



## COVID-19 related difficulties and perceived coping among university and college students: the moderating role of media-related exposure and stress

Ruth Pat-Horenczyk<sup>a</sup>, Yoav S. Bergman<sup>b</sup>, Miriam Schiff<sup>a</sup>, Alon Goldberg<sup>b,c</sup>, Ayala Cohen<sup>d</sup>, Becky Leshem<sup>e</sup>, Hisham Jubran<sup>f</sup>, Wovit Worku- Mengisto<sup>g</sup>, Ruth Berkowitz<sup>h</sup> and Rami Benbenishty<sup>a,i</sup>

<sup>a</sup>Paul Baerwald School of Social Work and Social Welfare, Hebrew University of Jerusalem, Jerusalem, Israel; <sup>b</sup>Faculty of Social Work, Ashkelon Academic College, Ashqelon, Israel; <sup>c</sup>Department of Education, Tel Hai Academic College, Kiryat Shmona, Israel; <sup>d</sup>School of Social Work, Tel Hai College, Kiryat Shmona, Israel; <sup>e</sup>School of Education, Achva Academic College, Ashqelon, Israel; <sup>f</sup>Faculty of Education, Beit Berl Academic College, Kfar Saba, Israel; <sup>g</sup>David Yellin Academic College of Education, Jerusalem, Israel; <sup>h</sup>School of Social Work, University of Haifa, Haifa, Israel; <sup>i</sup>Department of Education, Andres Bello National University, Santiago, Chile

### ABSTRACT

**Background:** University and college students are not usually identified as a population at risk during the COVID-19 pandemic. Yet, there is growing evidence of their specific distress associated with facing multiple abrupt changes and the need for rapid adaptation to a variety of academic, social, and financial challenges. The extent of their exposure to COVID-19 media and the associated media-related stress may further impair students' perceived coping.

**Objective:** This study assessed COVID-19-related functional difficulties and perceived coping among higher education students in Israel and explored the moderating role played by media coverage of the pandemic in inducing stress and exacerbating COVID-19-related difficulties in perceived coping among students.

**Method:** Data was collected from 7,446 students from seven academic centres in Israel through online questionnaires about four to six weeks after the outbreak of the pandemic in Israel.

**Results:** The findings showed positive associations between COVID-19-related difficulties, media exposure, media-related stress, and decreased levels of perceived coping with the pandemic. Moreover, media-related stress (but not the level of media exposure) moderated the relationship between COVID-19-related difficulties and perceived coping: the associations were significantly stronger for students reporting high media-related stress in comparison to individuals reporting low media-related stress.

**Conclusions:** These results highlight the specific role of media-related stress and the need to distinguish this risk factor from the global impact of exposure to media coverage. The need for self-monitoring of the subjective level of stress associated with media exposure should be part of the psychoeducation efforts provided by public health authorities for promoting self-care during the COVID-19 pandemic.

### Dificultades relacionadas con COVID-19 y el afrontamiento percibido entre estudiantes universitarios: el papel moderador de la exposición y el estrés relacionados con los medios

**Antecedentes:** Los estudiantes universitarios generalmente no se identifican como una población en riesgo durante la pandemia de COVID-19. Sin embargo, existe una creciente evidencia de angustia específica asociada con enfrentar cambios abruptos múltiples y la necesidad de una rápida adaptación a una variedad de desafíos académicos, sociales y financieros. El alcance de la exposición a los medios de comunicación acerca del COVID-19, y el estrés relacionado a esta exposición, pueden afectar aún más a los estudiantes universitarios en sus estrategias de afrontamiento percibidas.

**Objetivo:** Este estudio evaluó las dificultades funcionales relacionadas con el COVID-19 y el afrontamiento percibido entre los estudiantes de educación superior en Israel y exploró el papel moderador que desempeña la cobertura mediática de la pandemia para inducir estrés y exacerbar las dificultades relacionadas con el COVID-19 en el afrontamiento percibido entre los estudiantes.

**Método:** Se recopilaron datos de 7.446 estudiantes de siete centros académicos en Israel a través de cuestionarios en línea entre cuatro y seis semanas después del estallido de la pandemia en Israel.

**Resultados:** Los hallazgos mostraron asociaciones positivas entre las dificultades relacionadas con COVID-19, la exposición a los medios, el estrés relacionado con los medios y la disminución del nivel de afrontamiento percibido con la pandemia. Además, el estrés relacionado con los

### ARTICLE HISTORY

Received 31 January 2021

Revised 22 April 2021

Accepted 24 April 2021

### KEYWORDS

COVID-19; media exposure; stress; perceived coping; university students

### PALABRAS CLAVE

COVID-19; Exposición a los medios; Estrés; Afrontamiento percibido; Estudiantes universitarios

### 关键词

COVID-19; 媒体暴露; 应激; 感知应对; 大学生

### HIGHLIGHTS

- This study assessed COVID-19-related functional difficulties and perceived coping among 7,446 higher education students and explored the moderating role played by media coverage of the pandemic in inducing stress and exacerbating COVID-19-related difficulties in perceived coping.

medios (pero no el nivel de exposición a los medios) moderó la relación entre las dificultades relacionadas con COVID-19 y el afrontamiento percibido: las asociaciones fueron significativamente más fuertes para los estudiantes que informaron un alto estrés relacionado con los medios en comparación con las personas que informaron un bajo nivel de estrés mediático relacionado.

**Conclusiones:** Estos resultados destacan el papel específico del estrés relacionado con los medios y la necesidad de distinguir este factor de riesgo del impacto global de la exposición a la cobertura de los medios. La necesidad de autocontrol del nivel subjetivo de estrés asociado con la exposición a los medios debe ser parte de los esfuerzos de psicoeducación brindados por las autoridades de salud pública para promover el autocuidado durante la pandemia de COVID-19.

### COVID-19相关困难和大学生的感知应对: 媒体相关暴露和应激的调节作用

**背景:** 大学生们通常不会被识别为 COVID-19 疫情期间的高风险群体。但是, 越来越多的证据表明他们的特定困扰与面临多种突然变化和需要快速适应各种学术、社会和财务挑战有关联。他们暴露于 COVID-19 媒体的程度以及媒体相关应激可能会进一步削弱学生的感知应对。

**目的:** 本研究评估了以色列高等教育学生中的 COVID-19 相关功能困难和感知应对, 并探讨了媒体对疫情的报道在学生中诱发应激和加重 COVID-19 相关感知应对困难所起的调节作用。

**方法:** 在以色列疫情爆发后约四到六周, 通过在线问卷从以色列七个学术中心的7,446名学生中收集了数据。

**结果:** 结果表明, COVID-19 相关困难、暴露于媒体、媒体相关应激以及对疫情的感知应对下降之间存在正相关。此外, 媒体相关应激 (并非暴露于媒体的水平) 调节了 COVID-19 相关困难与感知应对之间的关系: 与报告低媒体相关应激的学生相比, 关联在媒体相关应激高的学生的关联性显著更高。

**结论:** 这些结果强调了媒体相关应激的特定作用, 以及需要将这种风险因素与暴露于媒体报道的全球影响区分开来。自我监控媒体暴露相关的主观应激水平的需求应该成为公共卫生当局促进 COVID-19 疫情期间自我护理的心理教育工作的一部分。

## 1. Introduction

University and college students are not usually identified as a vulnerable population in times of global crises, and have not generally been listed among the populations at risk during the COVID-19 pandemic (e.g. Płomecka et al., 2020). However, the context of COVID-19 has raised several new and unprecedented challenges, at least in modern times, for students, burdening them with multiple additional difficulties: functional, educational, familial, and occupational. Accordingly, understanding the specific challenges and concerns of students is crucial for administrators, educators, and health professionals providing educational and emotional support to university and college students during this ongoing crisis (Burki, 2020).

The unprecedented global crisis resulting from COVID-19 has compelled innovative ways to assess the newly emerging domains of distress and to fill the gaps in existing knowledge about perceived coping with this global pandemic (Lee, 2020). The present authors attempted to identify the unique aspects of COVID-19-related functional difficulties and perceived coping. Enhancing individuals' perceived coping abilities is a crucial aim in public health efforts and must be grounded in a thorough understanding of the various risk and protective factors that may increase or mitigate psychosocial distress in the context of threat and adversity.

Based on the conceptualization of the global COVID-19 crisis within the trauma literature by

Horesh and Brown (2020), direct and indirect exposure to various aspects of the pandemic are perceived as a major risk factor for trauma-related distress. In the current study, both *direct exposure* to the pandemic (i.e. being personally infected or suspected of being infected, or having an infected family member) and *indirect exposure* (i.e. being repeatedly exposed through media coverage to the various alarming aspects of the COVID-19 crisis) were assessed, as well as the level of stress that was associated with the exposure to COVID-19 media coverage.

A comprehensive review by Garfin, Silver, and Holman (2020) of previous public health crises (i.e. Ebola and H1N1 outbreaks) and other collective trauma (e.g. terrorist attacks) demonstrated that media coverage of such adversities may bear negative consequences for those at relatively low risk for direct exposure, potentially leading to severe public health repercussions. An alternative argument, however, underscored the potentially positive and calming effects of accurate media coverage that provides realistic, objective information about a crisis and may motivate people to act constructively or initiate benevolent and humanitarian aid (Ghassabi & Zare-Farashbandi, 2015).

In the context of COVID-19, there is some preliminary evidence indicating a positive association between frequent social media exposure and depression and anxiety among the general population (Gao et al., 2020). Moreover, media exposure to the

pandemic's collective trauma, and to trauma-related graphic images in particular, was found to be associated with acute stress, posttraumatic stress symptoms, and related mental health symptoms and impaired functioning (Holman, Garfin, Lubens, & Silver, 2020). Much less is known about the associations between media exposure and individuals' perceived coping with stressful situations like COVID-19. While previous studies in the context of terrorism found that information-seeking through media as a perceived coping strategy had positive effects on individuals' mental health (Deroma et al., 2003), others found negative associations between exposure to media coverage of terrorism and perceived coping and mental distress (Bodas et al., 2015). In the context of COVID-19, early research studies on exposure to media and perceived coping revealed that stress was associated with greater exposure to media news, yet reliable facts and support had calming effects and thus may contribute to enhanced perceived coping (Pahayahay & Khalili-Mahani, 2020).

Young adults tend to obtain a large amount of information via social media and are frequently connected to phone applications, thereby exposing themselves to continual, immediate notifications and updates on the pandemic's evolution. They may be particularly at risk from this onslaught of information (Roberts et al., 2018). A study by Gallè et al. (2020) that focused on Italian undergraduate students found that mass media with continual and timely updates on the pandemic's evolution had a significant influence on students' knowledge and attitudes, as well as on their risk perception.

While most research has assessed the extent of different types of media exposure, it may not be the quantity of the exposure that influences distress, but rather, the individual impact of the resulting stress associated with exposure to media and various intrusive applications and notifications. This media-related stress (associated with exposure to COVID-19 media coverage) may, in fact, reduce an individual's ability to cope effectively with COVID-19-related functional and emotional difficulties.

The aim of this study is to examine the associations between university and college students' perceived coping with the pandemic, and COVID-19 related difficulties, media exposure, and media-related stress. The following two hypotheses were formulated: (1) COVID-19-related difficulties, media exposure, and media-related stress would be associated with reduced perceived coping; (2) In light of the aforementioned link between media-related stress and psychological distress, it was surmised that media-related stress would moderate the difficulties-perceived coping link. More specifically, it was hypothesized that this link would be stronger among students reporting high levels of stress resulting from media exposure.

## 2. Method

### 2.1. Participants and procedure

Data was collected from 7,446 students from seven universities and colleges in Israel. Age ranges were 18–77 ( $M = 28.39$ ,  $SD = 7.54$ ; 90.2% were under 40), and 1,863 (25.0%) were men. Students were located through contact lists provided by the student deans' offices and faculty members. Participants provided informed consent and filled out the study scale online between March 23 and 1 June 2020. By the end of data collection, 17,195 Israelis had been infected and 291 had died, with a ratio of 34.2 deaths per million citizens in Israel (Ministry of Health, 2021). The study was approved by the ethics committees in all the academic centers involved in the study.

### 2.2. Measures

COVID-19 difficulties were assessed by seven items addressing specific functional difficulties and concerns that students may have experienced during the pandemic: health concerns about themselves/their families; boredom; loneliness; difficulties with school assignments/online courses, and financial concerns. Items were rated on a scale ranging from 0 ('no difficulty at all') to 3 ('great difficulty'). A mean score was calculated ( $\alpha = .71$ ).

Exposure to COVID-19 media coverage was assessed by a single item ('do you actively search for information about the progress of the COVID-19 pandemic [e.g. read news websites, use apps that are continually updated, listen to radio/TV, etc.])' rated on a scale ranging from 1 ('never/almost never') to 3 ('All the time'), media-related stress was assessed by a single item ('to what extent is the information you receive from the media regarding COVID-19 calming or stressing?') rated on a scale ranging from 1 ('very calming') to 10 ('very stressing'), and perceived coping abilities were assessed by a single item ('please rate the manner in which you feel you are dealing with the COVID-19 crisis') rated on a scale ranging from 1 ('not coping at all, in a crisis') to 10 ('coping excellently'). Subjects also provided sociodemographic information, such as age and gender, which were controlled in the analyses, as well as the level of exposure to COVID-19. COVID-19 exposure was calculated as the sum of positive responses to three items: being in isolation due to infection/fear of infection by COVID-19 (9.6% positive responses), knowing anyone infected by COVID-19 (25.8% positive responses), and having a close friend/relative infected by COVID-19 (7.1% positive responses; see Bergman, Cohen-Fridel, Shrira, Bodner, & Palgi, 2020).

### 2.3. Data analysis

Data were analysed using SPSS 24 software and significant interactions were probed using Model 1 of the PROCESS 3.4 macro for SPSS (Hayes, 2018). The demographic and descriptive variables, as well as the correlations between study variables, are presented in Table 1. The hypotheses were examined by a hierarchical regression, with perceived coping as the dependent variable. The first step included age, gender, and COVID-19 exposure. The second step included the main effects of COVID-19 difficulties and media-related stress, as well as exposure to media. The third and final step included two two-way interactions: COVID-19 difficulties  $\times$  Exposure to COVID-19 media coverage and COVID-19 difficulties  $\times$  Media-related stress. Potential multicollinearity was rejected, as tolerance and VIF ranged between 0.91–1.00 and 1.00–1.10, respectively (See Table 2 for regression coefficients). A power analysis for detecting a medium to strong effect size (0.20) with 8 predictors and an  $\alpha$  error probability of 0.001 required a sample size of 201, indicating that the current sample was sufficient for the study model.

### 3. Results

High COVID-19 related difficulties ( $M = 1.47$ ,  $SD = .63$ ) were associated with increased exposure to COVID-19 media coverage ( $M = 2.11$ ,  $SD = .70$ ;  $r = .17$ ,  $p < .001$ ), increased media-related stress ( $M = 6.80$ ,  $SD = 1.95$ ;  $r = .27$ ,  $p < .001$ ), and reduced

perceived coping ( $M = 7.25$ ,  $SD = 2.06$ ;  $r = -.41$ ,  $p < .001$ ), whereas perceived coping was associated with reduced exposure to COVID-19 media coverage ( $r = -.14$ ,  $p < .001$ ) and media-related stress ( $r = -.23$ ,  $p < .001$ ). The results demonstrated that exposure to COVID-19 media coverage and media-related stress were only modestly correlated ( $r = .14$ ,  $p < .001$ ).

In line with the first hypothesis, the regression yielded significant negative main effects for COVID-19 difficulties ( $B = -1.22$ ,  $SE = .04$ ,  $\beta = -.37$ ,  $p < .001$ ), exposure to COVID-19 media coverage ( $B = -.16$ ,  $SE = .03$ ,  $\beta = -.06$ ,  $p < .001$ ), and media-related stress ( $B = -.11$ ,  $SE = .01$ ,  $\beta = -.11$ ,  $p < .001$ ). In line with the second hypothesis, the COVID-19 difficulties  $\times$  media exposure interaction was not significant ( $B = -.02$ ,  $SE = .02$ ,  $\beta = -.01$ ,  $p < .05$ ), whereas the COVID-19 difficulties  $\times$  media-related stress interaction was significant ( $B = -.11$ ,  $SE = .02$ ,  $\beta = -.06$ ,  $p < .001$ ), yielding a small-to-medium effect size of  $-.33$ . (See Bodner, 2017, for details regarding effect size calculation.)

Probing this interaction using PROCESS (Hayes, 2018), revealed that the negative association between COVID-19 difficulties and perceived coping was discovered to be stronger for individuals reporting high media-related stress ( $B = -1.42$ ,  $SE = .05$ ,  $LLCI = -1.52$ ,  $ULCI = -1.32$ ,  $\beta = -.43$ ,  $p < .001$ ) in comparison to individuals reporting low media-related stress ( $B = -1.04$ ,  $SE = .05$ ,  $LLCI = -1.14$ ,  $ULCI = -.94$ ,  $\beta = -.32$ ,  $p < .001$ ; see Figure 1). It should be noted that upon examining the opposite direction of the model (i.e. how perceived coping

**Table 1.** Demographic information and Pearson correlations between study variables ( $N = 7446$ ).

	Variable	<i>M</i> / <i>%</i>	<i>SD</i>	1	2	3	4
Study variables	1. COVID-19 difficulties	1.47	.63	–			
	2. Media exposure	2.11	.70	.17***	–		
	3. Media stress	6.80	1.95	.27***	.14***	–	
	4. Perceived coping	7.25	2.06	-.41***	-.14***	-.23***	–
Demographics	5. Age	28.39	7.54	-.15***	-.06***	-.10***	.10***
	6. Gender <sup>a</sup> (male)	25.0%	–	.08***	.01	.10***	-.10***
	7. COVID-19 exposure	.42	.71	.08***	.02	.02	-.05***

<sup>a</sup>0 = male; 1 = female.

\*\*\* $p < .001$ .

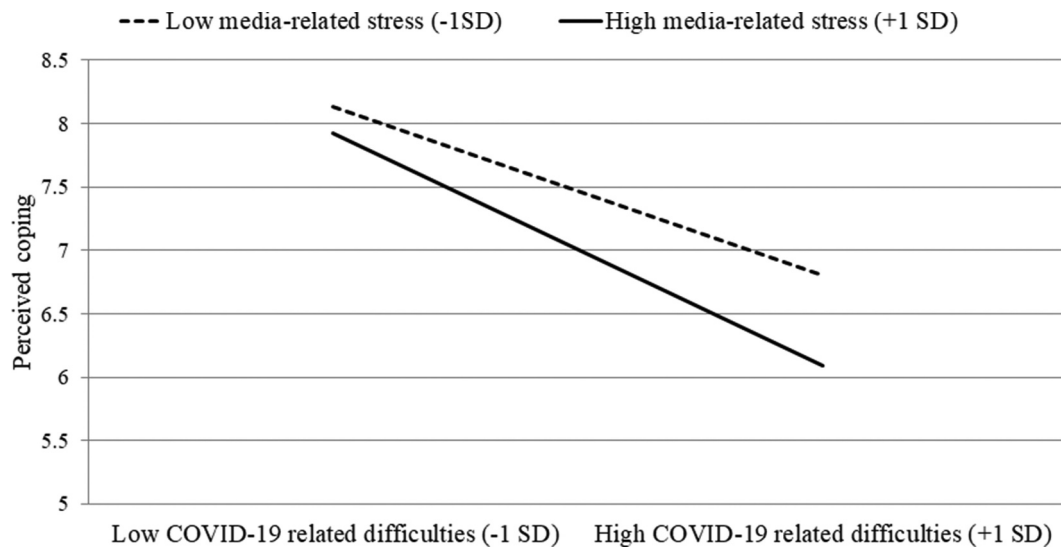
**Table 2.** Regression coefficients for predicting perceived coping.

	Predictor	$\Delta R^2$	<i>B</i>	<i>SE</i>	LLCI <sup>§</sup>	ULCI <sup>§</sup>	$\beta$	<i>t</i>	<i>p</i>
Step 1		.023***							
	Age		.03	.01	.02	.03	.10	7.95	<.001
	Gender <sup>a</sup>		-.47	.06	-.58	-.36	-.10	-8.25	<.001
Step 2	COVID-19 exposure		-.15	.04	-.21	-.08	-.05	-4.18	<.001
	COVID-19 difficulties	.174***	-1.22	.04	-1.30	-1.15	-.37	-31.48	<.001
	Media exposure		-.16	.03	-.23	-.10	-.06	-4.95	<.001
Step 3	Media-related stress		-.11	.01	-.14	-.09	-.11	-9.11	<.001
	COVID-19 difficulties $\times$ Media exposure	.004***	-.02	.02	-.06	.02	-.01	-.95	.341
	COVID-19 difficulties $\times$ Media-related stress		-.11	.02	-.15	-.07	-.06	-5.12	<.001
Total $R^2$		.200***							
<i>N</i>		7446							

<sup>a</sup>0 = male; 1 = female.

<sup>§</sup>Lower/Upper Limit for Confidence Interval.

\*\*\* $p < .001$ .



**Figure 1.** The two-way interaction between COVID-19 related difficulties and media-related stress in predicting perceived coping.

and COVID-19 difficulties may affect media stress), no significant interaction between perceived coping and COVID-19 difficulties was found.

#### 4. Discussion

The present study examined the associations between functional difficulties, exposure to COVID-19 media coverage, and stress resulting from media exposure, on students' perceived coping abilities in the context of the COVID-19 pandemic. Consistent with the body of trauma literature (Holman et al., 2020; Horesh & Brown, 2020; Pfefferbaum & North, 2020), our results showed that COVID-19-related difficulties, exposure to media information concerning COVID-19, and media-related stress are possible risk factors for impaired functioning and perceived coping. Indeed, the specific COVID-19 related difficulties investigated were associated with increased exposure to COVID-19 media coverage and increased media-related stress, while the general level of perceived coping was associated with reduced media exposure and related stress. Interestingly, most participants seem to be coping relatively well with the pandemic challenges, as can be seen by a mean score of 7.25 (on a 1–10 scale) in perceived coping.

Moreover, the negative association between COVID-19 difficulties and perceived coping abilities was stronger for individuals reporting high media-related stress in comparison to individuals reporting low media-related stress. Notably, exposure to COVID-19 media coverage alone did not affect the link between difficulties and perceived coping. These results highlight the specific role of *media-related stress*, and the need to distinguish this *vulnerability factor* from the variable of *global exposure to media coverage*. These two seemingly similar factors reflect the quantity versus quality aspect of exposure to

COVID-19 media coverage. In the present study, only media-related stress was a significant moderator for the association between COVID-19 difficulties and perceived coping, emphasizing the need to examine media exposure and media-related stress both separately and in synergy.

The individual impact of media exposure reflects the individual cognitive appraisal of the situation (Lazarus & Folkman, 1984) and needs to be acknowledged and researched in the context of COVID-19 as well as in other adversities (Chew et al., 2020). In this vein, our results showed that exposure to COVID-19 media coverage (to television and various applications) and the associated media exposure-related stress were only modestly correlated, thus strengthening the need to differentiate between the objective and subjective effects of exposure to COVID-19 media coverage on individuals. Chew et al. (2020), in analysing the range of psychosocial responses seen in past infectious disease outbreaks, identified a need to focus on the individual within the context of the larger social environment. They emphasized raising awareness of the range of possible psychosocial responses, including a personal need to be updated by reliable information about the outbreak and the importance of positive appraisal of the situation. Our results additionally highlighted the need to clarify and examine other potential risk or protective factors that may enhance or mitigate the impact of exposure to COVID-19 media coverage, such as social support and loneliness (Saltzman, Hansel, & Bordnick, 2020). Enhancing self-awareness and self-monitoring of modes and time of exposure to COVID-19 media coverage may play a protective role, probably in synergy with other protective factors, and these issues need to be examined in future studies.

The clinical and educational implications of our findings pertain to public health policy and guidelines.

Subjective stress as a result of exposure to COVID-19 media coverage needs to be acknowledged among the risk factors that are communicated to the public as part of the guidelines for self-care during mass and global crises. Educating about the need for self-awareness and self-monitoring of the various modes of media exposure ought to be part of any psychoeducation material for perceived coping with adversity. Appraisal processes can improve affective responses to social stress; as Jamieson, Hangen, Lee, and Yeager (2018) concluded, regulating affective responses to acute stress has the potential to improve health, performance, and well-being outcomes. Thus, an integral part of self-care is self-monitoring one's own stress reactions and seeking appropriate assistance, including professional mental health intervention, if indicated (Pfefferbaum & North, 2020).

The main limitations of this study pertain to the generalizability of the results. First, because the study was conducted during the peak of the first wave of the pandemic in Israel and was based on a cross-sectional survey, a longitudinal study could reveal the pattern of change both in exposure to COVID-19 media coverage and the stress associated with it as the COVID-19 pandemic progresses. In this regard, while the study included a large number of students from various academic institutions, it is possible that our results were affected by the Israeli government's response to the pandemic, and our findings require further investigation and replication in additional countries. In addition, two of the research variables were based on single item measures evaluating the global media-related stress and the perceived coping abilities with dealing with the COVID-19 crisis. These two measures were specifically adjusted to the novel situation of the pandemic. In this regard, it should also be emphasized that the current study focused on active COVID-19 related media consumption. However, it is possible that other indirect exposure to such COVID-19 media (e.g. receiving numerous alerts and notifications concerning COVID-19) may affect both COVID-19 related difficulties and perceived coping. This differentiation and its consequences need to be further examined.

Future studies on the impact of exposure to media coverage of global threats may bear implications for both the public health sector and the media experts. Further research can better distinguish between the perceived quality of media exposure and the general feeling of being bombarded by notifications, as well as to its relationships with vulnerability and resilience of the individual and community. More knowledge is needed about how different media content (media messages) and the choice of different media/information channels (e.g. press, radio, TV, social media platforms) influence the recipients: as a burden and potential stress or as a relief or even potential calming

factor. Finally, examining the role of other potential protective factors, such as strong support from the university/college and the provision of online counseling services, may shed additional light on the unique practical and psychosocial needs of students in higher education.

### Disclosure statement

No potential conflict of interest was reported by the author(s).

### Funding

This research was not funded. All researchers did it as part of their academic work

### Data availability statement

As the data includes information from multiple academic institutions, some of which have not consented to data sharing, the data is not available. The corresponding author can be contacted for further information regarding the data.

### ORCID

Alon Goldberg  <http://orcid.org/0000-0002-3267-1947>

### References

- Bergman, Y. S., Cohen-Fridel, S., Shrira, A., Bodner, E., & Palgi, Y. (2020). COVID-19 health worries and anxiety symptoms among older adults: The moderating role of ageism. *International Psychogeriatrics*, 1–5. doi:10.1017/S1041610220001258
- Bodas, M., Siman-Tov, M., Peleg, K., & Solomon, Z. (2015). Anxiety-inducing media: The effect of constant news broadcasting on the well-being of Israeli television viewers. *Psychiatry*, 78(3), 265–276. doi:10.1080/00332747.2015.1069658.
- Bodner, T. E. (2017). Standardized effect sizes for moderated conditional fixed effects with continuous moderator variables. *Frontiers in Psychology*, 8, 562. doi:10.3389/fpsyg.2017.00562
- Burki, T. K. (2020). COVID-19: Consequences for higher education. *The Lancet Oncology*, 21(6), 758. doi:10.1016/S1470-2045(20)30287-4
- Chew, Q. H., Wei, K. C., Vasoo, S., Chua, H. C., & Sim, K. (2020). Narrative synthesis of psychological and coping responses towards emerging infectious disease outbreaks in the general population: Practical considerations for the COVID-19 pandemic. *Singapore Medical Journal*, 61(7), 350–356. doi:10.11622/smedj.2020046
- DeRoma, V., Saylor, C., Swickert, R., Sinisi, C., Marable, T. B., & Vickery, P. (2003). College students' PTSD symptoms, coping, and perceived benefits following media exposure to 9/11. *Journal of College Student Psychotherapy*, 18(1), 49–64. doi:10.1300/J035v18n01\_05
- Gallè, F., Sabella, E. A., Da Molin, G., De Giglio, O., Caggiano, G., Di Onofrio, V., ... Napoli, C. (2020). Understanding knowledge and behaviors related to COVID-19 epidemic in Italian undergraduate students:

- The EPICO study. *International Journal of Environmental Research and Public Health*, 17(10), 3481. doi:10.3390/ijerph17103481
- Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., ... Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *PLoS One*, 15(4), e0231924. doi:10.1371/journal.pone.0231924
- Garfin, D. R., Silver, R. C., & Holman, E. A. (2020). The novel coronavirus (COVID-2019) outbreak: Amplification of public health consequences by media exposure. *Health Psychology*, 39(5), 355–357. doi:10.1037/hea0000875
- Ghassabi, F., & Zare-Farashbandi, F. (2015). The role of media in crisis management: A case study of Azarbayejan earthquake. *International Journal of Health System and Disaster Management*, 3(2), 95–102. doi:10.4103/2347-9019.151323
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford.
- Holman, E. A., Garfin, D. R., Lubens, P., & Silver, R. C. (2020). Media exposure to collective trauma, mental health, and functioning: Does it matter what you see? *Clinical Psychological Science*, 8(1), 111–124. doi:10.1177/2167702619858300
- Horesh, D., & Brown, A. D. (2020). Traumatic stress in the age of COVID-19: A call to close critical gaps and adapt to new realities. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(4), 331–335. doi:10.1037/tra0000592
- Jamieson, J. P., Hangen, E. J., Lee, H. Y., & Yeager, D. S. (2018). Capitalizing on appraisal processes to improve affective responses to social stress. *Emotion Review*, 10(1), 30–39. doi:10.1177/1754073917693085
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lee, S. A. (2020). Coronavirus anxiety scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies*, 44(7), 393–401. doi:10.1080/07481187.2020.1748481
- Ministry of Health. (2021). *COVID-19 in Israel*. Retrieved from [https://datadashboard.health.gov.il/COVID-19/general?utm\\_source=go.gov.il&utm\\_medium=referral](https://datadashboard.health.gov.il/COVID-19/general?utm_source=go.gov.il&utm_medium=referral)
- Pahayahay, A., & Khalili-Mahani, N. (2020). What media helps, what media hurts: A mixed methods survey study of coping with COVID-19 using the media repertoire framework and the appraisal theory of stress. *Journal of Medical Internet Research*, 22(8), e20186. doi:10.2196/20186
- Pfefferbaum, B., & North, C. S. (2020). Mental health and the COVID-19 pandemic. *New England Journal of Medicine*, 383(6), 510–512. doi:10.1056/NEJMp2008017
- Płomecka, M. B., Gobbi, S., Neckels, R., Radziński, P., Skórko, B., Lazeri, S., ... Jawaid, A. (2020, May 5). Mental health impact of COVID-19: A global study of risk and resilience factors. *MedRxiv*. doi:10.31234/osf.io/zj6b4
- Roberts, T., Esponda, G. M., Krupchanka, D., Shidhaye, R., Patel, V., & Rathod, S. (2018). Factors associated with health service utilisation for common mental disorders: A systematic review. *BMC Psychiatry*, 18(1), 262, 1837–1. doi:10.1186/s12888-018-1837-1
- Saltzman, L. Y., Hansel, T. C., & Bordnick, P. S. (2020, June 18). Loneliness, isolation, and social support factors in post-COVID-19 mental health. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(S1), S55–S57. Advance online publication. doi:10.1037/tra0000703