



The Role of Meaning in Life During the COVID-19 Pandemic on Young Adults' Future Perspectives in Italy and Portugal

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Abstract. Presence of meaning in life has been found to be adaptive during the pandemic (Humphrey & Vari, 2021; Samios et al., 2021), however, no studies were conducted to understand whether meaning in life is related to future perspectives in young adulthood. In the current study both the objective impact and the subjective impact of the COVID-19 pandemic were considered as predictive factors of young adults' negative future perspectives through the activation of presence and search for meaning in life, in Italy and Portugal. Data were collected from emerging adults (18–35 years) between February and October 2021 via an online survey. Results showed that the objective impact of COVID-19 was not associated to neither meaning in life nor future perspectives in both countries. While the subjective COVID-19 impact was similarly associated in the two countries with both meaning in life and future perspectives, as young adults who were more worried about the pandemic effects, perceived their future more negatively and were engaged in a deeper search for meaning in life. Cross-country differences were found only in the strength of the relations between meaning in life and future perspectives. Specifically, a low presence of meaning was associated to negative future perspectives especially in Italy, while a high search for meaning was associated with negative future perspectives especially in Portugal. The present study has the merit of underlining the importance of considering subjective COVID-related worries and the role of meaning in life in the way young people cope with present and future uncertainties related to the pandemic.

Keywords: meaning in life · COVID-19 pandemic · future perspectives · emerging adulthood · cross-country

1 Introduction

Literature showed that young people are one of the categories who were more stressed (Kowal et al., 2020) and had the most negative psychological outcomes during the

Covid-19 pandemic (Zhou & Huo, 2022). However, while some authors claim that the disruption of personal lives of students caused by the Covid-19 pandemic might last (Aucejo et al., 2020), other authors call the attention to the fact that the so-called “COVID-19 generation” might be very diverse and copped differently with the pandemic (Rudolph & Zacher, 2020).

Studies revealed that the developmental phase in which people were during the pandemic had a role in the way people perceive the present coherence and their future perspectives. For instance, Dodd and colleagues (2021) found that undergraduates perceived lower levels of well-being and sense of coherence, and higher levels of future anxiety when compared with postgraduate students. Similarly, Danioni and colleagues (2021) found that profiles of people with a low level of sense of coherence were mostly composed of young people. Achdut and Refaeli (2020) found high levels of distress among young adults (20–35 years), that were generated by the financial strain and loneliness experienced by youths during a time of strong COVID-19 restrictions. According to them, the increasing unemployment triggered by the arousal of the pandemic had a detrimental effect on young people’s well-being, optimism, and sense of mastery.

The perception of life as meaningful helped reduce the subjective distress due to the COVID-19 pandemic (Humphrey & Vari, 2021), thus confirming the important role of meaning in life in the recovery from stressful or traumatic situations (Park & George, 2013; Steger & Park, 2012). On the same line, Samios et al. (2021) reported less pandemic-related stress for participants who experienced high meaning in life, intended as the ability to perceive one’s life as coherent, oriented by purposes, and endowed with value.

In literature, there is a high consensus in considering the construct of meaning in life as composed of two dimensions: *search for meaning* and *presence of meaning* (Steger et al., 2006). Search for meaning in life deals with the extent to which people invest in achieving a sense of meaningfulness, while presence of meaning in life reflects the perception of a life fulfilled with meaning.

Cross-national differences were found in the association between meaning in life and adjustment or well-being, especially when search for meaning is considered. Indeed, presence of meaning in life positively affected well-being in all the countries considered in the studies (Fischer et al., 2020; Steger et al., 2008). On the opposite, the association between search for meaning and the other well-being constructs was not consistent (Li et al., 2020). For instance, search for meaning was negatively correlated to life satisfaction in Turkey and not in the USA (Fischer et al., 2020); it was positively correlated to purpose in Japan, and negatively in the USA (Steger et al., 2008); and it was negatively correlated with happiness in USA but uncorrelated in Japan (Steger et al., 2008). These findings support the important and positive role of presence of meaning to foster well-being, but also revealed that more studies are needed to understand possible country differences involving the search dimension of meaning in life.

Although the role of meaning in life in decreasing stress during COVID-19 has been supported in different countries (Humphrey & Vari, 2021; Samios et al., 2021), no studies, to our knowledge, investigated the relationship between meaning in life and future perspectives after the COVID-19 pandemic. A positive future perspective could help young people to commit themselves to future goals despite the uncertainty about

the long-term effect of the pandemic on society. Some pre-COVID-19 studies found that a fulfilled life is paired with better future orientations, including optimism and hope (Steger & Frazier, 2005; Steger et al., 2006). For instance, one study conducted on late adolescents revealed that both search and presence of meaning were negatively related to hopelessness and explained more variance than hopelessness in predicting future externalizing behavior (Brassai et al., 2012), thus supporting the assumption that meaning in life is in some sense linked with future perspectives. Moreover, a recent study (Lind et al., 2022) about personality profiles during the COVID-19 found that the profile of Forgers (characterized by higher conscientiousness, agreeableness, extraversion, resilience, and internal locus of control) reported lower search for meaning but higher positive future perspective than Reflectors (characterized by higher openness, neuroticism, external locus of control, integration of the experiences of the pandemic, use of personal memory in maintaining self-continuity).

The evidence we discussed so far confirms that an effective activation of the meaning-making process, i.e. the process by which individuals build the meaning of their life, leads young people to build a committed identity and a solid system of meaning and promotes future commitments in adults' lifegoals (Maysless & Keren, 2014). However, studies about the possible effect of the pandemic on those processes are still missing.

To fill this gap in the literature, the present study focuses on two European countries, Italy and Portugal, that were similarly affected by the COVID-19 pandemic. The two countries were chosen because they both are countries from South Europe and faced similar situations during the end of the first wave and the following waves of the pandemic (European Centre for Disease Prevention and Control, 2021). According to Villani and colleagues (2020), despite death rates increasing quicker in Italy than in Portugal, both countries reached the plateau after the first wave of the pandemic in the first part of June 2020. Thus, the life of young adults in the two countries has been similarly affected: some of them had a direct experience of COVID-19 (those who had been personally affected), while others had an indirect experience (because close others were affected). Additionally, especially during lockdowns, young adults suffered for restrictions to their social (e.g. constrain to stay at home), educational (e.g. distance learning), and work life (e.g. few possibilities to start or change jobs). Consequently, young adults had fewer opportunities to engage in useful activities for their normative identity explorations (Arnett, 2018). After spring 2021, the contagion rate gradually decreased, opening the prospect of a post-pandemic future. That situation is linked with a subjective perception of the impact of the pandemic in one's own life that goes beyond the objective impact due to health issues. Thus, it is important to understand whether the objective and subjective impact of COVID in young adults' life is associated with their perspective about the future and whether the search and presence of meaning in life could have a role in that relationship.

This study aims to investigate how the objective/subjective impact of COVID-19 in young adults' life is associated with their perspectives on the future after the pandemic, through the search and presence of meaning in life in two European countries similarly affected by the pandemic. Specifically, we decided to target the emerging and young adult population considering the impact that the pandemic had on their well-being and future perspectives (Humphrey & Vari, 2021; Samios et al., 2021), being aware that

a healthy process of meaning-making of that experience could be beneficial to their transitional development. Despite this study's aims being mostly explorative, both from a cross-country comparison and for the future perspective outcomes, we can make some speculations about the results. First, we hypothesize that meaning in life, in both search and presence components, is associated with future perspectives, besides the subjective and objective impact of the pandemic on young adults. This hypothesis is supported by the literature on the key role of meaning in life in the developmental phase of young adulthood even before the pandemic (Maysless & Keren, 2014).

More specific hypotheses can be advanced about certain links considered in this study. First, it is reasonable to argue that, in both countries, the subjective COVID-19 impact might have a higher negative impact on youths' meaning in life compared to the objective COVID-19 impact. Indeed, previous studies indicated that the impact of the pandemic is especially related to perceived stress and worries among young adults (Kowal et al., 2020), and that stress is associated with anxiety especially for young adults (Varma et al., 2021). Moreover, we expect presence of meaning to be associated with less negative future perspectives in both countries, mirroring consistencies of findings related to the positive association between presence of meaning and adjustment (Fischer et al., 2020; Steger et al., 2008). Conversely, based on the available literature and on the fact that the two countries were similar at the end of the first wave and during the following waves, we cannot assume possible cross-national differences.

2 Method

2.1 Procedure and Participants

The sample is composed of 284 Italian (19–36 years; $M = 25.98$; $SD = 4.08$) and 301 Portuguese emerging adults (18–35 years; $M = 24.05$; $SD = 3.72$). The two subsamples showed some differences with respect to the socio-demographic and transitional characteristics (Table 1).

The Italian sample was collected with an intentional sampling procedure in February 2021, in a time of absence of COVID-19 restrictions, but during the increase of cases in Lombardy region. In Portugal data was collected from July to October 2021, in a period where mandatory lockdown was eased, but many restrictions were still in place such as compulsory telework, limits on the number of people to access public places (e.g. restaurants and bars, cultural and sport events, gym facilities).

As inclusion criteria, participants needed to be aged 18–36 and, for Italy, they needed to live in Lombardy (the Italian region that had the strongest COVID-19 impact in Italy), for Portugal, they had to live in Portugal to take part of the study. Participants were recruited via personal invitation (e-mail and WhatsApp) and Facebook announcements and, in case of Portugal, also a Youth Non-Governmental Organization agreed to disseminate the call for participation via Facebook institutional page.

Potential participants were informed about the study's aims, procedure and study design, data protection, and participant's rights. Only individuals who agreed to participate and signed the informed consent received the link to the online survey implemented in Qualtrics for Italy, and Google forms for Portugal. No reward for participation was

Table 1. Descriptive statistics and cross-cultural comparison among Portuguese and Italians emerging adults

Sociodemographic variables	Descriptive statistics		Cross-sample comparison	
	Italy (N = 284)	Portugal (N = 301)	Statistical values <i>t/Chi</i> ² (df)	<i>p</i> value
Age (Mean, SD)	26 (4.1)	24 (3.7)	5.97 (583)	<.001
Males (% , N)	23.4% (66)	35.5% (107)	10.29 (1)	.001
Involved in a romantic relationship (% , N)	63.1% (176)	47.8% (144)	13.60 (1)	<.001
Having children (% , N)	5.6% (16)	2.3% (7)	4.23 (1)	.040
Cohabiting with parents (% , N)	60.6% (172)	60.7% (182)	.001 (1)	.980
Occupation (% , N)				
Student	32.4% (92)	37.9% (114)	12.58 (3)	.006
Worker	46.5% (132)	32.6% (98)		
Student-worker	10.6% (30)	14.3% (43)		
Nor student nor worker	10.6% (30)	15.3% (46)		
Education (% , N)				
Middle school diploma	1.1% (3)	0% (0)	16.78 (4)	.002
High school diploma	37.7% (107)	26.6% (80)		
Bachelor degree	25.4% (72)	37.5% (113)		
Master degree	26.8% (76)	28.9% (87)		
Post graduate education	9.2% (26)	7% (21)		

Note. *t*: statistical value of Student's *t*-test; χ^2 : statistical value of Pearson chi-square

provided. The ethical approval was obtained from the institutional Ethical Committee of Catholic Sacro Cuore University (Ethical approval for Italy: 16–19) and Ethical Committee of Polytechnic of Coimbra (Ethical approval for Portugal: 94_CEIPC/2021).

2.2 Instruments

The same instruments were administered in both the Italian and the Portuguese sample.

Objective COVID-19 Impact. The objective impact of the COVID-19 pandemic (OCI) on young adults' life was assessed by asking participants to what extent they have encounter COVID-19 considering the period between the outbreak of the pandemic (February 2020) and the time of the survey. Specifically, three questions were expressly created: (OCI1) "Have you ever been diagnosed with COVID-19?", (OCI2) "Have any of your close friends and/or relatives been diagnosed with COVID-19?", (OCI3) "Have any of your close friends or relatives lost their lives due to COVID-19?". Participants

answered each question with yes (1) or no (0). The sum of the scores for each question constitutes an overall objective COVID-19 impact index with a range from 0 (no impact) to 3 (maximum impact). The OCI's means across Italy ($M = .85$; $SD = .72$) and Portugal ($M = 1.02$; $SD = .61$) were statistically different [$t(546.30) = 2.94$, $p = .003$].

Subjective COVID-19 Impact. The subjective impact of COVID-19 pandemic (SCI) was assessed by introducing ad hoc questions asking participants to evaluate how much they were worried about the following hypothetical COVID-related events: (SCI1) To be infected with COVID-19, (SCI2) That people I care about are infected with COVID-19, (SCI3) About the spread of the virus in my region, (SCI4) About unintentionally infecting other people. Participants answered on a 5-point Likert scale from 1 (very little) to 5 (very much). An overall index of subjective COVID-19 impact was computed by averaging single items' scores. Cross-country partial metric invariance was found across Italy and Portugal [$\chi^2(6) = 8.63$; $p = .196$; $RMSEA = .03$; $CFI = .99$]. The factor loadings of SCI2 and SCI4 were higher for Italy (.724–.798) compared to Portugal (.497–.434). Conversely, all the intercepts were higher in the Portuguese (range = 3.52–4.56) compared to the Italian sample (range = 2.76–4.11). Finally, residuals of IC2 IC3 and IC4 were higher for Italy (.360–.849) compared to Portugal (.218–.577). Therefore, composite reliability has been conducted separately for the two countries. Internal consistency was good ($\omega > .60$; Bagozzi & Yi, 1988; Italy: $\omega = .763$, Portugal: $\omega = .738$).

Meaning in Life. The Meaning in Life Questionnaire (MLQ; Negri et al., 2020; Steger et al., 2006) is a 10 item self-report measure assessing the presence of meaning in life (e.g. I understand my life's meaning) and the search for meaning in life (e.g. I am always looking to find my life's purpose). Participants answered on a Likert scale from 1 (Strongly disagree) to 7 (Strongly agree). Cross-country full metric, partial scalar and full strict invariance was found across Italy and Portugal [$\chi^2(95) = 498.39$; $p < .001$; $RMSEA = .12$; $CFI = .89$]¹. Internal consistency was excellent for both dimension (presence of meaning: $\omega = .890$; search for meaning: $\omega = .911$).

Negative Future Perspectives. The Dark Future Scale (DFS; Zaleski et al., 2019) is a five-item measure of the negative attitude toward the future, expressed as “the tendency to think about the future with anxiety, uncertainty, and aversion as well as to experience a fear of anticipated failures” (Zaleski et al., 2019; p. 111). Participants answered on a 6-point Likert scale from 1 (absolutely false) to 6 (absolutely true). Cross-country full metric and partial strict invariance was found across Italy and Portugal [$\chi^2(19) = 77.02$;

¹ Full metric, partial scalar and full strict model results. Intercepts of MLQP9R (My life has no clear purpose_reverse score) and MLQS2 (I am looking for something that makes my life feel meaningful) were higher for Italy (5.39–4.82) than Portugal (4.55–4.35), while intercept of MLQS3 (I am always looking to find my life's purpose) was higher for Portugal (4.42) than Italy (3.94).

$p < .001$; RMSEA = .10; CFI = .96]². Internal consistency was good (Italy: $\omega = .864$; Portugal: $\omega = .898$).

3 Results

3.1 Preliminary Analysis

Missing data were handled in Mplus with full information maximum likelihood (FIML) method. The missingness mechanism on the total sample ($N = 585$) revealed to be non-random [Little test: $\chi^2(59) = 106.16$; $p < .001$]. Five subjects from the Italian sample and seven subjects from the Portuguese sample were excluded as they were multivariate outliers (Mahalanobis Distance based on chi-square distribution significant with $p < .001$; Tabachnick & Fidell, 2013). The final samples are made of a total of 573 subjects (279 Italians and 294 Portuguese). All the MLQ and DFS items approximate well the normal distribution (skewness and/or kurtosis lower than |1.2|; Muthén & Kaplan, 1985), while two items of the subjective COVID-19 impact (SCI) showed extreme skewness and kurtosis values (range = 1.71–2.68) in the Portuguese sample.

3.2 Cross-Country Comparison of Youths' Future Perspectives After COVID-19 and Meaning in Life

The correlation coefficients between the factors included in the model are displayed in Table 2. Dark future perspectives presented significant correlations with all the other variables except for objective COVID-19 impact, which was uncorrelated with any other variable. Instead, subjective COVID-19 impact correlated with the search for meaning dimension as well as with future perspectives.

The correlation matrix pointed out several similarities between the two countries, therefore we decided to test a multigroup Path Analysis model to identify patterns of relations between the COVID-19 objective and subjective impact on participants' future perspectives through the presence and search for meaning in life. The path model was estimated using Mplus 8.4. The factor's scores of SCI (Subjective COVID-19 impact), DFS (Dark Future Scale) and MLQ (Meaning in Life Questionnaire) dimensions were exported from the CFA model with the highest level of invariance found using the SAVE FACTOR command in Mplus and included in the Path Analysis as they are free from measurement error (Zumbo, 2005).

² Partial strict invariance model results. Intercepts of items DFS1 (I am afraid that the problems which trouble me now will continue for a long time), DFS2 (I am afraid that in the future my life will change for the worse), DFS3 (I am afraid that changes in the economic and political situation will threaten my future) and DFS5 (I am terrified by the thought that I might sometimes face life's crisis or difficulties) were higher in the Portuguese (range = 4.11–4.69) compared to the Italian sample (range = 2.96–4.19). Moreover, residuals of DFS4 (I am disturbed by the thought that in the future I won't be able to realize my goals) and DFS5 were higher for Italy (1.57–1.29) than Portugal (.72–.69). Therefore, composite reliability has been conducted separately for the two countries.

Table 2. Correlation Matrix of Factors in Italy and Portugal

	Italy				Portugal			
	1.	2.	3.	4.	1.	2.	3.	4.
1. OCI	1				1			
2. SCI	.02	1			-.01	1		
3. MLQP	.12*	-.08	1		.00	-.00	1	
4. MLQS	.03	.29**	.03**	1	-.04	.23**	-.41**	1
5. DFS	.05	.35**	-.52**	.29**	-.04	.35**	-.39**	.58**

Note. OCI (Objective COVID-19 impact); SCI (Subjective COVID-19 impact); MLQP (Presence of meaning in life); MLQS (Search of meaning in life); DFS (Dark future). * $p < .05$; ** $p < .01$

First, we fit a baseline multi-group path analysis (Model A) in which negative future perspectives were regressed on both presence and search of meaning in life and objective and subjective COVID-19 impact; presence and search of meaning were correlated and regressed on both objective and subjective COVID-19; and subjective and objective COVID-19 impact were correlated. Moreover, we controlled for the impact of gender, age, romantic status (single vs coupled) and professional status (student vs worker) by including these variables as predictors of presence of meaning, search for meaning and negative future perspectives. All the parameters were free to vary across the two countries.

Then, we constrained all the regression and correlation parameters to equality across Italy and Portugal (Model B) to test possible differences between the two countries. The model comparison between the baseline multigroup model (Model A) and the full constrained model (Model B) is depicted in Table 3.

All the three Informative Criteria didn't change consistently in Model B, except for a slight increase of AIC (Akaike Information Criterion; Akaike, 1987). However, the constrained model showed a decrease in the model fit to the data (Hu & Bentler, 1999), as indicated by an insufficient RMSEA (Root Mean Squared Error of Approximation; acceptable when lower than .06), CFI (Comparative Fit Index; good when approaching .95) and SRMR values (Standardized Root Mean Square Residual; acceptable when lower than .08). Taken together, these results suggested that the path of relations wasn't completely invariant across the Italian and the Portuguese samples. Therefore, each non-invariant parameter across the two countries was released one by one (starting from parameters with the highest difference between countries' estimates) until satisfactory fit indices were obtained (Model C). As depicted in Table 3, three parameters were set free to vary across the two countries: the correlation between presence and search for meaning, and the regression of presence and search for meaning on negative future perspectives. Figure 1 shows the final path analysis model for Italy and Portugal.

Table 3. Model Comparison of Multi-group Path Analysis

	LL (df)	AIC	BIC	Adj-BIC	X^2	p	df	RMSEA	RMSEA CI	CFI	SRMR
Model A (free)	-3169.84 (64)	6467.68	6741.14	6537.99	44.68	.00	16	.08	.05-.11	.93	.05
Model B (full constrained)	-3203.00 (42)	6490.00	6669.46	6536.14	111.01	.00	38	.08	.07-.10	.81	.07
Model C (free non-invariant parameters)											
MLQP with MLQS	-3188.12 (43)	6462.24	6645.98	6509.48	81.25	.00	37	.07	.05-.09	.89	.06
DFS on MLQP	-3182.35 (44)	6452.71	6640.72	6501.05	69.72	.00	36	.06	.04-.08	.91	.06
DFS on MLQS	-3178.62 (45)	6447.24	6639.52	6496.68	62.25	.00	35	.05	.03-.08	.93	.06

Note. LL = model log likelihood; df = degrees of freedom; AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; Adj-BIC = sample-size adjusted BIC; X^2 = chi-square; *df* = degrees of freedom; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; CI = Confidence Interval; SRMR = Standardized Root Mean Square Residual.

Results showed that only age and gender were significant predictors invariantly across the countries. Specifically, age was marginally predicting the search for meaning ($\beta = .026$, $p = .01$) and search for meaning ($\beta = -.025$, $p = .01$), while gender was a predictor of negative future perspectives ($\beta = .155$, $p = .03$), thus meaning that females were slightly more likely to have negative perspective on the future compared to men. As expected from the factors' correlation matrix, in both countries the objective COVID-19 impact wasn't associated to neither meaning in life, neither negative future perspective. Conversely, the subjective COVID-19 impact, expressed as the general level of worry for COVID-19 consequences, was associated with both search for meaning ($\beta = .267$, $p < .001$) and dark future ($\beta = .254$, $p < .001$), invariantly in Italy and Portugal.

The main cross-country differences emerged when considering the role of meaning in life on future perspectives. Specifically, in Italy the presence of meaning in life showed a stronger negative effect ($\beta = -.517$, $p < .001$) on dark future, compared to Portugal ($\beta = -.249$, $p < .001$); vice-versa, the positive effect of search for meaning on dark future was stronger in Portugal ($\beta = .418$, $p < .001$), compared to Italy ($\beta = .232$, $p < .001$). Finally, the correlation between presence of meaning and search for meaning was significant and negative only in the Portuguese sample ($r = -.338$, $p < .001$).

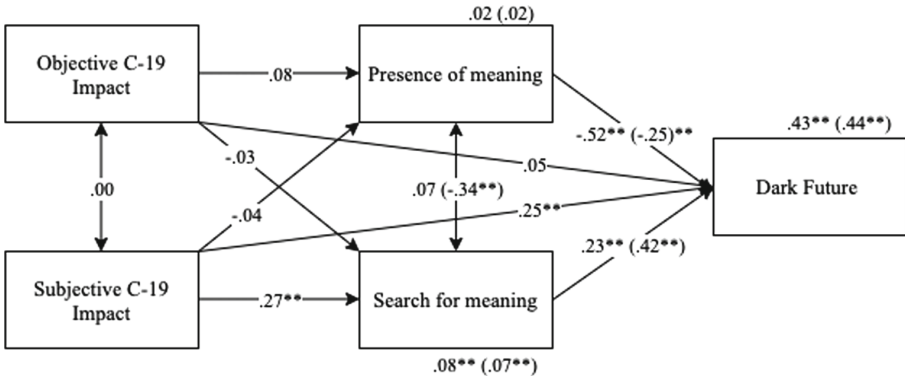


Fig. 1. Pattern of relations for Model C in Italy and Portugal. *Note.* Results from Model C are reported. The pattern of relations between variables is controlled for gender, age, romantic relationship, and professional status as predictors of Presence of meaning, Search for meaning, and Dark Future. Portugal estimates, when different from Italian values, are reported in brackets. Single headed arrows indicate the unidirectional relationships between two variables (expressed as factor scores). Double headed arrows indicate the correlation between two variables. R^2 are reported on the top/bottom right of each dependent variable. $^{**}p < .001$.

4 Discussion

The aim of the present study was to investigate whether meaning in life had a role in the associations between pandemic impact and future perspectives in Italian and Portuguese young adults. Those countries were chosen because they were similar in the timing in which the plateau of deaths was reached in the first wave (Villani et al., 2020), and both governments decided for periods of lockdowns and restrictions that were progressively relieved in the following two years. The study had an exploratory aim, thus no specific cross-country differences were hypothesized, but the cross-country approach was used because the pandemic was a global event that strongly affected young adults’ transition to adulthood all over the world. Findings showed that, as expected, the objective impact of COVID-19 was not associated with either meaning in life or future perspectives in both countries. Conversely, the subjective COVID-19 impact was similarly associated in the two countries with future perspectives; in particular, young adults who were more worried about possible future COVID-related negative events, perceived their future more negatively. These results are in line with previous findings, showing that young people are primarily concerned about the effects the pandemic could have on their future. A survey carried out after the first lockdown indicated that 81% of Portuguese respondents were very or somewhat concerned about their financial, personal, and family situation, with these concerns being most felt by women, young people, and people with lower incomes or lower levels of education (Magalhães et al., 2020). These values have repercussions on the way the future is viewed, with 57% of respondents to the same survey expressing that the worst was yet to come (Magalhães et al., 2020).

Other similar findings in the two countries are related to the fact that presence of meaning resulted to be positively associated, as expected, with future perspectives, and that people who experienced a stronger subjective impact of the pandemic were the ones

who perceived their future more negatively, both directly and indirectly, through the activation of the search for meaning. On the one hand, these results support the importance of presence of meaning as a protective factor when people are living disruptive or traumatic experiences (Arslan & Allen, 2021); on the other hand, they underline the key role of search for meaning in the meaning-making process, useful to find a new satisfactory balance in their life, but that may have a temporary negative effect on adjustment and future perspectives (Brassai et al., 2012).

Cross-country differences were only related to the strength of some paths involving meaning in life. In particular, findings show that negative future perspectives were more strongly associated, compared to the other country, with a lower presence of meaning in Italy, and a higher search for meaning in Portugal. Moreover, search for meaning was not associated with presence of meaning in Italy, while it was negatively associated in Portugal. Those findings are not so easy to interpret due to some limits of the study: periods of data collection were different in the two countries, although they were both conducted after the second wave of the pandemic when some personal restrictions were still in place in both countries. Findings related to the measurement of the constructs considered could help in the interpretation of those differences. First, the dark future perspective assessment resulted to be biased, because four of the five items' intercepts of the scale were significantly higher in the Portuguese sample than in the Italian one, determining an overestimation of the latent mean. Second, because the Portuguese data collection was conducted in the middle of the second year of the pandemic, it could be that Portuguese young adults realized that the effect of the pandemic would continue for a long time, thus influencing, negatively, their future. This could explain the stronger impact of search for meaning on future perspectives among Portuguese emerging adults, as searching for meaning is particularly salient during uncertain times, especially when people expect stressful events in their future (Park & Baumeister, 2017). This interpretation is also supported by the fact that the intercept of the item assessing the search for purpose in life was higher in the Portuguese sample, underlining their orientation towards issues related to their future. Future longitudinal studies could deeper support these findings by testing whether the role of search for meaning changes during the different phases of the pandemic experienced by young adults.

Cross-countries differences were also found related to the association between search for and presence of meaning. In Italy, the association was not significant, whereas in Portugal it was negative. Thus, if Portugal's results confirm Fischer and colleagues (2020)'s findings, finding a negative relationship in both individualistic and collectivistic cultures, this is not the case for Italy. However, it should be noted that that association should be further investigated because findings are not consistent within the literature (Li et al., 2020). At the trait level, the search for meaning is often associated with malaise, and negatively correlated to presence of meaning (in line with findings in the Portugal sample), while at the state level some studies have found that the search for meaning can enhance presence of meaning in a daily framework (Newman et al., 2018). Therefore, the search for meaning is probably subject to major situational fluctuations which are reflected in the relationships with well-being. Future research could study the meaning-making process from a situational perspective, as suggested by King and Hicks (2021).

Despite those cross-country differences, most of the findings show a similar pattern of associations between the two countries. Presence of meaning in life is protective of the negative future perspective, independently of the way people are living the pandemic, confirming previous findings on the positive role of presence of meaning for young adults' adjustment. For instance, the presence of meaning in life has been shown to be associated to higher levels of mental health and well-being (Arslan et al., 2020).

Other studies found that meaning in life mediates the relationship between coronavirus stress and well-being in young people (Arslan & Allen, 2021), however, in the present study, we found that only search for meaning partially mediates the link between the subjective impact of the pandemic and negative future perspectives. Those constructs (subjective impact, search for meaning, dark future) are all related to the way young people perceive time, and in particular the future. The subjective impact is related to the worries about the future impact of the pandemic; search for meaning is related to the commitment to find a future presence of meaning; dark future is related to the general view of future. One recent study, conducted in Italy on the expected repercussion of COVID (Ceccato et al., 2021) found that the negative perception of the future is related to the way people perceive their time; in particular, people with a more balanced time perspective (i.e., people who can optimally focus, at the same time, on past, present, and future) perceive the future less negatively. As such, the time perspective serves as a temporal framework where life experiences, such as the pandemic, take place and experiences. Future studies, conducted on young adults, could confirm the importance of working on a balanced time perspective to better adjust to post-COVID times and improve identity formation (Luyckx et al., 2010; Shirai et al., 2012) and meaning-making (Webster et al., 2021).

As previously mentioned, this study has some limitations. First, the fact that the data collections were distanced by four to eight months between the two countries didn't allow a direct comparison. However, even if the pandemic impacted similarly on European countries, Italy and Portugal went through specific evolutions of the pandemic, so that, even if the same time frame was used, direct comparisons would still be difficult. The second limitation is related to the measures used to assess the constructs. As apparent from the method section, no full measurement invariance was found for any of the measures used, thus, the interpretation of differences in the two countries should be cautious and take into consideration the differences found in the measurement process. The third limitation is related to the cross-sectional nature of the study. Longitudinal designs could help in describing the changes during the different phases of COVID that will characterize Europe and the whole world in the next future.

Despite those limitations, the study has the merit of underlining the importance of considering subjective worries COVID-related and the role of the meaning in life in the way young people cope with present and future uncertainties related to the pandemic in both Italy and Portugal. Implications of the study are associated with both the meaning in life literature and the transition to adulthood literature. The present study is the first that connected the subjective evaluation of the event (the pandemic in this case) with the activation of the search for meaning and future perspectives. Results supported the consideration that, when young adults perceive a high uncertainty and worry about the situation, they activate the meaning-making process through an active engagement in

the search for meaning, even if their perception about the future is negative. Therefore, the literature on meaning in life could benefit the adoption of a future time perspective (Dwivedi & Rastogi, 2016) in situations characterized by high uncertainty, especially when the aim is to support young people during a normative transition. Moreover, presence of meaning continues to be a protective factor helping in improving a positive future perspective, therefore, further studies should develop meaning-based interventions to help young adults enhance their perception of life meaningfulness, which is of utmost importance for committing to the transition to adulthood.

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