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Posttraumatic Growth in the Wake of COVID-19 Among Jewish and Arab Pregnant Women in Israel

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Objective: On the assumption that coping with a crisis from a position of vulnerability may elicit not only negative but also positive outcomes, this study examined posttraumatic growth (PTG) among Jewish and Arab pregnant women 6–7 months into the COVID-19 pandemic, exploring the contribution of ethnicity, personal resources (intolerance of uncertainty, optimism, and self-compassion), and COVID-19-related anxieties. In addition, the moderating roles of ethnicity, optimism, and self-compassion were examined. ***Method:*** A convenience sample of 916 Israeli women (517 Jewish, 399 Arab) was recruited from July 5 to October 7, 2020. through women's forums on social media. The participants completed an electronic questionnaire through Qualtrics software. ***Results:*** Arab women reported significantly higher PTG, COVID-19-related anxieties, optimism, and self-compassion than Jewish women. A 6-step hierarchical regression that was performed to determine the contribution of the independent variables to PTG revealed that younger age, being primiparous, being an Arab, optimism, self-compassion, and COVID-19-related anxieties were associated with greater PTG. Furthermore, a positive association between intolerance of uncertainty and PTG was found among Jewish, but not Arab women. Finally, the positive association between intolerance of uncertainty and PTG was stronger among women reporting higher self-compassion. ***Conclusions:*** The study sheds light on the potential for the positive outcome of PTG in the wake of the prolonged COVID-19 crisis and highlights the contribution of vulnerability and personal resources.

Clinical Impact Statement
This study suggests that alongside the negative psychological consequences of the COVID-19 pandemic on pregnant women, coping with the stress involved may also stimulate posttraumatic growth. The study emphasizes that belonging to a minority group and characteristics indicative of women's vulnerability contribute to higher growth in the face of the crisis.

Keywords: COVID-19, posttraumatic growth, intolerance of uncertainty, optimism, self-compassion, ethnicity, pregnancy

The outbreak of COVID-19 in Wuhan, China, in December 2019 marked the start of a pandemic that affected the whole world throughout the year of 2020 and is still ongoing. In addition to fear of the rapid spread of infection, medical complications, and rising mortality rate, people have had to cope with the social distancing and lengthy lockdowns imposed to control the virus. These measures have caused not only heavy economic damage (Polyakova et al., 2020), but also isolation from one's social, family, and community circles, resulting in an increase in loneliness (Li et al., 2021). From the psychological standpoint, the uncertainty and threat characterizing the current crisis have led to a rise in reports of sadness, fear, frustration, and helplessness (Ahorsu et al., 2020; Sakib et al., 2020). However, both theoretical and empirical literature points not only to distress and other negative responses as a consequence of coping with trauma and stress, but also to the possibility of the positive psychological outcome of posttraumatic growth.

Posttraumatic growth (PTG) refers to positive psychological changes experienced as a result of a struggle with trauma or highly stressful events (Tedeschi et al., 2018). According to the model of posttraumatic growth (Tedeschi & Calhoun, 2004), dealing with trauma and crisis may challenge the individual's coping resources and the way they perceive the world, their identity, and their environment, which in turn triggers a process of rebuilding and reconstruction of new perceptions. The positive changes inherent in growth may be manifested in a variety of ways which are

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commonly divided into five dimensions: relating to others; perception of new possibilities in life; perceived self-worth and personal strength; spirituality; and appreciation of life.

As an unexpected, stressful, and threatening event, the COVID-19 crisis may therefore challenge a person's perceptions of the predictability and controllability of the world and their own security and existence in it, as well as their belief system and priorities. In addition, the prolonged stay at home with some family members and enforced distance from others could impact an individual's perception of their interpersonal relationships with their social network, raising issues of trust, dependence, and isolation or aloneness. While this shaking of the world as we know it may have negative consequences, it may also lead to responses that can be conceptualized as evidence of PTG (Tedeschi et al., 2018). It is therefore of considerable importance to investigate the potential positive changes that may be triggered by coping with the pandemic (Prieto-Ursúa & Jódar, 2020; Tamiolaki & Kalaitzaki, 2020; Vazquez et al., 2021).

Although the pandemic has exposed the vulnerability of the entire world population without exception, studies indicate that certain subpopulations, such as pregnant women, are especially vulnerable (López-Morales et al., 2021). Research shows that infected pregnant women are at increased risk of severe illness from COVID-19, and that infection, particularly during the second and third trimesters, may cause complications during pregnancy and childbirth (Centers for Disease Control and Prevention [CDC], 2021). In addition, since pregnancy is characterized by ambiguity and stress even in normal times, in a period of a global crisis it may provoke even higher levels of stress (López-Morales et al., 2021; Preis, Mahaffey, et al., 2020), with negative consequences for the woman's mental health (Moyer et al., 2020; Wu et al., 2020). However, we are unaware of any studies that have examined the PTG of pregnant women who are coping with the pandemic.

Recent literature also points to minority groups as consistently showing physical and mental health disparities in dealing with the COVID-19 pandemic (Tai et al., 2020). In most countries, minority groups are characterized by a lower socioeconomic profile than the majority group, reflected in denser housing and less accessible and advanced health services. These conditions have been associated with a higher level of morbidity and mortality from the virus (Cleaveland & Waslin, 2021). Such disadvantages also have implications for psychological vulnerability, with studies showing that minority groups report higher levels of distress during the pandemic than majority groups (Purtle, 2020), a finding evidenced in the Arab population in Israel as well (Kimhi et al., 2020).

Arabs in Israel constitute 21% of the population. This minority is characterized by economic and health inferiority, manifested in lower income per household, a higher average number of family members living together in dense conditions, and less access to quality health services than the Jewish population (Baron-Epel et al., 2010; Chernichovsky et al., 2017). In addition, in a series of studies conducted during the pandemic in Israel, it was found that Arab pregnant women reported a higher level of COVID-19-related anxieties, as well as a higher level of psychological distress, than their Jewish counterparts (Taubman – Ben-Ari, Chasson, et al., 2020; Taubman – Ben-Ari, Chasson, & Abu-Sharkia, 2020).

Ethnic and cultural differences may also contribute to the level of PTG (Riffle et al., 2020), with studies showing that minority groups tend to report greater PTG than majority groups (Hijazi et al., 2015; Maguen et al., 2006). According to the model of posttraumatic growth, contributors to PTG also include personal resources and perception of the stressful event (Tedeschi & Calhoun, 2004; Tedeschi et al., 2018). Thus, in the current study, we compared PTG in the wake of the pandemic among Jewish and Arab pregnant women in Israel, examining the contribution of the personal resources of intolerance of uncertainty, optimism, and self-compassion and perception of the stressful event represented by COVID-19-related anxieties.

Intolerance of uncertainty refers to the difficulty of dealing with the ambiguity involved in future occurrences and fears of unexpected difficulties (Buhr & Dugas, 2002). Links have been found between intolerance of uncertainty and anxiety and worry, as well as indications that some people are less tolerant of ambiguity than others (Birrell et al., 2011; Carleton et al., 2007). While uncertainty is an integral part of any pregnancy, studies demonstrate that women who have difficulty coping with it, that is, who report higher levels of intolerance of uncertainty, also display higher levels of anxieties (Rondung et al., 2019; Sevil Degirmenci et al., 2020). Furthermore, intolerance of uncertainty in the context of the threat of COVID-19 has been linked to adverse psychological outcomes and a decline in mental health (Smith et al., 2020; Vazquez et al., 2021). However, to the best of our knowledge, no previous studies have examined the relationship between intolerance of uncertainty and PTG either among pregnant women or during the pandemic.

Optimism, whether as a stable personality trait or a situational trait, relates to favorable expectations for the future (Carver et al., 2010). Studies show that optimism is associated with positive outcomes such as better mental and physical health in general (Carver et al., 2010; Galatzer-Levy & Bonanno, 2014), and among pregnant women (Grote & Bledsoe, 2007; Lobel et al., 2002) and during the current crisis (Jovančević & Milićević, 2020) in particular. Moreover, optimism has been found to contribute to and facilitate the process of PTG in the wake of coping with stressful events (Britton et al., 2019); including the pandemic (Vazquez et al., 2021). However, to the best of our knowledge, no prior study has examined the relationship between optimism and PTG specifically among pregnant women during the pandemic.

Self-compassion refers to the ability to be compassionate toward oneself when dealing with difficulty and pain (Neff, 2003). It consists of three elements: self-kindness, expressed in directing a warm, sympathetic, and supportive attitude toward the self; common humanity, that is, recognizing that pain, suffering, and distress are part of human existence and common to every individual, that one is not alone in one's suffering, and that as human beings we are vulnerable and imperfect; and mindfulness, or the ability to observe and experience emotions and thoughts, even when they are perceived as negative, in a receptive and balanced way, rather than being judgmental or attempting to suppress them (Neff, 2011). In recent years, increasing research attention has been paid to self-compassion as a protective factor in coping with stressful events (Chishima et al., 2018;), including pregnancy (Fourianalistyawati et al., 2018; Taubman – Ben-Ari, Chasson, & Abu-Sharkia, et al., 2020) and the COVID-19 crisis (Li & Wang, 2020; Waters et al., 2021). In addition, studies show that self-compassion

is related to higher PTG (Basharpoor et al., 2020; Wong & Yeung, 2017). However, again we were unable to locate prior studies that examined the relationship between self-compassion and PTG either among pregnant women or in the context of the current crisis.

Moreover, optimism and self-compassion have been found to moderate the relationship between intolerance of uncertainty and negative emotions and other adverse outcomes during the pandemic (Andel et al., 2021; Reizer et al., 2021; Waters et al., 2021). We therefore examined whether the interaction between these variables would also contribute to a positive outcome, that is, whether optimism and self-compassion would moderate the association between intolerance of uncertainty and PTG.

As noted above, perception of the stressful event and the anxieties associated with it may also contribute to PTG (Tedeschi et al., 2018). The current study was conducted between July & October, 2020; during the second wave of the pandemic in Israel, which saw a sharp increase in the number of confirmed cases of COVID-19 and a rise in the mortality rate, and consequently a tightening of restrictions and imposition of a total lockdown that lasted for about a month. It is logical to assume that this situation aggravated the COVID-19-related anxieties, such as the fear of being infected and concerns about the unstable economic situation and its consequences, of the women in our sample. Studies from this period indicate the risk involved in a high level of these anxieties for a pregnant woman (Preis, Mahaffey, & Lobel, 2020; Taubman – Ben-Ari, Chasson, et al., 2020; Taubman – Ben-Ari, Chasson, & Abu-Sharkia, 2020). As far as we know, however, the association between such concerns and PTG in this population has not previously been examined.

Nevertheless, in view of the literature, it may be assumed that pregnant women who belong to a minority group may experience an increased level of stress during the pandemic; at the same time, they can also experience a higher level of PTG. Thus, we sought to identify differences in the levels of the study variables between Jewish and Arab women. In addition, since there may be cultural differences both in the level of women's personal resources and their COVID-19-related anxieties, as well as in the association between these variables and PTG, we examined whether ethnicity moderates the relationship between a pregnant woman's resources and anxieties on the one hand, and PTG on the other.

Finally, certain background variables have been associated with PTG. We therefore controlled for a number of background characteristics (age, education, economic status, parity, and gestation week) in order to examine the contribution of ethnicity, personal resources, and COVID-19-related anxieties to PTG above and beyond these factors.

The Current Study

The COVID-19 pandemic is a prolonged and ongoing crisis, offering a unique opportunity to examine PTG during, and not just following, a prolonged stressful event. Most research on PTG has been conducted after the event itself. However, we were able to collect data at a time when people were not only still actively coping with the crisis, but had been doing so for a meaningful period, that is, 6–7 months into the pandemic.

On the basis of the literature, the following hypotheses were formulated:

1. Arab women will report higher PTG than Jewish women.
2. Arab women will report higher COVID-19-related anxieties, specifically fear of being infected and concern regarding the economic damage, than Jewish women.
3. Negative associations will be found between pregnant women's intolerance of uncertainty and PTG, so that the higher their intolerance of uncertainty, the lower PTG they will report.
4. Positive associations will be found between pregnant women's optimism and self-compassion and PTG, so that the higher their optimism and self-compassion, the higher PTG they will report.

Furthermore, given the lack of previous research on which to rely, the following questions were examined exploratively:

1. Are there differences between Jewish and Arab women in intolerance of uncertainty, optimism, and self-compassion?
2. What is the unique and combined contribution of the background variables, personal resources, and COVID-19-related anxieties to the pregnant women's PTG?
3. Does ethnicity moderate the link between optimism, self-compassion, intolerance of uncertainty, and COVID-19-related anxieties on the one hand, and PTG on the other?
4. Do optimism and self-compassion moderate the link between intolerance of uncertainty and PTG?

Method

Participants and Procedure

Following approval from the university's Institutional Review Board, a convenience sample of 916 Israeli women, 517 Jewish & 399 Arab, was recruited from July 5 to October 7, 2020; during the second wave of the pandemic in Israel. A request to participate in the study was posted on social media groups for women, both general groups for Israeli women in which we published an invitation in Hebrew, and groups for Arab women in Israel, in which we published the invitation in Arabic. A link to an electronic version of the questionnaire designed through Qualtrics software was provided, both in Hebrew and Arabic. Participants were considered eligible for the study if they were over the age of 18, pregnant, and indicated that they could complete questionnaires in Hebrew or Arabic. The opening page of the questionnaire ensured the anonymity and confidentiality of the information and explained that the woman could cease to participate at any stage should she wish to do so.

The final sample consisted of 916 women aged 19–44 (M = 28.16, SD = 4.47) who were in gestation weeks 4–42 (M = 24.39, SD = 9.98). Of these, 37.6% were expecting their first child, while 62.4% already had at least one child. Most of the participants were married or in a couple relationship (98%); 71% had an academic degree, and the rest had a high school or posthigh school diploma; 75.9% defined their income as average, 13% as above average,

and 11.1% as below average; and 53.9% defined their health status as very good, 36.4% as good, and the rest as poor.

A series of t-tests, performed to examine differences in background variables between the two ethnic groups, indicated that Jewish women had a slightly higher level of education ($M = 3.64$, $SD = .68$; $M = 3.48$, $SD = .76$, respectively), $t(916) = 3.35$, $p < .001$, and reported slightly better physical health ($M = 4.54$, $SD = .59$; $M = 4.25$, $SD = .87$, respectively), $t(916) = 6.08$, $p < .001$. These variables were controlled for in the regression analysis described below.

Instruments

Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), a 21-item self-report measure that assesses positive outcomes reported by individuals who have experienced a stressful event. The PTGI is comprised of five factors: Spiritual Change; Appreciation of Life; Personal Strength; Relating to Others; and New Possibilities. Participants were provided with statements such as, "I changed my priorities about what is important in life," and asked to indicate the degree to which they had experienced each change as a result of the COVID-19 pandemic on a scale ranging from 0 (*I did not experience this change*) to 5 (*I experienced this change to a very great degree*). In the current study, Cronbach's alpha for the whole inventory was .91. A total score was therefore calculated for each participant by averaging her responses to all items, with higher scores indicating a greater experience of PTG.

*Intolerance of Uncertainty Scale-Short Form (*IUS-12; Carleton et al., 2007), a 12-item version of the original 27-item Intolerance of Uncertainty Scale (Freeston et al., 1994) used to measure the perception of uncertainty, ambiguous situations, and the unknown future (e.g., "I always want to know what the future has in store for me"). Responses were indicated on a 5-point Likert scale ranging from 1 (*not at all characteristic of me*) to 5 (*entirely characteristic of me*). Cronbach's alpha for the scale in the current study was .89. A score was calculated for each participant by averaging her responses to all items, so that the higher the score, the higher the intolerance of uncertainty.

The *Life Orientation test* (LOT; Scheier & Carver, 1985), which consists of 8 items, 4 assessing optimism and 4 assessing pessimism. For the purposes of the current study, only the four items relating to optimism were employed (e.g., "In uncertain times, I usually expect the best"). Responses were indicated on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). As Cronbach's alpha for the relevant items was .77, a mean score was calculated for each participant, with higher scores indicating higher optimism.

The *Self-Compassion Scale-Short Form* (SCS-SF; Raes et al., 2011), consisting of 12 items. The items are divided into six subscales representing a positive and a negative indication of each of the three elements of self-compassion (negative indications are reverse coded): Self-Kindness (e.g., "When I'm going through a very hard time, I give myself the caring and tenderness I need") versus Self-Judgment (e.g., "I'm disapproving and judgmental about my own flaws and inadequacies"); Common Humanity (e.g., "I try to see my failings as part of the human condition") versus Isolation (e.g., "When I fail at something that's important to me, I tend to feel alone in my failure"); and Mindfulness (e.g., "When something upsets me I try to keep my emotions in balance") versus Over-Identification (e.g., "When I'm feeling down I tend to obsess and fixate on everything that's wrong"). Responses were marked on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). Cronbach's alpha for the whole scale in the current study was .78. After reversing the negative items, each participant's responses to all items were averaged to produce a single score, with higher scores indicating a higher level of self-compassion.

COVID-19-related anxieties were measured by means of 2 items (Taubman – Ben-Ari, Chasson, et al., 2020). The women were asked how anxious they were about: (1) being infected by COVID-19; and (2) the economic damage that may be caused to them and their family due to the COVID-19 pandemic. Responses were marked on a 5-point scale from 1 (*very little*) to 5 (*very much*).

A sociodemographic questionnaire was used to tap the woman's background characteristics: age (continuous), education (1 = elementary; 2 = high school; 3 = post high school; 4 = academic), economic status (1 = below average; 2 = average; 3 = above average), physical health (1 = poor; 2 = average; 3 = good; 4 = very good), marital status (1 = single; 2 = married; 3 = in a couple relationship without marriage), ethnicity (0 = Jewish; 1 = Arab), parity (0 = primiparous; 1 = multiparous), and gestation week (continuous).

Data Analysis

After completing the data collection on Qualtrics software, the data was downloaded and analyzed using SPSS (ver. 24). First, a series of t-tests was computed to examine ethnic differences in the study variables between Jewish and Arab women. We then calculated the correlations between the study and background variables and the level of PTG. Finally, a 6-step hierarchical regression was performed to determine the contribution of the independent variables to PTG. The variables were entered as follows: In Step 1, background variables (age, education, physical health, parity, and gestation week); in Step 2, ethnicity; in Step 3, intolerance of uncertainty; in Step 4, optimism and self-compassion; in Step 5, COVID-19-related anxieties (being infected and concern for the economic damage); and in Step 6, the interactions between ethnicity and personal resources and COVID-19-related anxieties, and the interactions between intolerance of uncertainty on the one hand and optimism and self- compassion on the other. Analyses of the sources of the interactions were performed using the PROCESS procedure (Hayes, 2017).

Results

Differences in the Study Variables Between the Ethnic Groups

The means and standard deviations of the study variables for each ethnic group, along with the results of the t-tests, appear in Table 1. As can be seen from the table, as predicted in Hypothesis 1, Arab women reported significantly higher PTG than Jewish women. In confirmation of Hypothesis 2, they also displayed more COVID-19-related anxieties regarding both their own infection and the economic damage. Finally, in answer to Research Question 1, Arab women reported higher optimism and self-compassion than

Table 1
Means, Standard Deviations, and t-Tests for the Study Variables by Ethnic Group

	Jewish women (n = 517)		Arab women (n = 399)			
	M	*SD*	*M*	*SD*	Cohen's *d*	*t*
Intolerance of uncertainty	2.79	0.75	2.72	0.75	0.09	1.41
Optimism	2.55	0.70	2.86	0.64	0.44	−6.72***
Self-compassion	3.26	0.62	3.51	0.63	0.40	−6.09***
Fear of infection	3.58	1.09	3.90	1.09	0.19	−2.91**
Concern for economic damage	3.04	1.18	3.33	1.08	0.25	−3.85***
Posttraumatic growth	2.46	1.09	2.91	0.60	0.49	−7.43***

** $p < .01$. *** $p < .001$.

Jewish women, although no difference was found in intolerance of uncertainty.

Associations of Background and Personal Variables With PTG

The results of the Pearson correlations between the background variables, personal resources (intolerance of uncertainty, optimism, self-compassion), and COVID-19-related anxieties on the one hand, and PTG on the other, for the sample as a whole, are presented in Table 2. As Table 2 shows, as predicted in Hypothesis 4, higher optimism and self-compassion were related to higher PTG. In addition, younger age and greater COVID-19-related anxieties were associated with higher PTG.

Contribution of the Independent Variables to PTG

The regression analysis performed to answer Research Question 2 concerning the unique and combined contribution of the study variables to PTG revealed that the independent variables explained 20.8% of the variance in this outcome. The results are presented in Table 3. The women's background characteristics in Step 1 contributed 1.9% to the explained variance, so that younger age and being primiparous contributed to higher PTG. Ethnicity in Step 2 contributed a further 5.1% to the explained variance, showing that being an Arab woman made a significant contribution to higher PTG. No significant contribution was found for intolerance of uncertainty in Step 3. However, optimism and self-compassion in Step 4 contributed a significant 10.1% to the explanation of the variance, with higher optimism and self-compassion associated with greater PTG. The COVID-19-related anxieties in Step 5 accounted for a further 1.6% of the variance, with higher fear of being infected and concern for the economic damage both significantly associated with higher PTG. Finally, Step 6 added 2.1% to the explained variance, with the interactions between intolerance of uncertainty and both ethnicity and self-compassion being significant. Analysis of the sources of the interactions (Hayes, 2017), presented in Figures 1 and 2, revealed a significant positive association between intolerance of uncertainty and PTG among Jewish women (b = .11, $p < .05$), but not among Arab women (b = −.10, p = .08). In addition, the positive association between intolerance of uncertainty and PTG was stronger among women reporting a high level of self-compassion (b = .25, $p < .001$) than among those who reported a low level of this resource (b = .11, $p < .05$).

Table 2
Pearson Correlations Between Demographic and Personal Resources and Posttraumatic Growth in the Whole Sample

Variable	Posttraumatic growth
Age	−0.10**
Education	−0.03
Economic status	0.01
Physical health	0.01
Parity[a]	0.04
Gestation week	−0.01
Ethnic group[b]	.24***
Intolerance of uncertainty	.003
Optimism	.33***
Self-compassion	.22***
Fear of infection	0.14***
Concern for economic damage	0.14***

[a] 0 = primiparous, 1 = multiparous. [b] 0 = Jewish women, 1 = Arab women.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

Like other highly stressful events, the COVID-19 pandemic has not only multiple adverse consequences, but also the potential to trigger an experience of PTG. Moreover, many studies show that dealing with increased stress may provoke greater personal growth, and it has been found that vulnerable groups in society, such as pregnant women and minority groups, report higher levels of stress and psychological distress in the wake of the pandemic. We therefore examined PTG among Jewish and Arab pregnant women in Israel during the current crisis, exploring personal characteristics and resources that may contribute to a greater experience of PTG. We believe that the opportunity to examine PTG in the midst of a prolonged and ongoing crisis, rather than in retrospect, is a unique feature of the current investigation and can be considered as one of its strengths.

As expected, and in line with previous studies (Taubman – Ben-Ari, Chasson, et al., 2020; Taubman – Ben-Ari, Chasson, & Abu-Sharkia, 2020), Arab women reported greater COVID-19-related anxieties regarding both the possibility of their own infection and the economic damage caused by the pandemic. Also as expected, this group reported higher PTG than Jewish women. This is consistent with previous findings showing that people from minority groups tend to report higher PTG than those from majority groups (Hijazi et al., 2015; Maguen et al., 2006). Thus, whereas previous studies have shown that minority groups report more adverse outcomes in the face of COVID-19 compared to majority groups (Kimhi et al., 2020; Tai et al., 2020), this study indicates that vulnerability may also contribute to a positive outcome. In other words, the need to cope with the current crisis from a position of vulnerability may offer an

Table 3
Hierarchical Regression Coefficients (β Weights) for Posttraumatic Growth

	ß	*t*	ΔR^2
Step 1			.019**
Age	−0.13	−3.73***	
Education	0.01	−0.24	
Economic status	0.04	1.12	
Physical health	0.01	0.41	
Parity[a]	−0.09	2.55*	
Gestation week	−0.01	−0.25	
Step 2			.051***
Ethnic group[b]	.240	7.02***	
Step 3			.000
Intolerance of uncertainty	0.16	0.50	
Step 4			.101***
Optimism	0.28	7.99***	
Self-compassion	0.12	3.09**	
Step 5			.016***
Fear of infection	0.07	2.33*	
Concern for economic damage	0.09	2.68**	
Step 6			.021**
Ethnicity × Intolerance of uncertainty	−0.40	−2.87**	
Ethnicity × Optimism	−0.24	−1.59	
Ethnicity × Self-compassion	−0.15	−0.71	
Ethnicity × Fear of infection	−0.15	−1.31	
Ethnicity × Concern for economic damage	−0.15	−1.46	
Intolerance of uncertainty × Optimism	−0.04	−0.28	
Intolerance of uncertainty × Self-compassion	0.31	1.92*	
R^2			20.8
$F(19, 914)$			12.27***

[a] 0 = primiparous, 1 = multiparous. [b] 0 = Jewish women, 1 = Arab women.
* $p < .05$. ** $p < .01$. *** $p < .001$.

opportunity to discover personal and environmental resources, which may stimulate growth (Tedeschi et al., 2018).

Moreover, Arab women displayed higher optimism and self-compassion than Jewish women. That is, alongside their experience of more significant fears and anxieties as a result of the pandemic, Arab women also evidenced higher personal resources, specifically, a more positive view of the future and more compassionate attitude toward themselves, which may assist in dealing with the stress. Studies show that more traditional and religious populations tend to report a higher level of positive thinking (Cheadle et al., 2018; Salsman et al., 2005), which may be related to their religious beliefs. This might also hold true for Arab women in Israel, who are usually more traditional and religious than their Jewish counterparts.

Being younger and primiparous were also found to contribute to greater PTG. These findings are consistent with previous studies conducted during the perinatal period (Taubman – Ben-Ari, 2019) which report positive associations between growth and background variables that reflect less maturity and experience, such as younger age and new motherhood.

Furthermore, in the whole sample, higher levels of optimism and self-compassion were associated with higher PTG. This is in line with the model of posttraumatic growth (Tedeschi & Calhoun, 2004), as well as with previous studies (e.g., Basharpoor et al.,

Figure 1
Effect of the Interaction Between Intolerance of Uncertainty and Ethnicity on Posttraumatic Growth

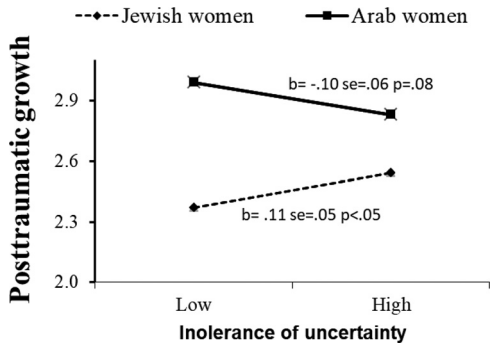
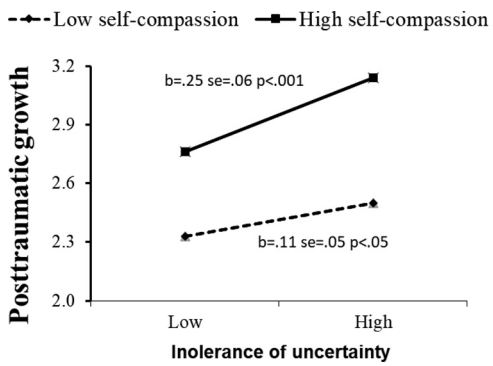


Figure 2
Effect of the Interaction Between Intolerance of Uncertainty and Self-Compassion on Posttraumatic Growth



2020; Britton et al., 2019) showing the contribution of positive personal coping resources to growth in times of stress and crisis. In the context of the present study, both optimism and self-compassion may be indications of a pregnant woman's ability to use positive and compassionate, rather than rigid, thinking schemes in the face of the threatening reality of the pandemic. These schemas, which are expressed in the woman's favorable expectations about the future, as reflected in optimism, as well as in the woman's warm and sympathetic attitude toward herself, as reflected in self-compassion, may facilitate growth. In addition, recognition of the ability to deal with the threat in a more positive and balanced way may reveal strengths in herself of which she was previously unaware, which is a sign of growth.

In line with the model of posttraumatic growth (Tedeschi & Calhoun, 2004), perception of the event, represented by COVID-19-related anxieties, was also associated with higher PTG. That is, women who experienced more COVID-related anxieties also reported more growth. This provides further support for the contention that growth cannot develop in the absence of stress and distress, but only as a result of coping with them (Zoellner & Maercker, 2006). If we consider this finding along with those discussed above, it can be said that in accordance with the theoretical conception of PTG (Tedeschi et al., 2018), growth is a product both of exposure to and coping with stress, and of the discovery and use of personal resources.

Furthermore, contrary to our hypothesis that there will be a negative association between intolerance of uncertainty and PTG, this study found a positive relationship between these variables that was conditioned by two variables. First, intolerance of uncertainty was significantly associated with greater growth only among Jewish women. This finding might be explained by the fact that the pandemic has been elucidated and discussed more successfully for the Jewish population in Israel, alleviating some of the ambiguity and resulting in greater confidence in the government's handling of the crisis. On the other hand, information for Arab society has been lacking, and accordingly this sector of the population may feel less confident about the treatment and prevention of infection on the individual and societal levels (Lavie et al., 2020). This aspect may also have had specific negative consequences for pregnant women. It is possible that Arab women, who did not receive sufficient reliable information in their mother tongue about the pandemic and its implications on pregnancy, felt greater apprehension and ambiguity, which could have affected both their general feeling and their confidence to receive the various pregnancy tests and be helped and supported by medical professionals. Thus, while intolerance of uncertainty was a trigger for growth among Jewish women, it did not play the same role among Arab women, who may have found it more difficult to deal with the ambiguity. Furthermore, although the current crisis is seemingly common to all groups in society, our findings indicate that cultural and social differences may differentiate between the variables that contribute to PTG in different ethnic groups.

Intolerance of uncertainty was also associated more significantly with PTG among women displaying a higher level of self-compassion. This suggests that even for a woman who has difficulty contending with uncertainty, a generous and compassionate attitude toward herself, including the sense that she is not dealing with these feelings alone and that they are natural and human, may enable her to be more flexible in coping with the crisis and even grow from it.

A number of limitations of the study should be noted. First, despite the rare opportunity it offered to examine PTG during the crisis itself, further studies should be conducted during and after the pandemic in order to confirm and expand the results. In addition, as far as we know this is the first study to compare the PTG of pregnant women of different ethnicities. Future studies employing samples drawn from other ethnic, cultural, and social groups might shed light on the factors contributing to PTG in different populations. Finally, the study relied solely on self-report tools, which may have limited our ability to tap the complexity of the experience of pregnant women during the pandemic. Studies employing a qualitative method might be able to provide a deeper understanding of this experience.

Nevertheless, the present study has important theoretical and practical implications. First, while many studies have focused on the negative psychological outcomes that may derive from dealing with the current crisis during pregnancy in general, and among women from minority groups in particular, this study reveals the possibility of a positive outcome as well. It indicates that the anxieties and ambiguities that characterize the situation do not necessarily lead solely to distress, and that coping with the pandemic from a position of vulnerability may also encourage the development of growth. In addition, the results indicate the importance of personal resources and a positive and compassionate attitude, which can promote growth even in the midst of stress and uncertainty. On the practical level, our findings can be of assistance to professionals working with pregnant women both at the present time and in the case of future crises. Interventions aimed at increasing the positive and compassionate thinking of the pregnant woman can help her contain and deal with anxiety and uncertainty and develop more flexible thinking schemes and a more positive perception of reality, herself, and her surroundings, and consequently to experience growth. In addition, professionals working with women from minority groups, who may be at greater risk of negative outcomes in the face of the crisis, can draw on the results of the present study to help these women recognize the opportunity to grow from their difficulties and vulnerabilities. The findings might also inform interventions designed to encourage growth among pregnant women with other characteristics that make them more vulnerable in a crisis, such as those with a chronic health problem, although further research is needed to substantiate the results in these groups.

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