Challenges in Developmental
Psychology Research During the COVID-19 Pandemic

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Abstract

The COVID-19 pandemic brought a series of restructurings necessary for research in Developmental Psychology. The aim of the manuscript is to discuss adaptations we made in our research in this context during the COVID-19 pandemic and to present strategies to adequate research protocols originally designed to occur in person. Although some contexts do not allow the continuity of studies, research at this time can bring essential contributions in this extreme period. This article explores the strategies for adapting recruitment procedures, suggesting dissemination platforms, and using social networks for this purpose. Guidelines are suggested for conducting non-face-to-face interviews with caregivers, ways of assessing the interaction of the mother-child pairs, and problematizing ethical issues. The procedures for returning the results, an ethical researcher commitment, may be improved by resources such as automatic reports. Besides, strategies for better dissemination of the results for the participants are suggested.
Keywords: pandemics; developmental psychology; data collection.

Desafios da Pesquisa em Psicologia
do Desenvolvimento Durante a Pandemia da COVID-19

Resumo

A pandemia COVID-19 trouxe uma série de reestruturações necessárias à pesquisa em Psicologia do Desenvolvimento. O objetivo deste artigo é discutir as adaptações que realizamos em pesquisas neste contexto durante a pandemia de COVID-19 e apresentar estratégias para adequação de protocolos de pesquisa originalmente planejados para ocorrer de forma presencial. Embora alguns contextos não permitam a continuidade dos estudos, pesquisas nesse momento podem trazer importantes contribuições sobre este período ímpar. No presente artigo são exploradas estratégias de adaptação dos procedimentos de recrutamento, sugeridas plataformas de divulgação e como melhor usar as redes sociais para esse fim. Também são descritos procedimentos para realização de entrevistas não presenciais com responsáveis, formas de avaliação da interação das duplas mãe-criança e problematizadas questões éticas. Os procedimentos de devolução dos resultados, um compromisso ético dos pesquisadores, podem ser facilitados por recursos como relatórios automáticos. Além disso, sugerimos estratégias para melhor divulgação dos resultados ao público participante.
Palavras-chave: Pandemias; Psicologia do Desenvolvimento; Coleta de Dados

Desafíos de la Investigación en Psicología
del Desarrollo Durante la Pandemia de COVID-19

Resumen

La pandemia del COVID-19 trajo una serie de reestructuraciones necesarias para la investigación en Psicología del Desarrollo. El objetivo de este artículo es discutir las adaptaciones realizadas en las investigaciones en este contexto durante la pandemia de COVID-19 y presentar algunas estrategias para la adaptación de los protocolos de investigación originalmente planeados para ser presenciales. Si bien algunos contextos no permitan la continuidad de los estudios, la investigación en este momento puede aportar importantes avances sobre estos tiempos de crisis. Este artículo explora las estrategias para adaptar los procedimientos de contratación, sugiriendo algunas plataformas de difusión y la mejor manera de utilizar las redes sociales para este fin. También se describen los procedimientos para la realización de entrevistas no presenciales con padres o tutores legales, las formas de evaluar la interacción madre-hijo y las cuestiones éticas. Los procedimientos para la devolución de los resultados, un compromiso ético de los investigadores, pueden verse facilitados por funciones como informes automáticos. Además, se recomienda estrategias para una mejor difusión de los resultados al público participante.

Palabras clave: pandemias; psicología del desarrollo; recolección de datos.

Introduction

Research in psychology with children and adolescents had its origins in observational methods and experiments in controlled conditions and has ever since been incorporating increasingly sophisticated technologies, along with a concern with the development of ecologically valid methods, following strict ethical protocols for studies involving human beings (Woodhead & Faulkner, 2008). This concern is even greater when research is guided by interests concerning development in specific contexts, social vulnerability and/or exposure to other adversities, and also seeking to understand or explain the occurrence of behavioral problems. In this paradigm, the recruitment, data collection and retention of participants in the subsequent stages of a research project are some of the challenges encountered by researchers around the world (Hurwitz et.al, 2017; Smith & Petosa, 2016).

Some strategies to recruit and engage children, adolescents, and their families are already well known and involve partnerships with schools, community centers, hospitals, health services, and specialized care (Schoeppe et al., 2014). Other conventional approaches, such as contact by phone, email, and print media, have been increased by new information and communication technologies, expanding online access to potential participants or facilitating the search for specific niches (Hokke et al., 2018).

Recently, the international public health emergency caused by the coronavirus pandemic (COVID-19) has brought new challenges to research, especially with children and adolescents (Wang et al., 2020). Social distancing and isolation measures caused a rupture in the usual way of research, given the impossibility of setting up partnerships with public and collective spaces or even face-to-face meetings (Lourenco & Tasimi, 2020). Despite this, the pandemic is a unique moment for investigations since the evidence of previous epidemics, such as H1N1, Zika virus, and Ebola, suggest that this atypical context has a strong influence on mental health and on child and adolescent development (Decosimo et al., 2019; Freire et al., 2018; Jones & Salathé, 2009; Sprang & Silman, 2013).

The empirical studies planned to investigate the effect of the COVID-19 pandemic on child and adolescent development indicate the use of online strategies for data collection (Liang et al., 2020; Tang et al., 2021; Westrupp et al., 2020; Yeasmin et al., 2020), however, the adaptation process of studies that were planned before the pandemic needs to be considered and discussed. Thus, this article aims to discuss the adaptations in Developmental Psychology Research during the COVID-19 pandemic and present some strategies to adequate the research protocols originally planned to be held in person. The aspects presented in this manuscript were derived from discussions conducted within the Assessment and Intervention in Child and Adolescent Developmental Psychology Work Group, culminating in a text based on the practical research experience of the authors of this study. Strategies related to recruitment procedures, data collection, and feedback to participants are addressed. Finally, the limitations of the proposed adaptations are also listed.

Strategies for adapting recruitment procedures

The first major challenge for research in Developmental Psychology in the pandemic scenario especially applied to children and adolescents is the recruitment of participants solely through virtual means. In the context of social distancing and isolation, the contact with parents and professionals in person, in health services,

and in educational institutions, can be replaced by contact through the use of social media.

Although not a novelty for research that already aimed to assess the impact or effect of online interventions, the recruitment and retention of participants in this environment have already presented challenges. Literature review studies on the topic reported that Facebook is a tool often used as a recruitment method through Sponsored Ads (Lane et al., 2015; Sanchez et al., 2020). However, they point out that the success of this strategy can find a limitation: the need for ads to be approved by Facebook itself. That is, to deal with the different platforms, researchers also need to know their functioning and limitations.

Other reviewed studies highlight the use of combined strategies, including different social media, search engine ads, or a combination with traditional methods (Lane et al., 2015). However, little research focuses on recruiting exclusively children and adolescents through their guardians in online settings (Sanchez et al., 2020). Thus, research directly related to childhood and adolescence, which needs to collect data directly with the children and adolescents, may encounter more difficulties since the advertisement needs to be, at first, directed at parents or guardians and then at the participants.

In today's context, the researchers' task has become more complex since it requires other skills to be developed, such as best strategies of advertising the studies to recruit participants. For example, for the authors of this article, studying the functioning of algorithms used by social media tools such as Facebook and Instagram was fundamental to achieve a greater number of views of the advertisement for the research and, consequently, reach more potential participants. For example, the use of posts in video format on *IGTV* and *Reels* achieved more views than just informative *cards* or regular publications in text format.

Even before the pandemic, Facebook was already being used, mainly for its possibilities of disseminating research in groups directed towards the study themes. In this social network, groups of mothers and fathers who seek guidance on parenting and child development topics are the main focus for the dissemination of research on childhood and adolescence. On Instagram, researchers need to stay updated for better dissemination of the research, with new tools emerging frequently. Among the strategies used is the recording of videos to produce content of value for the target audience, leading to an increase in the number of followers of the pages and, consequently, greater dissemination of the research.

Since these tools change their impression patterns quite often, an important step when planning the dissemination of data collection links and other similar things is to be attentive to what attracts a greater number of views at the time of publication.

Strategies for adapting collection procedures

Among the research procedures, data collection can be considered one of the most affected aspects during the COVID-19 pandemic (Lourenco & Tasimi, 2020). To bypass the limitations imposed by this context, some strategies for the continuity of investigations will be presented, always keeping in mind the importance that all adaptations made to the collections are referred to the Ethics Committee, according to guidelines recently released by the National Research Ethics Commission (CONEP, 2021).

Collection by phone

The collection of data by telephone is an option with some particularities. During the pandemic, our experience showed that this strategy could facilitate the adherence to an online questionnaire, making it leaner and providing the option of phone contact for finalizing when, for example, an inventory on Child Development assessment, which was being constructed and is quite long, is being filled out.

One of the advantages of telephone application is the decrease in filling errors and missings in the instruments (Van der Heerden et al., 2014). Although telephone data collections are traditionally quantitative and short, with objective and closed questions, some researchers (Schmidt et al., 2020; Van der Heerden et al., 2014) report advantages in conducting qualitative interviews and yielding good results, especially when working with segments of the population with difficult geographical access. In this same direction, Kirsh and Brandt (2002) reported the contact with multiple family members as an advantage of the telephone interview, especially to include the father in research that traditionally addressed only the mother as a participant.

The telephone interview can also be an interesting option regarding researcher safety, considering that some sites may be risky for in-person interviews. In addition, it is a less expensive strategy since it does not involve the transportation of participants or researchers (Sturges & Hanrahan, 2014). Some authors also point out that telephone interviews can be advantageous if the subjects addressed are more delicate since face-to-face contact can inhibit the interviewee (Van

der Heerden et al., 2014). All these aspects need to be considered if the interview is aimed at children and adolescents. In addition, it is also necessary to consider that the researcher's control over the conditions of the telephone interview is reduced, especially concerning the privacy of the interviewees, which may affect the quality of the data.

For phone collections, both for calls and sending messages, dedicated cellular chips should be acquired to serve only for this purpose. The use of the researcher's personal number should be avoided. Since those are carried out, in general, through messaging applications, such as WhatsApp, it is necessary to be careful that the Sends do not occur in such a number that seems like spam. It is known that, since 2018, the company responsible for WhatsApp, for example, has rules that enable them to prosecute numbers that use its application as a way to spam. The need for ethical and security care regarding the privacy and confidentiality of participants' data in this type of collection is also highlighted since telecommunication has brought more likelihood of third parties having access to the data contained in this process of information exchange (Grinberg, 2018).

Collection by sending questionnaires

Although the collection of data by sending questionnaires to the participants' homes, either by mail or direct delivery, has decreased with the rise of online collections, it is still used for some of its advantages. The study by Van Campen et al. (1998) compared data collections carried out by sending questionnaires by mail, telephone, and the researcher's presence, and identified the former as more economical, presenting consistently higher response rates. A recent systematic review (Blumenberg & Barros, 2018) found higher response rates when using alternative collection methods (face-to-face, telephone, and questionnaires sent via mail) than an online collection (response rates of respectively 56.3% and 40.5%). Of the 19 articles reviewed, 11 used the method of sending questionnaires via mail, which shows that this is still a widely used method. In addition, partnerships with institutions and schools can contribute to a lower rate of loss of printed questionnaires. For example, even before the pandemic, the partnership with a school resulted in a return rate of 90% of the questionnaires placed in the children's backpack in a longitudinal study conducted by the authors of this present study (Frizzo et al., 2015).

With the COVID-19 pandemic, collection by sending questionnaires has been an alternative to replace face-to-face procedures or the difficulties of collection by telephone. From a biosecurity point of view, when considering the risk of coronavirus spread, according to Goldman (2020), the chances of transmission by inanimate surfaces are minimal. Contamination would occur only if an infected person coughed or sneezed on the surface and the other person had contact with this unprotected material in a short period of time (within 1-2 hours). The latest updates from *Centers for Disease Control and Prevention* (CDC, 2021) indicate that on porous surfaces, such as paper, the studies have reported the inability to detect active viruses within minutes or hours. Such a phenomenon is explained by the rapid evaporation of fluids in these materials, which leads to faster decomposition of the coronavirus. It is then understood that paper presents much less risk of contamination than other surfaces, such as plastic, steel, and copper (Van Doremalen et al., 2020). The risk of contamination would occur only when there is face-to-face contact between the research team and the participants. Therefore, one must be careful when delivering the materials to the houses and their subsequent return. It is advisable to make a phone call to the participant to schedule delivery and return and orient them on biosecurity procedures. When possible, one can leave the material in the mailbox, with the building's concierge, or under the door, avoiding contact between people. When physical contact is necessary, all those involved should wear a mask and sanitize their hands. Hand sanitizer should be made available by the research team to the participant if they report that they do not have it. In some cases, to access more vulnerable populations or in collections that use instruments that cannot be disseminated online, this has long been envisioned as a good alternative.

The collection with the delivery of material to homes has the advantages of allowing greater proximity to the research participants and clarifying their doubts. In an ongoing survey by the authors of this article during the pandemic, participants reported that they feel motivated to see the materials and that the presence of the envelope with the instruments teases their curiosity to handle the questionnaires and answer them. In addition, as they are mothers with children at home, they perceive the possibility of pausing the filling out and resuming it at opportune times as an advantage not to be overloaded. Moreover, the collection in the house allows for documents for data registration to be consulted, such as the Apgar index of the child,

present in the child's health notebook, which, in face-to-face collections at health centers or universities, is not often remembered by many mothers. When filling out the surveys, the questions that come up have been answered by members of the project's research team, available via WhatsApp, which also increases confidence in the answers. The participants reported that this closer contact with the research team is a motivating element.

Pencil and paper collection can also serve a low-educated audience that is not familiarized or has difficulties answering questionnaires online, without being a hindrance for people with higher education and familiarity with technology. However, it should be noted that this procedure also has disadvantages, such as the fact that it usually reaches much smaller samples than the ones collected online and is more restricted to the network and geographical location of the researchers.

Adaptation of observational research protocols

Another critical challenge of data collection in Developmental Psychology during the pandemic is the adaptation of observational research protocols when face-to-face data collection is impossible. Direct observation of parents and children has been a primary strategy in studies in Developmental Psychology (Aspland & Gardner, 2003). Following through with a study that uses direct observation of behavior - whether in the laboratory or natural environment - is a decision that requires flexibility from the researcher and the participants. The first step of this process is to evaluate whether the initially planned research problem can be answered from remote observations conducted through asynchronous filming by the participants themselves and sent to the researcher; or synchronous observation with the virtual presence of the researcher. If the answer is positive, the adaptation process can be continued. To exemplify these possibilities, the adaptation process of a mother-baby interaction observation protocol carried out by the authors of this article will be described.

The protocol required systematic observation of mother-infant dyads at different stages of the baby's development to be carried out at the family residence with the presence of the researcher responsible for the filming. Although there are few studies on the subject since the 1980s, the observation of mother-infant interaction in the participant's home was described as a more accurate strategy regarding their daily lives (Belsky, 1980). When evaluating the possibility of continuing the study, it was determined that the context (residence of the dyad) could be maintained. Following the proposal described in Wilson et al. (2011), it was decided to ask the mother to film her interaction with the infant using her mobile phone's camera. The benefit of filming the mother-infant interaction without the presence of the observer was discussed in Gardner's review (2000) since the absence of the researcher in the filming environment would facilitate more spontaneous interactions, similar to those outside the research context, thus, following the original protocol, it was requested that the shooting take place in two moments: a structured one, in which the baby should be kept in a carrier or equivalent, and the mother interacted with them without the use of toys or accessories; and an unstructured one, in which the mother interacted in her daily routine. An explanatory script was prepared for the mothers, explaining the process and including images explaining the position of the dyad. It was requested that the camera be kept on its side to capture images of both the mother's and baby's faces.

A pilot study was conducted with a mother when the need for a better strategy to capture the infant´s face was identified. Although the lateral filming conducted in the pilot study met the broader objective of the study, to achieve the specific objectives, it was necessary to identify the baby's expressions better. Thus, it was included in the instructions to mothers that, when possible, they should film the structured interaction using two mobile phone cameras: one that recorded sideways and another positioned exclusively towards the baby's face. Mothers were given the possibility to send the footage via virtual drive or to the cell phone of the research group.

However, it is important to remember that, from these adaptations, the system for coding the interactions must be studied again regarding its validity and reliability evidence. The development of valid video encoding systems is essential to ensure data quality from observations (Baiao et al., 2018).

Using online questionnaires

The use of online questionnaires has advantages and disadvantages. The main advantages are the low cost and easy dissemination and access, when available, to more remote populations, which would be difficult to contact in person, such as in rural areas. One of the disadvantages is the sampling bias, due to the predominance of participants with higher education and medium to high socioeconomic level, with

better quality online access (LourencO & Tasimi, 2020). Another negative factor pointed out would be "techno-phobia", where people have a certain aversion to using technologies, which would hinder adherence to this type of research (Hunter, 2012). However, due to the pandemic, this has possibly been mitigated since a good part of the population was forced to use different digital media, either to keep working or for social contact (Schimdt et al., 2020).

A big challenge with online questionnaires is, without a doubt, the participants' engagement. Although the online format allows ample distribution for obtaining large samples (Bee & Murdoch-Eaton, 2016), the form of distribution also impacts questionnaire adherence, for example, by using links which easily direct to the questionnaire (Hunter, 2012). Leaner questionnaires often have greater adherence, forcing researchers to think about which constructs are essential for the study.

Currently, the online survey platforms most used are SurveyMonkey, GoogleForms, and Research Electronic Data Capture (REDCap) (Mohanty et al., 2020). Such platforms include both free and paid versions that vary in terms of functionality and intended audience.

SurveyMonkey is a platform that enables the collection of textual data and multiple-choice responses in which redirection conditions can be set, depending on the type of response, as established by the researcher. The free version has no limit on collected data, but the researcher can only view 40 to 100 responses, and the data is deleted after 60 days. The paid version has no limit on responses collected, and the responses are stored for the entire period of the service subscription. The paid version of the platform also allows the preparation of tests that makes it possible for participants to get reports and for quantitative and qualitative data analysis (sentiment analysis, word-cloud).

Google Forms is one of the most accessible tools for developing questionnaires. The platform is free, and the user only needs to have a valid Google account. Up to 5 million response questionnaires can be collected and stored in a spreadsheet that can be exported .csv or .xlsx formats. The responses can be summarized, but more sophisticated data analysis is not possible. SurveyMonkey and GoogleForms have strong penetration in the commercial environment, mainly in marketing and opinion research. On the other hand, REDCap is a platform specifically developed for conducting academic research.

REDCap is a data management platform created by REDCap Consortium, based at Vanderbilt University (USA). Non-profit organizations with a minimum information technology infrastructure can join the consortium and use the tool free of charge. Both public and private institutions must undergo a license eligibility assessment to use it. The software consists of a secure web application to build and manage searches and databases online, designed to support data capture for research studies (Harris et al., 2019). The REDCap applications include support for basic research studies, data collection for clinical trials, cohort studies, questionnaires, and scales, among others. The software implementation requires a typical web infrastructure, including one or more servers compatible with PHP applications, MySQL/MariaDB, and SMTP email services.

Conducting synchronous interviews

Conducting online interviews is another way to establish contact with the research participant. They can be done through the most diverse platforms available (Google Meet, Skype, MS Teams, JitsiMeet) or even by WhatsApp video call on mobile phones. It can be said that interviews have a great tradition in research in different areas and that their adaptation to the online system is simple when it comes to means of data collection. Recently, Schmidt et al. (2020, pp. 961-62) performed a review on online interviews, which pointed out several advantages of this procedure. In addition to the advantages already mentioned for telephone interviews (range, economy, security, access to socially marginalized and stigmatized groups which are commonly more reticent to exposure), there is evidence that the audio and video format allows a link equivalent to face-to-face interviews (Schmidt et al., 2020). Still, in the experience of the authors from this article, the interviews online allowed for better training of other interviewers in the research group, since it was easier for them to participate in the interview along with the professionals who were training them, without being invasive to the families, just as in a face-to-face interview.

In general, the interview format does not differ much from the face-to-face interview, especially if it is done with adults. What changes is the setting, since there may be interference from the place where the interviewee is, an aspect that should be considered as a study limitation. Moreover, one must be mindful of how familiar the interviewee is with the use of technology and their access to electronic devices. Also, the quality of the internet connection to avoid interruptions

during the interview deserves concern (Marasca et al., 2020).

Depending on the level of secrecy required for the interview, it is important to confirm that the interviewee is in a place with privacy, without distractions, and preferably assured that they will not be interrupted (American Psychological Association, 2013). For these reasons, it is necessary to establish some initial agreements and rules with the participant, such as reiterating the need for secrecy, when appropriate, and those usually presented in the Free and Informed Consent Form. In addition, other agreements can be set in case there is an interruption of the internet or electricity.

Adaptation of strategies of feedback to participants

Feedback is sometimes not a concern of researchers in Psychology. However, resolution 510/16 (Conselho Nacional de Saúde, 2016) in its Article 17, paragraph VI, places as a requirement for research with human subjects to "*guarantee that participants can access survey results*" (p. 7). Feedback to survey participants is an ethical obligation in any research and becomes even more relevant in cases where a suspicion or detection of a problem requires specific evaluation/intervention. In online research, comprehensive feedback on a case-by-case basis becomes impractical, especially with large samples. Researchers often opt for collective feedback through lectures to the community, leaflets or explanatory material, or publications in social networks, magazines, and newspapers that reach the general public. However, individual feedback may be important to fulfill the ethical standards cited above.

Regarding cost-effectiveness, automatic reporting is a good option. It usually includes feedback from the software that manages the collection itself (ex. formr. org) or reports customized by the research team but generated in a primarily automatic way. Reports should be concise and explanatory, allowing the lay public to understand the results. This feedback can be general or, upon request, by email or social network registered on the collection manager website. Ideally, in these circumstances, the email should not be associated with the participant's responses, which should be made explicit about preserving anonymity and secrecy.

In surveys with quantitative data, automatic feedback is usually based on the standardized scores, averages, or cut-off points provided by the instruments used. When the scales or tools used are still being studied for validity evidence, the feedback is only based on those instruments that already have attested evidence

and standards. If no instrument meets these requirements, the feedback to the participant may include theoretical knowledge or guidance on the investigated construct, using appropriate language (e.g., a study on memory would have tips on how to preserve/improve this function).

Despite being a very important strategy, one cannot lose sight of the ethical issues that may arise from automatic feedback. For example, identifying high levels of psychopathy traits, risk of suicide, intense psychological suffering, or delays in the child's development require a referral, even if only as a suggestion. One option is to include in all reports general information so that the participant can draw their own conclusions, such as: "delays in child development in one or more domains require clinical attention. If this is the case for your child, seek a health care professional"; "High levels of anxiety and stress can cause suffering. If this is your case, we suggest seeking psychological help". It can also be encouraged that the subject seeks further clarification with the researcher team since at least one contact must always be made available, regardless of how the data collection is made.

At the end of the automatic report, it should be emphasized that the results refer to a data collection carried out for research purposes and not to a comprehensive and individualized evaluation. Researchers may include, depending on the research topic, the contact of clinical care institutions or websites with information on the investigated topic. It should also be stated that the veracity and quality of the information may not accurately describe the person's characteristics. If they do not see themselves in the results, they may disregard them. Automatic feedbacks have direct benefits to the participants, besides acting as motivation for engagement in the research.

Another way of providing feedback to the public on research results is scientific dissemination, which can also be offered as a counterpart for data collection in certain institutions or communities. The Community Alliance for Research and Engagement (CARE), from Yale Center for Clinical Investigation, discloses strategies for disseminating research findings (https://publichealth.yale.edu/practice/CARE/dissemination-strategies_tcm368-55858_96364_284_45455_v1.pdf). The collective sharing of information can be made through digital publications (leaflets, booklets, research summaries, videos) or live videos and webinars, online discussion panels or virtual forums. In terms of individualized feedback, emails thanking for participation

may be sent accompanied, if possible, by the individual results. It is also possible to disseminate widely through communication agencies and press agencies, and local health events addressed to the lay public.

In all forms of dissemination of results or knowledge to the general public, attention should be paid to the purpose of the dissemination and the language used. Communication should be brief and didactic without using technical terms and jargon and directed at the interest of the primary audience. The layout of the data should also be attractive, with visual appeal and valuable recommendations.

Another tendency related to popularizing research findings, this time to the technical public, concerns the science and the practice of dissemination and implementation (Weisz et al., 2014). This initiative seeks to bridge the gap between research findings on the most effective health interventions and their use in routine clinical practice (Proctor et al., 2009). One kind of dissemination and implementation of evidence-based psychological interventions in the Brazilian context involves providing training for professionals in the Health System. During the pandemic, the training of these professionals may occur through online courses.

Limitations on the Adaptation to Online Research

The adaptation strategies of recruitment and data collection previously presented are mainly intended for surveys. The transition to the online format of questionnaires or interviews is relatively feasible with distancing and isolation at home. However, it is essential to consider that these changes are not reasonable for some research in Developmental Psychology, which, due to the defined objectives and the nature of the methods used, have as their only alternative that data collection is temporarily postponed until it can be carried out safely and in person at the university facilities (Brock & Laifer, 2020).

Research on Developmental Neuroscience is one of these cases, typically involving measures of the brain or physiological functioning while resting or in response to tasks, using techniques that require equipment installed in university laboratories or hospitals, and which is not easily transportable, such as electroencephalogram (EEG), functional near-infrared spectroscopy (fNIRS), functional magnetic resonance imaging (fMRI) or electrocardiogram (ECG). Moreover, the need for proximity and physical contact during the preparation of participants for data collection (e.g., putting on the NIRS cap), as well as specifics of the study such as the

use of tasks or experimental conditions which need to be in controlled environments, are some of the aspects that can delay the start of new research in this area or the feedback on the research suspended during the pandemic until a time comes when these activities can be carried out in person again in a laboratory.

The adaptation to online formats also has some limitations regarding observational research protocols. Although some strategies have been discussed, not all observational tasks have such flexibility to allow their adaptation for home application by the child's caregiver (mother/father). Such is the case for research that use structured observation procedures of an interaction between the child and a researcher, who was previously trained in the task. This type of procedure, more standardized in its application, allows a more precise assessment of inter-individual differences in the child's performance, without the direct influence of the behaviors of the social interaction partner (e.g., the mother/father). The Early Social Communication Scales (ESCS; Mundy et al., 2003) are an example of such procedures, evaluating nonverbal communication behaviors during childhood in interaction with the researcher. It requires a physical environment free of distractions that can be organized for each task (e.g., placing posters on the wall, positioning the table), toys/objects with specific characteristics to be presented (e.g., mechanical rope toys), a standardized duration script to be followed when presenting each stimulus (toy/object), how and when to interact with the child, and what instruction is given to the child's companion (mother/father). These specificities, which are inherent to the administration of structured observational tasks and the coding systems of the child's behavior, ultimately limit the possibility of adaptation to the online format without impacting data reliability or introducing potentially confusing variables.

Investigations with interests in specific segments also find challenges for this transposition, especially those who consider themselves especially vulnerable. The studies interested in children and adolescents who are growing and developing in contexts known as violent and/or high risk are an appropriate example, such as investigations "in and with" families that were notified to the protection system for child victimization issues; and investigations interested in adolescents who engage in infractions and who are in socio-educational monitoring. In these cases, remote contact/recruitment and collection would be much more laborious, either for the institutional restrictions usually imposed on accessibility to these segments or for the distrust that,

in general, characterizes individuals who are in such instances of social control. Accessing these groups and getting them to participate in surveys normally requires a lot of negotiation and a good rapport, which usually develops best in person.

Intervention research with children and adolescents and/or their caregivers is also a modality of research that can suffer important setbacks in the emergency adaptation to an online version. Studies that evaluate intervention models require rigorous application protocols to avoid unnecessary biases (Laursen et al., 2012). The myriad of intervention models currently under development allows for research to be conducted in various ways and with different audiences (Gleason et al., 2016; Garaigordobil et al., 2018; Breitenstein et al., 2014). However, so far, the emergency changes of face-to-face collection procedures to online modalities are not standardized, especially when the tasks that must be performed are envisaged to be on-site. With the restrictions imposed by social distancing and isolation since March 2020 in Brazil, adaptations in research with face-to-face interventions were necessary, especially its transposition to an online modality - but not always possible or effective.

Online Interventions are widely used in applied research of developmental psychology (Breitenstein et al., 2014; Spencer et al., 2020), but they also are, in general, proposed and developed from the very beginning for such use. The emergency adaptation of interventions that were meant to be in-person to the online application requires caution and may present important limitations that must be considered. In addition to the change in the collection of the Free and Informed Consent Form, which must be recorded in audio or video, and stored with the researcher for the same time as the paper protocols would (about 5 years), the emergency adaptation of interventions requires appropriate modification of virtually all its application process. For example, the duration of each meeting should be modified both to account for delays due to problems in the internet connection and to promote the greatest possible comfort of the participant, considering possible tiredness caused by exposure to the screen. In this line of thought, the application of each activity should be reconsidered. For tasks that, in the face-to-face model, used printed or written materials - especially in interventions with parents and caregivers -, we suggest adapting them to tools with more visual and playful elements, such as cards, graphics, and brief presentations, which should preferably be adaptable to the electronic

devices of the participant. The prescription of tasks and the availability of the applicator to answer questions between meetings should also be adjusted to the new reality. Such flexibility will be necessary to maintain the objectives of the intervention adapted to the online modality as close as possible to those proposed in the face-to-face modality.

Final Considerations

This article's objective was to discuss the adaptations in research in Developmental Psychology during the COVID - 19 pandemic and present strategies for adequating research protocols originally planned to be carried out in person. Some strategies for recruitment, data collection, and feedback to participants were presented. The specificities of this time proved to be an element of great interest to be included in the investigations that were already in progress or even to be investigated through new research. Still, it is undeniable that the atypical pandemic context requires flexibility from researchers. The possibilities of adaptations described in this article are not intended to exhaust the discussions on the topic, given that new alternatives are constantly emerging. They were, in fact, the result of the ongoing and successful experiments of the research groups of the authors of this article.

However, as discussed at the end of the description of the adaptation proposals, it is crucial to understand that certain studies have limitations that hinder or prevent their transposition to a remote format, whether these are related to the characteristics of the object of study, the target population or the instruments and other methodological procedures used. In these cases, the flexibility of the authors must be submitted to the cares imposed and recommended by the health administration for a gradual resumption of research procedures, always first considering the safety of those involved in the process.

Finally, it should be noted that during the scenario of the COVID-19 pandemic, the networks built between researchers from different institutions proved to be an essential source of collaboration for all stages of the studies, culminating in the realization that the advancement of scientific knowledge is enhanced by joint work, in addition to the possibility of discussing the various ethical aspects involved in the different adaptations. Therefore, the discussions presented in this article have the purpose of assisting researchers in following through with their research projects remotely,

using the adaptation proposals reported here or other derivatives.

References

American Psychological Association. (2013). Guidelines for the Practice of Telepsychology. *American Psychologist, 68*(9), 791-800. https://doi.org/10.1037/a0035001

Aspland, H., & Gardner, F. (2003). Observational Measures of Parent-Child Interaction: An Introductory Review. *Child and Adolescent Mental Health, 8,* 136-143. https://doi.org/10.1111/1475-3588.00061

Baiao, R., Baptista, J., Carneiro, A., et al. (2018). Assessing preschoolers interactive behaviour: A validation study of the "Coding System for Mother-Child Interaction". *Child: Care, Health and Development, 44*, 644– 650. https://doi.org/10.1111/cch.12572

Bee, D. T., & Murdoch-Eaton, D. (2016). Questionnaire design: the good, the bad, and the pitfalls. *Archives of Disease in Childhood - Education and Practice, 101*, 210-212.

Belsky, J. (1980). Mother-Infant Interaction at Home and in the Laboratory: A Comparative Study. *The Journal of Genetic Psychology, 137*(1), 37-47. https://doi.org/10.1080/00221325.1980.10532800

Blumenberg, C., & Barros, A. J. (2018). Response rate differences between web and alternative data collection methods for public health research: a systematic review of the literature. *International Journal of Public Health*, *63*(6), 765-773. https://doi.org/10.1007/s00038-018-1108-4(0123456

Breitenstein, S. M., Gross, D., & Christophersen, R. (2014). Digital delivery methods of parenting training interventions: a systematic review. *Worldviews on Evidence-Based Nursing, 11*(3), 168-176. https://doi.org/10.1111/wvn.12040

Brock, R. L., & Laifer, L. M. (2020). Family science in the context of the COVID-19 pandemic: Solutions and new directions. *Family Process*, *59*(3), 1007-1017. https://doi.org/10.1111/famp.12582

Comissão Nacional de Ética em Pesquisa. (2021). Ofício Circular N° 2/2021 - *Orientações para procedimentos em pesquisas com qualquer etapa em ambiente virtual.*

Conselho Nacional de Saúde. (2016). Resolução n° 510 de 07 de abril de 2016.

Decosimo, C. A., Hanson, J., Quinn, M., Badu, P., & Smith, E. G. (2019). Playing to live: Outcome evaluation of a community-based psychosocial expressive arts program for children during the Liberian Ebola epidemic. *Global Mental Health*, *6*. https://doi.org/10.1017/gmh.2019.1

Freire, I. M., Pone, S. M., Ribeiro, M. da C., Aibe, M. S., Pone, M. V. da S., Moreira, M. E. L., & Dupret, L. (2018). Síndrome congênita do Zika vírus em lactentes: Repercussões na promoção da saúde mental das famílias. *Cadernos de Saúde Pública, 34*(9). https://doi.org/10.1590/0102-311X00176217.

Frizzo, G. B., Pedrini, J. R., de Souza, D. S., Bandeira, D. R., & Borsa, J. C. (2015). Reliability of child behavior checklist and teacher's report form in a sample of Brazilian children. *Universitas Psychologica, 14*(1), 149–156. https://doi.org/10.11144/Javeriana.upsy14-1.rcbc

Gardner, F. (2000). Methodological Issues in the Direct Observation of Parent-Child Interaction: Do Observational Findings Reflect the Natural Behavior of Participants?. *Clinical child and family psychology review*, *3*(3), 185-198. https://doi.org/10.1023/A:1009503409699

Garaigordobil, M., Jaureguizar, J., & Bernarás, E. (2019). Evaluation of the effects of a childhood depression prevention program. *The Journal of Psychology*, *153*(2), 127-140.

Gleason, M. M., Goldson, E., & Yogman, M. W. (2016). Addressing Early Childhood Emotional and Behavioral Problems. *Pediatrics, 138* (6), e20163025–e20163025. https://doi.org/10.1542/peds.2016-3025

Goldman, E. (2020). Exaggerated risk of transmission of COVID-19 by fomites. *Lancet Infectious Diseases, 20*(8), 892-893. https://doi.org/10.1016/S1473-3099(20)30561-2.

Grinberg, M. (2018). Bioética e troca de mensagens por aplicativo WhatsApp sempre alerta na palma da mão. *Arquivos Brasileiros de Cardiologia: Imagem Cardiovascular, 31*(3), 126-129. http://doi.org/10.5935/2318-8219.20180021

Harris, P. A., Taylor, R., Minor, B. L., Elliott, V., Fernandez, M., O'Neal, L., McLeod, L., Delacqua, G., Delacqua, F., Kirby, J., & Duda, S. N. (2019). The REDCap consortium: Building an international community of software platform partners. *Journal*

of Biomedical Informatics, *95*, 103208. https://doi.org/10.1016/j.jbi.2019.103208

Hokke, S., Hackworth, N. J., Quin, N., Bennetts, S. K., Win, H. Y., Nicholson, J. M., Zion, L., Lucke, J., Keyzer, P., & Crawford, S. B. (2018). Ethical issues in using the internet to engage participants in family and child research: A scoping review. *PloS one, 13*(9), e0204572. http://doi.org/10.1371/journal.pone.0204572

Hunter, L. (2012). Challenging the reported disadvantages of e-questionnaires and addressing methodological issues of online data collection. *Nurse Researcher, 20* (1), 11–20. http://doi.org/10.7748/nr2012.09.20.1.11.c9303

Hurwitz, L. B., Schmitt, K. L., & Olsen, M. K. (2017). Facilitating development research: suggestions for recruiting and re-recruiting children and families. *Frontiers in Psychology*, *8*, 1525. https://doi.org/10.3389/fpsyg.2017.01525

Jones, J. H., & Salathé, M. (2009). Early Assessment of Anxiety and Behavioral Response to Novel Swine-Origin Influenza A(H1N1). *PLoS ONE*, *4*(12), e8032. https://doi.org/10.1371/journal.pone.0008032

Kirsch, S. E. D., & Brandt, P. A. (2002). Telephone Interviewing: A Method to Reach Fathers in Family Research. *Journal of Family Nursing, 8*(1), 73–84. https://doi.org/10.1177/107484070200800105

Lane, T. S., Armin, J., & Gordon, J. S. (2015). Online Recruitment Methods for Web-Based and Mobile Health Studies: A Review of the Literature. *Journal of Medical Internet Research, 17*(7), e183. https://doi.org/10.2196/jmir.4359

Laursen, B., Little, T. D., & Card, N. A. (2012). Handbook of developmental research methods. Guilford Press.

Liang, L., Ren, H., Cao, R., Hu, Y., Qin, Z., Li, C., & Mei, S. (2020). The effect of COVID-19 on youth mental health. *Psychiatric Quarterly*, *91*(3), 841-852. http://doi.org/10.1007/s11126-020-09744-3.

Lourenco, S. F., & Tasimi, A. (2020). No Participant Left Behind: Conducting Science During CO-VID-19. *Trends in Cognitive Sciences*, *24*(8), 583–584. https://doi.org/10.1016/j.tics.2020.05.003

Marasca, A. R., Yates, D. B., Schneider, A. M. A., Feijó, L. P., & Bandeira, D. R. (2020). Avaliação psicológica

online: considerações a partir da pandemia do novo coronavírus (COVID-19) para a prática e o ensino no contexto a distância. *Estudos de Psicologia (Campinas), 37*, e200085. Epub June 05, 2020. https://doi.org/10.1590/1982-0275202037e200085

Mohanty, C. R., Radhakrishnan, R. V., & Jain, M. (2020). Re-exploring the online surveys: Research tools in COVID times. *Journal of Anaesthesiology, Clinical Pharmacology, 36*(3), 414-415. http://doi.org/10.4103/joacp.joacp_401_20.

Mundy, P., Delgado, C., Block, J., Venezia, M., Hogan, A., & Seibert, J. (2003). *A manual for the Abridged Early Social Communication Scales (ESCS)*. Retirado de https://www.researchgate.net/profile/Peter_Mundy/publication/228984460_Early_social_communication_scales_ESCS/links/0fcfd51112fe5159ff000000.pdf

Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: an emerging science with conceptual, methodological, and training challenges. *Administration and policy in mental health, 36*(1), 24–34. http://doi.org/10.1007/s10488-008-0197-4

Sanchez, et al., (2020). Social media recruitment for mental health research: a systematic review. *Comprehensive Psychiatry, 103*, 152-197. https://doi.org/10.1016/j.comppsych.2020.152197

Schmidt, B., Palazzi, A., & Piccinini, C. A. (2020). Entrevistas *online*: Potencialidades e desafios para coleta de dados no contexto da pandemia de CO-VID-19. REFACS, 8(4), 960-966. Recuperado em: 17/11/2020 http://seer.uftm.edu.br/revistaeletronica/index.php/refacs/article/view/4877DOI: 10.18554/refacs.v8i4.4877

Schoeppe, S., Oliver, M., Badland, H. M., Burke, M., & Duncan, M. J. (2014). Recruitment and retention of children in behavioral health risk factor studies: REACH strategies. *International Journal of Behavioral Medicine*, *21*(5), 794-803. http://doi.org/10.1007/s12529-013-9347-5

Smith, L. H., & Petosa, R. L. (2016). Effective practices to improve recruitment, retention, and partnerships in school-based studies. *Journal of Pediatric Health Care, 30*(5), 495-498. https://doi.org/10.1016/j.pedhc.2016.05.004

Spencer, C. M., Topham, G. L., & King, E. L. (2020). Do Online Parenting Programs Create Change?: A Meta-Analysis. *Journal of Family Psychology*, 34(3), 364 –374. https://doi.org/10.1037/fam0000605

Sprang, G., & Silman, M. (2013). Posttraumatic Stress Disorder in Parents and Youth After Health--Related Disasters. *Disaster Medicine and Public Health Preparedness*, 7(1), 105–110. https://doi.org/10.1017/dmp.2013.22

Sturges, J. E., & Hanrahan, K. J. (2004). Comparing Telephone and Face-to-Face Qualitative Interviewing: a Research Note. *Qualitative Research*, 4(1), 107–118. https://doi.org/10.1177/1468794104041110

Tang, S., Xiang, M., Cheung, T., Xiang, Y. T. (2021). Mental health and its correlates among children and adolescents during COVID-19 school closure: The importance of parent-child discussion. *Journal of Affective Disorders, 15* (279), 353-360. http://doi.org/10.1016/j.jad.2020.10.016.

van Campen, C., Sixma, H. J., Kerssens, J. J., Peters, L., & Rasker, J. J. (1998). Assessing patients' priorities and perceptions of the quality of health care: the development of the QUOTE-Rheumatic-Patients instrument. *British Journal of Rheumatology*, 37(4), 362-368. https://doi.org/10.1093/eurpub/8.1.66

van Heerden, A. C., Norris, S. A., Tollman, S. M., & Richter, L. M. (2014). Collecting Health Research Data: Comparing Mobile Phone-assisted Personal Interviewing to Paper-and-pen Data Collection. *Field Methods*, 26(4), 307–321. https://doi.org/10.1177/1525822X13518184

van Doremalen et al. (2020). Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. *New England Journal of Medicine*, 382 (16), 1564-1567. http://doi.org/10.1056/nejmc2004973

Wang, G., Zhang, Y., Zhao, J., Zhang, J., & Jiang, F. (2020). Mitigate the effects of home confinement on children during the COVID-19 outbreak. *The Lancet*, *395*(10228), 945–947. https://doi.org/10.1016/S0140-6736(20)30547-X

Weisz, J. R., Ng, M. Y., & Bearman, S. K. (2014). Odd Couple? Reenvisioning the relation between science and practice in the dissemination-implementation era. *Clinical Psychological Science, 2*(1), 58–74. http://doi.org/10.1177/2167702613501307

Westrupp, E., Bennett, C., Berkowitz, T. S., Youssef, G. J., Toumbourou, J., Tucker, R., & Sciberras, E. (2020). Child, parent, and family mental health and functioning in Australia during COVID-19: Comparison to pre-pandemic data. https://doi.org/10.31234/osf.io/ydrm9

Wilson, P., Puckering, C., McConnachie, A., Marwick, H., Reissland, N., & Gillberg, C. (2011). Inexpensive video cameras used by parents to record social communication in epidemiological investigations in early childhood-A feasibility study. *Infant Behavior & Development, 34* (1), 63-71. https://doi.org/10.1016/j.infbeh.2010.09.007.

Woodhead, M., & Faulkner, D. (2008). Subjects, objects or participants? Dilemmas of psychological research with children. In A. James & P. Christensen (Orgs.) *Research with Children: Perspectives and Practices*. Falmer Press.

Yeasmin, S. & Banik, R. & Hossain, S. & Mahumud, R. & Salma, N. & Hossain, Md. (2020). Impact of COVID-19 Pandemic on the Mental Health of Children in Bangladesh: A Cross-Sectional Study. *Children and Youth Services Review, 117*, 105277. http://doi.org/10.1016/j.childyouth.2020.105277.

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