World Journal of
Psychiatry

Contents

Contents

ABOUT COVER

Peer Reviewer of *World Journal of Psychiatry*, Merve Azak, MSc, RNBSN, Research Assistant, Department of Pediatric Nursing, Abide-I Hurriyet St. Sisli, Istanbul University-Cerrahpasa, Florence Nightingale Faculty of Nursing, Istanbul 34381, Turkey. merve.azak@iuc.edu.tr

AIMS AND SCOPE

The primary aim of *World Journal of Psychiatry* (*WJP*, *World J Psychiatr*) is to provide scholars and readers from various fields of psychiatry with a platform to publish high-quality basic and clinical research articles and communicate their research findings online.

 WJP mainly publishes articles reporting research results and findings obtained in the field of psychiatry and covering a wide range of topics including adolescent psychiatry, biological psychiatry, child psychiatry, community psychiatry, ethnopsychology, psychoanalysis, psychosomatic medicine, *etc*.

INDEXING/ABSTRACTING

The *WJP* is now abstracted and indexed in Science Citation Index Expanded (SCIE, also known as SciSearch®), Current Contents/Clinical Medicine, Journal Citation Reports/Science Edition, PubMed, and PubMed Central. The 2021 edition of Journal Citation Reports® cites the 2020 impact factor (IF) for *WJP* as 4.571; IF without journal self cites: 4.429; 5-year IF: 7.697; Journal Citation Indicator: 0.73; Ranking: 46 among 156 journals in psychiatry; and Quartile category: Q2.

RESPONSIBLE EDITORS FOR THIS ISSUE

Retrospective Study

What factors explain anger and mental health during the COVID-19 pandemic? The case of Israeli society

Orna Braun-Lewensohn, Sarah Abu-Kaf, Tehila Kalagy

ORCID number: Orna Braun-Lewensohn 0000-0002-9749-2763; Sarah Abu-Kaf 0000-0002-2382-4024; Tehila Kalagy 0000-0002-1633-7105.

Orna Braun-Lewensohn, Sarah Abu-Kaf, Department of Interdisciplinary Studies, Conflict Management & Resolution Program, Ben-Gurion University of the Negev, Beer Sheva 8410501, Israel, Israel

Tehila Kalagy, Department of Public Policy and Management, Ben-Gurion University of the Negev, Beer Sheva 8410501, Israel, Israel

Corresponding author: Orna Braun-Lewensohn, PhD, Full Professor, Department of Interdisciplinary Studies, Conflict Management & Resolution Program, Ben-Gurion University of the Negev, P.O.B. 653, Beer Sheva 8410501, Israel, Israel. ornabl@bgu.ac.il

Abstract

BACKGROUND
What factors affected the levels of anger and emotional distress experienced during the coronavirus disease 2019 (COVID-19) pandemic? We hypothesized that (1) sociodemographic factors and resiliency factors would partially explain psychological distress and anger, with stronger resiliency associated with lower levels of distress and anger; (2) women would report more trust in national leadership, as well as more psychological problems; (3) individuals of low socioeconomic status would report less resiliency, less trust in national leadership, and greater distress than individuals of higher socioeconomic status; and (4) hope would mediate the relationships between the other resiliency factors and both anger and distress.

AIM
To explore whether community resilience, hope, and trust in leaders were associated with lower levels of anger and emotional distress during the COVID-19 pandemic.

METHODS
For this observational study, data were gathered in Israel during the second wave of the COVID-19 pandemic, just before the Jewish New Year (mid-September 2020), as a second lockdown was announced. Data were gathered from 636 Israeli adults, who were recruited by the Midgam research panel. The participants filled out self-reported questionnaires including one on state anger, the Brief Symptom Inventory as a measure of mental-health problems (*i.e.*, somatization, depression, and anxiety), and questionnaires about trust in the state's leaders, community resilience (CCRAM), and hope as measures of coping resources and resiliency. *t*-

tests were used to explore differences between men and women and between those of lower and higher socioeconomic status. A hierarchical multiple regression analysis was then used to examine whether and how the sociodemographic and resiliency variables explained state anger and psychological distress. A Sobel test was used to evaluate the possible effects of hope on community resilience and trust in leadership in the context of both distress and anger.

RESULTS
Our results revealed differences between women and men in terms of anger and mental-health problems, but not in terms of coping resources. Women reported higher levels of both anger and mental-health problems. Participants of lower socioeconomic status reported more mental-health problems, more anger, and greater trust in the state's leaders; whereas those of higher socioeconomic status reported greater hope. Furthermore, hierarchical multiple regression analyses revealed that the sociodemographic factors of gender, age, and socioeconomic status, as well as community resilience, trust in the state's leaders, and hope explained mental health with a total of 19% of the variance and anger with a total of 33% of the variance. The Sobel tests showed that hope mediated the relationships between community resilience and mental health ($z = 3.46$, $P < 0.001$), community resilience and anger ($z = 2.90$, $P < 0.01$), and trust in leaders and anger ($z = 3.26$, $P < 0.01$), but did not affect the relationship between trust in leaders and mental health ($z = 1.53$, $P > 0.05$).

CONCLUSION
Personal and communal factors affect psychological distress. Personal resilience is an important factor that should be strengthened throughout life. Trust in leadership is important for citizens' mental health.

Key Words: Community resilience; Hope; Trust in government; Anger; Mental health; Pandemic

Core Tip: The aim of this study was to explore whether community resilience, hope, and trust in leaders reduced anger and emotional distress during the coronavirus disease 2019 pandemic. Data were gathered from 636 Israeli adults. The participants filled out self-reported questionnaires including one on state anger, a measure of mental-health problems, and questionnaires about trust in the state's leaders, community resilience, and hope. Our results showed that personal and communal factors play significant roles in reducing psychological distress. This study confirms that personal resilience is an important factor that should be strengthened throughout life. Trust in leadership is important for citizen's mental health.

INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic has led governments around the world to impose lockdowns, which have ranged in duration from several weeks to several months. In Israel, the first lockdown began in March 2020 and continued until May 2020. As the country exited that lockdown, citizens felt that normal life had returned and governmental orders to minimize gatherings were not enforced. Schools opened in early September, with students in isolated groups (capsules). By mid-September, a second wave had arrived and, just before the Jewish New Year, the

government announced a second lockdown, with restrictions that were more severe than those imposed during the first lockdown.

Against the backdrop of the second wave of the epidemic and the second lockdown, the present study aimed to explore communal resources and personal resources, community resilience, trust in the country's leaders, and hope as potential resiliency factors capable of reducing mental-health problems and feelings of anger during this difficult period. We wanted to examine the above-mentioned resiliency and emotional and psychological distress variables among Israeli adults. We compared women and men, as well as individuals of relatively high and low socioeconomic status, to try to understand which of the potential resiliency factors could explain mental-health problems and feelings of anger in this context.

Literature review

Community resiliency: It is important that studies of individuals during a collective crisis take into account the ecological context[1,2], such as different aspects of the communities in which individuals live. Community resilience includes community readiness and preparedness for such events, as well as social cohesion, social support, and social ties and commitments within the community[3-5]. Community resilience and wellness are derived from different capacities, which are dynamic and which must be strengthened and preserved. The current study is focused on the role of community resilience during a pandemic and its association with other resiliency factors in helping individuals to cope during times of epidemics and lockdowns.

Trust in the country's leaders

Faced with the great deal of uncertainty surrounding this novel coronavirus, the public has had to rely on various authorities, such as political leaders and governments, for information and guidance[6]. Trust or confidence in one's country's leaders might serve as an important factor protecting individuals from mental-health problems and feelings of anger during the COVID-19 pandemic.

Indeed, citizens' trust in governmental institutions has been crucial for fostering willing compliance with regulations designed to limit the COVID-19 pandemic[7]. Furthermore, citizens' trust in governmental leadership has helped countries to recover fairly well from the pandemic; countries whose citizens have greater trust in governmental figures and institutions have reported fewer health, psychological, and/or economic problems[8].

Hope

Hope for the future helps us to cope effectively with challenges. It helps individuals to view all of their options and to examine sources of personal strength, by relating to the future instead of focusing on the past[9]. Hope involves emotional elements of expectation, as well as cognition (including deduction) to pursue new ideas and solutions[10,11]. Some researchers have viewed hope as a positive attitude toward life and the ability to hold optimistic views[12-14]. Jacoby and Goldzweig[15] emphasized the emotional component of hope that exists alongside the cognitive component[15]. It is widely agreed that hope is an important resiliency factor that helps individuals to cope and that high levels of hope facilitate well-being in various stressful situations (*e.g.*,[16]).

Indeed, hope has been found to lead to positive outcomes even during a pandemic [17,18]. Thus, in this study, we explored and examined the global concept of hope as a resiliency factor that might aid in reducing mental-health problems and feelings of anger. This study was designed to explore the concept of hope as a potential mediator between community resilience or trust in leadership and mental-health outcomes.

Mental health and anger

Stress has cognitive, emotional, physical/somatic, and social aspects[19]. Research has shown that individuals who are exposed to stressful situations, including the COVID-19 pandemic and the lockdowns and curfews that were imposed in attempts to control that pandemic, tend to be especially vulnerable to developing mental-health problems and anger[20-23]. In summary, those who report higher hopes, stronger community resilience, and more trust also report fewer mental-health symptoms and lower levels of anger[16,24-26].

Gender: No significant gender differences have been found for hope or community resilience[27-29]. However, women have been found to express greater trust in government and leaders[30]. In general, women report more mental-health problems

and feelings of anger than men do and this has held true during the COVID-19 pandemic[31,32].

Age: Older individuals tend to express more community responsibility and resiliency and more trust than their younger counterparts[29,30]. Younger people tend to report higher levels of hope[33], as well as more mental-health problems[32,34].

Socio-economic status: Low socio-economic status (SES) has been found to be associated with lower levels of hope[35] and less confidence and trust in officials, systems, and governments[36]; whereas higher SES has been found to be associated with higher levels of hope[35]. Additionally, low-SES individuals tend to report more mental-health problems than their high-SES counterparts in various stressful situations, including the COVID-19 pandemic[37].

In accordance with the literature review and the aims of the study, several research questions and hypotheses were formulated: (1) Are there differences between men and women in terms of the study variables, namely, hope, trust in leaders, community resilience, mental-health problems, and anger? We expected to find that women report more trust in the country's leaders and more psychological problems (*e.g.*,[30,31]). We did not expect to find any gender differences in the various resiliency factors (*e.g.*,[29]); and (2) Are there differences between individuals of different socioeconomic levels in terms of the study variables, namely, hope, trust in leaders, community resilience, mental-health problems, and anger? Lower-SES individuals were expected to report weaker resiliency than their higher-SES counterparts[35] and to have less trust in their leaders[36]. We also expected that they would report higher levels of psychological distress[37].

To what extent do sociodemographic variables (*i.e.*, gender, age, and SES) and the resiliency factors of hope, community resilience, and trust in leaders explain psychological distress and feelings of anger? We expected that the various sociodemographic factors and the different resiliency variables would contribute to the explanations of both psychological distress and anger. We also expected that stronger resiliency factors would be associated with lower levels of psychological distress and lower levels of anger[16,24].

Does the personal resource of hope mediate the relationships between community resilience or trust in leaders and mental-health problems or feelings of anger? We expected that hope would mediate those relationships[38].

MATERIALS AND METHODS

Participants
Data were gathered from 636 Israeli adults aged 18-70 years old (mean ± SD: 37.14 ± 12.63). The sociodemographic data are presented in Table 1.

Procedure
All of the ethical guidelines applicable to this study were followed. The study was approved by the Human Subjects Ethics Committee of the Conflict Management and Resolution Program at Ben-Gurion University of the Negev (Approved Ethics Form No. 2020-008). Participants completed self-report questionnaires in mid-September 2020, just before the Jewish New Year, as a second lockdown was being announced and approximately six months after the start of the COVID-19 pandemic. The participants were recruited by the Midgam panel (https://www.midgampanel.com/) and were informed that the researchers were interested in their experiences. They were also informed that their participation was voluntary and anonymous and that they were free to withdraw their participation for any reason at any time during the questionnaire procedure.

Measures
Demographics: Participants were asked to report their gender, age, and SES. SES was measured by one question in which participants were presented with the average salary in Israel and asked whether they earned less than that amount or that amount or higher. They were also asked to report their marital status, whether they had any children, and their type of employment (*i.e.*, full-time, part-time, or not employed at all).

Table 1 Frequencies and prevalence of the various sociodemographic variables		
Variable	*n*	Prevalence (%)
Gender		
Women	342	53.8
Men	294	46.2
Socioeconomic status		
Below average salary	397	56.6
Average/above average salary	239	34
Current work		
Full time	408	64.2
Part time	79	12.4
No work at all	149	23.4
Family status		
Single	202	31.8
Married	397	62.4
Divorced	35	5.5
Widowed	2	0.3
Children		
Yes	407	64
No	229	36

Conjoint community resilience assessment measure: We used the short version of this scale, which includes 10 items that are each scored on a 5-point Likert-type scale ranging from 1 (do not agree at all) to 5 (definitely agree). The scale is constructed to assess conjoint community resilience assessment measure and to facilitate the estimation of an overall community-resiliency score. It also detects the strength of five important constructs of community functioning following a disaster: Leadership, Collective Efficacy, Preparedness, Place Attachment, and Social Trust. Examples of items are: "I feel that I belong to the place where I live; I believe that my community has the ability to overcome a crisis." The Cronbach's alpha coefficient for the entire scale was α = 0.91.

The Conjoint Community Resiliency Assessment Collaboration (CCRAC) is coordinated by Limor Aharonson-Daniel and Mooli Lahad[1]. Partners are: Bruria Adini, Miriam Billig, Orna Braun-Lewensohn, Daphna Canneti, Odeya Cohen, Paula Feder-Bubis, Avi Israeli, Shaul Kimhi, Dima Leykin, Sabina Lissitsa, Yochanan Peres, Carmit Rappaport, Avi Sender, Shifra Sagy, and Michal Shamai.

Trust in the nation's leaders: This questionnaire included six questions that were each answered on a scale of 1 (not at all) to 5 (very much). This questionnaire was designed specifically for the present study, to try to evaluate the extent to which the Israel public believed that its leaders were making the right decisions during the pandemic. Participants were asked to evaluate the government as a whole, minsters, and members of parliament, in terms of how much they each cared and worked for the citizens in the country. Examples of items: "You can trust the government; The government does not spend money on the right things; The government is attentive to the public; The members of the parliament are attentive to the public." The mean was computed and the reliability was α = 0.84.

Hope[15]: We used the 18-item, short version of a hope questionnaire. Each item was scored on a Likert scale ranging from 1 (do not agree at all) to 4 (totally agree). The global scale of hope used for the current study is built out of three subscales: Interpersonal Hope, Intrapersonal Hope, and Transpersonal Hope. Examples of items: "I draw strength from the relationships in my life; At difficult times in my life, I trust that I will be able to get myself out of the difficult situations I face; I have faith, which

gives me a sense of comfort". In the present study, the mean of the 18 items was computed. The Cronbach's alpha coefficient was α = 0.91.

State anger[39]: This scale consists of six items related to different aspects of anger. The participants were asked to respond to the items using a 4-point Likert scale (1–almost never; 4–almost always). Examples of items: "I am angry; I want to scream at someone; I feel frustrated". The mean scores were used and the Cronbach's alpha coefficient was α = 0.89.

Brief Symptom Inventory[40]: We used the short version of this inventory, which is comprised of 18 items that are each rated on a 5-point Likert scale (0–not at all; 4–very much). This questionnaire examines three areas of psychological and psychiatric problems: somatization, depression, and anxiety; which can be combined into one scale, namely, the Global Severity Index. Examples of items: "To what extent have you felt faint or experienced dizziness? To what extent have you suffered from a feeling of stress? To what extent have you suffered from a feeling of depression?" The reliabilities of the short version of the questionnaire and its three subscales have been reported to be good[41]. The Cronbach's alpha coefficient for the Global Severity Index was α = 0.88.

Data analyses

First, *t*-tests for independent samples were computed to explore differences between men and women and between those of lower and higher SES, in terms of all of the study variables. Secondly, a hierarchical multiple regression analysis was conducted to evaluate the explanations of the two dependent variables, state anger and the Global Severity Index, by the sociodemographic, resiliency, and resource variables. Finally, we used a Sobel test to evaluate the possible effects of hope on community resilience and trust in leaders in the context of both mental-health problems and feelings of anger.

RESULTS

Differences were found between men and women, in terms of the outcome variables. The women suffered from more severe psychological problems and reported higher levels of state anger, confirming our hypothesis. No gender differences were found in terms of any of the coping resources. Results are presented in Table 2.

As for the hypothesis regarding SES, differences were found in terms of all of the variables, except for community resiliency. Those who belonged to the lower-SES group reported more trust in the country's leaders, greater anger, and more severe psychological distress; whereas those from the higher-SES group reported higher hopes. Results are presented in Table 3.

Our third hypothesis related to the explanation of the dependent variables state anger and Global Severity Index (psychological distress) by the various sociodemographic factors of SES, age, and gender, and the resiliency factors of community resilience, trust in leaders, and hope. The overall explanation of state anger by the various variables was 19%. Those variables explained 33% of the scores on the global severity index of psychological distress. The results (presented in Table 4) show that the sociodemographic variables played different roles in the explanations of state anger and psychological distress. Each of those variables played a significant role in the context of psychological distress, but only gender had a significant effect on anger. All of the resiliency factors played significant roles in explaining each of the two dependent variables.

Finally, a Sobel test was run to examine the variable of hope as potential mediator of the relationships between community resilience or trust in leaders and mental-health problems or feelings of anger. Our results show that hope mediated the relationships between community resilience and mental health (z = 3.46, P < 0.001), community resilience and anger (z = 2.90, P < 0.01), and trust in leaders and anger (z = 3.26, P < 0.01), but did not affect the relationship between trust in leaders and mental health (z = 1.53, P > 0.05). Thus, it seems that, overall, the individual resiliency factor of hope was the most important factor protecting individuals from mental-health problems and feelings of anger during this pandemic.

Table 2 Differences between men and women in terms of the main variables

	Women, *n* = 324	Men, *n* = 281	*t*
CCRAM (1-5)	3.23 ± 0.97	3.16 ± 0.84	0.94
Trust in leaders (1-5)	2.14 ± 0.85	2.15 ± 0.90	-0.11
Hope (1-4)	3.21 ± 0.55	3.17 ± 0.53	0.63
State anger (1-4)	1.97 ± 0.71	1.81 ± 0.70	2.68[b]
Global severity index (0-2)	1.01 ± 0.87	0.68 ± 0.62	5.56[c]

[b]*P* < 0.01.

[c]*P* < 0.001. Date is presented as mean ± SD. CCRAM: Conjoint community resilience assessment measure.

Table 3 Differences between the socio-economic status groups in terms of the main variables

	Low SES, *n* = 378	Average/high SES, *n* = 227	*t*
CCRAM (1-5)	3.18 ± 0.95	3.23 ± 0.86	-0.58
Trust in leaders (1-5)	2.23 ± 0.88	2.01 ± 0.85	2.98[b]
Hope (1-4)	3.15 ± 0.56	3.26 ± 0.49	-2.33[a]
State anger (1-4)	1.94 ± 0.72	1.82 ± 0.71	2.08[a]
Global severity index (0-2)	0.97 ± 0.81	0.67 ± 0.70	4.65[c]

[a]*P* < 0.05.

[b]*P* < 0.01.

[c]*P* < 0.001. Date is presented as mean ± SD. SES: Socio-economic status; CCRAM: Conjoint community resilience assessment measure.

DISCUSSION

The aim of this study was to examine Israeli adults' resiliency factors against the backdrop of a second lockdown during the COVID-19 pandemic. In our study, the women reported more psychological distress than the men. This is similar to the findings of other studies of different stressful situations around the world (*e.g.,*[31]). It remains unclear whether women feel that they have more social permission to report distress or whether they objectively feel more distress. In accordance with our hypothesis, women also reported higher levels of anger. It could be that the traditional roles of women in terms of home maintenance and child care, as well the fact that more women than men lost their jobs during this period[42] put an extra burden on women during the COVID-19 pandemic and, as a result, they felt more anger. No gender differences were found for any of the examined resiliency factors. However, trust in the country's leaders was low for both men and women, indicating that the Israeli public did not think that the prime minister, the government, and the members of parliament were taking good care of the public and pursuing their welfare during the difficult, prolonged situation of the pandemic.

The second research question related to differences between individuals with average/high and low SES, in terms of the different study variables. Most of the study's results confirm the results of other studies, such as low-SES individuals reporting more mental-health problems[37] and lower levels of resiliency factors, such as hope, among low-SES populations[35]. However, although all of the participants reported low levels of trust in the country's leaders, our finding that lower-SES individuals reported higher levels of trust in the country's leaders contradicts previous studies[36]. It should be noted that, in Israel, a majority of supporters of the government during the time of the study were members of low-SES groups, namely, people who live in the periphery of the country, those with traditional beliefs, and Ultra-Orthodox Jews. These individuals had supported that government and the then-prime minister for more than a decade[43]. Moreover, they had maintained that support despite criticism from numerous directions regarding the performance of the country's political leaders during this pandemic.

Table 4 Results of hierarchical multiple-regression analysis predicting state anger and psychological distress, as measured by the global severity index

	State anger			GSI		
	R^2	β	t	R^2	β	t
Step 1	0.02			0.11		
SES		-0.06	-1.35		-0.11	-2.62[b]
Age		-0.06	-1.42		-0.21	-5.11[c]
Gender		-0.10	-2.40[a]		-0.20	-4.96[c]
Step 2	0.06			0.08		
SES		-0.06	-1.34		-0.10	-2.38[b]
Age		-0.04	-1.09		-0.19	-4.87[c]
Gender		-0.11	-2.73[b]		-0.21	-5.50[c]
CCRAM		-0.24	-6.05[c]		-0.28	-7.62[c]
Step 3	0.04			0.01		
SES		-0.08	-1.97[a]		-0.11	-2.96[b]
Age		-0.06	-1.34		-0.19	-5.00[c]
Gender		-0.10	-2.63[b]		-0.20	-5.43[c]
CCRAM		-0.18	-4.53[c]		-0.26	-6.72[c]
Trust in leaders		-0.22	-5.33[c]		-0.09	-2.36[a]
Step 4	0.07			0.13		
SES		-0.05	-1.33		-0.08	-2.16[a]
Age		-0.05	-1.30		-0.18	-5.24[c]
Gender		-0.11	-3.02[b]		-0.22	-6.25[c]
CCRAM		-0.08	-2.03[a]		-0.13	-3.47[b]
Trust in leaders		-0.19	-4.85[c]		-0.06	-1.55
Hope		-0.29	-7.33[c]		-0.38	-10.40[c]

[a]$P < 0.05$.

[b]$P < 0.01$.

[c]$P < 0.001$. GSI: Global severity index; CCRAM: Conjoint community resilience assessment measure; SES: Socio-economic status.

Our main results relate to community resiliency, trust in leaders, and hope, which significantly explained both psychological distress and anger. These results continue a line of studies that have stressed the importance of communal[24] and personal[17] resiliency factors for helping individuals to cope with various ongoing stressful situations, including the current pandemic. In this study, the communal factor was found to be an important protective factor. Local leaders, such as mayors and local council heads, who created different activities to benefit their residents in the fields of education, sports, culture, *etc.* strengthened their residents' resiliency and thereby contributed to their residents' well-being without relying on the national leaders to do so. An additional novel aspect of this study is the introduction of another potential resiliency factor, namely, trust in the country's leaders, which was found to protect and aid in reducing stress and anger. Indeed, this factor was significantly associated with stress and anger. Greater trust was associated with lower levels of distress and fewer feelings of anger. This could be explained by the fact that when one trusts his/her leaders, she/he can be confident that the public is being taken care of and that decisions are being made in the public interest.

Our last question related to the mediating role of hope in the relationships between community resilience or trust in the country's leaders and psychological distress or anger. Hope did indeed mediate these relationships. Hope proved to be the most important and significant factor in reducing stress and anger. As noted in other studies, hope helps individuals to cope well, facilitates well-being, and leads to

positive outcomes in various stressful situations, including a pandemic (*e.g.*,[16-18]).

Study limitations

Information about participants' experiences during the COVID-19 pandemic was provided only by the participants themselves and, therefore, the collected data are subjective. In addition, because we lack baseline information about the rates of psychological distress and resiliency factors among the surveyed individuals prior to the study period, we cannot with certainty ascribe the outcomes solely to the impact of the examined stressful situation.

Strengths

The importance of this study lies in the fact that it is a field study conducted during a stressful situation, which provided a natural laboratory for the investigation of human behavior[44]. Future studies should employ a longitudinal design to examine the nature and direction of the observed relationships, such as the impact of one variable on another.

CONCLUSION

The current study aimed to explore personal and communal resiliency factors, as factors that might reduce anger and emotional distress during the chronic-stress situation of the COVID-19 pandemic. It seems that both personal and communal factors play significant roles in reducing psychological distress. Therefore, it is important for communal leaders to play significant roles in this type of situation. They should play active roles during crises, including epidemics. This study continues a line of studies that have claimed that personal resilience is an important factor that should be strengthened throughout life. Finally, trust in the country's leaders is important for its citizens, not only for their obedience to published guidelines, but also for their mental health and, therefore, leaders around the world should act to facilitate and strengthen such trust. These findings could also be beneficial and useful for counselors and other mental-health professionals.

ARTICLE HIGHLIGHTS

Research background

We aimed to examine community resilience, hope, and trust in leaders as potential contributors with lower levels of anger and emotional distress during the coronavirus disease 2019 (COVID-19) pandemic.

Research motivation

To understand in what ways personal and communal factors as well as trust in leaders affect psychological distress of citizens during health pandemic.

Research objectives

(1) To assess sociodemographic factors and resiliency factors as explanatory factors of psychological distress and anger, with stronger resiliency associated with lower levels of distress and anger; (2) To examine gender differences on trust in national leadership and psychological problems; (3) To examine differences between individuals from socioeconomic status on resiliency, trust in national leadership, and distress; and (4) To explore the mediating role of hope in the relationships between resiliency factors and anger and distress.

Research methods

Data were gathered from 636 Israeli adults. The participants filled out self-reported questionnaires. *t*-tests and hierarchical multiple regression analysis were used to examine the various research questions.

Research results

Differences between women and men were revealed on anger and mental-health problems, but not in terms of coping resources. Individuals of lower socioeconomic status reported more mental-health problems, more anger, and greater trust in the

state's leaders; whereas those of higher socioeconomic status reported greater hope. The sociodemographic factors of gender, age, and socioeconomic status, as well as community resilience, trust in the state's leaders, and hope explained mental health with a total of 19% of the variance and anger with a total of 33% of the variance.

Research conclusions

Personal and communal factors affect psychological distress. Personal resilience is an important factor that should be strengthened throughout life. Trust in leadership is important for citizens' mental health.

Research perspectives

Trust in the country's leaders is important for its citizens, not only for their obedience to published guidelines, but also for their mental health and, therefore, leaders around the world should act to facilitate and strengthen such trust. These findings could also be beneficial and useful for counselors and other mental-health professionals.

REFERENCES

1 **Bronfenbrenner U**. Toward an experimental ecology of human development. *Amer Psychol* 1977; **32**: 513 [DOI: 10.1037/0003-066X.32.7.513]

2 **Bronfenbrenner U**. The ecology of human development: experiments by nature and design. Cambridge: Harvard University Press, 1979

3 **Ahmed R**, Seedat M, van Niekerk A, Bulbulia S. Discerning community resilience in disadvantaged communities in the context of violence and injury prevention. *S Afric J Psychol* 2004; **34**: 386-408 [DOI: 10.1177/008124630403400304]

4 **Kaniasty K**, Norris FH. Help-seeking comfort and receiving social support: the role of ethnicity and context of need. *Am J Community Psychol* 2000; **28**: 545-581 [PMID: 10965390 DOI: 10.1023/A:1005192616058]

5 **Vinson T**. Community adversity and resilience: the distribution of social disadvantage in Victoria and New South Wales and the mediating role of social cohesion. *Jesuit Social Services* 2004 [DOI: 10.1177/0261018316681283]

6 **Shao W**, Hao F. Confidence in political leaders can slant risk perceptions of COVID-19 in a highly polarized environment. *Soc Sci Med* 2020; **261**: 113235 [PMID: 32730961 DOI: 10.1016/j.socscimed.2020.113235]

7 **Esaiasson P**, Sohlberg J, Ghersetti M, Johansson B. How the coronavirus crisis affects citizen trust in institutions and in unknown others: evidence from 'the Swedish experiment'. *Eur J Politic Res* 2020 [DOI: 10.31235/osf.io/6yw9r]

8 **Wilson S**. Pandemic leadership: lessons from New Zealand's approach to COVID-19. *Leadership* 2020; **16**: 279-293 [DOI: 10.1177/1742715020929151]

9 **Sharabi A**, Levi U, Margalit M. Children's loneliness, sense of coherence, family climate, and hope: developmental risk and protective factors. *J Psychol* 2012; **146**: 61-83 [PMID: 22303613 DOI: 10.1080/00223980.2011.568987]

10 **Lazarus RS**. Progress on a cognitive-motivational-relational theory of emotion. *Am Psychol* 1991; **46**: 819-834 [PMID: 1928936 DOI: 10.1037//0003-066x.46.8.819]

11 **Snyder CR**. Hope and optimism. Encyclopedia of Human Behavior. San Diego: Academic Press 1994; 2: 535-542 [DOI: 10.1016/b978-0-12-375000-6.00193-2]

12 **Moorey S**, Greer S. Psychological therapy for patients with cancer: a new approach. London: Heneman. 1989 [DOI: 10.1017/s0007125000006255]

13 **Strang S**, Strang P. Spiritual thoughts, coping and 'sense of coherence' in brain tumour patients and their spouses. *Palliat Med* 2001; **15**: 127-134 [PMID: 11301663 DOI: 10.1191/026921601670322085]

14 **Sawatzky R**, Gadermann A, Pesut B. An investigation of the relationships between spirituality, health status and quality of life in adolescents. *Appl Res Qual Life* 2009; **4**: 5-22 [DOI: 10.1007/s11482-009-9065-y]

15 **Jacoby R**, Goldzweig G. The many faces of hope. Paper presented at the 6th Global Conference of Hope. Prague, Czech Republic, 2014

16 **Gallagher MW**, Long LJ, Phillips CA. Hope, optimism, self-efficacy, and posttraumatic stress disorder: A meta-analytic review of the protective effects of positive expectancies. *J Clin Psychol* 2020; **76**: 329-355 [PMID: 31714617 DOI: 10.1002/jclp.22882]

17 **Karataş Z**, Tagay Ö. The relationships between resilience of the adults affected by the covid pandemic in Turkey and Covid-19 fear, meaning in life, life satisfaction, intolerance of uncertainty and hope. *Pers Individ Dif* 2021; **172**: 110592 [PMID: 33518871 DOI: 10.1016/j.paid.2020.110592]

18 **Simas C**, Penn-Kekana L, Kuper H, Lyra TM, Moreira MEL, de Albuquerque MDSV, de Araújo TVB, de Melo APL, Figueira Mendes CH, Nunes Moreira MC, Ferreira do Nascimento MA, Pimentel C, Pinto M, Valongueiro S, Larson H. Hope and trust in times of Zika: the views of caregivers and healthcare workers at the forefront of the epidemic in Brazil. *Health Policy Plan* 2020; **35**: 953-961

[PMID: 32681164 DOI: 10.1093/heapol/czaa042]

19   **Lazarus RS**, Folkman S.   Stress, appraisal, and coping. New York: Springer. 1984 [DOI: 10.1017/s0141347300015019]

20   **Hossain MM**, Tasnim S, Sultana A, Faizah F, Mazumder H, Zou L, McKyer ELJ, Ahmed HU, Ma P. Epidemiology of mental health problems in COVID-19: a review. *F1000 Res* 2020; **9**: 636 [PMID: 33093946 DOI: 10.12688/f1000research.24457.1]

21   **Lei L**, Huang X, Zhang S, Yang J, Yang L, Xu M. Comparison of prevalence and associated factors of anxiety and depression among people affected by vs people unaffected by quarantine during the COVID-19 epidemic in southwestern China. *Med Sci Monit* 2020; **26**: e924609 [DOI: 10.12659/msm.924609]

22   **Trnka R**, Lorencova R. Fear, anger, and media-induced trauma during the outbreak of COVID-19 in the Czech Republic. *Psychol Trauma* 2020; **12**: 546-549 [PMID: 32538654 DOI: 10.1037/tra0000675]

23   **Smith LE**, Duffy B, Moxham-Hall V, Strang L, Wessely S, Rubin GJ. Anger and confrontation during the COVID-19 pandemic: a national cross-sectional survey in the UK. *J R Soc Med* 2021; **114**: 77-90 [PMID: 33115327 DOI: 10.1177/0141076820962068]

24   **South J**, Stansfield J, Amlôt R, Weston D. Sustaining and strengthening community resilience throughout the COVID-19 pandemic and beyond. *Perspect Public Health* 2020; **140**: 305-308 [PMID: 32820710 DOI: 10.1177/1757913920949582]

25   **Fancourt D**, Steptoe A, Wright L. The Cummings effect: politics, trust, and behaviours during the COVID-19 pandemic. *Lancet* 2020; **396**: 464-465 [PMID: 32771083 DOI: 10.1016/S0140-6736(20)31690-1]

26   **Marinthe G**, Brown G, Delouvée S, Jolley D. Looking out for myself: Exploring the relationship between conspiracy mentality, perceived personal risk, and COVID-19 prevention measures. *Br J Health Psychol* 2020; **25**: 957-980 [PMID: 32583540 DOI: 10.1111/bjhp.12449]

27   **Braun-Lewensohn O**, Mosseri-Rubin M. Personal and communal resilience in community exposed to missile attacks: does intensity of exposure matter? *J Posit Psychol* 2014; **9**: 175-182 [DOI: 10.1080/17439760.2013.873946]

28   **Braun-Lewensohn O**, Al-Sayed K. Syrian Adolescent Refugees: How Do They Cope During Their Stay in Refugee Camps? *Front Psychol* 2018; **9**: 1258 [PMID: 30079046 DOI: 10.3389/fpsyg.2018.01258]

29   **Soetanto R**, Mullins A, Achour N. The perceptions of social responsibility for community resilience to flooding: the impact of past experience, age, gender and ethnicity. *Nat Hazard* 2017; **86**: 1105-1126 [DOI: 10.1007/s11069-016-2732-z]

30   **Alzahrani L**, Al-Karaghouli W, Weerakkody V. Investigating the impact of citizens' trust toward the successful adoption of e-government: a multigroup analysis of gender, age, and internet experience. *Info Syst Manag* 2018; **35**: 124-146 [DOI: 10.1080/10580530.2018.1440730]

31   **Liu N**, Zhang F, Wei C, Jia Y, Shang Z, Sun L, Wu L, Sun Z, Zhou Y, Wang Y, Liu W. Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter. *Psychiatry Res* 2020; **287**: 112921 [PMID: 32240896 DOI: 10.1016/j.psychres.2020.112921]

32   **Sfendla A**, Hadrya F. Factors Associated with Psychological Distress and Physical Activity During the COVID-19 Pandemic. *Health Secur* 2020; **18**: 444-453 [PMID: 32946286 DOI: 10.1089/hs.2020.0062]

33   **Bailey TC**, Snyder CR. Satisfaction with life and hope: a look at age and marital status. *Psychol Rec* 2007; **57**: 233-240 [DOI: 10.1007/bf03395574]

34   **Qiu J**, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *Gen Psychiatr* 2020; **33**: e100213 [PMID: 32215365 DOI: 10.1136/gpsych-2020-100213]

35   **Snyder CR**. Hope theory: rainbows in the mind. *Psychol Inquir* 2002; **13**: 249-275 [DOI: 10.1207/s15327965pli1304_01]

36   **Foster C**, Frieden J. Crisis of trust: socio-economic determinants of Europeans' confidence in government. *Eur Union Politic* 2017; **18**: 511-535 [DOI: 10.1177/1465116517723499]

37   **Patel JA**, Nielsen FBH, Badiani AA, Assi S, Unadkat VA, Patel B, Ravindrane R, Wardle H. Poverty, inequality and COVID-19: the forgotten vulnerable. *Public Health* 2020; **183**: 110-111 [PMID: 32502699 DOI: 10.1016/j.puhe.2020.05.006]

38   **Satici**, SA. Psychological vulnerability, resilience, and subjective well-being: the mediating role of hope. *Pers Individ Diff* 2016; **102**: 68-73 [DOI: 10.1016/j.paid.2016.06.057]

39   **Spielberger CD**, Gorsuch RL, Lushene RE.   Manual for the state-trait anxiety inventory. Palo Alto: Consulting Psychologists Press. 1970 [DOI: 10.1037/t06497-000]

40   **Derogatis LR**, Fitzpatrick M.   The SCL-90-R, the Brief Symptom Inventory (BSI), and the BSI-18. Lawrence Erlbaum Associates. 2004 [DOI: 10.4324/9781315827346-11]

41   **Franke GH**, Jaeger S, Glaesmer H, Barkmann C, Petrowski K, Braehler E. Psychometric analysis of the brief symptom inventory 18 (BSI-18) in a representative German sample. *BMC Med Res Methodol* 2017; **17**: 14 [PMID: 28125960 DOI: 10.1186/s12874-016-0283-3]

42   **Hasson Y**, Ben-Eliyahu H.   Behind the numbers: implications of COVID-19 pandemic on women in Israel. Tel Aviv: Adva Center, 2020. [cited 25 April 2021]. Available from: https://adva.org/he/corona-womenreport/ (Hebrew)

43   **Herman T**.   The Israeli Democracy Index 2020. Jerusalem, Israel. The Israeli Democracy Institute, 2020. [cited 25 April 2021]. Available from: https://www.idi.org.il/media/15539/the-israeli-

democracy-index-2020.pdf (Hebrew)

44   **Lazarus PJ**. Incidence of shyness in elementary-school age children. *Psychol Rep* 1982; **51**: 904-906 [PMID: 7163446 DOI: 10.2466/pr0.1982.51.3.904]