capital ( $\beta = 0.725$ ) and bonding social capital ( $\beta = 0.532$ ), but less so regarding maintained social capital ( $\beta = 0.213$ ). These results are in line with the findings by Andajani-Sutjahjo et al. (2016), since it is clear that a sense of community is important

for students. At the same time, however, we cannot confirm [Anderi et al.'s \(2020\)](#) finding, which indicates that, during the COVID-19 pandemic, a sense of community played no role for students. Specifically, we find that the feeling of belonging, in this case to the university and the student body, which bridging social capital represents, is a crucial element of social capital – probably the most important one in our study's context. Bridging reflects a social connection between peers characterized by loose or weak inner network connections, and usually implies poor emotional support and engagement between members. Students with a richer bridging social capital could also be considered opportunity seekers ([Lee, 2020](#)), in other words, as having reduced empathy ([Thomas et al., 2020](#)), and exhibiting selfish social behavior ([Mican et al., 2020a](#)). Although it sounds counterintuitive at first, it is rather logical, since [Granovetter \(1973\)](#) already noted that weak ties are important for opportunity seeking and integration into communities. However, since maintained social capital also shows an effect, having an academic community to which student can belong, might provide the strength and confidence to stay in contact with friends outside the university. [Pokorny et al. \(2017\)](#), for example, found this tendency for family, friends, and community to be important for students' sense of belonging.

Bridging social capital ( $\beta = 0.306$ ) mostly influences perceived social support, with bonding social capital ( $\beta = 0.232$ ) second, but maintained social capital ( $\beta = 0.128$ ) far less. As such, our results tie in with prior research, since social capital is an important driver of social support ([Pang, 2019](#)). We expected the “stay at home” directive to lead to maintained social capital having a stronger influence. Surprisingly, however, the “escape capital” (bridging) makes the strongest contribution to perceived social support. Although the crisis decreased the bonding capital, it still offers good support.

In light of the above, we conclude that social media use is important for building bonding and maintained social capital in the context of our analysis. Students' psychological sense of community plays a prominent role in building bridging and bonding social capital, which has the greatest impact on perceived social support.

## Conclusions, Implications, and Further Research

We aimed to examine the drivers of university students' perceived social support during the transition to the COVID-19 pandemic lockdown. We did so by building on [Thomas et al.'s \(2020\)](#) work and establishing a theoretical model, which we then evaluated by using PLS-SEM. Our results showed that social media use increases the psychological sense of community, that social media use impacts social capital, that the psychological sense of community has a positive influence on social capital, that social capital increases the social support of students regarding their transition to COVID-19 lockdown, and that the psychological sense of community, as well as bonding and bridging social capital, are most reliable during the transition process. These findings provided evidence of university students' drivers of perceived social support during the COVID-19 lockdown and offered insights into social media's role in facilitating social support for students. We therefore assume that our results are valuable even though the worst of the pandemic is likely over, since social support is important in many circumstances and crises. One such circumstance could be the shift back to the “old normal,” when students return to their universities after the crisis, which will require further adaption processes.

We used the importance-performance map analysis (IPMA) to enrich the practical implications that we deduced from our results, ([Ringle & Sarstedt, 2016](#)) – see [Supplementary Figure S1](#) in the [Supplementary Material](#). We found that a sense of community, social media use, and bridging social capital were the most important elements regarding facilitating perceived social support, since our analysis showed that their values were above average. Moreover, a sense of community and maintained social capital values were above average in terms of performance. These findings

were promising, since they clarified that a sense of community existed and students might not feel as lonely as we expected them to feel. Consequently, we assume that the measures that universities applied during this pandemic were successful to a certain degree. Further, the maintained social capital was above average, and students might therefore not have felt that returning to their hometowns was such a bad move, since they could renew their contacts with older friends and acquaintances (Lin et al., 2015). Although they were not allowed to meet these people in person, the lockdown was still an opportunity to call, write, or otherwise contact this community. Nevertheless, the focus was on relatively very important constructs, but with relatively lower performance, which is why we recommend improving social media use and bridging social capital. We assume that enhancing these two constructs' performance will be a self-serving concept, since students who receive support from others are more likely to provide help themselves (Lin et al., 2015).

We further plead for universities to gradually build an inclusive environment, in order for all students to develop a sense of community. Since students' presence at universities might still be widely restricted or even forbidden, universities should implement lessons learned from the ongoing pandemic online, if they have not already done so, and develop their activities even further. As a short-term solution, university management could develop or reactivate *student support networks* when they face a crisis (Raaper & Brown, 2020), which they could organize as *computer-supported social networks* (Jin et al., 2009), to formally and temporarily replace the loss of the university campus, and to reconcile the technological, social, and economical gaps between the students. In addition to regular classes, they could provide extracurricular online events for students to allow them to contact people they might never have met, or have not seen for a long time, which will foster a feeling of belonging to a community.

According to the United Kingdom's National Institute for Health and Care Excellence [NICE] (2016), having good communication, identifying young people's needs, and working alongside other organizations and/or authorities are important to improve a transition's quality. Universities' websites, social media networks, and e-learning platforms must be transparent. The latter will allow universities' social networks to manage the *fake news* phenomenon more effectively (Pennycook et al., 2020), thereby reducing stress, panic, and anxiety.

While our study offers novel insights, it is not without limitations, which consequently provides avenues for future research. First, our results need to be interpreted with caution, because we cannot assume that we have developed a universal model for transitioning to lockdown. However, we provide insights by using a sample of Romanian university students. Our model could therefore be tested with student samples from different countries, since the region, lockdown period, the restrictions' severity, and social status might influence the social media and population habits in general. Relatedly, while our sample structure closely matches that of the Romanian student population in terms of gender, degree, and age, we could not assess other important aspects of sample representativeness, such as GPA or the housing situation. Consequently, the study results need to be interpreted in the context of the sample at hand. Second, further research could enhance our analysis by conducting group comparisons based, for example, on gender or self-esteem. Earlier research has shown that boys' and girls' Facebook usage differs (Frison & Eggermont, 2016), and Steinfield et al. (2008) found that people with lower self-esteem gain more from Facebook use's impact on bridging social capital. Third, we used a cross-sectional dataset, which restricts inferences about causal effects. For example, the relationship between the psychological sense of community and social capital could be reciprocal, since other studies have found that social capital has a significant effect on a sense of belonging (Zhao et al., 2012). We therefore recommend testing our model with a longitudinal dataset and other methodologies, such as latent growth curve modeling (Nemoto et al., 2021) or

necessary conditions analysis (Richter et al., 2020), which distinguishes between necessary and sufficient drivers in a model.

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### Supplemental Material

Supplemental material for this article is available online.

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