

Mental Health and Post-Pandemic: Anxiety, Depression, and Social Support in the Adult Population of Argentina in the Post-COVID Era

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Abstract

Purposes

Studies report significant increases in anxiety during the pandemic. In Argentina, after thirteen months of the pandemic being declared, significant increases in anxiety and depression indicators were still being recorded. Considering that there is evidence about the relationship between perceived social support and mental health, this factor could mediate the relationship between negative pandemic experiences, anxiety, and depression. Therefore, the testing of two mediation models is proposed: one between negative experiences of the pandemic and depression, mediated by social support, and another for the relationship between these experiences and anxiety, also mediated by social support.

Methodology: The sample consisted of 664 adults from different cities in Argentina. The Pandemic Impact Questionnaire CAIR (C-PIQ), State-Trait Anxiety Inventory (STAI), Beck Depression Inventory (BDI-2), and the Multidimensional Scale of Perceived Social Support (MSPSS) were administered.

Results: Two mediation models were tested, which reported that negative pandemic experiences were indirectly associated with anxiety and depression through social support, which functioned as a mediating variable.

Conclusions: This empirical investigation contributes to the evidence of the potential buffering effect of social support on depressive symptoms and anxiety. Findings of this kind highlight the potential of social support to be considered in the framework of assistance and prevention interventions.

1. INTRODUCTION

On March 12, 2020, the World Health Organization (WHO) [1] declared COVID-19, a disease caused by a new coronavirus (SARS-CoV-2), as a pandemic. Quickly, the disease spread worldwide, reaching more than 775 million confirmed cases and over 7 million deaths [1]. On March 3, 2020, the first case of COVID-19 was confirmed in Argentina, leading to the governmental declaration of a mandatory social, preventive, and compulsory isolation [2]. In addition to the profound crisis on public health systems and global economies generated by this phenomenon, numerous studies began reporting that the implemented measures could also have negative effects on the population's mental health [3].

Research on the impact of the COVID-19 pandemic on mental health, both in the Argentine population and in other countries revealed an alarming increase in psychopathological indicators of anxiety and depression. Pioneering research conducted in China between January 31 and February 2, 2020 [4] aimed to evaluate the psychological impact as well as levels of anxiety, depression, and stress during the early stages of the COVID-19 outbreak in the general population. This study identified that approximately 16% of participants showed symptoms of moderate to severe depression, while around 28% reported moderate to severe levels of anxiety. It is noteworthy that over 80% of respondents were under almost strict quarantine at that time. Furthermore, a systematic review [5] regarding the prevalence of major

depressive disorder during the COVID-19 pandemic, which included studies published in 2020 up to January 2021, recorded a substantial increase in the prevalence of major depressive disorder and anxiety indicators as a result of the COVID-19 pandemic.

In Argentina, a longitudinal federal study [6] was conducted, examining levels of anxiety and depression at five different time points (March, May, April, August 2020, and April 2021) since the beginning of the pandemic. The results indicated significant increases in anxiety levels from the second measurement to the fifth. Regarding depression, a significant increase was recorded from the second to the third measurement, and again in the fifth. It is worth noting that similar studies conducted in other countries have shown a decrease in anxiety and depression indicators after a certain period of time. However, in Argentina, even after 13 months, anxiety and depression levels continued to increase significantly, particularly among women, young adults, and individuals with low socioeconomic status. The presented research suggests that the severity of psychopathological indicators may worsen and persist in the medium and long term due to stressors associated with the COVID-19 pandemic context, such as fear of contagion, frustration, boredom, and financial problems, among others [7].

On the other hand, since the onset of the COVID-19 pandemic, studies have shown a relevant negative correlation between perceived social support and scores on depression and anxiety scales [8–11], highlighting the importance of investigating the effect of social support on depression and anxiety indicators [12] in the current context.

Social support is understood as emotional, instrumental, or other types of assistance that come from a specific social network and foster a series of activities associated with health promotion and care [13]. It presents itself as a heterogeneous and multidimensional construct. Therefore, addressing it requires an integrative theoretical perspective that includes structural, functional, and relational aspects, as well as perceptions, cognitions, and subjective states. Structural, functional, and relational aspects refer to received social support, which refers to the objective evaluation of social connections and their functioning [14], that is, the investigation of support networks. Two types of networks can be distinguished: formal and informal. The former are formed as a product of interactions in groups, organizations, social centers, etc., with formal characteristics. Meanwhile, informal networks refer to those formed by groups of family members, friends, and other significant individuals [15].

On the other hand, aspects related to perceptions, cognitions, and subjective states refer to perceived social support, which refers to the subjective assessment of the availability and resources offered by social networks [14]. These resources can be material, instrumental, and/or psychological in nature. Perceived social support also includes the degree of adequacy of the support received and the level of satisfaction it provides [10]. Furthermore, the relationship between mental health and social support is significantly stronger when it comes to perceived social support [10].

A recent systematic review [12] reported that decreased perceived social support could represent a predictive factor for anxiety and depression levels. Similarly, Santini et al. [16] reported that perceived social support plays a protective role against depression in the general population. The authors even

assert that there is a considerable amount of high-quality studies indicating a causal relationship between perceived social support and depression. Along the same lines, it has been reported that patients with persistent symptoms of depression and moderate recovery exhibited lower perceived social support than those with rapid recovery or complete or partial remission [17–18].

There is a significant body of evidence that has deepened the relationship between social support and mental health. Kim and Suh [19] tested a mediation model for the effects of insomnia on depression through social support. The model showed a significant indirect effect, providing evidence of the mediating effect of social support in the relationship between insomnia and depression. On the other hand, Chen et al. [20] established a model where pain impacts the development of depression, mediated by social support, tested in a sample of older adults residing in homes. The results indicate that those with higher levels of pain and lower perception of social support tend to develop higher levels of depression.

Since the onset of the COVID-19 pandemic to the present day, studies have shown a significant negative correlation between perceived social support and scores on depression and anxiety scales [8–11]. Additionally, a recent study by Mahamid et al. [21] has reported the mediating effect of social support between a pandemic-associated variable (fear of COVID-19) and levels of anxiety and depression, with significant indirect effects. Negative experiences arising from the pandemic context could drive isolation behaviors that affect social contacts. Furthermore, instrumental social support is associated with adaptive coping strategies that allow individuals to deal with adverse situations. Therefore, it could be inferred that those who experience greater negative experiences due to the pandemic (e.g., fear of contagion, isolation from loved ones, concern for the health of loved ones, etc.) and lower levels of social support are more likely to develop symptoms of anxiety and depression.

Based on these findings, and considering that the measures employed to combat the pandemic could impact social support by involving isolation and distancing, the testing of two mediation models is proposed. These models suggest that perceived social support mediates the association between negative pandemic experiences and levels of anxiety and depression. Although studies associating social support with mental health in the pandemic context have been conducted in Latin American countries [8, 11] no research proposing mediation models has been found. The exploration of such models allows for an investigation into the limits and scope of social support to be used as a tool in the framework of assistance and prevention interventions, at both social and individual levels.

2. METHODS

2.1. Participants:

For the present study, a sample composed of 664 adults from different cities in Argentina (mean age = 40.63; SD = 13.34; statistical minimum = 18; statistical maximum = 80; Female = 83.7%; Male = 15.1%) was used.

2.2. Procedure:

Participants were contacted via social media and assessed remotely using a snowball sampling method. The different surveys were uploaded to Google Forms and disseminated through social networks using a snowball sampling procedure. The State-Trait Anxiety Inventory (STAI) and Beck Depression Inventory-II (BDI-II) questionnaires were administered, along with a brief questionnaire on socio-economic and demographic data. Additionally, a scale to assess negative experiences of the pandemic (C-PIQ) and a questionnaire to evaluate perceived social support (MSPSS) were also administered.

2.3. Evaluation instruments:

2.3.1. Negative Pandemic Experiences: The Pandemic Impact Questionnaire CAIR (C-PIQ) [23] was administered. The C-PIQ is a 28-item questionnaire that assesses the response to the COVID-19 pandemic in terms of its impact on mental health, growth, and exposure to stressors, either directly or through someone close. The survey is an adaptation of the Coronavirus Health Impact Survey (CRISIS) volume 2.0, the Checklist of Life Events, and the five dimensions of the Posttraumatic Growth Inventory [24]. The questionnaire is divided into two subscales: exposure and impact on mental health. The exposure subscale consists of eight dichotomous response items (yes-no) that assess whether the respondent was exposed to different stressors generated by the pandemic. On the other hand, the impact on mental health subscale consists of six Likert-type response items. It evaluates the impact of the pandemic on mental health (concerns, changes, negative emotions, and sleep). For the purposes of this study, the exposure subscale was used.

2.3.2. Anxiety: The Argentine adaptation [25] of the State-Trait Anxiety Inventory (STAI) by Spielberger, Gorsuch, and Lushene [26–27] was used to measure anxiety. It has two self-assessment scales to measure two independent concepts of anxiety: state and trait. For the present study, the state scale was used. Both the state and trait scales have 20 items, which are scored on a Likert-type scale with four response options (from 0–3). In the Argentine adaptation of the STAI, the Cronbach's alpha coefficient was equal to .90.

2.3.3. Depression: The Argentine version [28] of the Beck Depression Inventory-II (BDI-II) [29] was administered, a self-report instrument consisting of 21 items designed to assess the severity of depressive symptoms in adults and adolescents. The individual has to choose among a set of four alternatives, ordered from least to most severity, the phrase that best describes their state during the last two weeks, including the day they complete the instrument. Each item is scored from 0 to 3 points depending on the chosen alternative, and after summing the score of each item directly, a total score ranging from 0 to 63 can be obtained. The inventory typically demonstrates high reliability (α between .83 and .95) [30] and validity [31–32].

2.3.4. Social Support: The Spanish version [33] of the Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet, Dahlem, Zimet, and Farley [34] was used. It consists of 12 items that gather information about the social support perceived by individuals in three areas: family, friends, and significant others. Its response scale corresponds to a four-point Likert scale.

2.3.5. Socio-demographic Characteristics: Closed-ended questions were used to explore gender, age, number of children, educational level, and the level of economic impact due to the pandemic.

2.4. Data analysis

The analyses were conducted using IBM SPSS 25 for Windows, with a significance level set at $p < .05$. Descriptive statistics were calculated for socio-economic, demographic characteristics, and for all variables reported in the assessment instruments section. Descriptive statistics were obtained for continuous variables and percentages for categorical variables. The normality of the dependent variables was checked using skewness and kurtosis analysis (values between ± 2 points were considered acceptable limits for normality) [35]. Associations between study variables were initially investigated using Pearson's bivariate correlation analysis.

Subsequently, unadjusted linear regression models were executed, using pandemic-related negative experiences and social support as predictors of anxiety and depression. Then, two hierarchical regression analysis models were conducted to examine whether pandemic-related negative experiences and social support predict anxiety and depression. To limit the number of covariates included in these models, potential covariates were evaluated in preliminary correlational analyses. Variables that correlated with anxiety and depression scale scores with a $p < .05$ were included as covariates in the model, for which they were transformed into dummy variables. In both models, predictors were gradually forced into regression in the following steps: in the first step of the model, covariates were included; in the second step, pandemic-related negative experiences were added; and finally, in the third step, social support was added to the model.

Finally, based on the results yielded by the hierarchical linear regression analyses, mediation models (Model 4) were estimated using PROCESS [36]. In these models, pandemic-related negative experiences were the independent variable, social support was the mediator, and anxiety/depression were the dependent variables, as appropriate. Covariates that showed a significant association in the previous regression models were introduced into the models. A bootstrapping procedure with 10,000 resamples was used to evaluate the indirect effect. This procedure creates accelerated and bias-corrected 95% confidence intervals (95% CI) for the indirect effects, which are considered significant when zero is not contained in both the upper and lower CIs.

3. RESULTS

3.1. Sample Characteristics and Descriptive Statistics

Descriptive statistics for each administered instrument show a mean (M) of 8.44 and standard deviation (SD) of 2.71 for the CPIQ, a M of 36.13 and SD of 8.77 for the BDI-II, a M of 12.09 and SD of 9.67 for the STAI, and a M of 22.74 and SD of 10.85 for the MSPSS. The outcome variables exhibited values

considered normal in terms of skewness and kurtosis: depression ($Sk = 1.12$; $Ku = 1.14$) and anxiety ($Sk = 0.52$; $Ku = -0.18$)."

On the other hand, the percentages of qualitative results for each of the BDI-II and STAI scores shows that 12.5% of the sample records clinically significant indicators of moderate depression and 7.5% severe, while 6.9% manifested clinically significant anxiety. Regarding the MSPSS scores, the results indicate that 55.9% of the sample reports high social support.

3.2. Pearson Correlations between Pandemic Negative Experiences, Social Support, and Psychopathological Indicators of Anxiety and Depression

In the Pearson correlation analyses, pandemic negative experiences showed a mild positive correlation with both anxiety ($r = .266$) and depression ($r = .266$). On the other hand, social support correlated negatively and moderately with both depression ($r = -.445$) and anxiety ($r = -.451$). All correlations are significant at the $p < .01$ level and can be observed in Table 1. Regarding the covariates, the following exhibited an association of $p < .05$ with depression and were thus included as covariates in all analyses: age, educational level, number of children, and quarantine-related income variation. For anxiety, quarantine-related income variation was included.

Table 1

Correlations between Pandemic Negative Experiences, Social Support, Anxiety, and Depression

Variable	Pandemic Negative Experiences (CPIQ)	Social Support (MSPSS)
Depression (BDI-II)	.266**	– .445**
Anxiety (STAI)	.254**	– .451**
Social Support (MSPSS)	– .118**	1

"Table 1 [about here](#)"

3.3. Associations between Pandemic Negative Experiences, Social Support, and Depression

The results of unadjusted linear regression analyses shows that depression levels are predicted by pandemic negative ($\beta = -.266$; $p < .01$) and social support ($\beta = -.491$, $p < .01$). Table 2 displays the results of hierarchical regression analysis (adjusted for covariates) for pandemic negative experiences and social support in relation to depression. The latter is positively predicted by pandemic negative experiences ($\beta = .253$, $p < .01$), and the proposed model (step 2) explains 9.5% of the variance ($R^2_{adjust} = .095$, $p < .01$). It is observed in the subsequent step that depression is negatively predicted by social support ($\beta = -.430$, $p < .01$). The tested model (step 3) explains 27.3% of the variance ($R^2_{adjust} = .273$, $p < .01$).

Table 2
Adjusted Hierarchical Regression Analysis for Pandemic Negative Experiences and Social Support; with Depression and Anxiety

	Depression (BDI-II)				Anxiety (STAI)			
	R^2	R^2_{ajust}	B	β	R^2	R^2_{ajust}	B	β
Step 1	.045**	.039**			.008*	.007*		
Age			-.077*	-.106*				
Educational Level			-1.771*	-.086*				
Children			-.863	-.044				
Income Variation			1.949*	0.099*			2.017*	.092*
Step 2/step 1	.097**	.090**			.066**	.063**		
Age			-.053	-.073				
Educational Level			-1.845*	-0.090*				
Children			-1.084	-0.053				
Income Variation			1.120	0.057			.958	.044
Experiences COVID-19 (CPIQ)			.848**	.234**			.994**	.245**
Step 3/ step 2	.273**	.266**			.249**	.245**		
Age			-.085**	-.117**				
Educational Level			-.850	-.042				
Children			-1.050	-.054				
Income Variation			1.304	0.066			1.097	.050
Experiences COVID-19			.662**	.183**			.805**	.199**
Social Support (MSPSS)			-.477**	-.426**			-.538**	-.429**
**p < .01								

3.4. Associations between Pandemic Negative Experiences, Social Support, and Anxiety

The results of unadjusted linear regression analyses shows that anxiety levels are predicted by pandemic negative ($\beta = -.254 ; p < .01$) and social support ($\beta = -.451, p < .01$). Table 2 displays the results of hierarchical regression analysis for pandemic negative experiences and social support in relation to anxiety. The latter is positively predicted by pandemic negative experiences ($\beta = .254, p < .01$), and the proposed model (step 1) explains 6.3% of the variance ($R^2_{adjust} = .063, p < .01$). It is observed in the subsequent step that anxiety is negatively predicted by social support ($\beta = -.427, p < .01$). The tested model (step 2) explains 24.2% of the variance ($R^2_{adjust} = .242, p < .01$).

"Table 2 about here"

3.5. Mediation models

Based on the results obtained from the hierarchical linear regression analyses, the following mediation models were tested:

3.5.1. *Model A*: In this model, pandemic negative experiences were the independent variable, social support was the mediator, and depression was the dependent variable. As depicted in Fig. 1, pandemic negative experiences were significantly and negatively associated with levels of social support ($\beta = -.419, p < .05$). Social support was significantly and negatively associated with depression ($\beta = -.477, p < .05$). The proposed model explains 26.97% of the variance. Pandemic negative experiences were positively associated with levels of depression ($\beta = .683, p < .05$). A significant indirect mediation effect was recorded between pandemic negative experiences, social support, and depression ($\beta = .199, CI = 0.073/0.330$) (Table 3).

Table 3
Mediation model for Pandemic Negative Experiences and Social Support; with Depression. Mediation model for Pandemic Negative Experiences and Social Support; with Anxiety

Model A	B	DE	p	95% IC
Total Effect	.883	.134	.001	.620/1.146
Direct Effect	.708	.120	.001	.472/.945
Indirect Effect	.189	.064	.001	.068/.320
Model B	B	DE	p	95% IC
Total Effect	1.015	.150	.001	.720/1.310
Direct Effect	.813	.136	.001	.545/1.081
Indirect Effect	.202	.069	.001	.069/.343

"Table 3 about here"

Model B

In this model, negative experiences due to the pandemic were the independent variable, social support the mediator, and anxiety the dependent variable. As shown in Fig. 2, pandemic negative experiences were significantly and negatively associated with levels of social support ($\beta = -0.382, p < .05$), and together with the covariate, explained 1.18% of the variance. Social support was significantly and negatively associated with anxiety ($\beta = -0.582, p < .05$), explaining 24.41% of the variance. Pandemic negative experiences were positively associated with depression levels ($\beta = .813, p < .05$). A significant indirect mediation effect was recorded between pandemic negative experiences, social support, and depression ($\beta = 0.202, CI = 0.049/0.331$) (Table 3).

"Table 3 [about here](#)"

4. DISCUSSION

The main objective of the present study was to evaluate the relationship between social support, psychopathological symptoms, and negative pandemic experiences in adults two years after the onset of the COVID-19 pandemic (April 2022). Initially, correlation and regression analyses indicate that negative pandemic experiences are positively, weakly, and significantly related to levels of anxiety and depression. This suggests that as negative pandemic experiences increase, levels of depression and anxiety also rise. The results presented here complement those reported in research conducted before and during the pandemic [5–6, 37–38]. A study in China during the early outbreak of COVID-19 in 2020 [4] found that a significant portion of the population exhibited indicators of depression and anxiety. Subsequently, research in various countries [5] revealed a widespread increase in depression levels. In Argentina, a longitudinal study [6] demonstrated a steady increase in depression levels since the onset of the pandemic, especially among women, young adults, and individuals from low-income backgrounds. Unlike other places where depression indicators tended to decrease over time, in Argentina, the increase persisted even after more than a year since the onset of the pandemic.

Among the negative pandemic experiences identified here are contracting COVID-19, job loss, and the loss of a loved one. Studies have been found that delve into the relationship between these stressful events and mental health, and their results are consistent with and could explain the findings presented here [39–43]. In line with this, the study conducted by Oginni et al. [44] reported that certain events (testing positive for COVID-19, experiencing COVID-19 symptoms, self-isolating due to COVID-19 symptoms, having other medical conditions that increase risk, worry about getting infected, and perception of the possible impact of the situation on income) were significantly associated with higher levels of anxiety and depression.

Regarding social support and pandemic-related experiences, the association is negative and significant but even weaker than the previous one, meaning that as more pandemic-related negative experiences are reported, levels of social support decrease in a proportion that could be considered small. These results align with those from studies focusing on the impact of the COVID-19 pandemic on levels of

social support. Among them, the study by Cugmas et al. [45] conducted on a sample of older adults showed an increase of over 7% in individuals without any type of social support. Furthermore, more than 50% of the sample demonstrates significant social support; however, a relatively large proportion of the sample reports a negative impact on their support networks due to isolation. On the other hand, [46] reported that the perception of social support decreased in those individuals who had to endure confinement in their homes alone. The impact of the pandemic on social support networks seems to have been heterogeneous. While some people report no changes in their social networks due to the use of new forms of contact, others experience a significant impact due to isolation measures and deaths caused by COVID-19 [47]. These non-convergent results could explain the weakness in the association evidenced in the present study between pandemic-related negative experiences and social support.

The association between social support and levels of anxiety and depression was negative, moderate, and significant, indicating that higher perceived support is associated with lower levels of anxiety and depression. In a second instance, hierarchical regression models adjusted for covariates indicated that pandemic-related negative experiences and social support predict levels of anxiety and depression. The predictive capacity is higher for social support, and the models explain 27% of the variance for depression and 24% for anxiety. The results presented here provide evidence supporting the theory of the buffering effect that social support has on mental health [48]. According to this theory, social support prevents individuals from perceiving a situation as stressful, due to the security it provides by having various material and emotional resources at their disposal. A second postulate of this theory indicates that social support allows individuals exposed to stressors to redefine the stressful situation and cope with it through adaptive strategies and/or inhibit the psychopathological processes (such as anxiety and depression) that can occur in the absence of social support. The evidence from the present study is consistent with findings from other research [12, 49]. Among them, a recent systematic review [12] reported that decreased perceived social support would be a predictive factor for anxiety levels. The authors record results indicating that low perceived social support is associated with worse outcomes in terms of symptoms, recovery, and functioning. Regarding the buffering effect in the context of a pandemic, a systematic review [50] suggests that in the studies reviewed, there is a significant and weak association between social support, depression, and anxiety. Specifically, a study conducted on a sample of university students reported that high levels of social support (perceived as received) were associated with high levels of mental health during the pandemic [49]. Furthermore, another study with similar characteristics [51] found that social support negatively predicts anxiety levels through mediating variables such as self-esteem and resilience.

Finally, in a last step to evaluate the relationship between social support, psychopathological symptoms, and pandemic-related negative experiences in adults two years after the onset of the COVID-19 pandemic, mediation models were proposed and tested. These models posit the effect of pandemic-related negative experiences on depression/anxiety, mediated by social support. Both models yield significant indirect effects, indicating that the effect of pandemic-related negative experiences on levels of anxiety and depression could occur through social support. These results add to other developments made in the same line. Since the beginning of the pandemic, some mediation models have been

proposed where social support is the mediating variable with interesting results [21, 52–54]. Similar to the model presented here is a study conducted with a sample of healthcare workers [55], where it was found that social support mediates the relationship between pandemic-related work stress and levels of depression. The authors highlight that although the indirect effect is significant, social support only mediates 6.9% of the impact, which may be due to the isolation restrictions healthcare workers were subjected to during the COVID-19 pandemic. Also noteworthy is a study on the general population [56], which reports significant results regarding the impact of COVID-19-related stress on levels of depression and anxiety, mediated by social support. It is important to highlight that the two aforementioned models differ from the one tested here in that these first two evaluate stress due to events related to the COVID-19 pandemic, while the one presented here takes into account negative experiences lived due to the pandemic context as the independent variable.

It is necessary to point out some limitations of the study, especially those related to the generalization and scope of the results. Firstly, due to the size and mode of sample selection (non-probabilistic), which do not allow for predictions to be made towards the rest of the population. Secondly, the fact that the data were collected more than two years after the onset of the pandemic, combined with the cross-sectional nature of the study. A longitudinal investigation would have allowed for a more precise determination of the impact of the pandemic on perceived social support and its relationship with increases or decreases in levels of anxiety and depression.

5. CONCLUSIONS

This work provides evidence that pandemic-related negative experiences are indirectly associated with levels of depression and anxiety mediated by levels of social support. Empirical investigation into the relationship among psychopathological indicators of anxiety and depression, social support, and negative pandemic experiences aids in diagnosing mental health in the post-pandemic context. This is based on the potential buffering effect of social support on depressive symptoms and anxiety. Studies of this kind provide rigorous empirical information, highly relevant for guiding effective public health measures and psychological interventions that can safeguard the mental health of the general population. In addition to considering social support in preventive interventions in possible similar contexts in the future, the possibility of studying it throughout treatments as a therapeutic tool is suggested. The evaluation and mapping of the social support network, including the investigation of the links that compose it, the absent links, and those that need to be activated, could be relevant in addressing the impact of negative experiences on psychopathological indicators. This enables us to comprehend the available support resources for individuals, providing valuable data for diagnosis and treatment formulation, as well as for identifying areas of support that require strengthening.

Declarations

Conflict of interest. The authors declare that they have no conflict of interest.

Ethics approval. The procedures to be implemented were submitted to and approved by the "[Author details removed for double-blind review]". The study protocol has been approved by the Interdisciplinary Thematic Program in Bioethics from the National University of Mar del Plata, Argentina. The procedures recommended by the American Psychological Association and the principles outlined in the Declaration of Helsinki were taken into account [22].

Consent to participate. Participation was voluntary and subject to informed consent from the participants.

Consent for publication. Not applicable.

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Figures

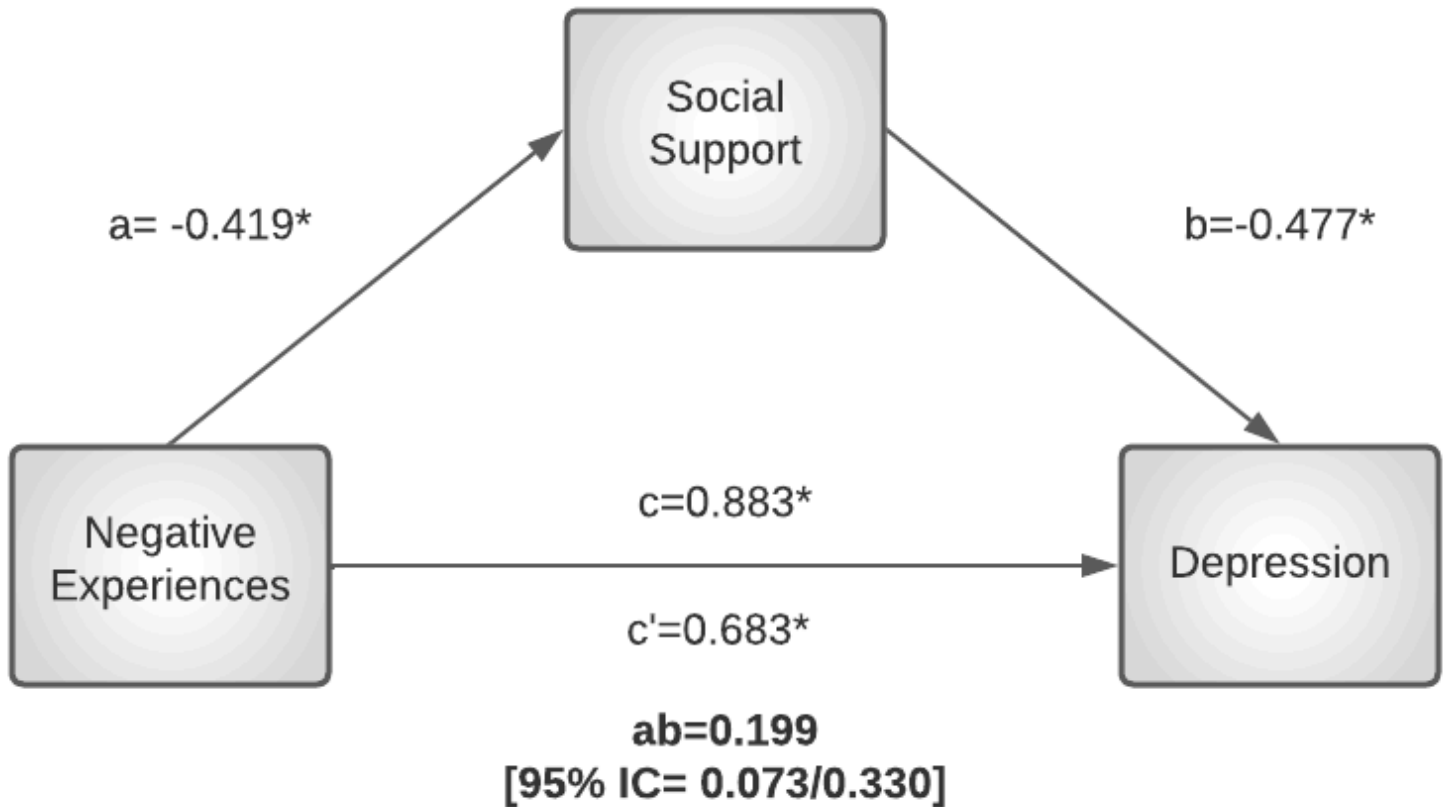


Figure 1

Model A

Model A: Statistical diagram of the serial mediation model for the purported influence of social support on the association between negative experiences and depression. Note: Path values represent unstandardized regression coefficients. The value c represents the total effect of the model. The value c' represents the direct effect from the initial analysis of pandemic negative experiences on depression after the inclusion of the mediator. Age was introduced as a covariate in the regression model. For simplicity, this covariate is not shown in the figure. * $p < 0.05$

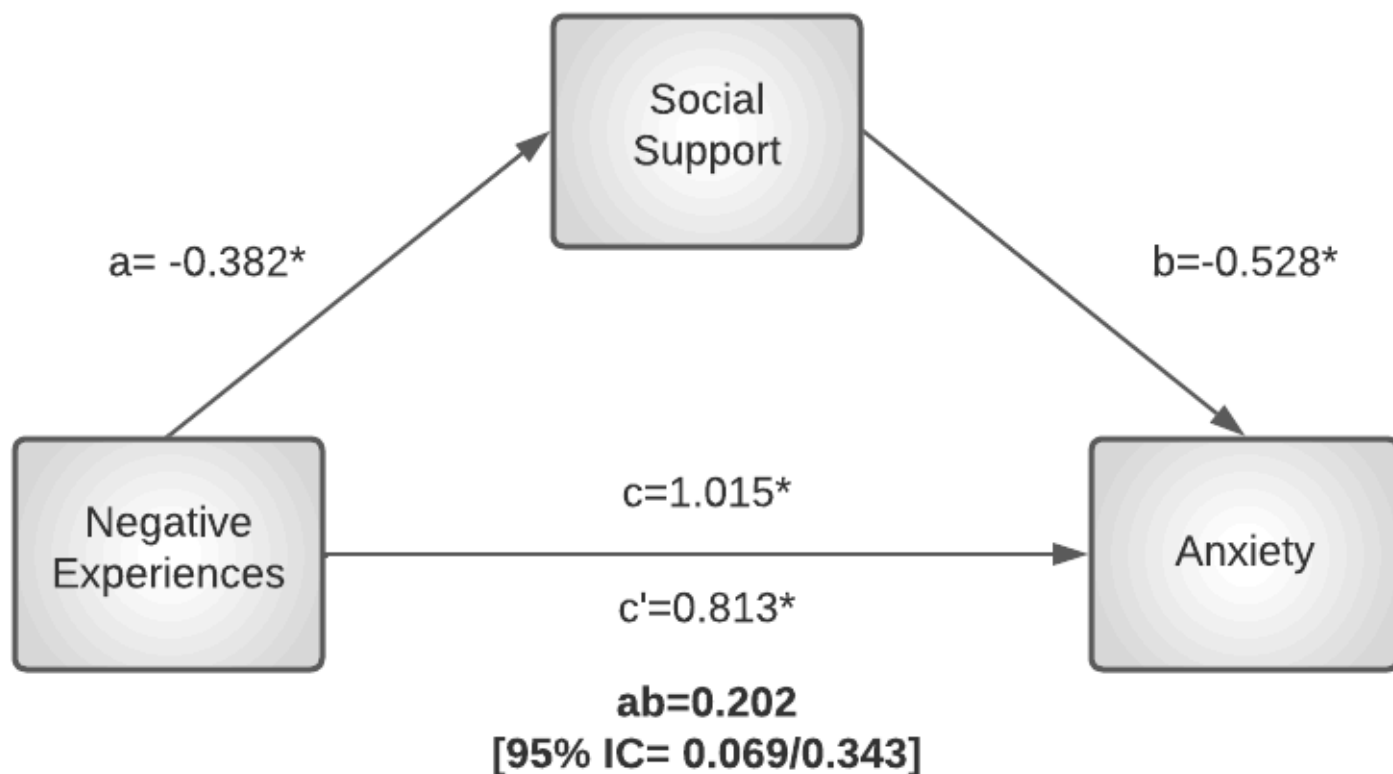


Figure 2

Model B

Model B: Statistical diagram of the serial mediation model for the supposed influence of social support on the association between negative experiences and anxiety. Note: Path values represent unstandardized regression coefficients. The value c represents the total effect of the model. The value c' represents the direct effect of the initial analysis of pandemic negative experiences on anxiety after inclusion of the mediator. * $p < 0.05$