A new decade for social changes
Cognitive-emotional coping mechanisms accessed by students in the current pandemic context

Rus Mihaela¹, Sandu Mihaela Luminita², Dodu (Alexe) Alisa Ancuța³, Filipov Adela Marinela⁴
Faculty of Law and Administrative Sciences, Ovidius University of Constanța, Romania¹, Faculty of Psychology and Educational Sciences, Ovidius University of Constanța, Romania² Independent researcher³,⁴
Psiholog_m@yahoo.com, mihaela_naidin@yahoo.com

Abstract. Since the onset of 2019, the new coronavirus (SARS-CoV-2) and its associated disease (COVID-19) have had and continue to have a considerable negative impact worldwide on physical and mental health, but also on daily activities. Various precautionary measures have been put in place to prevent the spread of the virus, measures that have significantly affected various areas and activities, including social, professional, educational, family, sports. Therefore, both the negative experience experienced with the advent of the virus and its rapid spread, as well as the limits imposed by the authorities, have determined a series of negative emotions among the entire population. One of the crucial aspects of everyday life is the management of emotions. The concept of coping or emotional regulation involves a series of processes that organize emotions, processes that can change, shape or inhibit a certain emotional state. Improper management of emotions can cause significant discomfort that persists over time and can cause a variety of symptoms (Gross, 2014 apud Cuevas Lopez et al., 2021). In the current pandemic context, in which negative experiences have increased due to infection with the new virus, but also because of the restrictions that have prevented the normal functioning of the entire population, improper management of emotions is not a topic that must be neglected. This paper starts from the ideas illustrated above and focuses its attention on the students, who have experienced considerable changes during this pandemic period. The main purpose of this paper is to understand the coping strategies adopted by students in the current pandemic context. In order to achieve our goal, in a first stage we will present the main defining aspects of the studied variables, namely emotions and emotional regulation strategies. The study investigates the following 9 coping strategies - self-curing, acceptance, rumination, positive refocusing, positive reassessment, putting into perspective, catastrophizing and blaming others. Another objective that the present research proposes is to highlight the extent to which the coping strategies adopted during the pandemic period differ in the students employed from the unemployed students, respecting the students from the Faculty of Psychology compared to the students from the Faculty of Law. Also, the study aims to bring a novelty to the researches, thus presenting the coping strategies adopted by the students of the Romanian population during this delicate period.

Keywords. strategies, coping, cognitive, emotional, students, pandemic

1. Emotions
To get acquainted with the concept of emotional regulation it is essential to understand what must be regulated, controlled, namely emotions. The definition of the concept of emotion
aroused many polemics and thus, a classical definition of the term was not reached. However, it has been concluded that emotions have certain essential traits.

Gross & Thompson (2007) highlights these basic characteristics and speaks of emotions as the answers that arise when individuals are in a situation relevant to their goals, they can be unconscious and simple or conscious and complex. More precisely, the various situations relevant to the individual give rise to emotions. These can change over time if the individual has changed its purpose, either because of the changes taking place on the situation itself, or because of changes in the meaning it has for the individual.

Moreover, emotions present a multifaceted nature and can easily lead to various changes, such as changes in expressiveness, subjective experience, behavior, but also to physiological changes (Mauss et al., 2005, apud Gross & Thompson, 2007). Emotions are also those that urge us to act, and here there are changes in body posture, facial expressions, but also actions specific to situations (fixed gaze, running away, hitting, etc.).

2. Emotional regulation

According to Folkman & Lazarus (1991) coping or emotional regulation is a cognitive and behavioral effort to reduce, master or tolerate internal or external stresses that exceed the individual's resources. Two important functions of coping are thus distinguished, namely: problem-centered coping that refers to attempts to act on the stressor, and emotion-centered coping that refers to attempts to cope with emotions associated with the stressor (Compas et al., 1993, apud Garnefski et al., 2001). Although problem-centered coping is considered to be the more effective strategy, there are certain situations in which emotion-centered coping efforts can be a better strategy. What differentiates them is that although stressors can determine both types of coping, the problem-centered one tends to appear when individuals feel they can do something constructive to remove the stressor, while emotion-centered coping tends to occur when individuals feel they can no longer do anything about it.

3. Cognitive Coping Strategies

Regarding the ability to cognitive regulation, although it is universal, there are individual differences in the specific cognitions through which envious people regulate their emotions in response to different life experiences, being thus important for the mental health of the entire population (Garnefski & Kraaij, 2006). Therefore, nine strategies of cognitive regulation of emotions were distinguished: self-healing, acceptance, rumination, positive refocusing, positive reassessment, refocusing on planning, putting into perspective, catastrophicing and blaming others. Next, we will talk about the significance of each individual strategy, as presented by Garnefski et al. (2001).

1. Self-indictment refers to the thoughts of blame that an individual has towards himself for the stressors caused by the unpleasant events that he has experienced.

2. Acceptance refers to the thoughts of accepting what the individual has experienced, but also of resigning what has happened. According to the authors, acceptance as a coping strategy is a functional response, considering that the acceptance of reality implies a certain attempt to cope with that negative event.

3. Rumination or focus on thoughts refers to excessive thoughts on feelings associated with the negative event that the individual has experienced.

4. Positive refocusing refers to the fact that the individual thinks about pleasant aspects and not about the unpleasant event that he has experienced. This coping strategy is defined as a reorientation of thoughts towards positive aspects in order to think less about
stressors. According to the authors Garnefski et al. (2001), the strategy of positive refocusing is seen as a useful short-term response and can prevent long-term adaptation.

5. **Refocusing on planning** refers to the fact that the individual thinks about the steps to follow to manage the negative event and represents the cognitive part of coping focused on action and does not imply that he will automatically follow a real behavior.

6. **Positive reassessment** refers to the fact that the individual thinks about attributing a positive meaning to the negative event, in terms of personal development.

7. **Putting into perspective** refers to the fact that the individual thinks about downplaying the seriousness of the negative event he went through, when comparing it with other events.

8. **Catastrophy** refers to the fact that the individual explicitly emphasizes the terror he experienced as a result of the negative event.

9. **The culpability of others** refers to the fact that the individual is thinking of blaming another person for what has happened.

3. **Emotional regulation in the pandemic context**

   The Covid-19 pandemic has led to the establishment of a significant number of precautionary measures, concluding that the only measure to break the chain of this pandemic is represented by mandatory social distancing. This measure led to another scenario in which all educational institutions were closed, which had and continues to have harmful effects on students. So, the sudden changes that have arisen due to the new coronavirus, such as the impossibility of carrying out the activities loved, social distancing, the closure of universities, have played a disruptive role on the entire population. Moreover, the number of severe cases, the lack of specific drugs, the rapid transmission of the virus, all this poses a major threat to the life and health of individuals, having a strong negative impact on mental health, causing various emotional problems (Panayiotou et al., 2021).

   Regarding the impact of the coronavirus pandemic on higher education institutions, it was necessary to find urgent solutions for students to continue their work, as a result of which the courses were held in the online environment. The challenges that arose with this decision involved the lack of certainty of the method of evaluation, the postponement of the exams or even their cancellation, but also the adoption of new ways of evaluation. So, both the restrictions imposed and the new living conditions can lead to the development of intense and long-lasting emotions that can be difficult to manage (Chandra, 2020).

   According to Riaz et al. (2021), the cognitive regulation of emotions plays a significant role in the appearance of many psychological problems among individuals, therefore following the negative events produced by the appearance of the SARS-Cov-2 virus it is essential to have the adoption of functional coping strategies. According to the aforementioned author, the model of cognitive regulation strategies of emotions is the main model that explained the role of the nervous system in the control of emotions and speaks of how different cognitive processes play an important role in the effective management of the emotional arousal.

   Therefore, a critical and unpredictable event such as the Covid-19 pandemic is a situation that can trigger an intense emotional arousal, the need for emotional control and regulation being crucial (Roemer et al., 2013, apud Riaz et al., 2021). Moreover, critical events, such as isolation, physical distancing, the rapid spread of the virus, can arouse a significant number of negative emotions, such as hopelessness, fear, horror, among students, but also of the entire population. If these negative emotions are not properly managed, so there is no effective regulation of emotions, they can cause long-lasting mental disorders.
4. Research methodology

4.1. Objectives

This research aims to demonstrate that the negative events caused by the appearance of the new coronavirus have caused the emergence of strong and long-lasting emotions that are managed differently by students. The literature captures a series of studies that have addressed this universal problem in the last two years since the advent of the new virus, being evaluated different aspects and effects of this pandemic and their impact on how students manage to cope with these pressures. This paper aims to highlight that negative events are managed in different ways by students, depending on the specificities.

In other words, the main objectives of the research are:

1. Identify a significant difference between students at the Faculty of Law and students of the Faculty of Psychology in terms of cognitive-emotional coping strategies.
2. Identify a significant difference between engaged students and uncommitted students in terms of cognitive-emotional coping strategies.

4.2. Assumptions

In order to achieve these objectives, we propose the following working hypotheses:

1. It is presumed that there are no significant differences between students from the Faculty of Psychology and students from the Faculty of Law in terms of coping strategies adopted in the current pandemic context.
2. It is presumed that there are significant differences between employed and uncommitted students in terms of coping strategies adopted in the current pandemic context.

4.3. Lot of participants

The sample was made up of a total of 63 participants, of which 35 are students at the Faculty of Psychology and Educational Sciences and 28 students at the Faculty of Law, within the Ovidius University of Constanta, respectively the University of Bucharest. Different demographic aspects were taken into account in order to obtain information about the age of the subjects, the background, the occupational status – employee / unemployed (of which 28 students are employed and 35 are not employed), gender (39 female students and 24 male), but also the year of study.

4.4. Instruments used

In order to achieve the objectives, we applied the **Cognitive-Emotional Coping Evaluation Questionnaire (CERQ)**. It is a self-assessment tool that aims to measure cognitive coping strategies. In common parlance, the questionnaire assesses what individuals think of as a result of negative or threatening experiences.

It consists of nine scales, so nine types of cognitive coping strategies, each of which has four conceptually different items. Cognitive-emotional coping strategies are divided into adaptive strategies (5 in number) and disadaptive strategies (4 in number), which make it more difficult to manage emotions in stressful situations. So, we distinguish:

1. Self-indictment;
2. Acceptance;
3. Browning;
4. Positive refocusing;
5. Refocusing on planning;
6. Positive assessment;
7. Putting it in perspectives;
8. Catastrophy;
4.5. Research design

This research was conducted through the distribution in the online environment of the Cognitive-Emotional Coping Evaluation Questionnaire (CERQ) through social networks. The tool was introduced, as a form, in the Google Forms app, and then distributed for completion to students.

The results obtained were processed using Microsoft Excel 2019. Following the quotation of all the items, the data were entered into the IBM SPSS Statistics 20 program with which the hypotheses were verified by statistical analysis.

4.6. Ethics of research

As regards the ethics of research, participants, at an initial stage, were presented with the testing procedure and its implications. Subsequently, they were informed that the data collected, following the completion of the questionnaire, would remain confidential, thus respecting the rules and ethical values regarding their absolute confidentiality, as well as the anonymity and safety of the subjects. Therefore, the participating students of this research had the opportunity to decide, after presenting these aspects, whether or not they wanted to get involved in what this research entails.

4.7. Research results

Assumption 1. It is presumed that there are significant differences between students from the Faculty of Psychology and students from the Faculty of Law in terms of cognitive coping strategies.

In order to verify the first hypothesis, after entering the data in the IBM SPSS Statistics 20 program, the first step is to verify the normality of the distribution of the nine variables, namely autoculpabilization, acceptance, rumination, positive refocusing, positive reassessment, prospecting, catastrophic and culpability of others. Next, I will present the tables for this stage, together with the results obtained.

Table 4.1. Calculation of the normality test

<table>
<thead>
<tr>
<th>Tests of Normality</th>
<th>Faculty</th>
<th>Kolmogorov-Smirnova</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistical</td>
<td>Df</td>
</tr>
<tr>
<td>SELF-INDICTMENT</td>
<td></td>
<td>psychology</td>
<td>.193</td>
</tr>
<tr>
<td></td>
<td></td>
<td>law</td>
<td>.170</td>
</tr>
<tr>
<td>ACCEPTANCE</td>
<td></td>
<td>psychology</td>
<td>.116</td>
</tr>
<tr>
<td></td>
<td></td>
<td>law</td>
<td>.159</td>
</tr>
<tr>
<td>BROWNING</td>
<td></td>
<td>psychology</td>
<td>.172</td>
</tr>
<tr>
<td></td>
<td></td>
<td>law</td>
<td>.140</td>
</tr>
<tr>
<td>REFOCUSING. POSITIVE</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>law</td>
<td>.197</td>
</tr>
<tr>
<td>REFOCUSING. ON. PLANNING</td>
<td></td>
<td>psychology</td>
<td>.185</td>
</tr>
<tr>
<td></td>
<td></td>
<td>law</td>
<td>.123</td>
</tr>
<tr>
<td>REVALUATION. POSITIVE</td>
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<td>psychology</td>
<td>.127</td>
</tr>
<tr>
<td></td>
<td></td>
<td>law</td>
<td>.171</td>
</tr>
<tr>
<td></td>
<td></td>
<td>psychology</td>
<td>.082</td>
</tr>
</tbody>
</table>
From the analysis of the Kolmogorov-Smirnov coefficient it follows that the nine distributions of the studied variables are not normal. In other words, we have obtained the materiality threshold lower than 0.05, which allows us to apply a nonparametric method in order to establish the existence of a significant difference.

Table 4.2 Calculation of comparison

<table>
<thead>
<tr>
<th>Test Statisticas</th>
<th>SELF-INDICATION</th>
<th>ACCEPTANCE</th>
<th>BROKENING</th>
<th>REFOCUSING. POSITIVE</th>
<th>REFOCUSING. ON. PLANNING</th>
<th>REVALUATION. POSITIVE</th>
<th>PUTTING.PERSPECTIVE</th>
<th>CATASTROPHIC</th>
<th>CULPABILITY.OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>437,000</td>
<td>468,000</td>
<td>382,000</td>
<td>372,000</td>
<td>404,000</td>
<td>364,000</td>
<td>319,000</td>
<td>370,500</td>
<td>461,500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>843,000</td>
<td>1098,000</td>
<td>788,000</td>
<td>1002,000</td>
<td>1034,000</td>
<td>994,000</td>
<td>949,000</td>
<td>1000,500</td>
<td>1091,500</td>
</tr>
<tr>
<td>Z</td>
<td>-1.739</td>
<td>-1.306</td>
<td>-1.512</td>
<td>-1.645</td>
<td>-1.201</td>
<td>-1.754</td>
<td>-2.381</td>
<td>-1.678</td>
<td>-1.402</td>
</tr>
<tr>
<td>Asym p. Sig. (2-tailed)</td>
<td>.460</td>
<td>.759</td>
<td>.130</td>
<td>.100</td>
<td>.230</td>
<td>.079</td>
<td>.017</td>
<td>.093</td>
<td>.688</td>
</tr>
</tbody>
</table>

The analysis of the Mann-Whitney U coefficient shows that we have obtained a materiality threshold of more than 0.05, which suggests that there is no significant difference in terms of cognitive strategies for emotional regulation depending on the faculty – the Faculty of Law and the Faculty of Psychology

The hypothesis is not confirmed.

The results obtained illustrate that there are no significant differences in the coping strategies accessed by students in the current pandemic context. In other words, both law school students and students at the Faculty of Psychology have adopted the same emotional regulation strategies in the pandemic caused by the new coronavirus SARS-CoV-2. These findings are in line with the results of empirical research conducted over the past two years on the frequency of adoption of adaptive strategies by students during this delicate period. A study conducted by Fernandez Cruz et al. (2020) on a sample of 1910 Spanish students demonstrated that most of
the strategies adopted by them were the adaptive ones, namely: acceptance, positive reassessment, refocusing on planning, forward-looking and positive refocusing. In other words, although the preventive measures put in place during this period were harsh, recalling the compulsory isolation and closure of universities, the students adopted adaptive and functional cognitive strategies that allowed them to cope with these events.

Although there are no significant differences between the strategies adopted by the students of the two faculties, it can be seen from the analysis of the frequency distribution (See Appendix 1) that the most commonly used strategies are the adaptive ones, namely: acceptance, positive refocusing, refocusing on planning, positive reassessment and putting into perspective. These results can be explained by the fact that, according to Holmes et al. (2020), the effects of social isolation can be offset by personal and social resources such as strengthening family ties, which can generate resilience to the stressful circumstances of the pandemic. In other words, it is likely that the students participating in this study have isolated themselves with their loved ones in decent conditions, which are consistent with an effective style of adaptation to stressors. Also, during the two years since the pandemic appeared, there have been periods of easing restrictions, with the possibility of returning to a life similar to the one before the pandemic (meetings with friends / colleagues, participation in festivals, important family events, reopening of cinemas, theaters, etc.).

Moreover, the students participating in this research have maintained a positive position towards the new living and learning conditions. When asked before completing the CERQ questionnaire, regarding the quality of services and resources available to universities in terms of online teaching, but also on their possibilities and capabilities to participate in online courses, most students answered in the affirmative. These results can therefore explain why no significant differences have been found between law school students and students at the Faculty of Psychology. Finding favorable solutions that can minimize the problems associated with the lack of physical presence in the classroom, can help students adapt more easily to new changes and thus adopt cognitive strategies for functional emotional regulation (Cuevas-Lopez et al., 2021).

**Hypothesis 2. It is presumed that there are significant differences between employed students and unemployed students in terms of cognitive coping strategies.**

In order to verify this hypothesis, after entering the data in the IBM SPSS Statistics 20 program, the first step consists in verifying the normality of the distribution of the nine variables, namely autoculpabilization, acceptance, rumination, positive refocusing, positive reassessment, prospecting, catastrophic and culpability of others, depending on the occupational status – employee / uncommitted. Next, I will present the tables for this stage, together with the results obtained.

<table>
<thead>
<tr>
<th>Table 4.3. Calculation of the normality test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests of Normality</td>
</tr>
<tr>
<td>Occupational Status</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>SELF-INDICTMENT</td>
</tr>
<tr>
<td>employee</td>
</tr>
<tr>
<td>unemployed</td>
</tr>
</tbody>
</table>

400
From the analysis of the Kolmogorov-Smirnov coefficient it follows that the nine distributions of the studied variables are not normal. In other words, we have obtained the materiality threshold lower than 0.05, which allows us to apply a nonparametric method in order to establish the existence of a significant difference.

Table 4.4. Calculation of the comparison

<table>
<thead>
<tr>
<th>Test Statisticsa</th>
<th>SELF-INDIC TMENT</th>
<th>ACCEPTANCE</th>
<th>BROWNING</th>
<th>REFOCUSING. POSITIVE</th>
<th>REFOCUSING. ON. PLANNING</th>
<th>REVALUATION. POSITIVE</th>
<th>PUTTING. FLAX. PERSPECTIVE</th>
<th>CATASTROPHIC</th>
<th>CULPABILITY. OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>417,500</td>
<td>469,500</td>
<td>395,500</td>
<td>462,500</td>
<td>412,000</td>
<td>470,000</td>
<td>459,000</td>
<td>422,500</td>
<td>475,500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>823,500</td>
<td>875,500</td>
<td>1025,500</td>
<td>1092,500</td>
<td>818,000</td>
<td>1100,000</td>
<td>1089,000</td>
<td>1052,500</td>
<td>1105,500</td>
</tr>
<tr>
<td>Z</td>
<td>-1,010</td>
<td>-1,285</td>
<td>-1,323</td>
<td>-1,089</td>
<td>-278</td>
<td>-432</td>
<td>-948</td>
<td>-205</td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.312</td>
<td>.775</td>
<td>.186</td>
<td>.701</td>
<td>.276</td>
<td>.781</td>
<td>.666</td>
<td>.343</td>
<td>.838</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Status.occupational

The analysis of the Mann-Whitney U coefficient shows that we have achieved a materiality threshold of more than 0.05, which suggests that there is no significant difference.
in terms of cognitive strategies for emotional regulation depending on the occupational status – employee/uncommitted.

The hypothesis is not confirmed.

The results of this research suggest that there are no significant differences in the cognitive strategies of emotional regulation adopted by students in the current pandemic context, depending on the occupational status – employee/uncommitted. In other words, both hired and uncommitted students have adopted similar coping strategies in the global pandemic caused by the SARS-CoV-2 virus. The results correlate with the findings made by Cuevas Lopez et al. (2021), but also by Fernandez Cruz et al. (2020), according to which no significant differences were found, students adopting several functional strategies of emotional regulation, despite the negative events generated by the appearance of the new coronavirus, such as: imposing rigorous restrictions, closing public and private institutions, including the closure of universities, but also the possibility of losing their job.

These results can be explained through the prism of the emergence of the vaccine that aims to remove the pandemic and return to normality. So, thanks to this opportunity, hired students were able to return to their jobs, thus strengthening connections with colleagues, within the limits of physical distancing. One of the deeply rooted human instincts is to connect with others, which is important in terms of proper management of emotions (Van Bavel et al., 2020). Moreover, it has been shown that online interactions can also foster a sense of connection. Both the support provided and the support received online can contribute to the well-being of individuals. According to authors Van Bavel et al. (2020), information-rich technology seems to be suitable for generating empathy and connection. Therefore, we can blame the results of the research on the fact that both hired and uncommitted students manage to maintain strong connections with colleagues even despite restrictions on physical distancing, namely the closure of universities and the transition to the online environment, which is causing students to cope with the disturbing events of the pandemic.

Moreover, research highlights the importance of psychological and behavioral factors when it comes to managing emotions in threatening situations, as is the case with the Covid-19 pandemic, highlighting the need to assess the perceived risk. The research conducted by Wise et al. (2020), posed the question of underestimating by individuals the probability in which they could be victims of threatening events. The aforementioned authors do not exclude the positive effects that the perceived risk could have on avoiding negative emotions in the current pandemic context, but it should not be lost in mind that it can cause individuals to underestimate the danger of getting sick.

The issues outlined above may be the foundation of explanations for which no significant differences have been found between engaged students and uncommitted students in terms of cognitive emotional regulation strategies.

Conclusions

The main purpose of this research was to highlight the existence of a significant difference in terms of cognitive-emotional coping strategies depending on the faculty and occupational status of students in Romania, in the current pandemic context. In order to achieve this objective, two hypotheses were made, but none of them were confirmed.

Following the statistical analysis, the present research did not prove the existence of a significant difference in the cognitive-emotional coping strategies accessed by students in the current pandemic context depending on the faculty they follow. The results can be attributed to
the fact that due to the quality of services and resources available to universities in terms of online learning, students have maintained a positive position towards the new living and learning conditions. Thus, the students of the two faculties – Law and Psychology – adopted adaptive coping strategies. Also, the study did not demonstrate the existence of a significant difference in the cognitive strategies of emotional regulation adopted by students in the current pandemic context, depending on the occupational status – employee / uncommitted. It is likely that both the emergence of a treatment that slows down the negative effects of getting sick with the new coronavirus, as well as an appropriate way of online interaction attributed to the help received and offered during this period, will contribute to the restoration of connections between students. These connections can help adopt functional coping strategies in times of stress, such as the current pandemic.

However, this research presents a number of limits. First, the low number of participants in this study limits our ability to draw firm conclusions about the fact that there are no significant differences in the cognitive emotional regulation strategies adopted by students depending on faculty and occupational status.

Also, another limit to this study is the procedure for carrying it out. Taking into account the current pandemic context, the research was carried out in the online environment, there being no possibility of a direct meeting with the participants. Consequently, the correctness of the students' responses to the tool used may be a limit to this study, as they have not been observed or verified as belonging to those who are supposed to have participated in this research.

In conclusion, future directions of research should explore the different aspects and effects of this universal problem. A medical understanding of this virus is necessary, but psychological and psychiatric requirements cannot be ignored or overlooked at any stage of the pandemic management.

References


