



The use of religious and personal resources in coping with stress during COVID-19 for Palestinians

Qutaiba Agbaria¹ · Amnah Jameel Abu-Mokh¹

Accepted: 22 December 2021

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2022

Abstract

The Palestinian community in Israel has experienced significant stressors historically, yet little research has assessed the strategies these individuals cope with stress. The COVID-19 pandemic provided an opportunity to assess coping resources among Palestinian adults. The present study explored the religious and personal resources adopted by Palestinians living in Israel to cope with the stress caused by the COVID-19 outbreak, and whether differences in using these resources were attributed to selective demographic variables. The sample consisted of 985 Palestinian adults, 58% of whom are women and 42% are men. Participants' ages ranged from 18 to 50 years old ($M = 35.8$, $SD = 14.48$), and they were chosen using convenience sampling from the Palestinian community living in Israel. Participants completed self-report questionnaires to report on their personal resources for coping with stress. Palestinian adults who participated in this study tended to rely more on faith in God, optimism, social and family support, having the self-control and self-efficacy, as well as subjective well-being, as resources for coping caused by crises like the COVID-19 pandemic. Also, there were significant differences on these coping resources that attributed to selective demographic variables. The findings were discussed with relation to previous studies.

Keywords Coping with stress · Coronavirus crisis · Demographic variables · Palestinians adults · Religious and personal resources

The Coronavirus (COVID-19) outbreak has led to significant increases in the levels of stress and anxiety experienced by many people all around the world (Genc et al., 2021; Tanhan et al., 2020). The high unpredictability of the situation and mass uncertainty about how and when governments will be able to control the disease makes this outbreak a highly stressful period in time. The excessive attention given to COVID-19 in the media and the wide range of misinformation circulated between people are also ultimately magnifying people's concerns and worries (Bao et al., 2020). Feelings of increased stress and tension, coupled with feelings of confusion and uncertainty, can trigger new mental health conditions such as anxiety and depression and/or worsen the intensity of already existing ones (Dar et al., 2017).

Self-isolation, social-distancing, lockdown and quarantine are key measures imposed by many countries affected by COVID-19 as means to control the outbreak. However,

these measures have their downside as they negatively affect people's mental health and wellbeing. People who are quarantined lose the ability to have face-to-face connections and social interactions, and many consider this crisis to be a very stressful phenomenon (Zhang et al., 2020). Research conducted on previous epidemics and pandemics raise serious concerns about the extent to which fear of death as well as feelings of loneliness and anger develop among people who are quarantined (Xiang et al., 2020). It can be inferred from these points that psychological interventions in the face of such crises are an integral part of the health care system, especially during public health emergencies (Zhou et al., 2019).

Literature that looks at the relationship between pandemics and stress point to several coping strategies that people incorporate and use when dealing with stress caused by such crises, namely coping with emotions and coping with the problem. However, one group that has been historically understudied in terms of their resources for coping with stress is Palestinian adults living in Israel. These individuals represent a religious minority group in Israel and have experienced significant marginalization both socially

✉ Qutaiba Agbaria
qutaiba100psych@yahoo.com

¹ Al-Qasemi College, Baqa al-Gharbiyye, Israel

and politically. The increased stress they may experience generally is likely compounded by the situational stress of COVID-19, and thus research is needed during this time to understand the effects on Palestinian adults. Thus, this current study will examine the personal and social resources adopted by Palestinian adults as means to cope with the stress and anxiety caused by the Coronavirus outbreak. This study will also examine the extent to which demographic variables such as gender, economic status, level of education, marital status and age affect what coping resources people use to cope with COVID-19 related stress.

Theoretical Background

Coping with Stress

The term “coping” can be defined as individual cognitive, behavioral and emotional efforts used to cope with external or internal stress stimulus, and the main two forms of coping styles are emotion-focused coping and problem-focused coping (Frydenberg & Lewis, 1999; Folkman & Lazarus, 1985). People are more likely to choose emotion-focused coping strategies if they perceive that it is impossible to change the environment. In this situation, emotion-focused coping helps individuals regulate their emotional response to the problem through avoidance, distancing, denial and/or optimism (Healy & McKay, 2000; Lazarus & Folkman, 1987).

Some emotion-focused coping strategies, such as self-control, religiosity, optimism and subjective wellbeing, help individuals change the way the situation or problem is perceived. These emotion-focused coping strategies therefore serve as a reappraisal of the stressor. Notice that by changing the cognitive appraisal of the stressor (e.g., it is not as important as I thought) an individual can successfully cope with stress. However, other emotion-focused coping strategies, such as selective attention and avoidance, may not involve changing the cognitive appraisal of the situation. Instead, they may lead to certain changes in behavior (e.g., engaging in recreational activities or indulge in drinking and smoking to get one’s mind off stress).

The aim of problem-focused coping strategies, on the other hand, is to solve the problem directly through processes such as defining the problem, finding alternative ways, evaluating the consequences, selecting responses and acting accordingly. Therefore, problem-focused coping strategies are more preferred when situations are judged as being able to change. Problem focused coping strategies, such as cognitive and motivational changes, can be directed at the environment as well as the self as means to reappraise the situation. This coping style usually includes incorporating family and social support, as well as having body and self-efficacy, as personal and social resources to cope with stress.

Personal and Social Resources in Coping with Stress

Resources for coping with stress can be items, personal conditions, and forms of energy that are either of value in themselves or used as means to achieve objectives possessing that value (Hobfoll, 2004). Hence, they allow individuals to avoid unnecessary stressors and to improve their process of coping with stress (Davydov et al., 2010; Steinhart & Dolbier, 2008; Tugade et al., 2004). Moreover, personal and social resources are specific properties that a person can take advantage of either when facing a dangerous situation or for maintaining optimal conditions (Friborg et al., 2003; Hjemdal et al., 2006).

This holds true for members of the Arab Israeli-Palestinian community living in Israel who demonstrate the positive effects of incorporating personal and social resources for coping with stress (Agbaria, 2013; Agbaria, 2019; Agbaria & Bdier, 2019; Agbaria & Natur, 2018; Agbaria, Ronen, & Hamamma, 2012; Agbaria et al., 2017). Following from this, the current study will first highlight the personal and social resources Israeli-Palestinian individuals use for coping with stress caused by COVID-19 crisis, which are family and social support, self-control, self-efficacy, religiosity, optimism, and subjective well-being.

Family and Social Support Receiving family and social support may encourage the use of problem-focused coping strategies and thus reduce the potential use of avoidant emotion-focused coping strategies (Ben-Zur, 2002). Research shows that receiving family and social support in difficult times acts in an immunizing manner, especially when facing a crisis that leads to social maladjustment or exclusion (Langeland & Wahl, 2009; Nosheen et al., 2014). Therefore, family and social support allows people to actively cope with stress, activate assertive behavior skills and increase their tendency to take advantage of available resources (Ozdemir & Tas Arslan, 2018; Rodriguez et al., 2019; Yildirim et al., 2017).

Self-Control Skills A large body of research has shown that perceptions of self-control are associated with a variety of positive outcomes including better physical and mental health and well-being, and lower mortality rates (Bandura, 1997; Eizenman et al., 1997). Self-control is believed to enhance the regions in the human brain that are responsible for promoting behaviours that are consistent with long-term goals (Maier et al., 2015). Greater self-control abilities are also associated with lower reactivity to stressors in everyday life (Agbaria, 2019; Agbaria & Bdier, 2019; Neupert et al., 2007; Ong et al., 2005).

Self-Efficacy A recent review paper covering 22 articles showed that high self-efficacy is associated with low

symptom occurrence and distress and higher general health (White et al., 2019). Low self-efficacy, on the other hand, is associated with higher severity in symptoms, poorer outcomes and overall deteriorating functioning (White et al., 2019; Kreitler et al., 2007). For instance, teachers' stress and self-efficacy are consistently shown to be negatively related (Skaalvik & Skaalvik, 2017). Further, teachers' self-efficacy correlates positively with job satisfaction and job commitment and negatively with teacher burnout and attrition (Skaalvik & Skaalvik, 2017). Thus, self-efficacy is an important coping resource that effectively offsets stress and improves outcomes.

Religiosity Religiosity has been associated with greater psychological functioning, mental wellbeing and perceived significance of one's life (Abu-Raiya & Pargament, 2011; Hood et al., 2009; Koenig et al., 2001; Paloutzian & Park, 2005), as well as increased overall wellbeing (Al-Issa, 2000) and self-esteem (Falbo & Shepperd, 1986). For instance, research has shown that among cancer patients in Malaysia, spiritual respondents reported higher levels of quality of life and lower levels of stress (Sharif & Ong, 2019). Seeking the support of God had a strong correlation with reduced psychological distress (Agbaria, 2013; Agbaria & Natur, 2018; Abu-Hilal et al., 2017; Nouman & Benyamini, 2019).

Optimism Optimism and coping with stress have been strongly correlated and their interaction predicts both perceived stress and life satisfaction (Reed, 2016). Optimism has been shown to have psychological benefits for acute stressors as well as chronic stressors (Baumgartner et al., 2018). Furthermore, optimism been associated with biomarkers of effective stress coping, such as lower daily cortisol secretion (Puig-Perez et al., 2017).

Subjective Well-Being Subjective well-being is based on the individual's emotional reactions and cognitive judgments that provide a comprehensive perspective of mood and a self-evaluation of satisfaction and happiness, both in general terms and with respect to specific aspects of life (Rzeszutek et al., 2019). Positive psychological states – such as resilience, forgiveness, quality of life and psychological well-being – are always more preferred than negative psychological states, especially during stressful situations (Aziz, 2017). Psychological well-being also correlates positively with the ability to develop more adaptive strategies to deal with stress (Gustems-Carnicer et al., 2019; Park, 2017; Maschi et al., 2015).

Demographic Variables and Coping with Stress

Little is known about the effects of demographic variables on the resources used for coping with stress, particularly

among Arab Israel-Palestinian individuals. Therefore, the current study not only focuses on the personal and social resources used by these individuals to cope with stress caused by COVID-19 but also examines how demographic variables affect the use of these coping resources. Specifically, this study examines differences in coping strategies by gender, economic status, level of education, marital status, and age. The literature reviewed below reflects findings that have been observed generally, which the present work will assess if these data translate to Arab Israeli-Palestinian adults.

Gender Women have been found to employ emotion-focused and avoidant coping strategies more frequently than men (Brougham et al., 2009; Eaton & Bradley, 2008; Zhang et al., 2011). Men, on the other hand, make greater use of problem-focused coping strategies than emotion-focused and avoidant strategies (Braun-Lewensohn et al., 2010; Eaton & Bradley, 2008; Yang et al., 2008). Women have reported higher levels of psychological distress and somatic symptoms than men, whereas men were found to have more emotional inhibition than women (Matud, 2004). Tamres et al. (2002) also found that women often use emotion-focused coping strategies such as seeking support for emotional reasons, rumination and positive self-talk more frequently than men. However, other studies have not observed gender differences in terms of coping styles and strategies (Bebetsos & Antoniou, 2003; Kowalski et al., 2005).

Economic Status Experiences of economic hardship such as childhood poverty and food insecurity have been identified as high-risk factors for cognitive impairment in the general adult population (Duval et al., 2017). Furthermore, lower socioeconomic status is associated with increased loneliness and reduced ability to cope with stressful conditions (Cohen & Janicki-Deverts, 2012; Heinrich & Gullone, 2006; Redmond et al., 2013) and psychological distress (Sareen et al., 2011) than those of high socioeconomic status. Prior research has identified stress as one of the ways that links individuals of low socioeconomic status with deteriorating health outcomes (Redmond et al., 2013).

Level of Education In these previous studies, it has been demonstrated that higher levels of education increase people's self-control when dealing with stressful situations (Brewin et al., 2000; Flitsky, 2009). Respondents with higher levels of formal and vocational education are able to deal with their problems in an active manner more often than individuals who spent less than 12 years in school. Moreover, people with higher levels of education turn to religion less often, whereas individuals with lower levels of education use positive reframing less often. Therefore,

people with lower levels of education are perceived to be less capable of coping quickly with stressful situations than those with higher levels of education (Lembas et al., 2017; Nielsen et al., 2008).

Marital Status Generally, people who are married are thought to enjoy better health outcomes and experience less stress than single people (Cappell et al., 2001). Marriage also protects people against mental health problems that lead to suicide (Corcoran & Nagar, 2010). Despite occasional weak or null results (Walen & Lachman, 2000; Reifman et al., 1991), studies have repeatedly confirmed that marital support reduces the association between stress and depressive symptoms for both men and women (Bierman et al., 2006; Carr & Springer, 2010; Kessler & Essex, 1982). The moderating role of marriage is found to reduce the effects of perceived stress in men more so than in women (Carr & Springer, 2010; Kim & McKenry, 2002). In this sense, marriage helps men by providing them with emotional support and social connection and helps women by providing them with financial support. With specific relevance to COVID-19, quarantine and/or social isolation affected single people much more negatively than married people and had stronger negative effects on the mental health of single men more than single women (Caciopdoi: po et al., 2015).

Age Although there is increasing consensus that the rate of exposure to daily stressors tends to decline with age (Almeida & Horn, 2004; Stawski et al., 2008), the findings of several studies regarding the relationship between age and reactivity to daily stress vary significantly. On one hand, Mroczek and Almeida (2004) found a stronger association between daily stress and negative affect for older adults compared with younger adults, suggesting that older adults may be more vulnerable to the negative effects of daily stress. On the other hand, Uchino et al. (2006) reported that older individuals showed less increase in negative affect during exposure to daily stress compared with the younger participants. Whereas, Stawski et al. (2008) found that emotional reactivity to daily stressors did not differ between younger and older adults. In addition, it was found that younger adults are relatively more vulnerable to experiencing high levels of stress and less able to cope with it (Heinrich & Gullone, 2006). Studies in relation to coping with stress caused by a crisis show that younger adults tend to develop severe emotional reactions after a crisis such as a natural disaster as they possess less experience and means to cope with what they have experienced (Bokszczanin, 2007; Scheeringa et al., 2003).

The Present Study

The present study explores the religious and personal adopted by Palestinian adults living in Israel as means to cope with the stress caused by the COVID-19 outbreak, and whether differences in using these resources can be attributed to selective demographic variables. The study's aim is to provide comprehensive understanding of the different personal and social resources used for coping with stress caused by the Coronavirus crisis.

Many studies in the United States have demonstrated how ethnic minorities, especially Blacks and Hispanics, are more likely to experience various types of traumas. These minority groups are distinct from the rest of the population in terms of greater incidence of posttraumatic disorder symptoms and higher exposure to stress (Fothergill et al., 1999; Norris, 1992; Perilla et al., 2002). For example, ethnic minority groups are usually the ones at increased risk in the context of natural disasters and crises throughout the three phases of the catastrophe: before, during and after (Fothergill et al., 1999; Mileti, 1999; Morrow, 1999). Furthermore, ethnic minorities often do not participate in emergency community programs and are more likely to rely on family and social support networks. Members of ethnic minority groups may thus feel helpless in matters pertaining to civil defense and emergency relief as they frequently experiences racism, racial persecution, lack of political power and socioeconomic marginalization. Nevertheless, the position of members of minority groups in the social structure also determines their ability to cope with stress and recover from crises (Bolin & Stanford, 1998).

The Israeli-Palestinian community in Israel live in a collective society that is experiencing rapid modernization along with "Israelization" on one hand (Al Hajj, 1996) and experiencing Islamization and "Palestinianization" on the other (Samoha, 2004). The Arab Israeli-Palestinian community has therefore captured itself as a society on the fringes of Israeli society in terms of social and health services, alongside having to suffer from lower economic status and low mental health welfare when compared to the Jewish community living in Israel.

During the Coronavirus crisis, the Arab Israeli-Palestinian community was further marginalised in the public discourse as it does not meet the 'priority criteria' in governmental health services. Therefore, this community has been excluded from the general mass COVID-19 tests and the public guidelines around the disease. Therefore, the question of what support sources Arab Israeli-Palestinians have is significant in the shadow of these conditions. In this regard, it is also important to examine the extent to which demographic characteristics affect the use of different personal and social coping resources.

Methodology

Participants

The sample consisted of 985 Israeli-Palestinian adults, 58% of whom are women and 42% are men. Participants' ages range from 18 to 50 years old ($M = 35.8$, $SD = 14.48$). Participants were recruited using convenience sampling techniques at six colleges in Israel. Of the 985 participants, 44.45% of the participants have obtained high school degrees, 28.34% of the participants have obtained graduate degrees (B.A.) and 9.45% have obtained postgraduate degrees (M.A. and Ph.D.), while 17.76% spent less than 12 years in school. Additionally, more than 22% of the participants are of low socioeconomic status, 55% are of middle socioeconomic status and 30% are of high socioeconomic status. In terms of geographical distribution, 57% of the participants live in villages (rural areas) while 43% live in cities (urban areas). Finally, 63.55% of the participants are married, 26.75% bachelors and 9.7% divorced or widowed.

Procedure

The study sample was recruited through convenience sampling at six colleges in Israel. The research was conducted in 2020 and lasted two months. After obtaining the needed clearances from the ethical committee at Al-Qasemi college, the questionnaires were distributed using the Internet (Google forum) along with forms explaining the study's purpose and making sure that the respondents are aware that the questionnaires will remain anonymous.

Measures

Demographic Variables Questionnaire

This instrument was created by the researchers and included self-reported questions about gender, socioeconomic status, academic degree, marital status and residence, and age.

Coping Resources Questionnaire

This scale was built by the researchers. It includes 15 questions about the participants' coping resources while dealing with stress caused by the Coronavirus crisis, with a scale 1 = strongly disagree and 10 = strongly agree. Specifically, the scale was used to assess whether individuals relied on the following coping strategies: faith in God, optimism, self-control, family and social support, body efficacy, self-efficacy, and subjective well-being. The scale was tested by five Arab professional experts in psychology, counseling, Arabic

language and education. They evaluated both the clarity and relevance of the questions. Lastly, translation was done by with the help of professional experts. Sample questions on this measure included: "my family can help me to cope" and "i have cognitive and emotional skills to cope with stressful events" This measure demonstrated good internal consistency in the present sample ($\alpha = .84$).

Statistical Analysis Plan

Means, standard deviations and maximum and minimum values for research variables were calculated. In order to test the differences between the demographic variables, t-test and one way ANOVA analysis were conducted.

Results

Statistical descriptive analysis was conducted in order to test the number of people using different coping resources (see Table 1). Table 1 shows that the most commonly endorsed strategies by Palestinian adults for coping with stress during COVID-19 were: faith in God, optimism, social and family support, their self-control and their self-efficacy, as well as subjective wellbeing, as coping resources.

In order to test the extent to which men and women incorporate personal and social resources differently, t-tests were conducted (see Table 2).

Table 2 shows that there are no significant differences between women and men in terms of using optimism, body-efficacy and self-efficacy, as well as subjective wellbeing, as coping resources. However, more women use faith in God ($t = 3.56$, $p < .01$), self-control ($t = 3.05$, $p < .01$), and family and social support ($t = 2.95$, $p < .05$) as coping strategies than men.

In order to test how using different personal and social coping resources are related to economic status and income level, one-way ANOVAs were conducted (see Table 3).

Table 3 shows that adults who earn higher income use self-control ($F(2,984) = 3.14$, $p < .01$), optimism ($F(2,984) = 2.93$, $p < .01$), body efficacy ($F(2,984) = 2.95$, $p < .01$), and self-efficacy ($F(2,984) = 3.11$, $p < .01$), as well as subjective wellbeing ($F(2,984) = 3.54$, $p < .01$), as coping resources more often than people who earn lower income. Adults who earn lower income use faith in God ($F(2,984) = 2.52$, $p < .05$), as well as family and social support ($F(2,984) = 3.0$, $p < .01$), more often than adults who earn higher income.

In order to test how using different personal and social coping resources are related to the level of education, one-way ANOVAs were conducted (see Table 4).

Table 4 shows that adults with higher levels of education use self-control ($F(3,984) = 2.95$, $p < .01$), optimism

Table 1 Descriptive statistics for the study questions (n=985)

	Mean	Standard deviation	Median	Minimum	Maximum
Faith in God	8.95	2.01	10	1	10
Optimism	8.55	1.97	9	1	10
Self-control	8.52	1.51	9	4	10
Family and social support	8.26	2.15	9	1	10
Body-efficacy	7.43	2.35	8	1	10
Self-efficacy	7.37	2.48	7	1	10
Positive emotions and happiness	7.23	2.29	7.5	1	10
Perceived support from clerics	6.46	2.82	7	1	10
Perceived support from health specialists	6.19	2.97	7	1	10
Economic status	6.10	2.55	6	1	10
Confidence in the ability of the state to provide security and health services	5.88	2.67	6	1	10
Perceived support from intellectuals	5.49	2.70	6	1	10
Perceived support from social networks	5.11	2.81	5	1	10
Perceived support from the media	5.01	2.82	5	1	10
Perceived support from politicians	4.14	2.66	4	1	10

($F(3,984) = 2.11, p < .05$), body efficacy ($F(3,984) = 2.91, p < .01$), and self-efficacy ($F(3,984) = 3.84, p < .01$), as well as subjective wellbeing ($F(3,984) = 3.09, p < .01$), as coping strategies more often than adults with lower levels of education. Adults with lower levels of education use faith in God ($F(3,984) = 3.11, p < .01$), as well as family and social support ($F(3,984) = 3.05, p < .01$), more often than adults with higher levels of education.

In order to test how using different personal and social coping resources are related to marital status, one-way ANOVAs were conducted (see Table 5).

Table 5 shows that adults who are bachelors or married use self-control ($F(2,984) = 2.63, p < .05$), optimism ($F(2,984) = 2.45, p < .05$), body efficacy ($F(2,984) = 2.37, p < .05$), and self-efficacy ($F(2,984) = 2.11, p < .05$), subjective wellbeing ($F(2,984) = 2.24, p < .05$), faith in God

($F(2,984) = 2.75, p < .05$), as well as family and social support ($F(2,984) = 3.05, p < .01$), more often than divorced adults.

Finally, in order to test the correlations between the study variables with age, Pearson correlations was conducted (see Table 6).

Table 6 shows significant positive correlations between age and the use of self-control ($r = .34, p < .01$), self-efficacy ($r = .42, p < .01$), faith in God ($r = .49, p < .01$), as well as family and social support ($r = .51, p < .01$). Nonetheless, there are significant negative correlations between age and subjective wellbeing ($r = -.23, p < .01$), body-efficacy ($r = -.36, p < .01$), and optimism ($r = -.25, p < .01$).

Discussion

The aim of the current research was to examine the religious and personal coping resources that were used by people in the Arab Israeli-Palestinian community to cope with stress caused by the present Coronavirus outbreak, and the extent to which demographic variables affected how people resort to and use these different resources. The findings of this research demonstrated similar results to the general psychosocial research conducted on the Arab Israeli-Palestinian community living in Israel (Agbaria, 2013; Agbaria, 2019; Agbaria & Bdier, 2019; Agbaria et al., 2017; Agbaria & Natur, 2018; Agbaria et al., 2012), which have collectively demonstrated the importance of these coping strategies, especially optimism and self-efficacy, for improved outcomes among Arab Israeli-Palestinian individuals. People who participated in this study

Table 2 Differences in coping strategies based on years of gender (t tests, means and standard deviations, n=985)

	Man(n=415)		Woman(n=570)		T
	M	SD	M	SD	
Faith in God	8.15	2.72	9.53	2.58	3.56**
Optimism	8.01	2.43	8.94	2.61	1.95
Self-control	7.57	2.53	9.21	2.58	3.05**
Family and Social support	6.50	2.68	9.54	2.45	2.95*
Body-efficacy	7.10	2.71	7.67	2.69	1.95
Self-efficacy	7.45	2.44	7.31	2.62	1.75
Subjective wellbeing	7.36	2.59	7.13	2.56	1.61

* $p < 0.05$, ** $p < 0.01$

Table 3 Differences in coping strategies based on income (one-way analysis of variance (ANOVA), means and standard deviations, n=985)

	Low income(n=217)		Middle income (542)		High income (n=226)		F
	M	SD	M	SD	M	SD	
Faith in God	9.43	2.12	9.04	1.85	8.27	1.98	2.52*
Optimism	7.39	2.23	8.79	2.55	9.08	2.31	2.93**
Self-control	6.93	2.33	8.91	2.52	9.11	2.28	3.14**
Family and Social support	8.94	1.38	8.48	2.26	7.07	2.35	3.05**
Body-efficacy	6.81	2.21	7.25	2.43	8.45	2.09	2.95**
Self-efficacy	7.07	1.94	7.19	2.37	8.66	1.82	3.11**
Subjective wellbeing	6.98	2.29	7.07	2.23	8.41	1.96	3.54**

*p < 0.05, **p < 0.01

relied more on faith in God, optimism, social and family support, having the self-control and self-efficacy, as well as subjective well-being, as resources for coping not only with stress caused by crises such as the COVID-19 pandemic, also there were significant differences on these coping resources that attributed to selective demographic variables.

Gender

The findings demonstrated that there were no significant differences between women and men in terms of using optimism, body-efficacy and self-efficacy, as well as subjective wellbeing, as coping resources. However, more women used faith in God, self-control and family and social support as coping strategies than men. These findings align with previous research studies conducted on the relationship between gender and coping with stress (Brougham et al., 2009; Eaton & Bradley, 2008; Zhang et al., 2011; Yang et al., 2008; Braun-Lewensohn et al., 2010). This previous research asserts that women are more inclined to use emotional coping styles to deal with stressful situations. The conservative nature of the Arab Israeli-Palestinian society might explain

why women participants reported incorporating religion and faith, self-control and family and social support as coping strategies more often than men who, in this context, have more access to external support networks.

Economic Status

The findings indicated that adults who earn higher income use self-control, optimism, body and self-efficacy, as well as subjective wellbeing, as coping resources more often than people who earn lower income. Adults who earn lower income use faith in God, as well as family and social support, more often than adults who earn higher income. These findings align with previous research studies conducted on the relationship between socioeconomic status and coping with stress (Arentoft et al., 2015; Heinrich & Gullone, 2006; Cohen & Janicki-Deverts, 2012; Redmond et al., 2013; Sareen et al., 2011). These findings can be explained by the fact that people of high socioeconomic status usually benefit from a variety of resources that helps improve their mental health and wellbeing and contributes to strengthening their self and body- efficacy as well as their ability to cope with various stressful situations.

Table 4 Differences in coping strategies based on years of education (one-way analysis of variance (ANOVA), means and standard deviations, n=985)

	<12 years(n=174)		12 years (n=438)		13-16 years(280)		16+ years(93)		F
	M	SD	M	SD	M	SD	M	SD	
Faith in God	9.63	2.52	9.39	1.87	8.35	1.85	7.41	2.45	3.11**
Optimism	7.92	2.43	8.47	2.37	8.85	2.45	9.19	1.65	2.11*
Self-control	8.02	2.53	8.43	2.38	8.74	2.32	9.21	1.74	2.95**
Family and Social support	9.42	2.68	8.26	2.75	7.85	2.16	7.31	1.75	3.05**
Body-efficacy	6.10	1.91	7.45	1.88	7.96	2.23	8.22	1.96	2.91**
Self-efficacy	5.98	2.14	7.24	2.42	8.12	1.87	8.32	2.52	3.84**
Subjective wellbeing	5.75	2.19	7.48	2.26	7.55	2.23	7.84	2.57	3.09**

*p < 0.05, **p < 0.01

Table 5 Differences in coping strategies based on marital status (one-way analysis of variance (ANOVA), means and standard deviations, n = 985)

	Bachelor(n= 398)		Married (n=525)		Divorced(62)		F
	M	SD	M	SD	M	SD	
Faith in God	9.04	2.42	9.15	2.48	6.67	2.45	2.75*
Optimism	8.75	2.29	8.55	2.31	7.25	2.52	2.45*
Self-control	8.42	2.44	8.95	2.28	6.67	2.32	2.63*
Family and Social support	8.25	2.64	8.57	2.35	5.69	2.16	2.97*
Body-efficacy	7.55	1.81	7.44	1.89	6.57	1.93	2.37*
Self-efficacy	7.34	1.84	7.46	1.92	6.80	1.87	2.11*
Subjective wellbeing	7.45	1.99	7.21	1.76	5.98	1.83	2.24*

*p < 0.05, **p < 0.01

Level of Education

The findings demonstrated that adults with higher levels of education use self-control, optimism, body and self-efficacy, as well as subjective wellbeing, as coping strategies more often than adults with lower levels of education. Adults with lower levels of education use Faith in God, as well as family and social support, more often than adults with higher levels of education. These findings align with previous research studies conducted on the relationship between level of education and coping with stress (Brewin et al., 2000; Flitsky, 2009; Nielsen et al., 2008). The previous studies demonstrate how the level of education obtained correlates with one's socioeconomic status, therefore individuals with higher levels of education have more access to coping resources. People with lower levels of education, on the other hand, have to rely on more accessible coping resources such as religion and faith, as well as family and social support.

Marital Status

The findings indicated that adults who are bachelors or married use self-control, optimism, body and self-efficacy, subjective wellbeing, faith in God, as well as family and

social support, as coping resources more often than divorced adults. These findings align with previous research studies conducted on the relationship between marital status and coping with stress (Bierman et al., 2006; Cacioppo et al., 2015; Carr & Springer, 2010; Thoits, 2011). This previous literature asserts that partnerships and marriage help people develop the ability to manage complex relationships, thus leading them to learn how to use a number of different of social, emotional and cognitive skills that enable them to cope more effectively with stressful situations.

Age

The findings demonstrated that there are significant positive correlations between age and the use of self-control, self-efficacy, faith in God, as well as family and social support. Nonetheless, there are significant negative correlations between age and subjective wellbeing, body-efficacy and optimism. These findings align with previous research studies conducted on the relationship between age and coping with stress (Agustini et al., 2011; Bokszczanin, 2007; Felix et al., 2011; Heinrich & Gullone, 2006; Yang et al., 2008). These studies claim that the older people get with age the more they gain experience in coping with stress.

Table 6 Correlations among study variables (N = 985)

Age	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	–							
Faith in God	.49**	–						
Optimism	–.25**	.47**	–					
Self-control	.34**	.38**	.48**	–				
Family and social support	.51**	.35**	.40**	.26**	–			
Body-efficacy	–.36**	.30**	.38**	.34**	.19**	–		
Self-efficacy	.42**	.31**	.37**	.44**	.38**	.48**	–	
Subjective wellbeing	–.23**	.41**	.42**	.41**	.45**	.43**	.39**	–

*p < 0.05, **p < 0.01

Limitations

The current study was novel in a number of ways but had several limitations. First, participants were recruited as a non-random convenience sample rather than as a randomized subset of the population of interest. Further, all participants were from one ethnic group, which may limit generalizations. However, the homogeneity of the current sample was intentional in order to provide specific insights into the individual characteristics that may be particularly important for understanding the incorporation of personal and social resources among this unique sample of Arab Israeli-Palestinian adults. Nevertheless, data was provided through self-report questionnaires that may be confounded by reporting bias. Thus, future research may consider integrating other sources of information as well as studying other minority populations living in Israel.

Moreover, the chosen religious and personal resources were based on one question and not to full scale. Future research should replicate the current findings according to professional scales which examine these resources. Also, the sample only includes adults between the ages of 18-50 years old who have access to a smart phone and/or computer. Neither groups from other age populations were included in this research nor people who do not have access to this technology. Therefore, future research may consider studying different age groups and people who do not have access to technology (e.g. bedouin communities).

Implications

The present work has relevance for informing clinical interventions and elucidated key next steps for future research. Clinically, highlighting the coping strategies that are most used by Arab Israeli-Palestinian adults and the demographic differences in use patterns emphasize the strategies that may be most useful in treatments for these individuals. For future research, in order to expand on the limitation of the current study relying on self-report data, studies may consider using Online Photovoice (OPV) to understand how Arab Israeli-Palestinian adults have coped with stress during COVID-19. OPV is a recent and effective innovation in qualitative research methods and gives participants the chance to describe photos that depict their experiences relevant to the topic. This form of qualitative research permits the individual to guide the conversation about the area of interest rather than assessing pre-determined variables. In this case, OPV could be used to allow Arab Israel-Palestinian adults to share a picture that represents their experiences during COVID-19 and the coping strategies that they have used or not used during this time. Notably, OPV has been regarded as a culturally sensitive assessment tool and has been successfully adapted to advocate for the well-being of Muslim

individuals and for assessing COVID-19 outcomes among Turkish persons (Tanhan, 2020; Tanhan & Strack, 2020). Thus, this methodology demonstrates promise for use in future studies aiming to understand the experiences of Arab Israeli-Palestinian adults.

Conclusions

In summary, the findings indicate that people tend to use personal and social resources to cope with the Coronavirus crisis. The results clearly indicate that the faith in God, family and social support, self-efficacy, self-control and subjective wellbeing are perceived as significant resources that help individuals cope with the current circumstances. The other resources that appear to be of less significance are perceived support from clerics, intellectuals, politicians, social networks and the media, and confidence in the state's ability to cope with this crisis. Last but not least, the findings demonstrate that demographic variables (gender, socioeconomic status, level of education, marital status and age) affect people's use of different coping resources.

These findings are consistent with hundreds of studies in literature that have been conducted around the world. Such studies stress the importance of personal, social and spiritual resources as elements of people's resilience and ability to cope with the various life struggles. These findings are also consistent with previous literature from Western cultures regarding the contribution of these variables in reducing stress. Thus, these variables are important in Western and non-Western societies similarly. This is especially true with respect to the current population of Israeli-Palestinians who live in a unique, dualistic society. Despite the unique social, political and ethnic characteristics of Arab Israeli-Palestinian culture, these resources appear to contribute to general psychological wellbeing and improved social functioning of people from all around the globe. This provides support for the universal significance of these variables. In conclusion, these findings may further inform intervention programs, such as psychoeducation-based efforts, that may facilitate the development of these resources among Israeli-Palestinian adults in order to improve their abilities to cope with stressful conditions in general and with the Coronavirus crisis in particular.

Data Availability The datasets generated during and analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Conflict of Interest The manuscript has only been submitted to current psychology, it will not be submitted elsewhere while under consideration, and it has not been published elsewhere – either in similar form

or verbatim. I am responsible for the reported research and all authors have participated in the concept and design; analysis and interpretation of data; drafting or revising of the manuscript, and I have reviewed/approved the manuscript. There are no conflicts of interest and there is no funding for this paper.

Ethical Approval Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

References

- Abu-Hilal, M., Al-Bahrani, M., & Al-Zedjali, M. (2017). Can religiosity boost meaning in life and suppress stress for Muslim college students? *Mental Health, Religion & Culture*, 20(3), 203–216.
- Abu-Raiya, H., & Pargament, K. I. (2011). Empirically based psychology of Islam: Summary and critique of the literature. *Mental Health, Religion & Culture*, 14(2), 93–115. <https://doi.org/10.1080/13674670903426482>
- Agbaria, Q. (2013). Depression among Arab students in Israel: The contribution of religiosity, social support, and self-control. *Sociology Study*, 3(10), 721–738.
- Agbaria, Q. (2019). Predictors of personal and social adjustment among Israeli-Palestinian adolescents. *Child Indicators Research*. <https://doi.org/10.1007/s12187-019-09661-3>
- Agbaria, Q., & Bdier, D. (2019). The role of self-control, social support and (positive and negative affects) in reducing test anxiety among Arab teenagers in Israel. *Child Indicators Research*, 1–19. <https://doi.org/10.1007/s12187-019-09669-9>
- Agbaria, Q., & Natur, N. (2018). The relationship between violence in the family and adolescents aggression: The mediator role of self-control, social support, religiosity, and well-being. *Children and Youth Services Review*, 91, 447–456. <https://doi.org/10.1016/j.childyouth.2018.06.016>
- Agbaria, Q., Ronen, T., & Hamama, L. (2012). The link between developmental components (age and gender), need to belong and resources of self-control and feelings of happiness, and frequency of symptoms among Arab adolescents in Israel. *Child and Youth Services Review*, 34(10), 2018–2027. <https://doi.org/10.1016/j.childyouth.2012.03.009>
- Agbaria, Q., Mahamid, F., & Ziya-Berte, D. (2017). Social support, self-control, religiousness and engagement in high risk-behaviors among adolescents. *The International Journal of Indian Psychology*, 4, 13–33. <https://doi.org/10.25215/0404.142>
- Agustini, E. N., Asniar, I., & Matsuo, H. (2011). The prevalence of long-term post-traumatic stress symptoms among adolescents after the tsunami in Aceh. *Journal of Psychiatric and Mental Health Nursing*, 18(6), 543–549. <https://doi.org/10.1111/j.1365-2850.2011.01702.x>
- Al Hajj, M. (1996). Identity and orientation among Arabs in Israel: A state of double periphery. In R. Gibson & D. Hacker (Eds.), *The Jewish-Arab Divide in Israel, a Reader*. Israel Institute for Democracy: Jerusalem (In Hebrew).
- Al-Issa, I. (2000). Religion and psychopathology. In I. Al-Issa (Ed.), *Al-Junun: Mental Illness in the Islamic World* (pp. 3–42). International Universities Press.
- Almeida, D. M., & Horn, M. C. (2004). Is daily life more stressful during middle adulthood? In O. G. Brim, C. D. Ryff, & R. C. Kessler (Eds.), *How Healthy are We? A national study of well-being at midlife* (pp. 425–451). University of Chicago Press.
- Arentoft, A., Byrd, D., Monzones, J., Coulehan, K., Fuentes, A., Rosario, A., & Rivera Mindt, M. (2015). Socioeconomic status and neuropsychological functioning: Associations in an ethnically diverse HIV+ cohort. *The Clinical Neuropsychologist*, 29(2), 232–254. <https://doi.org/10.1080/13854046.2015.1029974>
- Aziz, I. A. (2017). *Individual Difference Predictors of Well-being Among Displaced Persons Who Live Under Stressful Conditions* (Doctoral dissertation,).
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman and Company.
- Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: Address mental health to empower society. *The Lancet*, 395, 37–38. [https://doi.org/10.1016/S0140-6736\(20\)30309-3](https://doi.org/10.1016/S0140-6736(20)30309-3)
- Baumgartner, J. N., Schneider, T. R., & Capiola, A. (2018). Investigating the relationship between optimism and stress responses: A biopsychosocial perspective. *Personality and Individual Differences*, 129, 114–118. <https://doi.org/10.1016/j.paid.2018.03.021>
- Bebetsos, E., & Antoniou, P. (2003). Psychological skills of Greek badminton athletes. *Perceptual and Motor Skills*, 97(3), 1289–1296. <https://doi.org/10.2466/pms.2003.97.3f.1289>
- Ben-Zur, H. (2002). Monitoring/blunting and social support: Associations with coping and affect. *International Journal of Stress Management*, 9(4), 357–373. <https://doi.org/10.1023/A:1019990518144>
- Bierman, A., Fazio, E. M., & Milkie, M. A. (2006). A multifaceted approach to the mental health advantage of the married: Assessing how explanations vary by outcome measure and unmarried group. *Journal of Family Issues*, 27(4), 554–582. <https://doi.org/10.1177/0192513X05284111>
- Blekesaune, M. (2008). Partnership transitions and mental distress: Investigating temporal order. *Journal of Marriage and Family*, 70(4), 879–890. <https://doi.org/10.1111/j.1741-3737.2008.00533.x>
- Bokszczanin, A. (2007). PTSD symptoms in children and adolescents 28 months after a flood: Age and gender differences. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, 20(3), 347–351. <https://doi.org/10.1002/jts.20220>
- Bolin, R., & Stanford, L. (1998). The Northridge earthquake: community-based approaches to unmet recovery needs. *Disasters*, 22(1), 21–38. <https://doi.org/10.1111/1467-7717.00073>
- Braun-Lewensohn, O., Sagy, S., & Roth, G. (2010). Coping strategies among adolescents: Israeli Jews and Arabs facing missile attacks. *Anxiety, Stress & Coping*, 23(1), 35–51. <https://doi.org/10.1080/10615800802647601>
- Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, 68(5), 748. <https://doi.org/10.1037/0022-006X.68.5.748>
- Brougham, R. R., Zail, C. M., Mendoza, C. M., & Miller, J. R. (2009). Stress, sex differences, and coping strategies among college students. *Current Psychology*, 28(2), 85–97. <https://doi.org/10.1007/s12144-009-9047-0>
- Caciopdoi: po, S., Grippo, A. J., London, S., Goossens, L., & Cacioppo, J. T. (2015). Loneliness: Clinical import and interventions. *Perspectives on Psychological Science*, 10(2), 238–249. <https://doi.org/10.1177/1745691615570616>
- Cappell, C. L., Herrmann, J., McGee, N., & Rosenfeld, D. (2001). The quality of life in the Chicago Collar counties: Work, family, and well-being. Annual Meetings of the Midwest Sociological Society, St. Louis, 6.
- Carr, D., & Springer, K. W. (2010). Advances in families and health research in the 21st century. *Journal of Marriage and Family*,

- 72(3), 743–761. <https://doi.org/10.1111/j.1741-3737.2010.00728.x>
- Cohen, S., & Janicki-Deverts, D. (2012). Who's stressed? Distributions of psychological stress in the United States in probability samples from 1983, 2006, and 2009. *Journal of Applied Social Psychology, 42*(6), 1320–1334. <https://doi.org/10.1111/j.1559-1816.2012.00900.x>
- Corcoran, P., & Nagar, A. (2010). Suicide and marital status in Northern Ireland. *Social Psychiatry and Psychiatric Epidemiology, 45*(8), 795–800. <https://doi.org/10.1007/s00127-009-0120-7>
- Dar, K. A., Iqbal, N., & Mushtaq, A. (2017). Intolerance of uncertainty, depression, and anxiety: Examining the indirect and moderating effects of worry. *Asian Journal of Psychiatry, 29*, 129–133. <https://doi.org/10.1016/j.ajp.2017.04.017>
- Davydov, D. M., Stewart, R., Ritchie, K., & Chaudieu, I. (2010). Resilience and mental health. *Clinical Psychology Review, 30*(5), 479–495. [10.1016/j.cpr.2010.03.003](https://doi.org/10.1016/j.cpr.2010.03.003)
- Duval, E. R., Garfinkel, S. N., Swain, J. E., Evans, G. W., Blackburn, E. K., Angstadt, M., & Liberzon, I. (2017). Childhood poverty is associated with altered hippocampal function and visuospatial memory in adulthood. *Developmental Cognitive Neuroscience, 23*, 39–44. <https://doi.org/10.1016/j.dcn.2016.11.006>
- Eaton, R. J., & Bradley, G. (2008). The role of gender and negative affectivity in stressor appraisal and coping selection. *International Journal of Stress Management, 15*(1), 94. <https://doi.org/10.1037/1072-5245.15.1.94>
- Eizenman, D. R., Nesselroade, J. R., Featherman, D. L., & Rowe, J. W. (1997). Intraindividual variability in perceived control in an older sample: The MacArthur successful aging studies. *Psychology and Aging, 12*(3), 489. <https://doi.org/10.1037/0882-7974.12.3.489>
- Falbo, T., & Shepperd, J. A. (1986). Self-righteousness: Cognitive, power, and religious characteristics. *Journal of Research in Personality, 20*(2), 145–157.
- Felix, E., Hernández, L. A., Bravo, M., Ramirez, R., Cabiya, J., & Canino, G. (2011). Natural disaster and risk of psychiatric disorders in Puerto Rican children. *Journal of Abnormal Child Psychology, 39*(4), 589–600. <https://doi.org/10.1007/s10802-010-9483-1>
- Flitsky, N. (2009). The connection between these thoughts, coping strategies and the resources of coping with post-traumatic symptoms among wounded terrorist attacks, the faculty of Welfare and Health studies. *School of Social work*. Essay for the "Doctor of Philosophy" degree. University of Haifa.
- Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48*(1), 150–170.
- Fothergill, A., Maestas, E. G., & Darlington, J. D. (1999). Race, ethnicity and disasters in the United States: A review of the literature. *Disasters, 23*(2), 156–173. <https://doi.org/10.1111/1467-7717.00111>
- Friborg, O., Hjemdal, O., Rosenvinge, J. H., & Martinussen, M. (2003). A new rating scale for adult resilience: what are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research, 12*(2), 65–76. <https://doi.org/10.1002/mpr.143>
- Frydenberg, E., & Lewis, R. (1999). Academic and general well-being: The relationship with coping. *Journal of Psychologists and Counsellors in Schools, 9*(1), 19–36. <https://doi.org/10.1017/S1037291100002971>
- Genc, E., Turhan, Z., & Tanhan, A. (2021). Psychological support service during covid-19 pandemic and disasters: a family-based psychological intervention program. *Eurasian Journal of Social and Economic Research, 8*(4), 203–222.
- Gustems-Carnicer, J., Calderon, C., Batalla-Flores, A., & Esteban-Bara, F. (2019). Role of coping responses in the relationship between perceived stress and psychological well-being in a sample of Spanish educational teacher students. *Psychological Reports, 122*(2), 380–397. <https://doi.org/10.1177/0033294118758904>
- Healy, C. M., & McKay, M. F. (2000). Nursing stress: the effects of coping strategies and job satisfaction in a sample of Australian nurses. *Journal of Advanced Nursing, 31*(3), 681–688. <https://doi.org/10.1046/j.1365-2648.2000.01323.x>
- Heinrich, L. M., & Gullone, E. (2006). The clinical significance of loneliness: A literature review. *Clinical Psychology Review, 26*(6), 695–718. <https://doi.org/10.1016/j.cpr.2006.04.002>
- Higgins, G. (2017). *The role of cognition in stress: Relationship between perceived life stress, self-efficacy, optimism, self-esteem, positive affect, negative affect, and work stress* (Doctoral dissertation,). <http://trap.ncirl.ie/id/eprint/2819>.
- Hjemdal, O., Friborg, O., Stiles, T. C., Martinussen, M., & Rosenvinge, J. H. (2006). A new scale for adolescent resilience: Grasping the central protective resources behind healthy development. *Measurement and Evaluation in Counseling and Development, 39*(2), 84–96. <https://doi.org/10.1080/07481756.2006.11909791>
- Hobfoll, S. E. (2004). *Stress, culture, and community: The psychology and philosophy of stress*. Springer Science & Business Media.
- Hood, R. W., Hill, P. C., & Spilka, B. (2009). *The psychology of religion: An empirical approach*. Guilford Press.
- Kessler, R. C., & Essex, M. (1982). Marital status and depression: The importance of coping resources. *Social Forces, 61*(2), 484–507. <https://doi.org/10.1093/sf/61.2.484>
- Kim, H. K., & McKenry, P. C. (2002). The relationship between marriage and psychological well-being: A longitudinal analysis. *Journal of Family Issues, 23*(8), 885–911. <https://doi.org/10.1177/019251302237296>
- Koenig, H. G., McCullough, M., & Larson, D. B. (2001). *Handbook of religion and health: A century of research reviewed*. Oxford University Press.
- Kowalski, K. C., Crocker, P. R. E., Hoar, S. D., & Niefer, C. B. (2005). Adolescents' control beliefs and coping with stress in sport. *International Journal of Sport Psychology, 36*, 257–272.
- Kreitler, S., Peleg, D., & Ehrenfeld, M. (2007). Stress, self-efficacy and quality of life in cancer patients. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer, 16*(4), 329–341. <https://doi.org/10.1002/pon.1063>
- Langeland, E., & Wahl, A. K. (2009). The impact of social support on mental health service users' sense of coherence: A longitudinal panel survey. *International Journal of Nursing Studies, 46*(6), 830–837.
- Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist, 46*(4), 352–367. <https://doi.org/10.1037/0003-066X.46.4.352>
- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality, 1*, 141–169. <https://doi.org/10.1002/per.2410010304>
- Lembas, D., Starkowska, A., Mak, M., Konecka, M., Bikowska, M., Czarnota-Chlewicka, J., et al. (2017). Impact of demographic factors on usage of stress coping strategies chosen by elderly people. *Family Medicine & Primary Care Review, 19*(1), 34–38. <https://doi.org/10.5114/fmpcr.2017.65088>
- Maier, S. U., Makwana, A. B., & Hare, T. A. (2015). Acute stress impairs self-control in goal-directed choice by altering multiple functional connections within the brain's decision circuits. *Neuron, 87*(3), 621–631. <https://doi.org/10.1016/j.neuron.2015.07.005>
- Maschi, T., Viola, D., Morgen, K., & Koskinen, L. (2015). Trauma, stress, grief, loss, and separation among older adults in prison: The protective role of coping resources on physical and mental well-being. *Journal of Crime and Justice, 38*(1), 113–136. <https://doi.org/10.1080/0735648X.2013.808853>

- Matud, M. P. (2004). Gender differences in stress and coping styles. *Personality and Individual Differences*, 37(7), 1401–1415. <https://doi.org/10.1016/j.paid.2004.01.010>
- Mileti, D. (1999). *Disasters by design: A reassessment of natural hazards in the United States*. Joseph Henry Press. <http://www.nap.edu/catalog/578.html>.
- Morrow, V. (1999). Conceptualizing social capital in relation to the well-being of children and young people: A critical review. *The Sociological Review*, 47(4), 744–765. <https://doi.org/10.1111/1467-954X.00194>
- Mroczek, D. K., & Almeida, D. M. (2004). The effect of daily stress, personality, and age on daily negative affect. *Journal of Personality*, 72(2), 355–378. <https://doi.org/10.1111/j.0022-3506.2004.00265.x>
- Neupert, S. D., Almeida, D. M., & Charles, S. T. (2007). Age differences in reactivity to daily stressors: The role of personal control. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 62(4), 216–225. <https://doi.org/10.1093/geronb/62.4.P216>
- Nielsen, N. R., Kristensen, T. S., Schnohr, P., & Grønbaek, M. (2008). Perceived stress and cause-specific mortality among men and women: Results from a prospective cohort study. *American Journal of Epidemiology*, 168(5), 481–491. <https://doi.org/10.1093/aje/kwn157>
- Norris, F. H. (1992). Epidemiology of trauma: frequency and impact of different potentially traumatic events on different demographic groups. *Journal of Consulting and Clinical Psychology*, 60(3), 409–418.
- Nosheen, A., Riaz, M. N., & Batool, N. (2014). Cross-cultural study on social support, sense of coherence and outcomes in Pakistan and Germany. *Pakistan Journal of Commerce and Social Sciences*, 8(2), 445–452. <http://hdl.handle.net/10419/188148>
- Nouman, H., & Benyamini, Y. (2019). Religious women's coping with infertility: So culturally adapted religious coping strategies contribute to well-being and health? *International Journal of Behavioral Medicine*, 26(2), 154–164. <https://doi.org/10.1007/s12529-018-9757-5>
- Ong, A. D., Bergeman, C. S., & Bisconti, T. L. (2005). Unique effects of daily perceived control on anxiety symptomatology during conjugal bereavement. *Personality and Individual Differences*, 38(5), 1057–1067. <https://doi.org/10.1016/j.paid.2004.07.004>
- Ozdemir, D., & Tas Arslan, F. (2018). An investigation of the relationship between social support and coping with stress in women with breast cancer. *Psycho-Oncology*, 27(9), 2214–2219. <https://doi.org/10.1002/pon.4798>
- Paloutzian, R. F., & Park, C. L. (2005). Integrative themes in the current science of the psychology of religion. *Handbook of the Psychology of Religion and Spirituality*, 1, 3–20.
- Park, C. L. (2017). Spiritual well-being after trauma: Correlates with appraisals, coping, and psychological adjustment. *Journal of Prevention & Intervention in the Community*, 45(4), 297–307. <https://doi.org/10.1080/10852352.2016.1197752>
- Perilla, J. L., Norris, F. H., & Lavizzo, E. A. (2002). Ethnicity, culture, and disaster response: Identifying and explaining ethnic differences in PTSD six months after Hurricane Andrew. *Journal of Social and Clinical Psychology*, 21(1), 20–45. <https://doi.org/10.1521/jscp.21.1.20.22404>
- Puig-Perez, S., Hackett, R. A., Salvador, A., & Steptoe, A. (2017). Optimism moderates psychophysiological responses to stress in older people with Type 2 diabetes. *Psychophysiology*, 54(4), 536–543. <https://doi.org/10.1111/psyp.12806>
- Redmond, N., Richman, J., Gamboa, C. M., Albert, M. A., Sims, M., Durant, R. W., & Safford, M. M. (2013). Perceived stress is associated with incident coronary heart disease and all-cause mortality in low-but not high-income participants in the Reasons for Geographic and Racial Differences in Stroke Study. *Journal of the American Heart Association*, 2(6). 10.1161/JAHA.113.000447.
- Reed, D. J. (2016). Coping with occupational stress: The role of optimism and coping flexibility. *Psychology Research and Behavior Management*, 9, 71. <https://doi.org/10.2147/PRBM.S97595>
- Reifman, A., Biernat, M., & Lang, E. L. (1991). Stress, social support, and health in married professional women with small children. *Psychology of Women Quarterly*, 15(3), 431–445. <https://doi.org/10.1111/j.1471-6402.1991.tb00419.x>
- Rodriguez, L., Groarke, A., & Dolan, P. (2019). Individual predictors of adolescent adjustment to maternal cancer: The role of perceived stress, coping, social support, attachment, and self-efficacy. *Cancer Reports*, 2(2). <https://doi.org/10.1002/cnr2.1145>
- Rzeszutek, M., Oniszczenko, W., & Gruszczynska, E. (2019). Satisfaction with life, Big-Five personality traits and post-traumatic growth among people living with HIV. *Journal of Happiness Studies*, 20(1), 35–50. <https://doi.org/10.1007/s10902-017-9925-3>
- Samoha, S. (2004). *Index of Arab-Jewish relations in Israel*. Rekhes (In Hebrew).
- Sareen, J., Afifi, T. O., McMillan, K. A., & Asmundson, G. J. (2011). Relationship between household income and mental disorders: Findings from a population-based longitudinal study. *Archives of General Psychiatry*, 68(4), 419–427.
- Scheeringa, M. S., Zeanah, C. H., Myers, L., & Putnam, F. W. (2003). New findings on alternative criteria for PTSD in preschool children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 42(5), 561–570. <https://doi.org/10.1097/01.CHI.0000046822.95464.14>
- Sharif, S. P., & Ong, F. S. (2019). Education moderates the relationship between spirituality with quality of life and stress among Malay Muslim women with breast cancer. *Journal of Religion and Health*, 58(4), 1060–1071. 10.1007/s10943-018-0587-
- Skaalvik, E. M., & Skaalvik, S. (2017) Teacher Stress and Teacher Self-Efficacy: Relations and Consequences. In: McIntyre T., McIntyre S., Francis D. (eds) *Educator Stress. Aligning Perspectives on Health, Safety and Well-Being*. Springer, Cham. https://doi.org/10.1007/978-3-319-53053-6_5.
- Stawski, R. S., Sliwinski, M. J., Almeida, D. M., & Smyth, J. M. (2008). Reported exposure and emotional reactivity to daily stressors: The roles of adult age and global perceived stress. *Psychology and Aging*, 23(1), 52. <https://doi.org/10.1037/0882-7974.23.1.52>
- Steinhardt, M., & Dolbier, C. (2008). Evaluation of a resilience intervention to enhance coping strategies and protective factors and decrease symptomatology. *Journal of American College Health*, 56(4), 445–453. <https://doi.org/10.3200/JACH.56.4.445-454>
- Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review*, 6(1), 2–30. https://doi.org/10.1207/S15327957PSPR0601_1
- Tanhan, A. (2020). Utilizing Online Photovoice (OPV) methodology to address biopsychosocial spiritual economic issues and wellbeing during COVID-19: Adapting OPV to Turkish. *Turkish Studies*, 15(4), 1029–1086. <https://doi.org/10.7827/TurkishStudies.44451>
- Tanhan, A., & Strack, R. W. (2020). Online photovoice to explore and advocate for Muslim biopsychosocial spiritual wellbeing and issues: Ecological systems theory and ally development. *Current Psychology*, 39(6), 2010–2025. <https://doi.org/10.1007/s12144-020-00692-6>
- Tanhan, A., Yavuz K. F., Young, J. S., Nalbant, A., Arslan, G., Yıldırım, M., Ulusoy, S., Genç, Uğur, E., & Çiçek, İ. (2020). A proposed framework based on literature review of online contextual mental health services to enhance wellbeing and address psychopathology during COVID-19. *Electronic Journal of General Medicine*, 17(6), em254. 10.29333/ejgm/8316

- Thoits, P. A. (2011). Mechanisms linking social ties and support to physical and mental health. *Journal of Health and Social Behavior*, 52(2), 145–161. <https://doi.org/10.1177/0022146510395592>
- Tugade, M. M., Fredrickson, B. L., & Feldman Barrett, L. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of Personality*, 72(6), 1161–1190. <https://doi.org/10.1111/j.1467-6494.2004.00294.x>
- Uchino, B. N., Berg, C. A., Smith, T. W., Pearce, G., & Skinner, M. (2006). Age-related differences in ambulatory blood pressure during daily stress: Evidence for greater blood pressure reactivity with age. *Psychology and Aging*, 21(2), 231. <https://doi.org/10.1037/0882-7974.21.2.231>
- Walen, H. R., & Lachman, M. E. (2000). Social support and strain from partner, family, and friends: Costs and benefits for men and women in adulthood. *Journal of Social and Personal Relationships*, 17(1), 5–30. <https://doi.org/10.1177/0265407500171001>
- White, L. L., Cohen, M. Z., Berger, A. M., Kupzyk, K. A., & Bierman, P. J. (2019, January). Self-efficacy for management of symptoms and symptom distress in adults with cancer: An integrative review. In *Oncology nursing forum* (Vol. 46, No. 1, pp. 113–128). Oncology Nursing Society.
- Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *Lancet Psychiatry*, 7(3), 228–229. [https://doi.org/10.1016/S2215-0366\(20\)30046-8](https://doi.org/10.1016/S2215-0366(20)30046-8)
- Yang, H. C., Brothers, B. M., & Andersen, B. L. (2008). Stress and quality of life in breast cancer recurrence: moderation or mediation of coping? *Annals of Behavioral Medicine*, 35(2), 188–197. <https://doi.org/10.1007/s12160-008-9016-0>
- Yıldırım, N., Karaca, A., Cangur, S., Acıkoğuz, F., & Akkus, D. (2017). The relationship between educational stress, stress coping, self-esteem, social support, and health status among nursing students in Turkey: A structural equation modeling approach. *Nurse Education Today*, 48, 33–39. <https://doi.org/10.1016/j.nedt.2016.09.014>
- Zhang, F. F., Cardarelli, R., Carroll, J., Fulda, K. G., Kaur, M., Gonzalez, K., & Morabia, A. (2011). Significant differences in global genomic DNA methylation by gender and race/ethnicity in peripheral blood. *Epigenetics*, 6(5), 623–629. <https://doi.org/10.4161/epi.6.5.15335>
- Zhang, J., Wu, W., Zhao, X., & Zhang, W. (2020). Recommended psychological crisis intervention response to the 2019 novel coronavirus pneumonia outbreak in China: a model of West China Hospital. *Precision Clinical Medicine*, 3(1), 3–8. <https://doi.org/10.1093/pcmedi/pbaa006>
- Zhou, Y., Liang, Y., Tong, H., & Liu, Z. (2019). Patterns of posttraumatic stress disorder and posttraumatic growth among women after an earthquake: A latent profile analysis. *Asian Journal of Psychiatry*. <https://doi.org/10.1016/j.ajp.2019.10.014>

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.