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ARTIGO

TACKLING THE COVID-19 PANDEMIC THROUGH PUBLIC-NONPROFIT COLLABORATIONS: THE ROLE OF NONPROFIT REPUTATION

ALINE BRÊTAS DE MENEZES, ALKETA PECI,

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Tackling the Covid-19 pandemic through public-nonprofit collaborations: the role of nonprofit reputation

Resumo:

Crises pose enormous challenges for public-nonprofit collaborations. Particularly in developing countries, crises might change funding flows among partners and increase the levels of uncertainty or instability that already destabilize the smooth functioning of collaborations. However, does the reputation of nonprofit partners buffer such negative effects? Considering the Covid-19 pandemic as an extreme crisis, in this paper we consider the pandemic as an exogenous shock that affects the number of contracts and government funding to nonprofit partners and observe if these relationships are moderated by nonprofits reputation. Our sample includes 60 Brazilian nonprofit hospitals that were already partners of the Brazilian Ministry of Health before the pandemic, collaborating in public health delivery between 2012 and 2019. The results suggest that nonprofit reputation matters when the Ministry of Health allocates funding and contracts to public-nonprofit collaborations. Our study contributes to research on reputation and public-nonprofit collaborations by indicating that even in contexts of extreme crisis, nonprofit reputation stands up as a valuable intangible resource that helps to maintain smooth collaborative processes – a valuable dimension of collaborative performance.

Palavras-chave: Reputation. Collaboration. Panel data analysis. Crises. Covid-19.

Introduction

Public-nonprofit collaborations in developing countries suffer from high levels of uncertainty or instability related to economic, political, and social challenges (AbouAssi and Bowman 2018; AbouAssi et al. 2021; Peci 2021). This high level of uncertainty and instability weakens the collaborative performance (Abdi and Aulakh 2017; Gulati and Zhelyazkov 2012). The fluctuations in funding flows or contractual disruptions, for example, significantly strain and ultimately undermine the smooth functioning of a public-nonprofit collaboration.

In response to such uncertainties and instabilities, governments and nonprofits may obtain legitimacy, information, funding, or other resources by adhering to the legal, cultural, and normative frameworks of the environment (Tran and AbouAssi 2021). In developing countries, local governments are much weaker and less developed, and the central government may force the adoption of certain management or policy practices (AbouAssi and Bowman 2018; Guarneros-Meza and Martin 2016; Mu et al. 2019; Piña and Avellaneda 2018; Rigg and O'Mahony 2013) which can affect public-nonprofit collaborations (Bauer et al. 2022). In such state-dominated contexts, public-nonprofit collaboration is often simply a relationship in which the nonprofit is subservient or an extension of the state (Brandsen et al. 2017; Hodgson 2004; Teodósio 2002). This type of relationship usually involves a high degree of dependence on government funding and a shift in the nonprofit's

mission and goals (Peci et al. 2020).

Crises might aggravate these levels of instability by requiring urgent remedial action in uncertain circumstances (Rosenthal and Kouzmin 1997), often resorting to uncertain or far from consensual strategies to overcome the crisis, as demonstrated by the recent Covid 19 pandemic (Capano et al. 2020). The World Health Organization (WHO) declared the Covid-19 a global health emergency on January 30, 2020. Reacting to the challenges posed by the Covid-19 pandemic, governments around the world adopted a variety of strategies that included not only preventive or mitigation strategies to "flatten the curve" but also measures to mitigate the economic and social impact of the pandemic (Peci 2020). Additional public emergency funds were allocated to meet Covid-19 medical and financial needs (Grogan et al. 2021). One of the strategies was to distribute additional funds to nonprofit partners to improve health care response.

In this paper, we investigate if, in the Covid-19 crisis's context, the nonprofit reputation guaranteed a smoother funding distribution and contract assignment to nonprofit partners. A nonprofit with a strong reputation may attract more donors (Bennett and Gabriel 2003; Willems et al. 2016), gain access to government contracts and other collaborations (Van Slyke 2007), and build public trust (Sarstedt and Schloderer 2010; Sarstedt et al. 2013; Willems et al. 2014). In developing country context, basic health services may be delivered not exclusively by governments but by nonprofits (Avellaneda et al. 2017). Here we explore if nonprofit hospital reputation is also a valuable resource during crisis management in developing countries.

Like many developing countries, Brazil is a young democracy with a struggling economy. Acknowledging the multidimensional nature of the performance of public-nonprofit collaborations (Brunjes 2021; Douglas and Ansell 2021; Douglas and Schiffelers 2021; Gazley and Guo 2020, Lee and Hung 2021; Nederhand 2021; Santos and Peci 2021; Ulibarri et al. 2020; Valero, Lee, and Jang 2021), in this paper, we follow Emerson and Nabatchi's (2015) matrix, and draw on the process dimension of collaborative performance, zooming out funding flows and additional contracts allocated from the Brazilian Ministry of Health to nonprofit hospitals in the Covid-19 crisis's response.

The identification strategy consists of considering the Covid-19 pandemic as an exogenous shock and compare how much funding and how many contracts flowed to nonprofit hospitals before and during the pandemic, considering it these relationships are moderated by nonprofits reputation.

The sample includes 60 Brazilian nonprofit hospitals that were already partnering with the Ministry of Health before the pandemic, between 2012 and 2019. Nonprofit reputation data come from the Brazilian National Agency for Supplementary Health (Agência Nacional de Saúde Suplementar - ANS), which annually evaluates nonprofit hospitals and publishes the rankings nationwide. Furthermore, we employed Bia and colleagues' (2014) procedures to estimate a continuous dose–response function due to the heterogeneity in the sample of nonprofit hospitals with respect to demographic characteristics. Such strategy allowed us to relate each value of nonprofits' reputation to the collaborative performance within the potential-outcome approach to causal inference.

The results suggest that an exogenous shock such as Covid-19 does indeed affect collaborative performance. There is a difference between funding flows and number of contracts in the period before Covid-19 and in the pandemic period. In addition, the results support the hypothesis that nonprofit reputation positively moderates the relationship between the shock and collaborative performance, suggesting that nonprofit reputation matters when the Ministry of Health directs funding and more contracts to public-nonprofit collaborations.

This article contributes to research on reputation and nonprofit collaboration by highlighting the role of nonprofit reputation in crises management (Rangone and Busolli 2021; Santos and Laureano 2021; Wang and Cheng 2021). We also contribute to the debate on collaborative performance, emphasizing the role of performance moderators (Brunjes 2021; Douglas and Ansell 2021; Douglas and Schiffelers 2021; Gazley and Guo 2020, Lee and Hung 2021; Nederhand 2021; Santos and Peci 2021; Ulibarri et al. 2020; Valero, Lee, and Jang 2021). Finally, we respond to the call for more research designs that identify future research directions based on the challenges practitioners currently face due to the ongoing pandemic (Santos and Laureano 2021).

Theory

Funding in extreme crises: the Covid-19 pandemic

Public-nonprofit collaborations in developing countries face relevant challenges. Developing countries have a high degree of uncertainty or instability in the governance environment amid an array of economic, political, and social challenges challenges (AbouAssi and Bowman 2018; AbouAssi et al. 2021; Peci 2021). The central government is often weak, lacking capacity and resources to deliver public services, and burdened with allegations of corruption (Brinkerhoff and

Wetterberg 2016). Consequently, the government becomes reliant on nonprofits to respond to the basic needs of society, creating space for nonprofits to operate, interact, and form collaborations (AbouAssi et al. 2021).

However, nonprofits operate in unstable contexts compared to those of developing countries, often characterized by weak public apparatus, limited regulatory mechanisms, and conditionality of and fluctuation in public funding (AbouAssi and Bies 2018; AbouAssi et al. 2021; Banks et al. 2015; Brinkerhoff and Wetterberg 2016; Haddad 2017).

Particularly in Brazil, funding for nonprofit partners in the recent 20 years post-democratization have been largely fluctuating in midst of major political turnovers. From the early 1990s to the early 2010, there was an increasing funding for public-nonprofits collaborations, with nonprofit partners becoming crucial for public service delivery in areas as health, culture, science among others (Mendonça et al. 2016). Yet, after some years of apparent optimism and excitement in Brazil, when the economy was growing in the late 2000s and early 2010s, major street protests irrupted in 2013. Following a series of denounces and corruption scandals the Congress impeached President Dilma Rousseff due to unauthorised budget operations in 2015 (Marchesini da Costa, 2019). Since then, public-nonprofit collaborations have gone through a process of funding restriction, with growing distrust in the activities of nonprofit partners (Mendonça et al. 2016). Since 2018, when President Bolsonaro took office, the president has constantly threatened the continuity of government funding for nonprofit partners according to legislative chamber (Agência Câmara Notícias 2021).

However, an extreme crisis as Covid-19, changed this funding restriction trend. During public health crises, information, expertise, and formal and informal capacities to respond are distributed across jurisdictions and communication networks (Keller et al. 2012; Kenis et al. 2019). Importantly, nonprofits play a critical role in supplementing the capacity of governments to provide needed services relying on nonprofits` infrastructure, human resources, expertise, and processes (Maher et al. 2020; Sledge and Thomas 2019, 2012; Rangone and Busolli 2021; Walsh et al. 2015).

Despite funding limitations and instability, the nonprofit sector in Brazil is still substantial. There are about 780,000 nonprofits in Brazil (Economic Institute for Applied Research [IPEA], 2020). Brazilian nonprofit hospitals, mostly religious organizations, have a long history of collaboration within the Brazilian unified public health system (Sistema Único de Saúde - SUS). Particularly philanthropic hospitals as the Holy Houses of Mercy (*Santas Casas de Misericórdia*), widespread in all regions of the country, emerge as potential partners to tackle Covid-19 pandemic.

The congress enacted important relief legislation, known as the "War budget", aiming to allocate huge financial resources to nonprofit hospitals through public-nonprofit collaborations, in order to meet Covid-19 medical and financial needs, inverting the historical trend of funding retraction. When comparing how much funding and how many contracts flowed to nonprofit hospitals before and during the pandemic, we anticipate that Ministry of Health allocated more contracts and public funding to nonprofit partners, reflecting the Covid-19 emergency response, as in:

Hypothesis 1 (H1): *The Covid-19 Crisis increases the likelihood of government funding, as well as the number of contracts assigned to nonprofit partners, compared to non-pandemic times.*

The role of nonprofit reputation in crises management

Nonprofit reputation is an important intangible resource for collaborative performance in normal times. Literature also indicates that nonprofit reputation, defined as nonprofit's overall assessment by stakeholders of its past, present, and future interactions with stakeholders (Schloderer et al. 2014), also has additional benefits. A positive reputation can help a nonprofit attract donors (Bennett and Gabriel 2003; Willems et al. 2016), gain access to government contracts and other collaborations (Van Slyke 2007), and build public trust (Sarstedt and Schloderer 2010; Sarstedt et al. 2013; Willems et al. 2014). Consequently, reputation is crucial for a nonprofit survival. Public scrutiny and the need for funding in a more competitive environment are forcing nonprofit organizations to become more aware of their reputation (Santos et al. 2020).

As we anticipate in Hipothesis 1, extreme crises as Covid-19 tend to increase funding and the number of contracts with nonprofit partners (Rangone and Busolli 2021), even reverting the general trend of retraction in a developing context. But does the nonprofit reputation play a role in allocating funds and contracts to nonprofit partners? More specifically, does a stronger reputation matter in the flow of funding and the number of contracts the nonprofit partner gets from the emergency funds?

Nonprofits may collaborate with governments for various reasons such as effectiveness in service delivery and program outcomes, fundraising, support, and citizen satisfaction (Austin, 2000; Guo & Acar, 2005; Snavely & Tracy, 2000). In terms of fundraising, government funding flows require nonprofits to write well-structured proposals and adhere to technical guidelines in order to access public funds. Therefore, nonprofits need to ensure that their staff is sufficiently skilled to address the regulatory aspects and quality standards of proposals (Maier et al. 2016; Shaw and Allen

2009).

However, during crises, there is no time to submit or assess well-structured proposals. Therefore, nonprofit reputations may become a substitute of a careful assessment of the proposals. Governments may rely on existent rankings and use them as a proxy to allocate more funds and contracts to better partners. Under this explanation, government would favor those nonprofits that have a stronger reputation. Governmental partners may assume less risks when awarding more contracts and funding to reputable nonprofits that are perceived to have the expertise, experience, and reputation for producing and delivering effective programs (Ashley and Van Slyke 2012). We then hypothesize that nonprofits that are better rated by the governamental agencies will receive more public funding and contracts during the Covid-19 crisis:

Hypothesis 2 (H1): *Reputable nonprofit partners will receive more government funding and contracts assigned to nonprofit partners in the Covid-19 emergency response.*

Methods

We focus on evaluating how nonprofits reputation moderates the relationship between the pandemic and the number of contracts and government funding to nonprofit partners. The sample comprises 60 Brazilian nonprofit hospitals that were already partners of the Ministry of Health from 2012 to 2019. Then we compare the nonprofit partners in the pre- Covid-19 period to the pandemic period to assess the impact on funding flow and number of contracts in 2020 and 2021.

Nonprofit reputation data came from the Brazilian National Agency for Supplementary Health (ANS). The IDSS is a global index composed of thirty objective indicators into four dimensions. First, the quality of health care (e.g., the proportion of cesarean deliveries, rate of prenatal consultations, etc.). Second, the access guarantee (e.g., rate of chronic hemodialysis sessions per beneficiary, rate of outpatient medical consultations with generalists for the elderly, etc.). Third, the market sustainability (e.g., own funds index, general complaint index, beneficiary satisfaction survey with a baseline score). Fourth, process management and regulation (e.g., SUS use rate, composite cadastral quality index). IDSS varies from 0 to 1 and allows us to compare nonprofit hospitals independently from the dependent variable 'performance'. The measure is a one-year lagged variable to prevent reverse causality. We thus ensure that hospitals that rank better in a given year perform better the next year, rather than the opposite.

Collaborative performance assesses the extent to which funding flows smoothly and without

interruption, as well as the number of contracts assigned to nonprofit partners. For this purpose, we use two objective indicators: the amount of funding the Ministry of Health channels in public-nonprofit collaborations and the number of contracts between the Ministry of Health and the nonprofit hospital. The dependent variable 'funding' assesses the public funding across 428 public-nonprofit collaborations among Ministry of Health and 60 nonprofit hospitals from 2012 to 2021. To capture how smooth the volume of public funding transfer is in the pre- Covid-19 period, we divide the collaboration global value from 2012 and 2019 per total number of months. Analogously, to capture how smooth the volume of public funding transfer to each hospital is in the pandemic period, we divide the collaboration global value from 2020 and 2021 per total number of months. In other words, equation (i) and (ii)perform how the dependent variable funding is transformed:

$$Funding\ pre-shock = \frac{\Sigma\ global\ value\ 2012-2019}{96} \text{ (i)}$$

$$Funding\ post-shock = \frac{\Sigma\ global\ value\ 2020-2021}{24} \text{ (ii)}$$

Better-ranked nonprofit hospitals may have a higher number of public-nonprofit collaborations compared to lower-ranked nonprofit hospitals. The dependent variable 'contracts' divides 428 public-nonprofit collaborations in the pre- Covid-19 period to the pandemic period. To capture how substantial the volume contracts is in the pre- Covid-19 period, we divide the global value from 2012 and 2019 per total number of months. Analogously, to capture how substantial the volume of contracts to each hospital is in the pandemic period, we divide the global value from 2020 and 2021 per total number of months. In other words, equation (iii) and (iv) perform how the dependent variable contracts is transformed:

$$Contracts\ pre-shock = \frac{\Sigma contracts\ 2012-2019}{96} \text{ (iii)}$$

$$Contracts\ post-shock = \frac{\Sigma\ contracts\ 2020-2021}{24} \text{ (iv)}$$

Identification strategy

The unit of analysis is the nonprofit hospital. Panel regression methods assess how nonprofits reputation moderates the relationship between the pandemic and collaborative performance in 428

public-nonprofit collaborations between January 2012 and December 2021 using monthly time points.

There is heterogeneity in the sample with respect to demographic characteristics where nonprofit hospitals are located. We follow Bia and colleagues' (2014) procedures to estimate a continuous dose–response function (DRF). We estimate a continuous DRF that relates each value of the dose (in our case, nonprofits' reputation) to the outcome variable (collaborative performance) within the potential-outcome approach to causal inference. Hence, we perform pre-processing matching to conduct the analysis conditioning on the observed preshock variables.

Preshock variables are hospital size (measured by number of beds), hospital admissions, whether the hospital is located in a capital and in which Brazilian region (North, Northeast, Central-West, Southeast, and South). Public density indicates how many public health care units act within each municipality. Nonprofit density indicates the number of health care nonprofits operating within each municipality for each time period to control for nonprofit competition for public funds (Marchesini da Costa 2016; Jeong and Cui 2020; Suárez 2011; Van Puyvelde and Raeymaeckers 2020; Van Slyke 2007). The population of a municipality during a given time period affects the health budget of municipalities (Jimenez 2014). In addition, nonlinear relationships between the population and the number of nonprofits in a municipality (Lecy and Van Slyke 2013). Hence, we use the natural log of population variable. Table 1 provides a description of the variables and summary statistics.

Table 1. Description of variables and summary statistics

Type of variable	Variables	Source	Description	Obs.	Mean	SD	Min	Max
Dependent Variable	funding	+ Brazil Platform	funding (in US dollars)	120	1,671,690	1,823,878	0	9,746,689
	funding per month		funding (in US dollars) per number of months	120	37,287.44	59,566.58	0	406,112
	contracts		number of contracts	120	2.533	2.315	0	12
	contracts per month		number of	120	.049	.056	0	.5

			contracts per month					
Moderator Variable	reputation	ANS Qualiss Program	global index IDSS (1-year-lagged)	120	.610	.176	.180	1
Indepeden t Variable	shock	Covid-19	dummy variable indicates 0 the period from 2012 to 2019 and 1 from 2020 to 2021	120	.5	.5	0	1
PreProcess ing variables	capital	IBGE	dummy variable to account whether the nonprofit hospital is located in a capital	60	.083	.279	0	1
	North		dummy variable to account whether the nonprofit hospital is located in the North region	60	0	0	0	1
	Northeast		dummy variable to account whether the nonprofit hospital	60	.017	.129	0	1

		is located in the Northeast region dummy variable to account whether the nonprofit hospital is located in the Central-West region dummy variable to account whether the nonprofit hospital is located in the Southeast region dummy variable to account whether the nonprofit hospital is located in the South region					
Central-West			60	0	0	0	1
Southeast			60	.9	.303	0	1
South			60	.083	.279	0	1
population	CNES/Datasus	# individuals in the same municipality	60	433,206	1,584,630	1,718	12,252,023
public density		# public units in the same	60	79	154	12	1,191

		municipality					
nonprofit density		# nonprofits in the same municipality	60	18	40	2	301
hospital admissions		# hospital admissions	60	12,400	13,427	97	65,228
beds		hospital size measured by # beds	60	206	115	50	635

Results

Fixed-effects models

The results strongly support the Hypothesis 1 that the Covid-19 Crisis increases the likelihood of government funding, as well as the number of contracts assigned to nonprofit partners, compared to non-pandemic times, as shown in Table 2. Model 1 shows the results of a performance model in which the number of months pre- and post-shock is not considered. As expected, the coefficient on the independent variable 'shock', significant at 1% level, has a negative direction. This suggests that there is difference regarding funding flow in the pre- Covid-19 period to the pandemic period. Model 2 considers the amount of time pre- and post-shock. Similarly, model 2 displays the results of a performance model in which the number of months pre- and post-shock is disregarded. Again, the negative coefficient, significant at 1% level, indicates that pre- and post-shock periods in number of contracts. Model 3 shows the results for the dependent variable considering time in equations (i) and (ii). The positive coefficient, statistically significant at the 1% level, suggests that nonprofit hospitals receive higher funding flows in the pandemic period. Analogously, model 4 displays the results for the dependent variable according equations (iii) and (iv). The positive coefficient, significant at 1% level, indicates that nonprofit hospitals have more public-nonprofit collaborations with Ministry of Health in the pandemic period. Overall, the results in Model 3 and 4 support Hypothesis 1 and allow a more direct comparison of the influence of shock on collaborative performance.

Moreover, the results support the Hypothesis 2 that reputable nonprofit partners receive more government funding and contracts assigned to nonprofit partners in the Covid-19 emergency response. Model 5 shows the results of a performance model in which the number of months pre- and post-shock is not considered. However, the coefficient of the interaction term, i.e., the moderation, is not statistically significant. Likewise, model 6 displays the results of number of contracts in which the number of months pre- and post-shock is disregarded. The positive coefficient, statistically significant at the 5% level, indicates that more contracts were assigned to better-ranked hospitals in the pandemic period. Model 7 accounts for the transformed dependent variable though equations (i) and (ii). The interaction term is positive and statistically significant at the 10% level. Model 8 accounts for the transformed dependent variable though equations (iii) and (iv). Again, the interaction term is positive and statistically significant at the 10% level. Although it is a marginal significance, such results suggest that, indeed, nonprofit reputation still matters when the Ministry of Health channels funding to public-nonprofit collaborations.

Table 2. Fixed-effects models on the performance of public-nonprofit collaborations

Dependent Variable	funding	contracts	funding per month	contracts per month	funding	contracts	funding per month	contracts per month
Independent Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
shock	-.091***	-.197***	.277***	.027***	-.323**	-.487***	-.640	-.018
	(.031)	(0.034)	(.096)	(.009)	(.142)	(.130)	(.507)	(.023)
reputation					-.180***	-.173***	-.578***	-.289***
					(.428)	(.398)	(.151)	(.072)
c.shock#c.reputation					.369	.463**	.146*	.072*
					(.237)	(.209)	(.855)	(.0394)
Constant	.209***	.350***	.218***	.036***	.131***	.141***	.377***	.214***
	-2173	(.242)	(.065)	(.006)	(.265)	(.249)	(.924)	(.046)
Observations	120	120	120	120	120	120	120	120
R-squared	.128	.359	.132	.126	.182	.400	.210	.145

Number of ID	60	60	60	60	60	60	60	60

Discussion, limitations, and preliminary conclusions

Government and nonprofits have become more interdependent as government has increasingly turned to the nonprofit sector for delivery and as nonprofits have grown more reliant on stable sources of government funding (Ashley and Van Slyke 2012). However, developing countries embrace high levels of uncertainty or instability related to economic, political, and social challenges, undermine public-nonprofit collaborations in developing countries suffer from high levels. Such unstable contexts often comprehend weak public apparatus, limited regulatory mechanisms, and interruption of public funding to nonprofits (AbouAssi and Bies 2018; AbouAssi et al. 2021; Banks et al. 2015; Brinkerhoff and Wetterberg 2016; Haddad 2017).

Yet, the global crisis triggered by Covid-19 demanded additional and immediate access to health services, e.g., additional hospital beds and equipment to combat the pandemic, shedding light on the role of nonprofits to respond the pandemic (Alves and Marchesini da Costa 2020). Nonprofits may collaborate with governments for leveraging fundraising (Austin, 2000; Guo & Acar, 2005; Snavely & Tracy, 2000). Government funding usually requires nonprofits to write well-structured proposals (Shaw and Allen 2009; Maier et al. 2016) leading public managers to prioritize professional over "amateur" staff for reassurance of reliability (Suárez 2011).

However, during crises, there is no time of well-structured proposals and long decision-making processes. Nonprofits reputation may serve as a proxy to allocate more funds and contracts to nonprofits. Under this explanation, governments have an incentive not to have publicly funded projects appear negatively on the front of the local newspaper (Ashley and Van Slyke 2012). But does a stronger nonprofit reputation matter in the flow of funding and the number of contracts from the emergency funds?

In this paper, we address this research question by using the pandemic as an exogenous shock. We then compare how much funding and how many contracts flowed into 60 Brazilian nonprofit hospitals before and during the pandemic. Our selection of nonprofit hospitals includes one exogenous criterion to the pandemic – all nonprofit hospitals were ranked and were Ministry of Health

partners. A first new public-nonprofit collaboration demand additional difficulties such as bureaucratic adequacy, well-structured proposals and technical guidelines in order to access public funds (Shaw and Allen 2009). Hence, we excluded those nonprofit hospitals that did not previously collaborated with Ministry of Health from 2012 to 2019.

Our identification strategy consisted of panel regression methods that assess how nonprofits reputation moderates the relationship between an exogeneous shock and collaborative performance. The unit of analysis is the nonprofit hospital. Because the sample is heterogeneous in terms of demographic characteristics of the location of the nonprofit hospitals, we estimate a continuous dose-response function as a preprocessing procedure. Therefore, we perform pre-processing matching to conduct the analysis considering the observed variables before the shock.

The results confirm both of our hypotheses. First, the results show how an exogenous shock positively affects the collaborative performance compared to non-pandemic times. There is a difference between funding flows and number of contracts in the period before Covid-19 and in the period of the pandemic. Second, the results suggest that nonprofit reputation matters when the Ministry of Health provides funding for to public-nonprofit collaborations. Better-ranked nonprofit hospitals receive more funding and have a higher number of public-nonprofit collaborations during the Covid-19 Crisis compared with lower-ranked nonprofit hospitals.

The generalizability of these results is subject to certain limitations. The study does face a limitation in focusing on a short-term period post-shock: 2020 and 2021. This was due to the availability of data due to the ongoing pandemic.We acknowledge that there is much noise and that the significance of the interaction term was marginal when considering the transformed dependent variable. There have been pandemics before, but this is perhaps the first pandemic in which millions of organizations, large and small, in numerous countries, have ceased normal operations (Manabe and Nakagawa 2021). We could not include pandemic data (e.g., mortality rate due to Covid-19 disease) as a control because we are comparing the period before Covid-19. Therefore, it is difficult to claim that, for example, the simple correlation between nonprofit reputation and mortality rate is causal. The fact that reputable hospitals may assist better the target population, for instance, does not imply that the quality of nonprofit organizations is the only factor that diminishes mortality rate.

Notwithstanding these limitations, our findings are relevant and support the idea that nonprofit reputations are valuable even in times of crisis. We aim to contribute to research on reputation and public-nonprofit collaboration. We also shed light on the role of nonprofit reputation adding to the

debate on collaborative performance. Finally, we respond to the call for more research designs that identify future research directions based on the challenges currently facing practitioners as a result of the Covid-19 challenges.

REFERENCES

Abdi, M., & Aulakh, P. S. (2017). Locus of uncertainty and the relationship between contractual and relational governance in cross-border interfirm relationships. *Journal of Management*, *43*(3), 771-803.
AbouAssi, K., & Bies, A. (2018). Relationships and resources: The isomorphism of nonprofit organizations'(NPO) self-regulation. *Public Management Review*, *20*(11), 1581-1601.
AbouAssi, K., & Bowman, A. O. M. (2018). Toward a conditional analysis of NGO-local government relations in developing countries. *Perspectives on Public Management and Governance*, *1*(3), 222-235.
AbouAssi, K., Wang, R., & Huang, K. (2021). Snuggling together or exploring options? A multilevel analysis of nonprofit partnership formation and evolution in an unstable institutional context. *Nonprofit and Voluntary Sector Quarterly*, *50*(1), 143-164.
Agência Câmara de Notícias (2021). Relator aponta impacto negativo de veto ao projeto de ajuda às ONGs durante a pandemia. Retrieved from https://www.camara.leg.br/noticias/787739-relator-aponta-impacto-negativo-de-veto-ao-projeto-de-ajuda-as-ongs-durante-a-pandemia/
Alves, M. A., & Costa, M. M. D. (2020). The collaboration between governments and civil society organizations in response to emergency situations. *Revista de Administração Pública*, *54*, 923-935.
Amirkhanyan, A. A. (2009). Collaborative performance measurement: Examining and explaining the prevalence of collaboration in state and local government contracts. *Journal of Public Administration Research and Theory*, *19*(3), 523-554.
Ashley, S. R., & Van Slyke, D. M. (2012). The influence of administrative cost ratios on state government grant allocations to nonprofits. *Public Administration Review*, *72*(s1), S47-S56.
Avellaneda, C. N., Johansen, M., & Suzuki, K. (2017). What drives Japanese INGOs to operate in Latin American countries?. *International Journal of Public Administration*, *40*(8), 670-683.
Austin, J. E. (2000). Strategic collaboration between nonprofits and business. Nonprofit and Voluntary Sector Quarterly, 29, 69-97.
Banks, N., Hulme, D., & Edwards, M. (2015). NGOs, states, and donors revisited: Still too close for comfort? World Development, 66, 707–718.
Bauer, Z., AbouAssi, K., & Johnston, J. (2022). Cross-sector collaboration formality: the effects of institutions and organizational leaders. *Public Management Review*, *24*(2), 159-181.
Bennett, R., & Gabriel, H. (2003). Image and reputational characteristics of UK charitable organizations: An empirical study. *Corporate reputation review*, *6*(3), 276-289.
Bia, M., Flores, C. A., Flores-Lagunes, A., & Mattei, A. (2014). A Stata package for the application of semiparametric estimators of dose–response functions. *The Stata Journal*, *14*(3), 580-604.
Borges, A., & Rennó, L. (2021). Brazilian Response to Covid-19: Polarization and Conflict. In *COVID-19's political challenges in Latin America* (pp. 9-22). Springer, Cham.
Brandsen, T., Trommel, W., & Verschuere, B. (2017). The state and the reconstruction of civil society. *International Review of Administrative Sciences*, *83*(4), 676-693.
Brown, L. K., & Troutt, E. (2004). Funding relations between nonprofits and government: A positive example. *Nonprofit and Voluntary Sector Quarterly*, *33*(1), 5-27.
Brinkerhoff, D. W., & Wetterberg, A. (2016). Gauging the effects of social accountability on services, governance, and citizen empowerment. *Public Administration Review*, *76*(2), 274-286.
Brunjes, B. M. (2022). Your competitive side Is calling: An analysis of Florida contract performance. *Public Administration Review*, *82*(1), 83-101.
Capano, G., Howlett, M., Jarvis, D. S., Ramesh, M., & Goyal, N. (2020). Mobilizing policy (in) capacity to fight COVID-19: Understanding variations in state responses. *Policy and Society*, *39*(3), 285-308.
Christensen, T., & Lægreid, P. (2020). The coronavirus crisis—crisis communication, meaning-making, and reputation management. *International Public Management Journal*, *23*(5), 713-729.
Coupet, J., & Schehl, M. (2022). Government Grants, Donors, and Nonprofit Performance. *Journal of Public Administration Research and Theory*, *32*(1), 97-110.
Douglas, S., & Ansell, C. (2021). Getting a grip on the performance of collaborations: Examining collaborative

performance regimes and collaborative performance summits. *Public Administration Review*, *81*(5), 951-961.
Economic Institute for Applied Research [IPEA] (2020). Mapa de Organizações da Sociedade Civil. Rio de Janeiro, RJ: Available at https://mapaosc. ipea.gov.br/resultado-consulta.html
Emerson, K., & Nabatchi, T. (2015). Evaluating the productivity of collaborative governance regimes: A performance matrix. *Public Performance & Management Review*, *38*(4), 717-747.
Gazley, B., & Guo, C. (2020). What do we know about nonprofit collaboration? A systematic review of the literature. *Nonprofit Management and Leadership*, *31*(2), 211-232.
Gofen, A., Lotta, G., & Marchesini da Costa, M. (2021). Working through the fog of a pandemic: Street-level policy entrepreneurship in times of crises. *Public Administration*, *99*(3), 484-499.
Grogan, C. M., Lin, Y. A., & Gusmano, M. K. (2021). Unsanitized and unfair: How COVID-19 bailout funds refuel inequity in the US health care system. *Journal of health politics, policy and law*, *46*(5), 785-809.
Guarneros-Meza, V., & Martin, S. (2016). Boundary spanning in local public service partnerships: Coaches, advocates or enforcers?. *Public Management Review*, *18*(2), 238-257.
Gulati, R., Wohlgezogen, F., & Zhelyazkov, P. (2012). The two facets of collaboration: Cooperation and coordination in strategic alliances. Academy of Management Annals, 6(1), 531-583.
Guo, C., Acar, M. (2005). Understanding collaboration among nonprofit organizations: Combining resource dependency, institutional, and network perspectives. Nonprofit and Voluntary Sector Quarterly, 34, 340-361.
Hodgson, L. (2004). Manufactured civil society: counting the cost. *Critical social policy*, *24*(2), 139-164.
Jeong, J., & Cui, T. S. (2020). The density of nonprofit organizations: Beyond community diversity and resource availability. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *31*(1), 213-226.
Jimenez, B. S. (2014). Separate, unequal, and ignored? Interjurisdictional competition and the budgetary choices of poor and affluent municipalities. *Public Administration Review*, *74*(2), 246-257.
Keller, A. C., Ansell, C. K., Reingold, A. L., Bourrier, M., Hunter, M. D., Burrowes, S., & MacPhail, T. M. (2012). Improving pandemic response: A sensemaking perspective on the spring 2009 H1N1 pandemic. *Risk, Hazards & Crisis in Public Policy*, *3*(2), 1-37.
Kenis, P., Schol, L. G., Kraaij-Dirkzwager, M. M., & Timen, A. (2019). Appropriate governance responses to infectious disease threats: developing working hypotheses. *Risk, hazards & crisis in public policy*, *10*(3), 275-293.
Lecy, J. D., & Van Slyke, D. M. (2013). Nonprofit sector growth and density: Testing theories of government support. *Journal of Public Administration Research and Theory*, *23*(1), 189-214.
Lee, D., & Hung, C. (2021). Meta-Analysis of Collaboration and Performance: Moderating Tests of Sectoral Differences in Collaborative Performance. *Journal of Public Administration Research and Theory*.
LeRoux, K., & Wright, N. S. (2010). Does performance measurement improve strategic decision making? Findings from a national survey of nonprofit social service agencies. *Nonprofit and Voluntary Sector Quarterly*, *39*(4), 571-587.
Maher, C. S., Hoang, T., & Hindery, A. (2020). Fiscal responses to COVID-19: Evidence from local governments and nonprofits. *Public Administration Review*, *80*(4), 644-650.
Manabe, T., & Nakagawa, K. (2021). The value of reputation capital during the COVID-19 crisis: Evidence from Japan. *Finance Research Letters*, 102370.
Marchesini da Costa, M. (2016). What influences the location of nonprofit organizations? A spatial analysis in Brazil. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *27*(3), 1064-1090.
Marchesini da Costa, M. (2019). Paths for improving non-profit impact on society: lessons from government–non-profit relationships in Brazil. *Development in Practice*, *29*(3), 300-313.
Maier, F., Meyer, M., & Steinbereithner, M. (2016). Nonprofit organizations becoming business-like: A systematic review. *Nonprofit and voluntary sector quarterly*, *45*(1), 64-86.
Mendonça, P., Alves, M. A., & Nogueira, F. (2016). Civil society organisations and the fight for rights in Brazil: analysis of an evolving context and future challenges. *Development in Practice*, *26*(5), 592-605.
Mu, R., de Jong, M., & Koppenjan, J. (2019). Assessing and explaining interagency collaboration performance: A comparative case study of local governments in China. *Public Management Review*, *21*(4), 581-605.
Nederhand, J. (2021). Evaluating the Role of Government Collaboration in the Perceived Performance of Community-Based Nonprofits: Three Propositions. *Journal of Public Administration Research and Theory*, *31*(4), 634-652.
Peci, A. (2020). The response of the Brazilian public administration to the challenges of the COVID-19 pandemic. *Revista de Administração Pública*, *54*, 1-3.
Peci, A., Oquendo, M. I., & Mendonça, P. (2020). Collaboration,(dis) trust and control in Brazilian manufactured public/non-profit partnerships. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *31*(2), 375-389.
Peci, A. (2021). Agencies in the news? Public agencies' media evaluations in a low-trust context. *Governance*, *34*(4), 1075-1095.

Piña, G., & Avellaneda, C. N. (2018). Municipal isomorphism: testing the effects of vertical and horizontal collaboration. *Public Management Review*, *20*(4), 445-468.
Rangone, A., & Busolli, L. (2021). Managing charity 4.0 with Blockchain: a case study at the time of Covid-19. *International review on public and nonprofit marketing*, *18*(4), 491-521.
Rigg, C., & O'Mahony, N. (2013). Frustrations in collaborative working: Insights from institutional theory. *Public Management Review*, *15*(1), 83-108.
Rosenthal, U., & Kouzmin, A. (1997). Crises and crisis management: Toward comprehensive government decision making. *Journal of Public Administration Research and Theory*, *7*(2), 277-304.
Santos, A., & Peci, A. (2021). Knowledge-based Resources and Public-Nonprofit Partnership Performance. In *Academy of Management Proceedings* (Vol. 2021, No. 1, p. 13677). Briarcliff Manor, NY 10510: Academy of Management.
Santos, M. R., Laureano, R., & Moro, S. (2020). Unveiling research trends for organizational reputation in the nonprofit sector. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *31*(1), 56-70.
Santos, M. R., & Laureano, R. (2021). COVID-19-Related Studies of Nonprofit Management: A Critical Review and Research Agenda. *Voluntas: international journal of voluntary and nonprofit organizations*, 1-16.
Sarstedt, M., & Schloderer, M. P. (2010). Developing a measurement approach for reputation of non-profit organizations. *International Journal of Nonprofit and Voluntary Sector Marketing*, *15*(3), 276-299.
Sarstedt, M., Wilczynski, P., & Melewar, T. C. (2013). Measuring reputation in global markets—A comparison of reputation measures' convergent and criterion validities. *Journal of World Business*, *48*(3), 329-339.
Schloderer, M. P., Sarstedt, M., & Ringle, C. M. (2014). The relevance of reputation in the nonprofit sector: The moderating effect of socio-demographic characteristics. *International Journal of Nonprofit and Voluntary Sector Marketing*, *19*(2), 110-126.
Shaw, S., & Allen, J. B. (2009). "To Be a Business and to Keep our Humanity" A critical management studies analysis of the relationship between a funder and nonprofit community organizations. *Nonprofit Management and Leadership*, *20*(1), 83-96.
Sledge, D., & Thomas, H. F. (2019). From disaster response to community recovery: nongovernmental entities, government, and public health. *American journal of public health*, *109*(3), 437-444.
Sledge, D., & Thomas, H. F. (2021). Public perceptions of the role of government and nonstate actors in responding to COVID-19. *Risk, hazards & crisis in public policy*, *12*(3), 266-282.
Snavely, K., Tracy, M. B. (2000). Collaboration among rural nonprofit organizations. Nonprofit Management & Leadership, 11, 145-165.
Suárez, D. F. (2011). Collaboration and professionalization: The contours of public sector funding for nonprofit organizations. *Journal of Public Administration Research and Theory*, *21*(2), 307-326.
Teodósio, A. D. S. (2002). Organizações não-governamentais entre a justiça social e a eficiência gerencial: armadilhas, perspectivas e desafios da modernização das políticas públicas locais. *Civitas-Revista de Ciências Sociais*, *2*(1), 97-121.
Tran, L., & AbouAssi, K. (2021). Local organizational determinants of local-international NGO collaboration. *Public Management Review*, *23*(6), 865-885.
Ulibarri, N., Emerson, K., Imperial, M. T., Jager, N. W., Newig, J., & Weber, E. (2020). How does collaborative governance evolve? Insights from a medium-n case comparison. *Policy and Society*, *39*(4), 617-637.
Valero, J. N., Lee, D., & Jang, H. S. (2021). Public–Nonprofit Collaboration in Homeless Services: Are Nonprofit-Led Networks More Effective in Winning Federal Funding?. *Administration & Society*, *53*(3), 353-377.
Van Puyvelde, S., & Raeymaeckers, P. (2020). The governance of public–nonprofit service networks: Four propositions. *Nonprofit and Voluntary Sector Quarterly*, *49*(5), 931-950.
Van Slyke, D. M. (2007). Agents or stewards: Using theory to understand the government-nonprofit social service contracting relationship. *Journal of public administration research and theory*, *17*(2), 157-187.
Van Slyke, D. M., & Roch, C. H. (2004). What do they know, and whom do they hold accountable? Citizens in the government–nonprofit contracting relationship. *Journal of Public Administration Research and Theory*, *14*(2), 191-209.
Walsh, L., Craddock, H. A., Strauss-Riggs, K., & Schor, K. (2015). Learning Needs in Disaster Recovery: Perceptions of Community Health Recovery After Hurricanes Irene and Sandy. *Risk, Hazards & Crisis in Public Policy*, *6*(2), 145-163.
Wang, X., & Cheng, Y. (2021). Cross the river by feeling the stones: How did nonlocal grassroots nonprofits overcome administrative barriers to provide quick responses to COVID-19?. *Public Administration and Development*, *41*(2), 91-98.
Willems, J., Boenigk, S., & Jegers, M. (2014). Seven trade-offs in measuring nonprofit performance and effectiveness. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, *25*(6), 1648-1670.
Willems, J., Jegers, M., & Faulk, L. (2016). Organizational effectiveness reputation in the nonprofit sector. *Public Performance & Management Review*, *39*(2), 454-475.