

Covid-19 and LGBT+ young people: social isolation and use of dating apps

Covid-19 e jovens LGBT+: isolamento social e uso de aplicativos de encontros


Covid-19 y jóvenes LGBT+: aislamiento social y uso de aplicaciones de encuentros

Covid-19 et jeunes LGBT+ : isolement social et utilisation des applications de rencontres

 10.5020/23590777.rs.v24i1.e13543

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Abstract

LGBT+ young people are especially vulnerable to distress. The objective of this study was to investigate the relationship between the perception of social isolation due to the COVID-19 pandemic and the use of dating apps by LGBT+ young people. It also aimed to understand the factors related to the use of these platforms and the perception of LGBT+ young people about social isolation. An online survey was carried out in Brazil with 816 LGBT+ young people aged between 18 and 32 years old. A questionnaire proposed by the authors was used to measure the impact of the COVID-19 pandemic on their lives, the perception of social isolation, and the use of dating apps and other related platforms. LGBT+ young people feel emotionally affected by social isolation, and there is evidence of significant family discomfort regarding their LGBT+ identity. The use of dating apps was not associated with a higher break in social isolation; their use was strongly characterized as a mechanism of social interaction. The study highlighted specificities of social isolation for LGBT+ young people, mainly related to their mental health. Furthermore, dating apps were presented as a tool for coping and social interaction.

Keywords: gender minorities, Covid-19, young people, dating apps, social isolation

Resumo

Os jovens LGBT+ são especialmente vulneráveis a distress. O objetivo deste estudo foi investigar a relação entre a percepção do isolamento social pela pandemia de Covid-19 e o uso de aplicativos de encontros por jovens LGBT+. Também objetivou compreender os fatores relacionados ao uso dessas plataformas e à percepção dos jovens LGBT+ sobre o isolamento social. Uma pesquisa online foi realizada no Brasil com 816 jovens LGBT+ com idades entre 18 e 32 anos. Um questionário, proposto pelos autores, foi usado para medir o impacto da pandemia da Covid-19 em suas vidas, a percepção de isolamento social e o uso de aplicativos de encontros e outras plataformas relacionadas. Os jovens LGBT+ sentem-se afetados emocionalmente pelo isolamento social e há evidências de um desconforto familiar significativo em relação à sua identidade LGBT+. O uso de aplicativos de namoro não se associou a maior quebra

do isolamento social, seu uso foi fortemente caracterizado como mecanismo de interação social. O estudo apontou especificidades do isolamento social para jovens LGBT+, principalmente relacionadas à sua saúde mental. Além disso, os aplicativos de namoro foram apresentados como uma ferramenta de enfrentamento e interação social.

Palavras-chave: minorias de gênero, Covid-19, jovens, aplicativos de encontro, isolamento social

Resumen

Los jóvenes LGBT+ son especialmente vulnerables emocionalmente. El objetivo de este estudio fue investigar la relación entre la percepción del aislamiento social por la pandemia de Covid-19 y el uso de aplicaciones de encuentros por jóvenes LGBT+. También objetivó comprender los factores relacionados al uso de estas plataformas y a la percepción de los jóvenes LGBT+ sobre el aislamiento social. Una investigación en línea fue realizada en Brasil con 816 jóvenes LGBT+ con edades entre 18 y 32 años. Un cuestionario, propuesto por los autores, fue utilizado para medir el impacto de la pandemia de Covid-19 en sus vidas, la percepción de aislamiento social y el uso de aplicaciones de encuentros y otras plataformas relacionadas. Los jóvenes LGBT+ se sienten afectados emocionalmente por el aislamiento social y hay evidencias de una incomodidad familiar significativa con relación a su identidad LGBT+. El uso de aplicaciones de citas en línea no se asoció a la mayor ruptura del aislamiento social, su uso fue fuertemente caracterizado como mecanismo de interacción social. El estudio indicó especificidades del aislamiento social para jóvenes LGBT+, principalmente relacionadas a la salud mental. Además de esto, las aplicaciones de citas en línea fueron presentadas como una herramienta de enfrentamiento e interacción social.

Palabras-clave: minorías de género, Covid-19, jóvenes, aplicaciones de encuentro, aislamiento social

Resumé

Les jeunes LGBT+ sont particulièrement vulnérables à la détresse. Le but de cette étude était d'étudier la relation entre la perception de l'isolement social par la pandémie de Covid-19 et l'utilisation des applications de rencontres par les jeunes LGBT+. Il visait également à comprendre les facteurs liés à l'utilisation de ces plateformes et la perception des jeunes LGBT+ sur l'isolement social. Une enquête en ligne a été menée au Brésil auprès de 816 jeunes LGBT+ âgés de 18 à 32 ans. Un questionnaire, proposé par les auteurs, a été utilisé pour mesurer l'impact de la pandémie de Covid-19 dans leur vie, la perception de l'isolement social et l'utilisation d'applications de rencontres et d'autres plateformes connexes. Les jeunes LGBT+ se sentent émotionnellement affectés par l'isolement social et il existe des preuves d'un inconfort familial important concernant leur identité LGBT+. L'utilisation d'applications de rencontres n'était pas associée à la plus grande rupture de l'isolement social, son utilisation était fortement caractérisée comme un mécanisme d'interaction sociale. L'étude a mis en évidence les spécificités de l'isolement social des jeunes LGBT+, principalement liées à leur santé mentale. De plus, les applications de rencontres ont été présentées comme un outil d'adaptation et d'interaction sociale.

Mots-clés : minorités de genre, covid-19, jeunesse, applications de rencontres, isolement social

Social isolation was one of the main health measures, so far, to contain the advance of Covid-19 (SARS-CoV-2) in the world. In Brazil, in March 2020, the Ministry of Health regulated the criteria for isolation and quarantine to avoid contamination by the virus (Ministério da Saúde, 2020a). By the beginning of July 2020, Brazil had accumulated approximately 1.448.000 cases and 60.600 deaths (Ministério da Saúde, 2020b). However, social distancing could also cause negative individual impacts related to mental health disorders, especially stress, anxiety, and depression (Pereira et al., 2020). It is known that some groups are especially vulnerable and, throughout their lives, have more often experienced situations of isolation, such as sexual minorities (Brennan et al., 2020). Social and political inequalities that pre-existed the pandemic already had a disproportionate impact on the lives of LGBT+ people. The determinations of social distancing could increase inequality, since reported rates of depression and substance abuse were already high and may become even more serious due to the context (Kline, 2020).

Social support network became especially important during this period. The social support of family, friends, and romantic partners experienced by LGBT+ people relate to a lower incidence of mental health disorders such as depression, suicide ideation and anxiety (Darwich et al., 2012; McDonald, 2018; Rosario et al., 2011). Moreover, this group suffers prejudice in multiple contexts, from health care to the family environment. Brazil's public health model has historically not effectively addressed the health of sexual minorities, in which discrimination still occurs frequently (Lima et al., 2016). Yet, the LGBT+ community is a population that tends to receive less family support and communication, important factors for the maintenance of self-esteem, directly related to better management of adverse life situations, contributing to the reduction of stress (Silva & Cerqueira-Santos, 2018). Regarding romantic relationships, men and women from sexual minorities are

less likely to marry or live with a partner (Gonzales & Ehrenfeld, 2018). In Brazil, same-sex marriage is still recent and faces difficulties by the legislative and executive branches to be guaranteed with greater equality (Coitinho & Rinaldi, 2018), as well as homoparental adoption which is still a rejected idea and surrounded by negative beliefs (Cerqueira-Santos & Santana, 2015). Thus, support networks that were already precarious for most LGBT+ people, became even more limited with the imposed isolation. The lack of support needed is related to lower levels of self-esteem and greater stress (Brooks et al., 2020; Kline, 2020).

It is observed that the most vulnerable LGBT+ people are those rejected by relatives, members of the community, and close friends (Duncan & Hatzenbuehler, 2014; Zervoulis et al., 2019). This vulnerability is caused, among other factors, by a lack of communication. The signs of lack of healthy communication in the family are manifested through low perceived social support, low self-esteem, and feelings of loneliness, factors that, added to the feeling of lack of opportunities in the real world, are related to the use of dating apps (DeHaan et al., 2013; Zervoulis et al., 2019).

Online partner search is popular among members of the LGBT+ community (Choi et al., 2016). A report published by Match Group – a company that owns relationship applications, including Tinder – pointed an increase in interaction between its users worldwide as a consequence of the Covid-19 social isolation (Match Group, 2020). The increase in the use of these platforms could have been a consequence of negative feelings amplified by social isolation in the LGBT+ community. It would also be related to the act of leaving home to obtain casual sex, despite the possibility of performing sexual practices online (Brennan et al., 2020; Souza et al., 2021). Indeed, some protection measures are being taken by those who are having casual sex during this period, such as avoiding kissing, bathing, and cleaning the environment before and after the sexual act. However, these strategies tend to not be effective to contain the infection by Covid-19 (Souza et al., 2021). Such exposure is a concern since LGBT+ people are already vulnerable due to emotional and psychological factors (Meyer, 2003). Members of the community could seek to make up for the lack of support through online chat, which could lead them to break the social distance and become vulnerable to the Covid-19 virus (Brennan et al., 2020; Souza et al., 2021).

Dating applications and related platforms can play a role in maintaining mental health at the present time. Their limited use has been related to the reduction of feelings of depression and loneliness and to a greater sense of belonging to the LGBT+ community (Hunt et al., 2018; Zervoulis et al., 2019). Only the act of sharing personal information in geolocation applications already has a relationship with lower levels of loneliness (Taylor et al., 2017), thus LGBT+ people do not use the applications only for casual sex or to find romantic partners, but also to find other friends in the community. The group of single gay men and single men who have sex with other men (MSM) deserves special attention, as they are the main users of this type of platform (Ciocca et al., 2020; Goedel & Duncan, 2015; McKay et al., 2020; Souza et al., 2021).

Based on this, this work aimed to investigate the relationship between the perception of social isolation and the use of dating apps and related platforms in LGBT+ youth. It also aimed to understand aspects related to the use of these platforms by LGBT+ youth and their experience during social isolation with their families and apart from friends.

Method

Sample

The sample was composed of 816 young LGBT+ individuals from Brazil aged from 18 to 32 years old, with an important concentration of participants under 20 years old at the time of the survey (25.9%). The criteria for inclusion in the sample were: being LGBT+, being between 18 and 32 years old, and agreeing with the research terms. The mean age of the respondents was 23.02 years ($SD = 3.98$). Most of the participants lived in urban areas (95.5%). Regarding ethnicity, most of the participants were whites (53.8%), followed by “*pardos*” (mixed-race) (27.9%), blacks (15.9%) and other identifications (2.3%). The majority of respondents had already completed high school (52.6%), with 45.0% having a college degree.

The students made up 39.0% of the sample, with a further 22.3% working and studying. Those who only worked added up to 23.1% and the unemployed to 14.1%. Other situations represented 1.5%. About how they were working and performing their duties during the pandemic outbreak, 55.9% were using the Internet, 10.8% were in person working/studying, 25.2% were with suspended activities and 8.1% preferred not to respond. Only 14.2% was part of a professional risk group (e. g. health professional) and 35.7% lived with someone who belongs to the Covid-19 risk group. Only 1.2% had received a positive diagnosis for Covid-19, but 13.6% said they were not sure, once they had symptoms but did not get tested. However, 23.4% had a relative or close friend who had already been infected by the virus; 19.5% were not sure.

Instruments

(a) Socio-identity questionnaire to investigate social aspects and participants’ identities. Questions relating to age, housing, sexual orientation, gender identity, the experience of social isolation, perception of family acceptance of LGBT+

identity, etc. This instrument was used in previous studies (e. g. Ramos et al., 2020; Silva & Cerqueira-Santos, 2018).

(b) Likert type questions ranging from 0 (*no agreement*) to 10 (*full agreement*) about perception on the Covid-19 pandemic and social isolation, listed in Table 1. It was developed for this study based on other studies: Brooks et al. (2020), Salerno et al. (2020), Pereira et al. (2020), and Wang et al. (2020). This instrument was also used in other studies, such as Gato et al. (2021).

(c) Questionnaire on the use of dating applications, regarding the intensity of use, practices associated with the use and list of applications used. The participants were asked if they used the dating apps, the frequency of use during social isolation, the average frequency of weekly use before social isolation, which platforms were used, and the objectives and achievements of use during social isolation.

Design

This research is part of the project “*Social Support Networks and Psychological Health among LGBT+ Young People during the COVID-19 Pandemic*”, the result of an international partnership with the University of Porto that included Brazil and five other countries in Europe and Latin America. Seven universities participated in the project and applied through an online platform a similar research protocol during the period of social isolation caused by the Covid-19 pandemic. Data production in Brazil took place between May 9 and 22, 2020, a period in which cases of Covid-19 in the country rose from around 155,000 to more than 330,000 and deaths from around 10,000 to more than 20,000 (Ministério da Saúde, 2020b). This moment is representative of the greatest mobilization of social isolation of the pandemic in Brazil. Social networks (Facebook, Instagram and Twitter) and the page of a research group were used for the dissemination of the research.

This study was approved by the ethics committee (CAAE 30192720.0.0000.5546) and followed the ethical principles that regulate the conduct of research with human beings, according to Brazilian resolutions. For the participants to answer the online questionnaire it was necessary to agree with the procedures and objectives of the research, informed through a Free and Informed Consent Term.

The data produced were added to the SPSS software, where the descriptive and inferential statistical analyses were performed: means, frequencies, t-test and chi-square test of independence. Independent sample t-tests were performed among the variables of the Covid-19 pandemic perception questionnaire and on social isolation and the following dichotomous variables: gender, being or not in social isolation, relationship status, being or not with the family during the social isolation, breaking the social isolation for love encounter and use of dating apps and related platforms. This last variable was also measured concerning age. Gender differences were also investigated about the frequency of use of applications. Also, a t-test of a sample between questions 5 and 6 (on how isolated they feel from their LGBT+ friends and non-LGBT+ friends) of the perception questionnaire about the Covid-19 pandemic and social isolation was conducted. The chi-squares were carried out between the use of dating apps and related platforms with the variables: gender, being in social isolation or not, relationship status, being with the family or not during the isolation and breaking the social isolation for love encounter. The association with gender, relationship status, and whether or not being with the family during the isolation was also investigated. Finally, it was verified if the evaluation of the amount of use in days of the relationship platforms was associated with the numerical data of this frequency. Cohen’s d, Phi coefficient and Cramer’s V were the indicators used to demonstrate effect sizes.

Results

The sample was composed of men (46.7%), women (52.1%) and intersexed individuals (1.2%). The cisgenders (91.8%) were the majority, accompanied by non-binary (4.7%), transgenders (3.1%) and other identifications (0.5%). Regarding sexual orientation, homosexuals (59.3%) and bisexuals (32.7%) were in greater number, with pansexuals (5.6%) and others (2.3%) being a minority. Only 46.8% were in a sexual affective relationship at the time of the survey.

Almost four-fifths of the participants declared themselves to be in social isolation (79.5%). Only 19.6% of the interviewees were not with family during this period of the pandemic, 70.3% already lived with the family and 10.0% did not, but because of the pandemic, they returned home. Almost all respondents felt emotionally affected by the Covid-19 pandemic (98.9%) to some degree and 93.9% felt isolated from their LGBT+ friends at some level during this period. These data are set out in Table 1, along with the other questions on the perception questionnaire about the Covid-19 pandemic and social isolation. The difference between the feeling of isolation in relation to friends showed differences between LGBT+ friends and non-LGBT+ friends, the average for the first group being significantly higher ($t = 4.671$; $p < 0.001$; Cohen’s $d = 0.16$).

Table 1*Mean and Concordance on Social Isolation and Covid-19*

	Average (SD)	Σ Concordance	Frequency in percent					
			Zero	1-2	3-4	5-6	7-8	9-10
1. How much has the Covid-19 pandemic affected your life?	7.67 (1.90)	99.5%	0.5%	1.4%	3.5%	14.9%	47.9%	32.0%
2. How limited do you feel about carrying out normal life activities due to the Covid-19 pandemic?	8.18 (1.93)	99.3%	0.7%	0.7%	3.2%	11.8%	33.2%	50.3%
3. How much did the Covid-19 pandemic affect you emotionally?	8.13 (2.12)	98.1%	1.1%	1.2%	3.3%	14.7%	25.4%	54.3%
4. To what extent do you feel uncomfortable in your family, in the current situation of social confinement? (For those who are with their family in Social Isolation) (<i>n</i> = 656)	5.74 (3.09)	91.5%	8.5%	9.6%	14.9%	19.2%	26.9%	20.7%
5. How much did the Covid-19 pandemic make you feel isolated from your heterosexual or cisgender friends?	6.64 (3.01)	93.1%	6.9%	5.9%	8.5%	20.0%	25.9%	32.9%
6. How much did the Covid-19 pandemic make you feel isolated from your LGBT+ friends?	7.13 (3.01)	93.9%	6.1%	4.5%	8.0%	14.1%	25.0%	42.3%
7. How much did the Covid-19 pandemic make you feel isolated from your boyfriend/girlfriend? (For those in a relationship) (<i>n</i> = 358)	6.16 (4.02)	77.5%	22.5%	3.2%	3.1%	8.4%	17.3%	39.3%
8. How much do you feel “suffocated” because you cannot express your LGBT+ identity with your family in the current situation of confinement? (For those with their family in Social Isolation) (<i>n</i> = 656)	5.82 (4.00)	76.4%	23.6%	5.1%	6.4%	12.1%	14.0%	38.7%
9. How afraid are you of being infected with the new coronavirus?	8.00 (2.48)	97.4%	2.6%	1.8%	5.2%	11.4%	26.0%	53.0%
10. How well do you think you are informed about the Covid-19 pandemic?	8.29 (1.54)	99.9%	0.1%	0.1%	1.7%	9.2%	41.4%	47.4%

Significant differences were found in the means of the perception questionnaire about the Covid-19 pandemic and social isolation in questions 3 and 10 (about affecting emotionally and being well informed) with respect to gender. Women felt more emotionally affected [Men = 7.71 (*SD* = 2.31); Women = 8.26 (*SD* = 1.87); $t = -5.241$; $p < 0.001$; Cohen's $d = 0.26$] and men felt better informed about the Covid-19 pandemic [Men = 8.43 (*SD* = 1.49); Women = 8.16 (*SD* = 1.57); $t = 2.511$; $p = 0.012$; Cohen's $d = 0.17$]. With respect to whether or not they are in isolation, there was a significant difference in questions 2 and 10 (about feeling limited and being well informed). Those who were in isolation felt more limited [$M_{\text{yes}} = 8.28$ (*SD* = 1.89); $M_{\text{not}} = 7.78$ (*SD* = 2.01), $t = -2.991$; $p = 0.003$; Cohen's $d = 0.25$] and considered themselves better informed [$M_{\text{yes}} = 8.36$ (*SD* = 1.42); $M_{\text{not}} = 8.02$ (*SD* = 1.92); $t = -2.141$; $p = 0.033$; Cohen's $d = 0.20$].

Regarding whether or not to be with the family during isolation, significant differences were found in questions 1, 4, 7 and 8 (which deal respectively with affecting life, feeling uncomfortable with the family, feeling isolated from the boyfriend or girlfriend and feeling “suffocated” by the family with regard to LGBT+ identity). Individuals who were not with the family felt more affected by the Covid-19 pandemic [$M_{\text{yes}} = 7.59$ (*SD* = 1.93); $M_{\text{not}} = 7.98$ (*SD* = 1.76); $t = 2.316$; $p = 0.021$; Cohen's $d = 0.21$]; those who were with the family in isolation felt more uncomfortable in the situation of social confinement [$M_{\text{yes}} = 5.74$ (*SD* = 3.09); $M_{\text{not}} = 4.34$ (*SD* = 3.32); $t = -5.044$; $p < 0.001$; Cohen's $d = 0.43$], felt more isolated from their boyfriends (among those in relationship) [$M_{\text{yes}} = 7.27$ (*SD* = 3.43); $M_{\text{not}} = 2.99$ (*SD* = 3.91); $t = -9.362$; $p < 0.001$; Cohen's $d = 1.16$] and felt more “suffocated” with respect to their LGBT+ identity within the family [$M_{\text{yes}} = 5.82$ (*SD* = 4.00); $M_{\text{not}} = 3.13$ (*SD* = 3.97); $t = -7.625$; $p < 0.001$; Cohen's $d = 0.67$].

In relation to those who were or were not in a relationship, there were significant differences between the groups in questions 1, 7 and 8 (about affecting life, feeling isolated from your partner and feeling “suffocated” in the family with regard to LGBT+ identity, respectively). Those in a relationship felt that life was more affected [$M_{yes} = 7.84$ ($SD = 1.75$); $M_{not} = 7.52$ ($SD = 2.01$); $t = -2.360$; $p = 0.019$; Cohen’s $d = 0.16$] and felt more isolated from their partner [$M_{yes} = 6.16$ ($SD = 4.02$); $M_{not} = 3.37$ ($SD = 4.19$); $t = -6.992$; $p < 0.001$; Cohen’s $d = 0.67$]. Those who were not in a relationship felt more “suffocated” regarding the expression of their LGBT+ identity within the family [$M_{yes} = 4.74$ ($SD = 4.24$); $M_{not} = 5.78$ ($SD = 3.98$); $t = 3.594$; $p < 0.001$; Cohen’s $d = 0.25$].

Dating and Relationship Apps

In all, 42.4% of the sample makes use ($n = 346$) of dating applications or related platforms. This use was associated with gender [$\chi^2(1) = 71.765$; $p < 0.001$] and whether or not they were in a relationship [$\chi^2(1) = 128.901$; $p < 0.001$]. Thus, men and those not in a relationship would be more associated with the use of the apps (Phi = 0.298; Phi = 0.397). Those who use it are 64.5% men and 76.3% people who are not in a relationship. Among those who do not use it, 63.8% are in a relationship and 65.6% are women.

Significant differences from the subjective perception questionnaire were found only in question 3, on how much the pandemic has affected emotionally. The group that did not use online platforms felt more affected [$M_{yes} = 7.87$ ($SD = 2.24$); $M_{not} = 8.32$ ($SD = 2.01$); $t = -2.945$; $p = 0.003$; Cohen’s $d = 0.21$]. Regarding the mean age of those who use and those who do not use the online apps, the group with significantly higher age was the main user [$M_{yes} = 23.41$ ($SD = 3.92$); $M_{not} = 22.74$ ($SD = 4.01$); $t = 2.369$; $p = 0.018$; Cohen’s $d = 0.16$].

Among those who identified themselves as users of these apps, men preferred to use: Tinder (82.9%), Grindr (78.8%), Hornet (25.7%), Scruff (24.3%), Bate Papo UOL (12.2%), Happn (6.3%), Badoo, (6.3%), “Par Perfeito” (1.4%) and 9 others that were mentioned in lower proportion. Women preferred to use: Tinder (94.3%), Happn (13.1%), Badoo (7.4%), Her (5.7%), Wapa (4.1%), Grindr (2.5%), Taimi (2.5%), Femme (1.6%), Bate Papo UOL (1.6%) and 6 others that were mentioned less frequently.

Regarding the number of days using these applications during the last week, men ($M = 2.79$; $SD = 2.47$) had a significantly higher mean use ($t = 4.904$; $p < 0.001$; Cohen’s $d = 0.49$) than women ($M = 1.69$; $SD = 1.95$). Regarding the mean number of days using in a week before social isolation, the difference was also significant [Men = 3.64 ($SD = 2.36$); Women = 1.88 ($SD = 1.84$); $t = 7.627$; $p < 0.001$; Cohen’s $d = 0.83$].

The decrease in use during the period of social isolation reported by respondents was significant ($t = -5.058$; $p < 0.001$; Cohen’s $d = 0.27$; $r = 0.507$; $p < 0.001$). They indicated that their use decreased in almost half of the cases (45.7%), remained constant at 29.8% and increased to 24.6%. Calculating these rankings based on the average days provided, 42.8% decreased use, 33.2% maintained and 24.0% increased. There was an association between the two classifications [$\chi^2(4) = 157.268$; $p < 0.001$; Cramer’s $V = 0.477$].

The goals of men in these applications during social isolation were distributed among: distraction (68.9%), conversation (59.9%), affective relationship (53.2%), casual sex (50.0%), friendship (48.6%), see photos (37.4%), masturbation (36.9%) and virtual sex (18.9%). Other responses totaled 0.9%. Among women the objectives were: talking (63.1%), distraction (62.3%), affective relationship (50.8%), friendship (50.8%), casual sex (29.5%), see photos (18.9%), masturbation (4.9%) and virtual sex (4.1%). The other responses totaled 0.9%.

Regarding what was achieved through the applications during social isolation, men responded: conversation (66.7%), distraction (63.1%), see photos (58.6%), casual sex (44.6%), masturbation (42.3%), friendship (41.0%), virtual sex (25.7%), affective relationship (14.4%). Other responses totaled only 0.9%. The outcomes achieved by women were: distraction (65.6%), conversation (63.1%), friendship (49.2%), see photos (36.9%), casual sex (21.3%), affective relationship (20.5%), virtual sex (9.0%), masturbation (6.6%) and kissing (1.6%).

Breaking the social isolation

Social isolation was broken up so that there would be some meeting with sexual partners by 26.7% of the participants. Specifically, among relationship application users, this number rises to 29.8%. However, no association was found between the variables [$\chi^2(1) = 2.860$; $p = 0.091$]. Men and women presented very similar frequencies, and there was no association between gender and breaking isolation for dating [$\chi^2(1) = 2.234$; $p = 0.135$]. The result was repeated regarding whether or not they were in isolation with the family [$\chi^2(1) = 1.097$; $p = 0.295$].

Associations with the rupture of isolation were found only for the variable “being in a relationship or not” [$\chi^2(1) = 24.075$; $p < 0.001$; Phi = 0.172]. Among those who have broken the isolation, 61.0% is in a relationship. On the other hand, among those who have not broken the isolation to have personal meetings, 58.4% is not in a relationship. Thus, those who are in a relationship were more associated with a chance of breaking isolation. Regarding the perception questionnaire

about Covid-19 and social isolation, only question 9, on how much are they afraid of being infected, presented significant differences in means regarding breaking or not breaking social isolation for dating [$M_{yes} = 7.66$ ($SD = 2.68$); $M_{not} = 8.13$ ($SD = 2.39$); $t = -2.299$; $p = 0.022$; Cohen's $d = 0.18$].

Discussion

This study presented results that are in line with other studies on Covid-19 in other countries. The social isolation rate of 79.5% was above the national average for the period (less than 50%) and similar results were found in a study developed in the United States, where in a sample of gay and bisexual men, 88% adopted the isolation strategy during a certain period of the pandemic (McKay et al., 2021). In the same sense were the data of men who have sex with men from Brazil and Portugal who responded to be in isolation, 71% and 74.6% respectively (Souza et al., 2021).

It is noteworthy that the group in social isolation feels significantly better informed about Covid-19 and more limited because of this context. The factors involved in this stance of isolation can be explained by the information people have about the scope and characteristics of the pandemic. A study that explored the impact of online information on individuals' intention to self-isolate found that those who use social networks perceive greater severity in the situation and achieve greater self-efficacy. Both constructs, severity and self-efficacy, positively impact the intention to self-isolate when compared to the group of people who do not use social networks as an information tool (Farooq et al., 2020). Although apps (applications, sites or relationship platforms) are not considered *a priori* as social networks, such as Facebook and Instagram, it is understood that the presence of the user in these applications contributes as an extension of their network of interpersonal relationships, which can impact the information they access and discuss (Higa et al., 2014).

The results presented show that women reported being more emotionally affected. This result may be associated with the stigma found when identifying oneself as lesbian and bisexual, which in life situations without a pandemic already point to greater suffering when compared to heterosexual women (Cochran et al., 2003). Susceptibility to subjective uneasiness arises from discrimination, especially when there is self-identification as lesbian or bisexual and exposure to others about this condition, from a heterosexist view (Kulkin, 2006). The data on the mental health of the general population show that women have worse indicators when compared to men, reinforcing that gender-based differences, on which Brazilian society is based, are one of the stressful effects for this part of the population (Read & Gorman, 2010).

The changes imposed by the Covid-19 pandemic, especially the social isolation, were highlighted as elements that affected the welfare of the population studied. In this context of isolation, being together with family members or not also showed significant results. The literature on the social support of the LGBT+ population points out the importance of the family as a protective element for members of this group (McConnell et al., 2015; 2016; Watson et al., 2016). Although the supporting role of the family is emphasized, it can be seen that: when this does not occur, it has a considerable negative impact on the well-being of the LGBT+ population (Higa et al., 2014; Puckett, Woodward et al., 2015).

In this sense, participants who were not with the family and felt more affected by the pandemic indicate that they perceived social support from the family group and, at the same time, considered themselves accepted in the family environment. Furthermore, the practical factors of not being with the family at this time must be considered, in many cases the financial pressure has increased and there are limitations to the division of responsibilities and tasks, or even the feeling of loneliness that can arise from being away from their bonds.

In contrast, the group of people who were living with their families were more uncomfortable about social isolation and felt more suffocated to express LGBT+ identity (an indicator of expression limitation). Possibly they find themselves in a family setting that can be considered with restricted social support concerning their identity. It is worrying that this is the largest group in the sample, around 80%. This serves as a warning both of the precarious situation of family acceptance experienced by these young people and of the possible negative outcomes for their mental health that may result from this prolonged experience of exposure to the problem (Pereira & Leal, 2005; Perucchi et al., 2014; Toledo & Teixeira, 2013).

As regards the association between being with the family and feeling more isolated from the boyfriend or girlfriend, attention must be paid to this, since some studies confirm the importance of affective relationships for the subjective well-being of the LGBT+ population (Grossman et al., 2000). Perhaps because of this, those who were in a relationship felt that they had the most affected life by the pandemic. The conditions of stigma and intrafamily discrimination can contribute in a unique way to the population studied, for example, difficulties in making video calls or other forms of interaction that express their identity to family members. However, having a relationship can play a protective role, since those who do not have one feel more suffocated regarding their LGBT+ identity.

The impact of social isolation on relations within the LGBT+ group is not restricted to interaction with boyfriends. The role of friendships as a source of social support deserves substantial attention, which the literature in this area confirms as an element of support for group members (Frost et al., 2016). In the context of isolation, specifically in environments where LGBT+ identification behavior is restricted due to family constraints, this contact with friends can be affected when they are also identified as LGBT+. The problem is flagrant in cases where there is greater experimentation with gender, such

as in effeminate men or people in gender transition (e.g. Ramos et al., 2020). In this sample, participants felt significantly more isolated from their LGBT+ friends than from their non-LGBT+ friends, which may impact the support network and well-being of this population (Frost & Meyer, 2012; Kertzner et al., 2009; Puckett, Levitt et al., 2015). Considering that this support is done through platforms that preserve user intimacy, such as social networks or other text chat apps, this may be an alternative that future research would need to evaluate.

As already pointed out by other research, being men and single were associated with the use of dating apps in this sample (Ciocca et al., 2020; Goedel & Duncan, 2015; McKay et al., 2020; Souza et al., 2021). Some data provided by dating application companies report the increased use of apps and a larger amount of messages sent during the pandemic period (Brennan et al., 2020). Considering this context of social isolation conditioned by the pandemic, the use of dating apps may play the role of a tool to face the difficulties imposed by the moment. In this sense, the results indicate that people who did not use dating apps during the social isolation period registered higher emotional difficulties when compared to the group of participants who had used the apps.

The use of dating applications as a coping strategy suggests a broader range of uses and effects of these apps on users' lives. Although in the social imaginary these apps are described as instruments that only aim at facilitating the establishment of sexual relations (Duguay, 2016; Timmermans & Courtouis, 2018). Specifically, the use of dating apps can serve as liberation tools for those who feel oppressed or are sensitive to rejection (Hance et al., 2017). Also, there is evidence of the importance of these apps in situations such as social isolation with the presence of family members, so that people can create a space for the expression of their identity without the interlocution with those who surround it.

Based on the understanding of dating apps as an element that helps in mental health as a social support tool for a portion of the research participants, it is necessary to verify the characteristics that support this usability. The data indicate that men not only represent the largest number of users but are also those who devote the most time to the use of these applications. In this sample, there was a difference in the mean number of days of use per week during isolation and before the pandemic for both men and women, with men again being the most frequent users. However, as the participants themselves responded, there was a decrease in use, demonstrating that social isolation caused interference on this dynamic. On the one hand, users may find it more difficult to use due to lack of privacy at home. In addition, use may have lost meaning also due to limitations imposed by the dynamics of isolation: not being able to meet, not having a place for intimate or public meetings, difficulty to justify leaving home for family members etc.

A previous study related to the Grindr app showed that the group of MSM use the application according to six needs: social inclusion/approval, sex, friendship/network, romantic relations, entertainment, and location-based research (Van de Wiele & Tong, 2014). Among the findings of this same study, it is noteworthy that men belonging to small urban areas used the app intending to expand their social network, while those living in larger areas sought more often for sexual relations. Another point shown by Van de Wiele and Tong (2014) was that the expansion of social interactions is marked by identity disclosure on the app profile, which would serve as a modulator mechanism of trust among peers. These two variables, geolocation and shared information were not addressed in this study and indicate the way to further understand the characteristics of relationships through these applications.

To understand how the apps are collaborating with the mental health of the participants, it is necessary to find out what purposes of use are declared by the users. According to the results found, there is a predominance of distraction search and conversations, these being the two most frequent answers for both men and women. Although these data are not what is present in the social imaginary – which glimpses the search for casual sex as the main motivation for the use of dating applications (Duguay, 2016) – they end up corroborating previous studies that link the use of applications for this purpose and not only the search for casual sex partners or long-term relationships (McKay et al., 2020; Van de Wiele & Tong, 2014). Casual sex appears for men as the fourth and for women as the fifth reason, but with much lower adherence. In general, men showed greater engagement in the possibilities than women. Virtual sex, for example, which was the least frequent response among the purposes of use, is targeted by 18.9% of men and only 4.1% of women. But it is evident the role that the purposes, *a priori*, as friendship, conversation and distraction have for both groups. The focus given by respondents may be affected by their condition of social isolation, so the strategy of changing the search profile for non-sexual or long-term relationship-based interactions may reveal a side effect due to changing environment and without prior planning.

In line with what the sample aims at through the apps, the achievements from them during the pandemic also had the distraction and conversations as the most frequent results among these young people. However, there were striking differences between what was aimed at and what was accomplished during that period. For example, there was an increase in the option of viewing photos and a decrease in affective relationships.

The low frequency of isolation breakdown among users of these platforms (29.8%) helps to certify the intention to use the apps for activities outside the strict realm of sexual relations, or at least the choice to postpone these meetings to a safer time. Although the intention was beyond sex, it is noted that men responded to have established casual sex (44.6%) due to apps, in line with the survey of another Brazilian and Portuguese sample, specifically of MSM, which revealed that 53% of participants had had casual sex during the isolation period (Souza et al., 2021). In another study, conducted in the

United States, it was noted a decrease in the number of partners of MSM during the pandemic and the adoption of new strategies for having sex such as the use of virtual media (McKay et al., 2020). In the present sample, 25.7% of men and 9.0% of women had already practiced virtual sex, from the dating apps, at the time of the survey.

Unlike what happened with the use of apps, the break from social isolation did not differ between men and women. Nor did it differ concerning whether or not they were with the family during the period. However, those in a relationship broke social isolation significantly more. This raises the hypothesis that relationships can stimulate inconsistency in social isolation, perhaps young people feel more secure in breaking social isolation with someone from a previous coexistence. However, this is not confirmed by the recommendations of health protocols. Even those participants who did not break up were more afraid of being infected.

Final considerations

The challenges of going through social isolation as a result of the Covid-19 pandemic demonstrate some specificities when it comes to the LGBT+ population due to the historical vulnerabilities linked to this group. The stigma and social discrimination that are associated with the greatest number of cases of depression, anxiety and post-traumatic stress in this population are some of the indicators that demonstrate the need to carry out studies and public policies specifically aimed at this group (Hatzenbuehler, 2010; 2014; 2017). Yet, prejudice is considered a variable in this population's withdrawal from health and social care services.

The sample is composed mostly (91.8%) of cisgender individuals. According to studies in the field of stigma and discrimination, the transgender population has higher rates of substance abuse, stigma and harassment when compared to cisgenders (Gamarel et al., 2014; Hughto et al., 2015). Thus, these data indicate that the population reached in the course of the survey is within a vulnerable group, as far as the large LGBT+ group is concerned but does not represent that part which is consistent with those most affected by the stigmatization process (Hughto et al., 2015).

The results found in this research are associated with the time in which the research was carried out, approximately two months after the beginning of social isolation in Brazil. Monitoring these variables over a longer period could demonstrate changes in both the adoption of social isolation and the use of social networks. The regularity of data collection in this pandemic context, covering different moments or phases of isolation, would enrich knowledge about the effect of dating apps on the LGBT+ population.

Future studies should investigate the role of these applications in social support in contexts with and without social isolation. Moreover, it is important to understand other communication mechanisms, such as social networks, and the adaptations used by the LGBT+ community in the context of family social isolation. Experiences of family homophobia during the pandemic must be explored through research to enable understanding of this phenomenon. This study has shown that the use of applications by LGBT+ youth during social isolation can be a protective tool, with the maintenance of social networks. The break from isolation to dating via applications was not strongly associated, which reduces the idea that socially isolated young people would tend to succumb to the calls of sexual affective encounters via the Internet.

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Acknowledgments

This work was possible thanks to the granting of scholarships by CAPES. We thank the participants who donated their time to answer the questionnaire and Dr. Jorge Gato (University of Porto) for their contributions.

Como Citar:

Ramos, M. M., Cerqueira-Santos, E., Machado, R. O., & Passos, G. F. (2024). Covid-19 and LGBT+ young people: social isolation and use of dating apps. *Revista Subjetividades*, 24(1), e13543. <https://doi.org/10.5020/23590777.rs.v24i1.e13543>

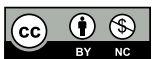
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Recebido: 22/02/2022
Revisado: 28/05/2023
Aceito: 17/06/2023
Publicado: 14/03/2024