A new decade for social changes
The relationship between social media context awareness and active coping during COVID-19: the mediation effect of positive reframing

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Abstract. Awareness of the context of social media is identified as an emerging technical capacity relating to the awareness of the social digital community in which a particular experience takes place, realizing the impact on the observer of the perceived social media context, rationalizing the process of social media information undergoing and owning trust for acting on social media. This investigation is an explorative research, analyzing data form 403 Romanian respondents in an online survey, regarding the psychological effect of the imposed VRFLDOLVRODWLRQRYHUUHVSRQGHQW¶VFRSLQJPHFKDQLVPV:HXVHGWKH%ULHI-CCOPE to determine efficient and inadequate ways to deal with adverse situations and the 4 items SMCA social media context awareness scale. The hypothesis is that the association between social media context awareness (SMCA) and active coping (AC) is mediated by positive reframing (PR), as a potential enhancer of active coping under prolonged social isolation periods over the general population. The standardized indirect effect found was (.11) × (.37) =.04, supporting the mediation hypothesis, suggesting that rather than a direct causal relationship between the SMCA and the AC, our mediation model proposes that SMCA influences the PF mediator variable, which in turn influences the dependent variable AC. Social media context awareness along with positive reframing as a mediator, in a stressful situation, are enhancers of an active coping mechanism.

Keywords. COVID-19; social media context awareness; coping mechanism; positive reframing; active coping

1. Introduction

Although the global coronavirus continues to have major macro-level global political and economic effects, the digital realm, where COVID-19 dynamically reshapes relationships between people, groups and organizations, is among the most prominent.

Furthermore, coping mechanisms can be widely classified as active or avoidant. Active coping mechanisms typically involves stressor awareness, and conscious attempts to lower the stress level (Stanislawski, 2019; Ahmad, Murad, 2020). In contrast, avoidant coping mechanisms are described by neglecting the problem or otherwise seeking to avoid it. Along with the social isolation situation, the need for individuals to be connected with each other, can be perfectly depicted by the flourishing of human interactions in the digital environment, especially on social media platforms. This digital space becomes the source of both positive and negative psychological effects of digital content over the wellbeing of the utilizer. Digital
literacy becomes a core skill in the human-computer interaction and most of all the level of utilizor’s digital context awareness becomes crucial when selecting digital information. Awareness of the context of social media is identified as an emerging technical capacity relating to the awareness of the social digital community in which a particular experience takes place, realizing the impact on the observer of the perceived social media context, rationalizing the process of social media information undergoing and owning trust for acting on social media (Rad, et al., 2020).

Consensus among practitioners defines wellbeing as a complex mechanism that gives people a sense of how their lives interact with their situations, behaviors, psychological capital, or mental resources. Wellbeing is seen as the product of interplay between various elements instead of relying on a single cause, separating personal well-being: positive feeling, life fulfillment, vitality, stamina and self-esteem, from social well-being: relationships of support, confidence and belonging (Clini, Thomson, & Chatterjee, 2019). Other scholars stress resilience and stability, rather than just survival (Ander et al., 2011), a critical point in researching the situation of people displaced by force who frequently live in harsh circumstances and whose experience is often addressed in terms of dehumanization. Social media platforms become the source of both positive and negative psychological effects of digital content over the wellbeing of the user (Naslund, Bondre, Torous, et al., 2020).

Social media is considered a form of social validation or recognition and its effects were studied in terms of enhancing the positive effect of social media on health and emotional wellbeing (Jiang, & Ngien, 2020). The digital network enables the ability to exchange thoughts, connect socially, build relationship, and attract attention and design a social profile (Kietzmann et al., 2011). In the ongoing economic recession, where physical isolation becomes the norm, social media over-use has become a psychological necessity to help individuals, especially youth, to satisfy their desires for human interaction and cope with the adverse situation of current pandemic (Gómez-Galán, Martínez-López, Lázaro-Pérez, Sarasola Sánchez-Serrano, 2020), a higher level of social media use was associated with worse mental health (Zhao, & Zhou, 2020).

Thus, considering the preventive social distancing guidelines, it offers a digital network for people to stay emotionally linked and to process the discomfort generated by the present situation. In addition to social interaction, social media is often utilized for scientific and academic activities, such as public seminars, webinars, discussion forums and telework. A key benefit of social media is the encouragement and enhancement of wellbeing by offering services accessible to individuals affected by quarantine and social isolation (Wang, Tang, 2020; Lyons, Wilcox, Leung, & Dearsley, 2020; Yang, Liu, Li, Shu, 2020).

In the present situation, social media has been one of the key outlets for people to update information on COVID-19 (Ahmad, & Murad, 2020; González-Padilla, & Tortolero-Blanco, 2020). Its reckless use, though, raises the problem of infodemics, a situation where misinformation spreads exponentially, influencing people's perception and consequent actions. Recently, WHO (2020) raised concerns against social media speculation that led to confusion, prejudice and non-rational conduct. In the light of the social media utilization increase, it is important to discuss its association with mental health and wellbeing. Previous study has found that pathological social media use has an effect on physical and emotional well-being, including metabolic health, sleep, self-esteem, and wellbeing, especially in teenagers (Turel et al., 2016; Van Rooij, & Prause, 2013).

Evidence on past quarantine pandemic measures has demonstrated that there may be long-lasting impacts on members of the public and health staff. This can refer to low mood or depression, extreme irritability and anxiety, rising levels of family tension and domestic abuse,
increased intake of addictive substances, and PTSD (Brooks, et al., 2020). The strongest discomfort was due to concerns about isolation lengths or resources, following up on the support of isolation, financial setbacks, social ostracism and embarrassment about other people's possible infection.

A recent research focused on relating coping strategies and life quality found significant evidence that problem-oriented coping strategies like active coping, positive reframing, and using support, enhance the life quality in all its domains: physical, psychological, relational, and environmental, while emotion-oriented coping strategies like self-blame, reduces both physical and psychological quality of life metrics (Gattino, Rollero, & De Piccoli, 2015).

Positive emotion-oriented coping mechanisms are successful for mitigating psychological symptoms in the COVID-19 pandemic, as new systematic study has clearly reported (Gurvich, Thomas, Thomas, Hudaib, Sood, Fabiatos, Sutton, Isaacs, Arunogiri, Sharp, & Kulkarni, 2020). To optimally approach the present COVID-19 social crisis and to establish mental health response measures for potential pandemics, it is important to consider psychosocial responses, including beneficial coping mechanisms like active coping and positive reframing, none of the less taking into consideration that the social media and the digital environment currently are the most influential factor for people wellbeing.

2. Research methodology

2.1. Objectives and hypothesis

The mental health effects of COVID-19 are now evident, and even optimistic predictions indicate that they are already at their height and expected to greatly outclass the present pandemic (Pietrabissa, & Simpson, 2020). The most prominent psychological illnesses that arise are anxiety and panic, obsessive-compulsive symptoms, fatigue, gastrointestinal issues, depressive symptoms and post-traumatic stress (Rogers et al., 2020); they are not only a direct result of the pandemic, but are also largely due to the consequences of extended social isolation (Leigh-Hunt et al., 2017).

While these steps are important to mitigate the spread of the infection, consideration must be given to future harm and to decrease the effect of social isolation on the mental wellbeing of the population. This research assumption is that positive reframing might mediate the relationship between social media context awareness and active coping.

The objective of this research is to analyze the mediation effect of positive reframing (PR) to the link between digital context awareness (SMCA) and active coping (AC). The assumption is that PR mediates the relation between SMCA and AC, seen as a possible booster of active coping under imposed prolonged social isolation periods over the general population.

2.2. Participants

This investigation represents a dynamic explorative research, analyzing data from 403 Romanian respondents in an online survey, regarding the psychological impact of the imposed 2 months lockdown situation, over respondent’s coping mechanisms.

From the total of 403 participants in this research, 1% of respondents declared their completed educational level a vocational certification, 14.1% baccalaureate, 34.5% University degree, 43.2% Master Degree and 7.2% PhD. As for residency areal, 25.8% come from rural and 74.2% from urban.

Regarding the self-perceived accepted forced social isolation context, 9.2% of respondents reported a high level of acceptance of the imposed rules, by just staying home, 55.6% of respondents reported going out of the house just for necessary shopping, 31.8%
reported going to work and only 3.5% of respondents reported a low level of acceptance of the imposed rules, by not following the imposed social isolation rules.

Regarding respondents' age span, 11.4% are aged between 18 and 25 years, 25.3% are aged between 26 and 35, 32.8% are aged between 36 and 45, 24.3% are aged between 46 and 55, 4% are aged between 56 and 65 and 2.2% are aged over 65. 73% of the total respondents are females and the remaining 17% represent masculine gender.

The use of digital social networks are highly represented by 95.8%, and only 4.2% declare that they are not using social media platforms. 88.1% of respondents report that they are religious, 4.7% disregard religiosity and 7.2% do not wished to enclose this information.

2.3.Instruments

Brief COPE Scale. The Brief COPE Scale was built on the basis of a more extensive instrument. The choice of a shorter scale was chosen due to the redundancy of some of the questions of the whole instrument and due to time constraints. Items for the COPE Brief scale were obtained based on factor analysis and clarity and meaningfulness for subjects in previous studies. Some subscales were renamed: growth scale became positive reframing, focus on and venting of emotions became venting; mental disengagement became self-distraction. The self-blame scale was added to the whole instrument. The 14 subscales obtained are as follows: Self-Distraction, Active Coping, Planning, Positive Reframing, Acceptance, Humor, Religion, Using Emotional Support, Using Instrumental Support, Denial, Venting, Substance Use, Behavioral Disengagement, and Self-Blame. Each subscale comprises two items, and each item is rated on a 4-point Likert scale, with higher scores indicating increased utilization of that specific coping strategy. There is only one score for each scale, without an overall score (Carver, 1997).

Several studies have proposed different categories of coping based on the results at this scale. Thus, coping style oriented towards problem solving or emotion, adaptive or maladaptive coping, active or avoidant coping is mentioned. The author of the scale did not specify anything about the possibility of obtaining secondary types of coping, leaving the users of the scale to generate new categories (DeDios-Sterm, Lee, Nitsch, 2017; Jonason at all., 2020).

The scale was used to highlight the coping mechanisms used by people suffering from physical or mental illnesses (Ito, Matushimma, 2017). Significant correlations were found between humor, substance use, venting, and some clinical and laboratory values, as well as between self-blame and depression or behavioral disengagement and sleep disorders. Another study found the link between active coping and low levels of depression (Park at all., 2006).

In the current study, two coping strategies are examined based on the BRIEF coping inventory defined by Carver (1997), active coping (item 2 and item 7) and positive reframing (item 12 and item 17). There are no reversed items and the respondents are asked to rate each statement according to how they regularly act, on a 1 to 4 Likert scale: 1 = I haven't been doing this at all, 2 = I've been doing this a little bit, 3 = I've been doing this a medium amount, 4 = I've been doing this a lot (Carver, 1997). In the statistical analysis we have used the sums of both items for both active coping and positive reframing.

The goal of active coping efforts is to specifically answer a problem and to assess potential feasible alternatives to mitigate the impact of a given stressor. In this research, the concept of active coping refers to a coping style marked by problem solving, finding knowledge, seeking social assistance, seeking clinical assistance, adjusting contexts, planning activities, and reframing the significance of difficulties.

Positive Reframing is a method for interpreting the intentions and actions of the other person in a more positive way. It's more about avoiding the temptation to go to conflict, and
seeking to look from a more optimistic viewpoint about the conflict instead. Positive reframing involves seeking to rethink situations in a positive light.

**Social Media Context Awareness Scale.** As for social media context awareness (SMCA), we have used a 4 items scale developed by Rad, et al. (2020). The four items refer to social media literacy: *I’m able to access the information and content I want on social media*, social media communication process understanding: *I understand how people create and spread messages on social media*, social media content impact awareness: *I understand the role social media websites/apps play in shaping the information and content I see*, and social media confidence: *I’m confident creating and sharing my own social media messages*.

Items were ranked on a scale of one to five where 1 stands for extreme disagreement, 2 for disagreement, 3 for neither agreement nor disagreement, 4 for agreement, and 5 for strong agreement. There are no reversed scores, and we have used the sum of all items as an overall SMCA score. Cronbach’s alpha coefficient proves the questionnaire to achieve a reasonable precision, $\alpha = 0.87$ (Rad, et al., 2020).

In this research, awareness of the context of social media is identified as an emerging technical capacity relating to the awareness of the social digital community in which a particular experience takes place, realizing the impact on the observer of the perceived social media context, rationalizing the process of social media information undergoing and owning trust for acting on social media (Rad, et al., 2020).

### 2.4. Methodology and research design

The current investigation has a non-experimental mediation analysis design. Social media context awareness (SMCA) is the independent variable (IV) and active coping (AC) is the dependent variable (DV) in this research. The mediator variable (MV) is the level of positive reframing (PR). Research questions were shared to participants in a digital setting, by Google Forms, via social media platforms. An informed consent, consisting of an agreement to engage in the study and a guarantee of the privacy of the individual results, was given to the participants in this investigation. A series of steps were followed to quantify the mediation effect (Shrout, & Bolger, 2002; Preacher, & Hayes, 2004; Hayes, 2013):

a. Verifying if all the studied variables (PR, SMCA and AC) are statistically associated ($p<.05$) in (Table 1);

b. Path c is calculated by regressing the DV (AC) on the IV (SMCA) to ensure that the IV is a strong predictor of DV (Table 2; Fig. 1);

c. By regressing the MV (PR) on the IV (SMCA) to verify that the IV is a significant MV predictor (Table 2; Fig. 2);

d. Examining the pathways b and c'—by regressing the DV active coping on both the MV positive reframing and the IV social media context awareness to validate that MV positive reframing is an effective predictor of DV active coping (path b). In order to validate the full mediation assumption, path b should be statistically significant, while path c should be non-significant (Table 2; Fig. 2);

e. Using bootstrapping techniques and the Sobel test to assess the statistical significance of the indirect effect. This phase is computed bin SPSS Statistics version 20 by using PROCESS macro version 2.16.

### 3. Results

Regarding statistical descriptive data of the scales and subscales used in this investigation, we will further present the means and standard deviations of each variable and
we will offer a short qualitative description by reporting the mean to the minimum and maximum scored.

**Table 1.** Descriptive statistics for SMCA, active coping and positive framing as coping mechanisms

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMCA</td>
<td>402</td>
<td>10</td>
<td>20</td>
<td>17.87</td>
<td>2.250</td>
</tr>
<tr>
<td>Active coping</td>
<td>403</td>
<td>2</td>
<td>8</td>
<td>5.56</td>
<td>1.512</td>
</tr>
<tr>
<td>Positive reframing</td>
<td>403</td>
<td>2</td>
<td>8</td>
<td>5.62</td>
<td>1.492</td>
</tr>
</tbody>
</table>

Regarding the level of social media context awareness SMCA (Table 1), this investigation reports a mean of \( m = 17.87 \) and a standard deviation \( SD = 1.52 \). Analyzing this result on a continuum between the minimum score of 10 and a maximum score of 20, we can say that our sample is situated at the upper level, meaning that their level of social media context awareness is very high.

As for respondent’s level of active coping (Table 1), this investigation reports a mean of \( m = 5.56 \) and a standard deviation \( SD = 2.25 \). Analyzing this result on a continuum between the minimum score of 2 and a maximum score of 8, our sample is situated at the upper level, meaning that their level of active coping is high.

Regarding the level of positive reframing (Table 1), this investigation reports a mean of \( m = 5.62 \) and a standard deviation \( SD = 1.49 \). Analyzing this result on a continuum between the minimum score of 2 and a maximum score of 8, our respondents’ sample is situated at the upper level, meaning that their level of positive reframing is high.

We will further present results calculated according to this research’s described methodology.

**Table 2.** Pearson correlation coefficients between PR (level of positive reframing), SMCA (level of digital context awareness) and AC (level of active coping)

<table>
<thead>
<tr>
<th></th>
<th>SMCA</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>( r(400) = .11^* )</td>
<td>( r(400) = .38^{**} )</td>
</tr>
<tr>
<td>AC</td>
<td>( r(400) = .10^* )</td>
<td></td>
</tr>
</tbody>
</table>

* correlation is significant at the .05 level; ** correlation is significant at the .01 level

**Table 3.** Coefficients for the mediation effect of PR

<table>
<thead>
<tr>
<th>Path</th>
<th>( r^2 )</th>
<th>( F )</th>
<th>df</th>
<th>( p )</th>
<th>B</th>
<th>SE(B)</th>
<th>( \beta )</th>
<th>( p )</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td>.01</td>
<td>4.22</td>
<td>(1, 400)</td>
<td>&lt;.05</td>
<td>.06</td>
<td>.03</td>
<td>.10</td>
<td>&lt;.01</td>
<td>.01, .13</td>
</tr>
<tr>
<td>a</td>
<td>.1</td>
<td>5.17</td>
<td>(1, 400)</td>
<td>&lt;.05</td>
<td>.07</td>
<td>.03</td>
<td>.11</td>
<td>&lt;.05</td>
<td>.01, .14</td>
</tr>
<tr>
<td>b &amp; c'</td>
<td>.15</td>
<td>35.85</td>
<td>(2, 399)</td>
<td>&lt;.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c'</td>
<td></td>
<td>.03</td>
<td>.03</td>
<td>.05</td>
<td>&gt;.05</td>
<td></td>
<td></td>
<td></td>
<td>-.02, .10</td>
</tr>
<tr>
<td>b</td>
<td></td>
<td>.38</td>
<td>.04</td>
<td>.37</td>
<td>&lt;.01</td>
<td></td>
<td></td>
<td></td>
<td>.29, .47</td>
</tr>
<tr>
<td>a*b</td>
<td></td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

\( R^2 = \) explained variation/total variation; \( F = \) ANOVA; \( B = \) unstandardized coefficients; \( \beta = \) standardized coefficients; degree of freedom (df); \( p = \) level of significance; 95% confidence interval (CI) = 95.0% confidence interval for B.
The standardized regression coefficients between the SMCA and PR were statistically significant, as well as the standardized regression coefficient between PR and the AC, as seen in Figure 2. The standardized indirect effect was (.11) x (.37) = .04. The mediation hypothesis is confirmed by these findings. The level of SMCA was no longer a relevant indicator of the level of AC since the addition of the mediator (full mediation model). The predictors, SMCA, and PR (r²=.15) accounted for around 5 percent of the variation in the AC index. For every 5000 bootstrapped samples, unstandardized indirect results were determined, and the 95 percent confidence interval (CI) was calculated by establishing the indirect effects. B = 0.02, standard error (SE) = 0.01 was the bootstrapped unstandardized indirect effect and the 95 percent CI ranged from .01 to .05. These findings indicate that, statistically, the indirect effect is significant.

4. Conclusions and implications
The present paper explored the mediating effect of positive reframing in relation between social media context awareness and active coping in adult Romanian individuals. We have opted for the suggested methodology, using mediation analysis as a basic technique for identifying, finding and evaluating potential causal interactions between social media context awareness, active coping and positive reframing. Rather than a direct causal relationship between the SMCA and the AC, our mediation model proposes that SMCA influences the PF mediator variable, which in turn influences the dependent variable AC. The relationship between SMCA and AC has been entirely mediated by PR, implying that the PR mediator may explain this relationship.
The argumentation behind the proposed model resides in the fact that positive reframing as a coping mechanism is associated with the individual’s level of situational or context awareness. Positive reframing involves shifting the interpretation of conduct from negative to positive, in a way that matches the facts of the present situation as well as the initial situation. Positive reframing requires the individual to recognize and consciously shift their frame of reference toward a positive perspective. Thus, we would expect that between positive reframing and context awareness there will be a positive correlation. In our case we have emphasized the social media context awareness, instead of a real-life context awareness.

Our model suggest that social media context awareness influences the active coping mechanism through the mediation of positive reframing.

Referring to the drawbacks of this investigation, provided that it was an online test survey, individual respondents conducted assessments at various sites and time hours, which may have affected the results due to less control over environmental variables. In addition, prospective studies on social media context awareness and coping mechanisms must take into consideration the pre-lockdown, current and post-lockdown history of social media use and the psychological consequences for people across all age ranges and diverse cultural backgrounds, in terms of coping mechanisms.

References


