



ARTIGOS

Efeitos de um programa para promoção de resiliência de crianças afetadas pela covid-19: estudo piloto

Psychosocial intervention to promote resilience in children affected by covid-19: findings from a pilot study

Intervención psicosocial para promover la resiliencia en niños afectados por el covid-19: resultados de un estudio piloto

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Resumo: Este estudo avaliou os efeitos de uma intervenção psicossocial para promover resiliência em crianças impactadas pela Covid-19, com foco em aumentar a resiliência e a percepção de redes de apoio emocional e social. Utilizando um desenho quase-experimental e abordagem de métodos mistos, 17 crianças (8-11 anos) foram divididas por conveniência em Grupo Experimental (GE) e Grupo Controle (GC). A intervenção consistiu em oito sessões realizadas em ambiente escolar. Foram aplicados um questionário sociodemográfico, a Escala de Resiliência para Crianças e Jovens e o Mapa dos Cinco Campos no pré-teste, e os dois últimos instrumentos foram reaplicados no pós-teste. Análises descritivas e testes t de medidas repetidas mostraram aumento significativo da resiliência no GE após a intervenção, sem diferenças na percepção das redes de apoio social entre os grupos. O estudo destaca a importância de considerar fatores demográficos e continuar com intervenções no pós-pandemia para efeitos duradouros na saúde mental infantil.

Palavras-chave: infância; pandemia; resiliência; intervenção.

Abstract: This study evaluated the effects of a psychosocial intervention aimed at promoting resilience in children affected by Covid-19, focusing on enhancing resilience and the perception of emotional and social support networks. Using a quasi-experimental, mixed-methods approach, 17 children (ages 8-11) were divided by convenience into an Experimental Group (EG) and a Control Group (CG). The intervention consisted of eight sessions held in a school setting. A sociodemographic questionnaire, the Child and Youth Resilience Measure, and the Five Fields Map were administered at pre-test, with the latter two re-administered at post-test. Descriptive analyses and repeated measures t-tests indicated a significant increase in resilience in the EG post-intervention, though no significant differences were observed in the perception of social support networks between the groups. The study emphasizes the importance of considering demographic factors and suggests continuing interventions in the post-pandemic period to ensure lasting effects on children's mental health.

Keywords: childhood; pandemic; resilience; intervention.

Resumen: Este estudio evaluó los efectos de una intervención psicosocial destinada a promover la resiliencia en niños afectados por el Covid-19, con un enfoque en mejorar la resiliencia y la percepción de las redes de apoyo emocional y social. Utilizando un enfoque de métodos mixtos y un diseño cuasi-experimental, 17 niños (de 8 a 11 años) fueron dividido por conveniencia en un Grupo Experimental (GE) y un Grupo de Control (GC). La intervención consistió en ocho sesiones realizadas en un entorno escolar. Se aplicaron un cuestionario sociodemográfico, la Escala de Resiliencia para Niños y Jóvenes y el Mapa de los

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Cinco Campos en la prueba previa, y estos dos últimos instrumentos fueron readministrados en la prueba posterior. Los análisis descriptivos y las pruebas t de medidas repetidas indicaron un aumento significativo de la resiliencia en el GE después de la intervención, aunque no se observaron diferencias significativas en la percepción de redes de apoyo social entre los grupos. El estudio destaca la importancia de considerar factores demográficos y sugiere continuar las intervenciones en el período pospandémico para asegurar efectos duraderos en la salud mental infantil.

Palabras clave: infancia; pandemia; resiliencia; intervención.

Introduction

Covid-19, an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), first emerged in December 2019 (Braga et al., 2020). To date, there have been over 700 million reported cases and approximately 7 million deaths globally since the onset of the pandemic (WHO, 2024). Brazil has reported over 30 million cases and nearly 700,000 deaths (Arbex et al., 2022). The rapid spread of the virus across the world led the World Health Organization (WHO, 2020) to declare Covid-19 a Public Health Emergency of International Concern (PHEIC) on January 30, 2020, when it began coordinating efforts to mitigate its spread (WHO, 2020). On March 11, 2020, the classification was escalated to 'pandemic', as Covid-19 led to high rates of morbidity and mortality (Aquino et al., 2020).

In this context, the COVID-19 pandemic has been considered a syndemic, highlighting the interaction between various health conditions and socioeconomic, environmental, and structural factors (Horton, 2020). Given the significant impact of COVID-19 on a range of facets, there is a need for organizations to go beyond simply containing the virus and develop multifaceted responses. Interventions must consider living conditions, access to healthcare services, social and economic inequalities, and other social determinants of health that contribute to the negative experiences of the disease (Fronreira et al., 2021).

Despite the impact of the COVID-19 pandemic on children's lives, they are often overlooked due to the perceived lower risk of severe illness (Lantis & Evans, 2023), leading to a "hidden pandemic"

(Treglia et al., 2022). For example, social distancing was a public health measure widely implemented and aimed to prevent the transmission of the virus, but it required significant adjustments to children's daily routines. These adjustments resulted in adverse effects on children's mental health, including increased levels of anxiety and depression, sleep disturbances, and changes in appetite (Yoshikawa et al., 2020). Additionally, disasters like the pandemic are dynamic, they are shaped by previous and subsequent experiences (Delicado et al., 2020). Previous studies have indicated that the pandemic may exacerbate children's symptoms of post-traumatic stress disorder (PTSD), and levels of depression and anxiety (Cortez & Marin, 2022; Dutra et al., 2020; Santana et al., 2018; Silva Filho et al., 2020; Silva et al., 2021). In response to these findings, Gonçalves et al. (2023) emphasize the need to develop post-pandemic interventions that strengthen resilience, empowering children to effectively manage stressful situations.

Resilience is a dynamic process that results in individuals' positive adaptation to adversity (Luthar et al., 2000). To understand resilience, it is necessary to examine the interaction between risk factors, protective factors, and indicators of positive adaptation. The focus is on understanding the set of factors and systems that increase the likelihood of individuals coping positively despite adversity (Masten, 2021). Resilience, therefore, is not a static attribute. It depends on the ability to access and utilize protective resources that enable the development of coping skills in the face of challenges (Pessoa, 2015). The promotion of resilience in children is a complex process that involves various factors. Given the developmental stage of children, their social support network emerges as a key protective element for their wellbeing (Santos-Vitti et al., 2023). Studies have shown that social support is crucial for the development of effective coping and adaptation strategies in the face of adversity (Masten, 2021). The social support network is defined as a set of systems and significant individuals who form relationships that are received and perceived by

the individual (Brito & Koller, 1999).

Promoting resilience in children requires a multi-systemic approach that integrates social and educational services, safety, and fundamental rights with interventions that foster children's cognitive and emotional development (Save The Children's Resource Centre, 2010). The "ConViver Program," the focus of this article, is one such intervention, adapted to the Brazilian context from a model developed by the Danish NGO Save the Children (Save The Children's Resource Centre, 2010). The program consists of eight two-hour sessions and includes activities that promote the bonds strengthen and discussions about experiences related to the pandemic.

A robust social support network has been identified as an essential factor for resilience, providing emotional, instrumental, and informational support that helps children cope with stress and adapt to changes (Juliano & Yunes, 2014). To determine the impact of this support, it is important to assess the level of connection between members of the support network and consider to what extent they were also affected by the pandemic, as this may influence the network's effectiveness (Aoun et al., 2019). Expanding children's social support networks been demonstrated to strengthen their resilience processes (Santos-Vitti et al., 2023). Given this, the present study aimed to evaluate an intervention to promote resilience in children affected by COVID-19 by enhancing resilience and children's perception of their emotional and social support networks.

Method

This was a quasi-experimental pilot study, based on a mixed-methods approach and a cross-sectional design. The study is part of a multicenter project aimed at adapting and assessing the effectiveness of a psychosocial program designed for children who experienced adverse situations due to the COVID-19 pandemic. This program was implemented in the capital of Ceará, along with four other Brazilian cities. The results of the program implemented in Ceará is the focus of the present analysis.

Psychosocial Intervention Model

The program was one that was adapted to the Brazilian context and initially developed by Save the Children, a well-known NGO recognized for its work in combating the violation and exploitation of children's and adolescents' rights. The adapted Brazilian version consists of 8 sessions (each lasting between 1.5 and 2 hours), divided into two parts. The first part focuses on the expression of feelings and thoughts, as well as strengthening connections with others who have undergone similar experiences. The second part addresses specific themes related to disasters, which, in the Brazilian context, refer to the COVID-19 pandemic.

The sessions included playful, artistic, and physical activities aimed at promoting mental health and activating resilience processes in children who have faced catastrophes or disasters (such as the pandemic). The session facilitators were psychologists with previous training and experience in the topic and who received specific training on the ConViver Program prior to implementation. Pedagogically and philosophically, the program recognizes that resilience arises when participants understand what a disaster is, the reasons behind it, discuss its impact on families and communities, develop positive expectations for the future, reflect on their losses (both emotional and material), and mitigate the guilt associated with the disaster or the loss of loved ones. The program has been named ConViver by the researchers involved (more details in Pessoa et al., in press). Intervention fidelity was 100%, with all 8 sessions completed as per the protocol.

Participants

Seventeen children participated in the study, with a mean age of 9.65 years (SD = 0.99), ranging from 8-11 years-old, primarily male (n = 10; 58.8%), and predominantly Black (n = 14; 82.4%). They were enrolled in the second to fifth grades of public schools in the city of Fortaleza, Ceará, Brazil. The sample was constituted by convenience and was non-probabilistic. To be eligible for participation in the research, children had to meet at least one of the following criteria: (i) having been infected

by the virus; (ii) having lost someone due to the infection; (iii) having caregivers who observed emotional or behavioral changes during the pandemic. The 17 children were divided into two groups, with 10 in the Experimental Group (EG) and 7 in the Control Group (GC).

The 17 eligible children were non-randomly allocated to the study groups based on convenience and the order of parent/guardian consent and availability. The first 10 participants whose guardians provided the Informed Consent Form (ICF) and made themselves available for the intervention were allocated to the Experimental Group (EG). The subsequent 7 participants were allocated to the Control Group (CG).

Instruments

Sociodemographic Questionnaire

This questionnaire was specifically developed for research and contained questions (either multiple-choice or open-ended) divided into two parts to be answered by the guardians. The first part investigated sociodemographic data, such as gender, age, ethnic-racial identification, education level, and so on. The second part focused on the family's experiences and experiences during the pandemic, including family routines, behavioral disruptions, significant losses, and more.

Child and Youth Resilience Measure (CYRM) – Child Version (Cronbach's Alpha = 0.71)

This scale assesses indicators of resilience in children, considering individual, relational, contextual, and cultural resources available to cope with adverse situations (Ferreira et al., 2022). It consists of 26 items, with responses structured in a 3-point Likert scale (no, somewhat, and yes). Higher scores indicate a greater presence of factors that promote resilience.

Five Fields Map

Developed by Samuelsson et al. (1996) and adapted in Brazil by Hoppe (1998), this instrument

was designed to assess the structure (number of contacts) and the proximity factor of the social support network, focusing on both the quantity and quality of established connections. The tool uses a diagram composed of five concentric circles, where each circle is filled with the names of the individuals that make up the participant's network of relationships. Data analysis was conducted according to the method suggested by Nascimento and Rosa (2015). To calculate the number of contacts reported by participants, the proximity was determined by multiplying the contacts in the first circle by 8, in the second circle by 4, in the third by 2, in the fourth by 1, and the most distant contacts by 0. The total was then divided by the number of contacts mentioned in each respective field, and the values from each field were summed to generate the overall proximity factor. Thus, higher scores indicate a more robust social network perceived.

Procedures

This study was submitted to the Ethics Committee of the authors' institution and was approved under Opinion No. 5.367.038. The research complied with bioethical recommendations for research involving human subjects as outlined in Resolutions 466/2012 and 510/2016 of the National Health Council (CNS). Authorization was requested from the Municipal Secretary of Education for the participation of schools in the research. Once approved, contact was then made with the schools, and invitations were sent to parents, who provided their consent by signing the Informed Consent Form (ICF). The children were also asked to consent by completing an Assent Form (AF). Participant recruitment occurred between November 2022 and February 2023. The follow-up phase (intervention and post-test) was completed in August 2023.

After obtaining the necessary authorizations, the children in the Experimental Group (EG) and the Control Group (GC) participated in a pre-test, responding to the instruments described above. Following this, the intervention comprising the "ConViver Program" was conducted. After the

eight sessions, a post-test was carried out, during which all children (EG and GC) responded to the same instruments used in the pre-test, apart from the sociodemographic questionnaire. Guardians were asked about the receipt of other therapies or psychosocial support during the study period; no participant reported receiving concomitant care for the primary outcome.

Data Analysis

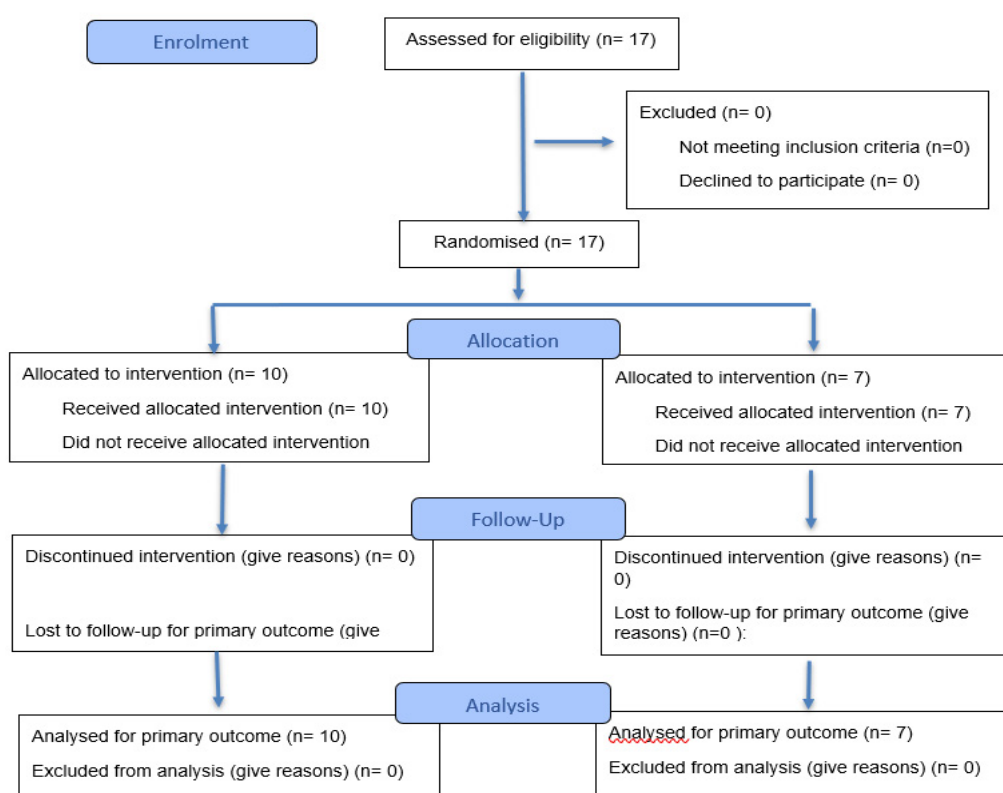
The data were analyzed using SPSS (Statistical Package for Social Sciences) version 23. Descriptive statistics (mean, frequency, and percentage) were performed for the total sample, focusing on the sociodemographic variables of the participants. There was no participant attrition during follow-up. For instrument items, any missing data would have been handled by listwise exclusion, but no missing data were observed on the main instruments. To compare the pre-test and post-test variables across the different groups, a repeated measures t-test was utilized, using a

significance level of $p < 0.05$. For effect size analyses, Cohen's d was calculated, where values less than 0.4 are considered small, between 0.4 and 0.8 indicate a medium effect, and values above 0.8 indicate a large effect.

Results

A total of 17 children were assessed for eligibility, and all met the inclusion criteria, consented to participate, and were subsequently included in the study. Following the convenience allocation procedure, 10 participants were assigned to the Experimental Group (EG), and 7 were assigned to the Control Group (CG). All participants completed the intervention phase (8 sessions for the EG) and the post-test assessment; thus, no participants were lost to follow-up or excluded from the final analysis. No adverse events or harms were reported from the intervention during the study period. The flow of participants through the study phases, from eligibility assessment to final analysis, is illustrated in Figure 1.

Figure 1 - Participant Flow Diagram of a Two-Group Quasi-Experimental Pilot Study.



A repeated measures t-test was conducted to investigate the extent to which the intervention could enhance levels of resilience and social support (number of contacts and proximity factors). The normality of the data was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests. The assumption of homogeneity of variance was evaluated using Levene's test. Bootstrapping procedures (1000 resamples; 95% BCa CI) were performed to achieve greater reliability of the results, corrected for deviations from normality in the sample distribution, and address differences between group sizes. Additionally, this approach provided a 95% confidence interval for the differences between the means (Haukoos & Lewis, 2005).

Resilience was measured before the intervention (pre-test) and after the intervention (post-test). The results showed that resilience levels were significantly higher in the post-test for the experimental group ($M = 2.30$; $SD = 0.26$) compared to the pre-test ($M = 2.06$; $SD = 0.27$) ($t(9) = -2.208$, $p = 0.05$). The effect size of the difference was considered medium (Cohen's $d = 0.70$). In the control group, there was also a modest increase in resilience in the post-test ($M = 2.20$; $SD = 0.25$) compared to the pre-test ($M = 2.06$; $SD = 0.50$); however, this increase was not statistically significant ($t(6) = -1.04$, $p > 0.05$).

For the social support network, two analyses were conducted, the first concerning the number of contacts and the second regarding the proximity factor. The former resulted in no significant differences. In the control group, there was a slight reduction in the number of contacts (pre-test: $M = 12.42$; $SD = 5.59$; post-test: $M = 12.00$; $SD = 6.35$), which was not statistically significant ($t(6) = 0.198$, $p > 0.05$). In the experimental group, there was an increase in the number of contacts (pre-test: $M = 11.60$; $SD = 4.29$; post-test: $M = 12.10$; $SD = 6.11$), but this increase was also not statistically significant ($t(9) = -0.287$, $p > 0.05$). As for the proximity factor, a slight reduction without statistical significance was observed in both groups: in the control group (pre-test: $M = 20.84$; $SD = 6.55$; post-test: $M = 18.93$; $SD = 6.06$) ($t(6) = 0.558$, $p > 0.05$) and in the experimental group (pre-test: $M = 18.73$; $SD = 8.63$; post-test: $M = 17.71$; $SD = 8.25$) ($t(9) = 0.357$, $p > 0.05$).

When comparing the resilience variable with the sociodemographic characteristics of age, sex, and inclusion criteria in the intervention (see Table 1), no statistically significant differences were found. A marginally significant increase was observed in the experimental group of boys, where the pre-test mean was 2.10 ($SD = 0.21$) and the post-test mean rose to 2.27 ($SD = 0.28$) ($t(6) = -2.001$; $p < 1.0$).

Table 1 - Comparison of Resilience by groups.

	Control Group		Experimental Group	
	T1	T2	T1	T2
Age	M (SD)	M (SD)	M (SD)	M (SD)
8-9 years-old	2,20 (0,28)	2,38 (0,23)	2,13 (0,31)	2,32 (0,22)
10-12 years-old	1,95 (0,64)	2,06 (0,15)	2,00 (0,23)	2,28 (0,32)
Gender				
Boys	1,81 (0,54)	2,13 (0,22)	1,98 (0,43)	2,37 (0,25)
Girls	2,38 (0,20)	2,29 (0,28)	2,10 (0,21)	2,27 (0,28) [†]
Inclusion Criteria				
Behavioral Change	1,00 (-)	1,84 (-)	2,03 (0,28)	2,17 (0,23)
Loss of Loved Ones	2,17 (0,19)	2,20 (0,13)	-	-
Two or More Criteria	2,36 (0,24)	2,38 (0,32)	2,10 (0,29)	2,43 (0,24)

[†] < 1.0

When comparing the number of contacts in the social support network with the sociodemographic characteristics (see Table 3), a statistically significant difference was observed among those who met the criteria for behavioral changes and participated in the experimental group. In this group, there was a reduction in the number of support network contacts in the post-test ($M = 9.20$; $SD = 4.65$) compared to the pre-test ($M = 12.80$; $SD = 4.38$) ($t(4) = 3.497$; $p < 0.05$). Additionally, a marginally significant increase was noted in the experimental group among those who met two

or more criteria to participate in the intervention, with the pre-test yielding an average of 10.40 contacts ($SD = 4.33$) and the post-test average rising to 15.00 contacts ($SD = 6.44$) ($t(4) = -2.255$; $p < 1.0$).

When comparing the proximity factor of the social support network with the sociodemographic characteristics (see Table 2), no statistically significant differences were found. However, a marginally significant decrease was observed in the control group of girls, where the pre-test mean was 22.53 ($SD = 5.86$) and the post-test mean fell to 16.10 ($SD = 6.39$) ($t(6) = 2.902$; $p < 1.0$).

Table 2 - Comparison of the Number of Contacts and the Proximity Factor of the Five Fields Map by Gr

	Number of Contacts				Proximity Factor			
	Control Group		Experimental Group		Control Group		Experimental Group	
	T1	T2	T1	T2	T1	T2	T1	T2
Age	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
8-9 years-old	10,33 (5,03)	12,66 (8,38)	14,20 (2,94)	13,60 (2,30)	23,91 (3,47)	17,27 (8,03)	20,72 (5,77)	18,66 (10,00)
10-12 years-old	14,00 (6,16)	11,50 (5,74)	9,00 (4,00)	10,60 (8,56)	18,54 (7,84)	20,18 (5,08)	16,73 (11,16)	16,76 (7,15)
Gender								
Girls	9,00 (3,65)	8,75 (6,44)	15,33 (3,21)	17,33 (6,65)	22,53 (5,86)	16,10 (6,39) [†]	16,30 (12,35)	22,79 (6,78)
Boys	17,00 (4,35)	16,33 (3,05)	10,00 (3,78)	9,85 (4,67)	18,59 (8,00)	22,71 (3,42)	19,77 (7,53)	15,53 (8,27)
Critério de inclusão								
Behavioral Change	13,00 (-)	7,00 (-)	12,80 (4,38)	9,20 (4,65) [*]	15,46 (-)	14,00 (-)	25,17 (4,71)	20,27 (9,82)
Loss of Loved Ones	13,00 (7,07)	13,25 (7,32)	-	-	19,34 (7,09)	18,95 (7,82)	-	-
Two or More Criteria	11,00 (5,65)	12,00 (6,35)	10,40 (4,33)	15,00 (6,44) [†]	26,53 (2,07)	21,36 (0,99)	12,28 (6,45)	15,14 (6,35)

Discussion

The results of this study suggest a significant increase in resilience in the experimental group following the intervention. This suggests that the intervention may have contributed to the development of skills that enable individuals to cope more effectively with the challenges arising from the pandemic. Wendel et al. (2023) support this finding, as their meta-analysis also demonstrated that interventions were able to promote resilience in children following the impact of the

COVID-19 pandemic. The authors found more positive outcomes in interventions with models of higher frequency and duration, which allow for personal interaction (either in-person or virtually) and include dynamic activities. This suggests that engaging children in consistent and interactive settings can foster resilience, providing them with the tools and support needed to navigate the difficulties posed by adverse experiences.

It is understood that this result was achievable

as the ConViver Program provided participants with opportunities to access protective resources. This allowed them to understand the context of the pandemic, expand their emotional and social support networks, and strengthen their familial and community ties. The sessions included activities focused on discussing different types of disasters, investigating and recognizing support networks within families and communities, and training emotional skills, among others. This reinforces the need for interventions that promote resilience even in the post-pandemic period, particularly considering that resilience is a psychological phenomenon that does not occur spontaneously (Pessoa, 2015). Thus, structured programs like ConViver can play a crucial role in equipping children with the tools they need to navigate challenges effectively, fostering long-term well-being and adaptability.

The data regarding the support network dimension did not indicate significant differences in either group (experimental group or control group), although a slight increase was observed. This may have occurred due to the small sample size, as this is a pilot study, suggesting that a larger and more representative sample analysis is necessary. A more extensive sample could provide greater statistical power to detect meaningful changes in the social support network dimension. Furthermore, future research could explore the specific aspects of the support network that may have been impacted by the intervention, including the quality and nature of relationships, as these factors could be crucial for understanding the overall effects of resilience-building programs. It is important that the ongoing assessments and adaptations to the intervention strategies are considered to ensure they remain effective in addressing the complex needs of children in challenging circumstances. Further, there are culturally and linguistically appropriate for the sample.

Another aspect analyzed was the comparison of variables with sociodemographic characteristics (age, sex, and inclusion criteria for the intervention). The results indicated that there were no

statistically significant differences between sociodemographic characteristics and intervention outcomes for the overall sample, which may also be attributed to the sample size used. However, there was a marginally significant increase in resilience among boys in the experimental group, suggesting that the intervention may have been more effective for this subgroup. One possible explanation could be related to the fact that girls tend to be socialized to handle threats to themselves and others more effectively. From a broader perspective of care, girls may be more susceptible to stressful events (Campos Junior, 2021; Giacomoni et al., 2016). Therefore, the effect of the intervention may be proportionately linked to this gender issue, where boys may experience greater benefits from the resilience-promoting intervention because they initially reported fewer challenges presented by the pandemic period.

Regarding the inclusion criterion that led participants to the ConViver Program, those who exhibited behavioral changes showed a statistically significant decrease in the number of members in their support network in the post-test. One possible explanation is that the behavioral changes generated by the intervention may have led to a higher-quality assessment of the individuals identified as components of their support network. This discussion highlights how the perception of social support received in adverse situations can encompass various aspects, emphasizing that the quality of established connections should be considered rather than merely the quantity of individuals involved (Aoun et al., 2019; Nascimento & Rosa, 2015).

In the same experimental group, a marginally significant increase was observed in the average number of support network members for those who met two or more criteria for participation in the intervention. This change in the perception of the support network may occur due to the strengthening of existing relationships with current network members or the attraction of new individuals to the network, motivated to assist the participant during the intervention. This hypothesis corroborates previous findings indicating that

higher levels of social support are associated with lower levels of emotional and behavioral problems (Ferreira, 2017).

Final Considerations

The aim of the research was to describe the effects of a resilience-promoting intervention for children who experienced negative impacts due to the Covid-19 pandemic. The findings illustrate a promising outlook on the potential of interventions to promote resilience and aspects of children's support networks, especially in disaster scenarios like the Covid-19 pandemic. There is also a clear need for the continuation of these interventions even in a post-pandemic period, as their effects on children's mental health may persist and have long-term implications.

The effectiveness of the ConViver Program intervention in promoting resilience in children affected by Covid-19 was demonstrated in this study, as it addressed specific issues related to this adversity. Additionally, beyond mitigating current impacts, if future disaster events occur, children may possess greater knowledge about protective factors and resources, as well as new coping skills and the ability to activate resilience processes.

Another conclusion concerns the importance of considering age, gender, and behavioral changes when developing intervention strategies for children. This approach enables the creation of more effective interventions, promoting the flourishing of children.

Moreover, the findings of this research provide a basis for discussing the development of public policies and social programs focused on promoting resilience in children experiencing different types of disasters. In addition, it encourages reflection on the risk and protective factors for resilience in this population. Based on this study, the effectiveness of these interventions depends on various factors, such as the engagement of the children and the adaptation of the intervention to the specific needs of each child.

Finally, it is important to consider that, being a pilot study, the sample size limits the genera-

lization of the results. Future research with larger and more representative samples needs to be conducted to evaluate the effectiveness of this resilience program. For example, data from other cities in the country associated with the multicenter project. Additionally, it is suggested to replicate the intervention with other vulnerable groups, such as children with disabilities, to explore the nuances of the intervention's effectiveness in different groups of children.

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