

When home is not a safe haven: Effects of the COVID-19 pandemic on LGBTQ adolescents and young adults in Portugal

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Abstract: Quarantine situations have deleterious effects on the mental health of the general population, but it is expected that LGBTQ (lesbian, gay, bisexual, transgender, and queer) individuals are even more affected. We aimed to investigate the extent to which the psychosocial effects of the COVID-19 pandemic are associated with changes in the mental health of LGBTQ adolescents and young adults ($N = 403$). The findings indicated that (i) not having or entered into a university degree, (ii) the daily negative impact of the pandemic, and (iii) a negative family climate were associated with higher levels of depression and anxiety. Furthermore, family climate partially mediated the association between the pandemic's individual impact and both depression and anxiety. Organizations promoting the rights of LGBTQ individuals, health and educational services, and other support networks, should remain available to meet the needs of this population.

Keywords: LGBTQ; COVID-19; Family; Depression; Anxiety.

Quando a casa não é um porto seguro: Efeitos da pandemia COVID-19 em adolescentes e jovens adultos LGBTQ em Portugal: As situações de quarentena têm efeitos deletérios na saúde mental da população geral, mas é de esperar que as pessoas LGBTQ (lésbicas, gays, bissexuais, transgénero e queer) sejam ainda mais afetadas. Objetivámos investigar em que medida os efeitos psicossociais da pandemia do COVID-19 estão associados a mudanças na saúde mental de adolescentes e jovens adultos LGBTQ ($N = 403$). Os resultados indicaram que: (i) não ter ou não frequentar um curso universitário, (ii) o impacto negativo da pandemia no quotidiano e (iii) um clima familiar negativo estavam associados a níveis mais elevados de depressão e ansiedade. Além disso, o clima familiar mediou parcialmente a associação entre o impacto individual da pandemia e a depressão e a ansiedade. As organizações que promovem os direitos de pessoas LGBTQ, os serviços de saúde e educação, bem como as demais redes de apoio, devem permanecer disponíveis para atender às necessidades desta população.

Palavras-chave: LGBTQ; COVID-19; Família; Depressão; Ansiedade.

The COVID-19 pandemic has led to many countries implementing unprecedented restrictions, such as enforcing social isolation and quarantine measures to prevent the SARS-COV-2 virus from spreading (Diário da República n.º 55/2020, 3o Suplemento, Série I de 2020-03-18, 2020). Yet the psychological effects of quarantine situations have been associated with increased rates of mental health symptoms, such as post-traumatic stress, confusion, and feelings of anger (Brooks et al., 2020) with greater distress associated with quarantine duration, fear of infection, frustration, boredom, inadequate information, financial loss, and stigma. Thus, the psychological wellbeing of the general population is expected to deteriorate during the COVID-19 pandemic, and particularly so among individuals at social disadvantage such as LGBTQ persons (Council of Europe Secretary General Marija Pejčinović Burić, 2020).

Lesbian, gay, bisexual, and transgender, and queer people (LGBTQ) people belong to a stigmatized minority, which gives rise to a unique vulnerability to psychological distress. The minority stress model offers a framework for understanding the processes underlying sexual and gender identity disparities by positing that LGBTQ individuals experience a unique set of stressors related to social prejudice (Hendricks & Testa, 2012; Meyer, 2003, 2015). Numerous studies have indicated higher levels of mood and anxiety

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symptoms and self-harm behavior in LGBTQ groups that are victims of social prejudice than heterosexual or cisgender samples (Chakraborty et al., 2011; Perez-Brumer et al., 2017).

Social networks such as friends and family can function as sources of support, mitigating the effects of the broader social prejudice against LGBTQ individuals (European Union, 2019; European Union Agency for Fundamental Rights, 2020), but they can also be themselves sources of stigma. LGBTQ individuals often disclose or begin to reveal their sexual orientation or gender identity to others during adolescence or young adulthood (Maguen et al., 2002; Pinto & Moleiro, 2015). Research showed that both partners (Whitton et al., 2018) and friends play a crucial role in providing daily social support for these individuals (Frost et al., 2016; Gato et al., 2020a). Similarly, in the families of origin, one or more family members may be accepting, thus promoting resilience and wellbeing (Gato et al., 2020a; Parra et al., 2018; Watson et al., 2019). Alternatively, family members may be a source of stress and distress (Ryan et al., 2009, 2010; Salerno et al., 2020), with unsupportive relationships continuing to cast a gloomy shadow on the wellbeing of LGBTQ adults (McConnell et al., 2016; Needham & Austin, 2010). Aside from the direct effect of family acceptance and support on wellbeing, research has indicated indirect effects because sexual minority youths without family support tend to show low rates of self-acceptance, disclosure to others, and LGBTQ community involvement (Rosario et al., 2008).

Reports from Portuguese NGOs have indicated a rise in calls to helplines since the Portuguese lockdown began (Monteiro, 2020). More widely, international reports have indicated rising levels of domestic violence and child abuse (Chandan et al., 2020; WHO Leaders' Statement, 2020). Given the current pandemic-related circumstances of heightened health anxiety and social isolation from others outside the household, plus the likely intensification of social and inter-generational within the household, LGBTQ adolescents and young adults may find themselves in a particularly vulnerable situation with regards to their mental health. In fact, as mentioned before, many LGBTQ youths will not have disclosed their sexual and gender identities to their family yet, so they lack support and acceptance from this primary socialization group (Salerno et al., 2020). Furthermore, lockdown measures reduce access to social and community support resources in schools, which often act as buffers that protect LGBTQ adolescents and young adults against the mental health burden caused by social isolation and psychological trauma (Kaniuka et al., 2019; Parra et al., 2018). Young LGBTQ young people may find themselves in a particularly vulnerable situation regarding their emotional wellbeing and mental health during the COVID-19 pandemic (Council of Europe Secretary General Marija Pejčinović Burić, 2020).

Our aim in the present work was twofold. First, we explored the association between the psychosocial effects of the COVID-19 pandemic being felt by the participants at multiple levels (individually, within their family, and socially) and their mental health (i.e., depression and anxiety), controlling for the effect of sociodemographic characteristics (age, area of residence, educational level, work status, and relationship status). Second, we explored the mediating role of participants' family climate, between the individual impact of the pandemic and mental health outcomes.

METHOD

Participants

Our convenience sample comprised 403 individuals belonging to a sexual or gender minority, ranging from 16 to 30 years of age ($M = 22.13$; $SD = 3.46$). All the participants either resided habitually with their parents ($n = 327$; 81.1%) or had returned to their parents' home during lockdown ($n = 76$; 18.9%). Most were in total confinement in their homes ($n = 334$; 82.9%), followed by those who were in a situation of partial confinement ($n = 54$; 13.4%), while only 15 participants (3.7%) said they were not in confinement. Regarding their professional or study activity, 65.3% worked or studied from home ($n = 262$), 13.2% had suspended this activity ($n = 53$), and only 6.5% worked at their usual workplace ($n = 26$), while 15.1% answered "not applicable" to this question. The sample's remaining sociodemographic characteristics are described in Table 1.

Table 1. Sociodemographic characteristics of the participants

Variable	n	%
Sex assigned at birth		
Female	211	52.4%
Male	189	46.9%
Intersex	3	0.7%
Gender identity		
Cisgender women	179	44.4%
Cisgender men	158	39.2%
Trans women	6	1.5%
Trans men	15	3.7%
Non-binary persons	30	7.4%
Other	15	3.7%
Sexual orientation		
Gay/lesbian	227	56.5%
Bisexual	112	27.9%
Pansexual	47	11.7%
Asexual	5	1.2%
Heterosexual	7	1.7%
Other (e.g., queer)	4	1.0%
Nationality		
Portuguese	382	95.3%
Brazilian	13	3.2%
Other	6	1.5%
Region of residence		
North	164	40.7%
Centre	75	18.6%
Lisbon and Tagus Valley	113	28.0%
Alentejo	10	2.5%
Algarve	13	3.2%
Madeira	17	4.2%
Azores	11	2.7%
Area of residence		
Rural	115	28.5%
Urban	288	71.5%
Relationship status		
Not in a relationship	201	49.9%
In a relationship	202	50.1%
Educational level		
4 th grade or less	1	0.2%
5 th and 6 th grades	1	0.2%
7 th to 9 th grades	28	6.9%
10 th to 12 th grade	203	50.4%
Higher education	170	42.2%
Work status		
Student	224	55.6%
Student and worker	28	6.9%
Full-time worker	71	17.6%
Part-time worker	23	5.7%
Unemployed	48	11.9%
Other (e.g., freelancer)	9	2.2%

Measures

Sociodemographic variables. To examine our sample's sociodemographic composition, we asked participants about their current situation during the lockdown period, age, sex assigned at birth, gender identity, sexual orientation, nationality, region of residence, area of residence, relationship status, educational level, and work status. Regarding residence status during lockdown, participants were given the following options: 1 = *I reside habitually with my parents*; 2 = *Given the present circumstances, I have returned to my parents' home (or similar family configuration)*. Participants reported their degree of confinement signaling one of the following options: 1 = *Total confinement*, 2 = *Partial confinement*, 3 = *Not in confinement*. Regarding their professional or study activity during the lockdown period, the next options were presented: 1 = *I'm working or studying from home*, 2 = *I have suspended my work/education activities*, 3 = *I'm working at my usual workplace*, 4 = *Not applicable*. As for the remaining characteristics, participants

were presented the options described in Table 1 (except regarding Nationality, where the following options were presented: 1 = *Portuguese*, 2 = *Other - Please specify*).

Psychosocial effects of the COVID-19 pandemic. Based on our literature review, we devised 11 items for tapping into the psychological effects of pandemic situations and individuals' family dynamics from a sexual or gender minority (Gato et al., 2020b; Appendix A). In order to avoid single-item measurement bias (Nunnally & Bernstein, 1998) and to uncover the underlying structure of the 11 items, we resorted to Exploratory Factor Analysis (EFA). The sample's adequacy for the EFA (principal components) was verified through the Kaiser-Meyer-Olkin (KMO) index, and the value for this (.721) suggested that the variables were correlated and the factor analysis was strongly recommended. Since the number of hypothesized dimensions was not defined, no a priori criteria were used to extract the factors. The obtained solution yielded three factors and explained 52.8% of the total variance. However, items 4, 5, and 11 presented low communalities (.31, .21, and .21, respectively) and were removed from the analysis. A second EFA was then conducted with the remaining eight items. The obtained solution (KMO = .703) yielded three factors explaining 72.3% of the total variance. As shown in Table 2, Factor 1 gathered the items that refer to different aspects of the pandemic's effect at the individual level and named "Individual impact." Factor 2 was loaded with items related to the participants' family situation during lockdown confinement and was named "Family climate." The two items loaded into Factor 3 relate to the pandemic's effect on participants' social networks, and this was named "Social isolation." Participants rated items using an 11-point Likert-type scale ranging from 0 to 10 (answer anchors varied according to the item in question; please see Appendix 1). Items belonging to each subscale were averaged, with higher scores indicating greater negative individual impact of the pandemic, more negative family climate, and greater social isolation. As shown in Table 2, the Cronbach's alpha values showed good internal consistency for the three dimensions.

Table 2. Exploratory Factor Analysis of the Items Measuring the Psychosocial Effects of the COVID-19 Pandemic for LGBTQ Individuals

Items	Factor loading			Communality value
	1	2	3	
Item 1	.85	-.04	.22	.65
Item 2	.82	.03	.14	.64
Item 3	.68	.33	.13	.56
Item 7	.11	.85	.09	.73
Item 8	.12	-.83	-.04	.70
Item 6	.29	.66	.11	.51
Item 9	.17	.08	.92	.80
Item 10	.23	.12	.90	.82
% Explained variance	25.67	24.74	21.90	
Eigenvalue	2.05	1.98	1.75	
Cronbach's Alpha	.74	.72	.85	

Note. $N = 403$. The extraction method was principal axis factoring with a Varimax rotation. Factor loadings above .65 are in bold.

Mental health. We resorted to the Portuguese version of the Depression, Anxiety and Stress Scales 21-Item Version (DASS-21; Lovibond & Lovibond, 1995; Pais-Ribeiro et al., 2004) to assess different aspects of participants' mental health. This instrument has 21 items divided over three subscales, namely Depression, Anxiety, and Stress. In this study, we used the Anxiety (physical arousal symptoms, panic attacks, and fear; e.g., "I experienced breathing difficulty - breathlessness in the absence of physical exertion") and Depression (symptoms usually associated with negative mood; e.g., "I felt down-hearted and blue") subscales. Participants rated items using a 4-point Likert-type scale ranging from 0 (*did not apply to me at all*) to 3 (*applied to me very much or most of the time*). Items belonging to each subscale were averaged, with higher scores indicating greater negative affect or anxiety. The Cronbach's alphas for Depression and Anxiety were .89 and .86, respectively.

Procedure

Data were collected online between April 17 and May 4, 2020, as part of an ongoing study titled "Social support networks and psychological health of young LGBT+ individuals during the COVID-19 pandemic". This study, which our team originally devised in Portugal (Gato et al., 2020b), is being replicated in the UK,

Italy, Brazil, Chile, Sweden, and Mexico. At the time of data collection, a national state of emergency had been decreed, and the Portuguese government was enforcing lockdown measures (Diário da República n.º 55/2020, 3º Suplemento, Série I de 2020-03-18, 2020). The study was advertised on LGBTQ+ oriented websites and social media (e.g., Facebook). The confidentiality and anonymity of data were guaranteed, with the survey being hosted on a server at the host institution. This did not allow for the identification of the IP addresses. There were no mandatory answers, and an "exit" or "withdraw" button on each page permitted participants who chose to do so to withdraw from the survey at any given time.

Contact details for the principal researcher were also provided should the participants have any concerns or questions. Free and informed consent was solicited electronically on the first page of the survey. The participants indicated that they had read and understood this information by checking boxes at the start of the questionnaire. On the final page of the questionnaire, a list of LGBTQ and COVID-19 resources was presented. Completing the questionnaire took no longer than 15 minutes, and participation involved no monetary compensation. Participants who wished to continue to collaborate and/or receive information about the study were provided with both an identification code and an email contact. They were assured that their data could not be associated with the provided contact/personal code. The study was approved by the Ethics Committee of the host institution and was given a positive opinion by the Order of Portuguese Psychologists. Requiring parental consent in studies involving LGBTQ adolescents can be problematic because participants may have yet to disclose their sexual orientation or gender identity, so they may not feel comfortable asking their parents' permission, thus promoting self-selection bias. For this reason, a waiver removing the need to obtain parental consent for individuals under 18 years was provided by the Ethics Committee of the host institution. The inclusion criteria for this study were having completed all instruments belonging to a sexual or gender minority, residing in Portugal, being confined with parents or similar family configuration, and being under 30 years of age.

Data analysis

We first performed bivariate correlations between the psychological variables in the study. We then ran hierarchical regression models on mental health outcomes (i.e., depression and anxiety). For control purposes, the first block of variables included the following sociodemographic variables: age, area of residence, educational level, work status, and relationship status. For interpretation purposes, educational level was recoded into a dummy variable with two levels (0 = *12 years of education*; 1 = *university degree*). The same approach was used with work status, where those who were students or unemployed were coded as 0, and the remaining participants as 1. The second block of variables comprised the dimensions of the pandemic's psychosocial effects, as derived from the previously conducted EFA (individual impact, social isolation, and family climate). The significance of simple mediation effects was analyzed using Sobel's test (Preacher, 2019). The indicators needed for Sobel's test were calculated using SPSS, while an interactive online tool was used to calculate the Sobel test itself (Preacher, 2019).

RESULTS

We began our analyses by looking at the distribution of the continuous variables used in the study, and the corresponding values were within the normality range in terms of both skewness (-0.85 to 0.83) and kurtosis (-1.03 to 0.86) (Table 3; Hair, Anderson et al., 2014). We first examined the significant bivariate correlations between those variables representing the psychosocial effects of the pandemic (individual impact, social isolation, and family climate) and mental health outcomes (depression and anxiety) (see Table 3). All the psychosocial effects of the pandemic significantly correlated with both depression and anxiety.

Table 3. Descriptive Statistics and Correlations for the Psychological Variables

Variables	Sk	Ku	M	SD	Correlations				
					1	2	3	4	5
1. Individual impact	-0.85	0.86	7.00	1.93	-				
2. Social isolation	-0.46	-0.87	5.66	3.12	.41***	-			
3. Family climate	0.01	-1.03	4.64	2.79	.24***	.22***	-		
4. Depression	0.49	-0.63	1.16	0.76	.27***	.15**	.25***	-	
5. Anxiety	0.83	0.17	0.85	0.69	.29***	.14**	.19***	.73***	-

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; Sk = skewness; Ku = kurtosis

We then conducted hierarchical regression analyses. We used Tolerance, and VIF as multicollinearity indexes, where the most common cutoff employed is a tolerance value > 0.10 corresponding to a VIF < 10 . In order to assume the absence of multicollinearity, it was also important for the correlations among predictive variables to be below .70 and/or below the correlation between each predictive and criterion variables (Hair et al., 2014). All the indicators in our regression analyses yielded results within the established cutoff values for multicollinearity (see Table 3 for correlations; tolerance > 0.59 and VIF < 1.71 for both models).

The regression models for depression (Table 4) and anxiety (Table 5) were significant, explaining 14% and 13%, respectively, of the variance of the outcome variables.

Concerning sociodemographic features, educational level was the only significant and weak predictor of participants' mental health outcomes, suggesting that not attending a form of higher education was associated with greater levels of depression and anxiety. Regarding the second block of variables, a similar pattern of significant predictors was observed in the two regression models: Individual impact and family climate were both positive and weak predictors for both depression and anxiety.

Table 4. Hierarchical Regression Results for Depression

Variable	B	SE	95% CI for B		β	R^2	ΔR^2
			LL	UL			
Step 1						.04	.04*
Constant	1.14***	0.30	0.56	1.71			
Age	0.01	0.01	-0.02	0.04	.04		
Area of residence	-0.02	0.09	-0.17	0.17	-.001		
Educational level	-0.22*	0.09	-0.41	-0.04	-.14*		
Work status	-0.21	0.09	-0.39	-0.02	-.12*		
Relationship status	0.02	0.08	-0.14	0.17	.01		
Step 2						.14	.10***
Constant	0.25	0.31	-0.36	0.86			
Age	0.01	0.01	-0.02	0.04	.04		
Area of residence	0.01	0.08	-0.15	0.17	.01		
Educational level	-0.21*	0.09	-0.38	-0.04	-.14*		
Work status	-0.17	0.09	-0.35	0.003	-.10		
Relationship status	-0.08	0.08	-0.23	0.07	-.05		
Individual impact	0.09***	0.02	0.05	0.13	.23***		
Social isolation	0.01	0.01	-0.02	0.03	.02		
Family Climate	0.05**	0.01	0.02	0.07	.17**		

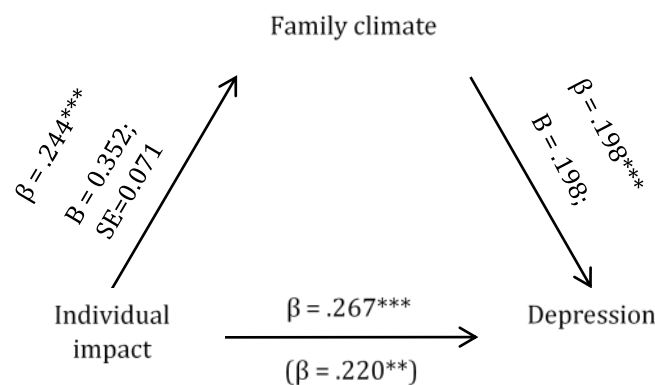
Note. CI = confidence interval; LL = lower limit; UL = upper limit; Area of residence: 0 = rural, 1 = urban; Work Status: 0 = not working, 1 = working; Relational status: 0 = not in a relationship, 1 = in a relationship; * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5. Hierarchical Regression Results for Anxiety

Variable	B	95% CI for B		SE B	β	R ²	ΔR^2
		LL	UL				
Step 1						.03	.03*
Constant	0.91**	0.39	1.43	0.26			
Age	-0.001	-0.02	0.04	0.01	-.01		
Area of residence	0.01	-0.17	0.17	0.08	.01		
Educational level	-0.18*	-0.41	-0.04	0.08	-.13*		
Work status	-0.08	-0.39	-0.02	0.08	-.05		
Relationship status	0.11	-0.14	0.17	0.08	.08		
Step 2						.13	.10***
Constant	0.18	-0.37	0.73	0.28			
Age	-0.002	-0.03	0.02	0.01	.04		
Area of residence	0.01	-0.14	0.15	0.07	.01		
Educational level	-0.17*	-0.33	-0.02	0.08	-.14*		
Work status	-0.17	-0.21	0.10	0.08	-.10		
Relationship status	-0.06	-0.10	0.16	0.07	-0.05		
Individual impact	0.10***	0.06	0.13	0.02	.23***		
Social isolation	0.001	-0.02	0.02	0.01	.02		
Family Climate	0.03*	<0.001	0.05	0.01	.17**		

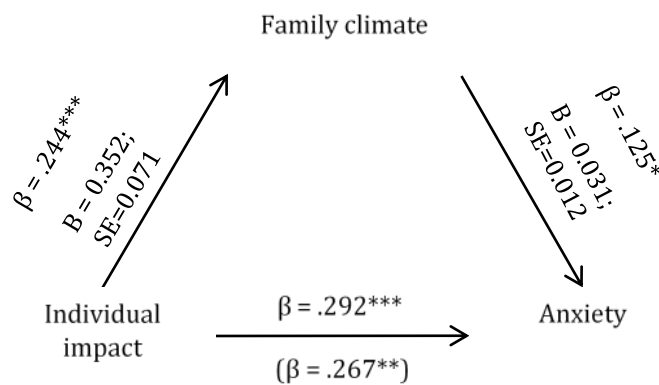
Note. CI = confidence interval; LL = lower limit; UL = upper limit; Area of residence: 0 = rural, 1 = urban; Work Status: 0 = not working, 1 = working; Relational status: 0 = not in a relationship, 1 = in a relationship; * $p < .05$. ** $p < .01$. *** $p < .001$.

A mediation effect may occur when a predictive variable affects a criterion variable through a mediating variable. Based on the regression model results and our literature review for the effect of family variables on the wellbeing of LGBTQ adolescents and young adults, we further tested whether family climate mediated the relationship between the individual impact of the pandemic and mental health outcomes. Family climate partially mediated the relationship between the individual impact of the pandemic and depression (Figure 1) and anxiety (Figure 2), as in both cases, the direct effect of the individual impact of the pandemic on depression, $\beta = .267$, and anxiety, $\beta = .292$, decreased, $\beta = .220$ and $\beta = .267$, respectively, when it was mediated by family climate (17.6% and 8.5% of the total effect of the individual impact of the pandemic was attributable to family climate for depression and anxiety, respectively).



Sobel $Z=3.04$, $SE=0.006$, $p = .002$; $r^2_{adj}=.104$

Figure 1. Family Climate Mediating the Relationship Between Individual Impact of the Pandemic and Depression



Sobel $Z=2.29$, $SE=0.047$, $p=.021$; $r^2_{adj}=.099$

Figure 2. Family Climate Mediating the Relationship Between Individual Impact of the Pandemic and Anxiety

DISCUSSION

The two main goals of this study were, firstly, to analyze the association between the psychosocial effects of the COVID-19 pandemic and mental health, controlling for the effect of sociodemographic characteristics and, secondly, to explore the mediating effect of family climate between the individual impact of the pandemic and mental health outcomes for a sample of LGBTQ adolescents and young adults. Results indicated that a lower educational level, a more negative impact of the pandemic on participants' daily life, and a more negative family climate were associated with higher levels of depression and anxiety. Additionally, family climate partially mediated the relationship between the pandemic's individual impact, and the two studied mental health outcomes.

Educational level was the only sociodemographic feature that was associated with mental health. Individuals with a lower educational level tend to have less access to resources and earn lower wages (Oliveira et al., 2014). These factors may contribute to an increased vulnerability in terms of their mental health (Parent et al., 2013). The pandemic's negative impact on participants' lives was associated with higher levels of depression and anxiety, which is consistent with studies pointing to increased rates of mental health symptoms during quarantine situations (Brooks et al., 2020). Interestingly, although our participants reported feeling isolated from their friends (with a value slightly above the medium point of the Likert scale), social isolation was not a predictor of depression or anxiety levels. We may wonder whether online social interactions may have mitigated these feelings of isolation during confinement. However, it may well be that at the time of data collection, participants had not yet been separated from their peers for a significant length of time.

Findings regarding the association of a family climate that is not accepting of someone's sexual or gender identity with higher levels of depression and anxiety are particularly relevant when we take into account the following two aspects: First, the negative impact of stigma (Chakabarty et al., 2011; Hendricks & Testa, 2012; Meyer, 2003, 2015; Perez-Brumer et al., 2017), including stigma from family members (McConnell et al., 2016; Needham & Austin, 2010; Rosario et al., 2008; Ryan et al., 2009, 2010; Salerno et al., 2020), on the wellbeing of LGBTQ adolescents and young adults is well documented. Second, Portuguese society's specific cultural characteristics mean that family is a unique and important source of support for young adults. Portugal is a family-oriented society with a strong sense of "us," thus bringing family members together across the generations (Steinbach et al., 2016). Along with strong family-oriented values, a traditionally high youth-unemployment rate, and limited governmental support for young adults' life projects (e.g., housing), this seems to contribute to the postponement of assuming adult roles in Portugal (Oliveira et al., 2014). Consistently, in 2019, Portugal was one of the countries with the highest average age for children leaving the parental home (29 years) (Eurostat, 2020). With a negative family climate in a country where family is such an important source of instrumental and social support, and when access to other sources of social and community support is reduced (Kaniuka et al., 2019; Parra et al., 2018), this seems to put LGBTQ adolescents and young adults at greater risk to their mental health.

Although our results contribute to a novel and understudied research area, this study is not without its limitations. To what extent the identified associations impact our participants' mental health in the

medium and long term is an issue that should be explored using a longitudinal research design. More complex models based on minority stress and resilience frameworks (Meyer, 2003, 2015) that identify the role of risk and protective factors in the mental health of LGBTQ people—such as family functioning, level of "outness," or perceived stigma—should also be considered. Although we managed to recruit a significant number of participants in a short period of time, our convenience sample was highly educated and lived in urban areas. Finally, the weak magnitude of the associations between variables imposes some limits to the generalization of the results. Notwithstanding the abovementioned caveats, considering the present results and the recommendations of both the Council of Europe (Council of Europe Secretary General Marija Pejčinović Burić 2020) and of the United Nations High Commissioner for Human Rights (OHCHR, 2020), we recommend that services such as LGBTQ rights organizations, health and educational services, and other social support networks remain particularly attentive and available during periods of confinement in order to meet the needs of LGBTQ young people.

This work has contributed to knowledge about the effect of the COVID-19 pandemic on a potentially vulnerable segment of the population. Family climate is a variable that should certainly be taken into consideration when investigating the effects of pandemic situations on the mental wellbeing of LGBTQ adolescents and young adults, particularly among family-oriented cultures such as that of Portugal.

REFERENCES

- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet*, 395(10227), 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Chakraborty, A., McManus, S., Brugha, T. S., Bebbington, P., & King, M. (2011). Mental health of the non-heterosexual population of England. *British Journal of Psychiatry*, 198(2), 143–148. <https://doi.org/10.1192/bjp.bp.110.082271>
- Chandan, J. S., Taylor, J., Bradbury-Jones, C., Nirantharakumar, K., Kane, E., & Bandyopadhyay, S. (2020). COVID-19: A public health approach to manage domestic violence is needed. *The Lancet Public Health*, 2667(20), 30112. [https://doi.org/10.1016/s2468-2667\(20\)30112-2](https://doi.org/10.1016/s2468-2667(20)30112-2)
- Council of Europe Secretary General Marija Pejčinović Burić. (2020, May 14). *Young LGBTI persons must be protected against violence at home and in public during this crisis and always*. https://search.coe.int/directorate_of_communications/Pages/result_details.aspx?ObjectId=09000016809e58b5
- Diário da República n.º 55/2020, 3º Suplemento, Série I de 2020-03-18, Pub. L. No. Diário da República: I série, N.º 55, 3º Suplemento, 13(1) (2020). <https://dre.pt/application/conteudo/130399860>
- European Union. (2019). *Special Eurobarometer 493: Discrimination in the EU (including LGBTI)*. http://data.europa.eu/88u/dataset/S2251_91_4_493_ENG
- European Union Agency for Fundamental Rights. (2020). *LGBTI Survey Data Explorer*. <https://fra.europa.eu/en/data-and-maps/2020/lgbti-survey-data-explorer>
- Eurostat (2020). *Estimated average age of young people leaving the parental household by sex*. http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=yth_demo_030&lang=en
- Frost, D. M., Meyer, I. H., & Schwartz, S. (2016). Social support networks among diverse sexual minority populations. *American Journal of Orthopsychiatry*, 86(1), 91–102. <https://doi.org/10.1037/ort0000117>
- Gato, J., Leal, D., Moleiro, C., Fernandes, T., Nunes, D., Marinho, I., Pizmony-Levy, O., & Freeman, C. (2020a). "The worst part was coming back home and feeling like crying": Experiences of lesbian, gay, bisexual and trans students in portuguese schools. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.02936>
- Gato, J., Leal, D., & Seabra, D. (2020b, maio 17). *Redes de apoio social e saúde psicológica em jovens LGBT+ durante a pandemia de COVID-19: Relatório de divulgação de dados preliminares*. https://www.fpce.up.pt/sigarra/RelatorioFinal_Maio2020_ESTUDOLGBT+COVID-19.pdf
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2014). *Multivariate data analysis: A global perspective* (7th ed.). Pearson.
- Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the minority stress model. *Professional Psychology: Research and Practice*, 43(5), 460–467. <https://doi.org/10.1037/a0029597>
- Kaniuka, A., Pugh, K.C., Jordan, M., Brooks, B., Dodd, J., Mann, A.K. ... Hirsch, J.K. (2019). Stigma and suicide risk among the LGBTQ population: Are anxiety and depression to blame and can connectedness to the LGBTQ community help? *Journal of Gay and Lesbian Mental Health*, 23, 205–220. <https://doi.org/10.10180/19359705.2018.1560385>
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the

- Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335–343. [https://doi.org/10.1016/0005-7967\(94\)00075-u](https://doi.org/10.1016/0005-7967(94)00075-u)
- Maguen, S., Floyd, F. J., Bakeman, R., & Armistead, L. (2002). Developmental milestones and disclosure of sexual orientation among gay, lesbian, and bisexual youths. *Journal of Applied Developmental Psychology*, 23(2), 219–233. [https://doi.org/10.1016/S0193-3973\(02\)00105-3](https://doi.org/10.1016/S0193-3973(02)00105-3)
- McConnell, E. A., Birkett, M., & Mustanski, B. (2016). Families matter: Social support and mental health trajectories among lesbian, gay, bisexual, and transgender youth. *Journal of Adolescent Health*, 59(6), 674–680. <https://doi.org/10.1016/j.jadohealth.2016.07.026>
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674–697. <https://doi.org/10.1037/0033-2909.129.5.674>
- Meyer, I. H. (2015). Resilience in the study of minority stress and health of sexual and gender minorities. *Psychology of Sexual Orientation and Gender Diversity*, 2(3), 209–213. <https://doi.org/10.1037/sgd0000132>
- Monteiro, E. (2020, May 15). *Covid-19: pelos menos 900 pessoas LGBTI pediram ajuda durante confinamento*. <https://tvi24.iol.pt/sociedade/direitos-humanos/covid-19-pelos-menos-900-pessoas-lgbti-pediram-ajuda-durante-confinamento>
- Needham, B. L., & Austin, E. L. (2010). Sexual orientation, parental support, and health during the transition to young adulthood. *Journal of Youth and Adolescence*, 39(10), 1189–1198. <https://doi.org/10.1007/s10964-010-9533-6>
- Nunnally, J. C., & Bernstein, I. H. (1998). *Psychometric theory*. McGraw-Hill.
- OHCHR (Office of the High Commissioner Human Rights). (2020, April 17). *COVID-19 and the human rights of LGBTI people*. <https://www.ohchr.org/Documents/Issues/LGBT/LGBTIpeople.pdf>
- Oliveira, J. E., Mendonça, M., Coimbra, S., & Fontaine, A. M. (2014). Family support in the transition to adulthood in Portugal—Its effects on identity capital development, uncertainty management and psychological well-being. *Journal of Adolescence*, 37, 1449–1462. <https://doi.org/10.1016/j.adolescence.2014.07.004>
- Pais-Ribeiro, J. L., Honrado, A., & Leal, I. (2004). Contribuição para o estudo da adaptação portuguesa das Escalas de Ansiedade, Depressão e Stress (EADS) de 21 itens de Lovibond e Lovibond. *Psicologia, Saúde & Doenças*, 5(1), 229–239.
- Parra, L.A., Bell, T.S., Benibgui, M., Helm, J.L., & Hastings, P.D. (2018). The buffering effect of peer support on the links between family rejection and psychosocial adjustment in LGB emerging adults. *Journal of Social and Personal Relationships*, 35, 854–871. <https://doi.org/10.1177/0265407517699713>
- Parent, M. C., DeBlaere, C., & Moradi, B. (2013). Approaches to research on intersectionality: Perspectives on gender, LGBT, and racial/ethnic identities. *Sex Roles*, 68(11–12), 639–645. <https://doi.org/10.1007/s11199-013-0283-2>
- Perez-Brumer, A., Day, J. K., Russell, S. T., & Hatzenbuehler, M. L. (2017). Prevalence and correlates of suicidal ideation among transgender youth in California: Findings from a representative, population-based sample of high school students. *Journal of the American Academy of Child and Adolescent Psychiatry*, 56(9), 739–746. <https://doi.org/10.1016/j.jaac.2017.06.010>
- Pinto, N., & Moleiro, C. (2015). Gender trajectories: Transsexual people coming to terms with their gender identities. *Professional Psychology: Research and Practice*, 46(1), 12–20. <https://doi.org/10.1037/a0036487>
- Preacher, K. J. (2019). Calculation for the Sobel test: An interactive calculation tool for mediation tests [Computer software]. <http://quantpsy.org/sobel/sobel.htm>.
- Rosario, M., Schrimshaw, E. W., & Hunter, J. (2008). Predicting different patterns of sexual identity development over time among lesbian, gay, and bisexual youths: A cluster analytic approach. *American Journal of Community Psychology*, 42(3–4), 266–282. <https://doi.org/10.1007/s10464-008-9207-7>
- Ryan, C., Huebner, D., Diaz, R. M., & Sanchez, J. (2009). Family rejection as a predictor of negative health outcomes in white and latino lesbian, gay, and bisexual young adults. *Pediatrics*, 123(1), 346–352. <https://doi.org/10.1542/peds.2007-3524>
- Ryan, C., Russell, S. T., Huebner, D., Diaz, R., & Sanchez, J. (2010). Family acceptance in adolescence and the health of LGBT young adults. *Journal of Child and Adolescent Psychiatric Nursing*, 23(4), 205–213. <https://doi.org/10.1111/j.1744-6171.2010.00246.x>
- Salerno, J.P., Williams, N.D., & Gattamorta, K.A. (2020). LGBTQ populations: Psychologically vulnerable communities in the COVID-19 pandemic. *Psychological Trauma: Theory, Research, Practice, and Policy*. 12(S1), S239–S242. <http://dx.doi.org/10.1037/tra0000837>

- Steinbach, A., Kuhnt, A. K., & Knüll, M. (2016). The prevalence of single parent families and stepfamilies in Europe: can the Hajnal line help us to describe regional patterns? *History Family*, 21, 578–595. <https://doi.org/10.1080/1081602X.2016.1224730>
- Watson, R. J., Grossman, A. H., & Russell, S. T. (2019). Sources of social support and mental health among LGB youth. *Youth and Society*, 51(1), 30–48. <https://doi.org/10.1177/0044118X16660110>
- Whitton, S. W., Dyar, C., Newcomb, M. E., & Mustanski, B. (2018). Romantic involvement: A protective factor for psychological health in racially-diverse young sexual minorities. *Journal of Abnormal Psychology*, 127(3), 265–275. <https://doi.org/10.1037/abn0000332>
- WHO Leaders' Statement. (2020, April 8). *Violence against children: A hidden crisis of the COVID-19 pandemic*. <https://www.end-violence.org/articles/leaders-call-action-protect-children-during-covid-19-now-7-languages>

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Appendix A. Items Measuring the Psychosocial Effects of the Confinement Situation for LGBTQ Individuals

Item	Likert-Scale and answer anchors
1. To what extent has the COVID-19 pandemic affected your life?	0 (<i>absolutely not affected</i>) to 10 (<i>totally affected</i>)
2. To what extent do you feel limited in carrying out your usual activities due to COVID-19 pandemic?	0 (<i>not limited</i>) to 10 (<i>totally limited</i>)
3. To what extent has the COVID-19 pandemic affected you emotionally?	0 (<i>not emotionally affected at all</i>) to 10 (<i>very emotionally affected</i>)
4. How afraid are you of becoming infected with COVID-19 in the future?	0 (<i>not emotionally affected at all</i>) to 10 (<i>very emotionally affected</i>)
5. How well do you think you are informed about the COVID-19 pandemic?	0 (<i>not afraid at all</i>) to 10 (<i>totally afraid</i>)
6. To what extent do you feel uncomfortable in your family in the current situation?	0 (<i>not uncomfortable at all</i>) to 10 (<i>totally uncomfortable</i>)
7. To what extent do you feel "suffocated" because you cannot express your LGBTQ identity with your family/the people you live with in the current situation of confinement?	0 (<i>not "suffocated" at all</i>) to 10 (<i>completely "suffocated"</i>)
8. If the people you currently live with are aware of your LGBTQ identity, in your view, how do they respond to this?	0 (<i>really badly</i>) to 10 (<i>really well</i>)
9. To what extent has the COVID-19 pandemic made you feel isolated from your heterosexual or cisgender friends?	0 (<i>not isolated at all</i>) to 10 (<i>extremely isolated</i>)
10. To what extent has the COVID-19 pandemic made you feel isolated from your LGBTQ friends?	0 (<i>not isolated at all</i>) to 10 (<i>extremely isolated</i>)
11. To what extent has the COVID-19 pandemic made you feel isolated from your partner? (If you are in a consensual polyamorous non-monogamous relationship please consider the question in the plural.)	0 (<i>not isolated at all</i>) to 10 (<i>extremely isolated</i>)