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Consequences of the COVID-19 Pandemic for Human Development

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During the past months this year, the world was turned upside down by the pandemic of the new life-and-health-threatening virus SARS-CoV2 (in short COVID-19). The COVID-19 virus spread over the world and resulted in many acute life threats and deaths across all population groups. As a reaction, and in attempts to regulate the spread of the virus, many countries followed the suggestions of the World Health Organization and rapidly introduced rigorous measures against the spread of the corona virus. Among them, restrictions in travel, lockdown of public life, social distancing, stay-at home-advice, and home schooling/home office were introduced in every region. Thus, humans around the world within a very short time span were threatened and insecure, experiencing massive changes in their everyday life; they faced possible illness or death, and had to cope with new challenges. With no doubt, the COVID-19 pandemic is a globally and historically unique example case of a comprehensive societal, economic, and social change within society which certainly affects interactions within proximal developmental contexts, such as family, school, peer, and work, impacting not only health but also the development and psychosocial adaptation of every individual.

With this Special Section of the ISSBD Bulletin, we focus on introducing worldwide projects that investigate the consequences of the COVID-19 pandemic on individual development. Research on that topic had to be organized very quickly right after the measures against the spread of the corona virus were introduced. Pontus Leander and his group give us an example of globally collaborative behavioural science research. They share with us important insights into how fast and valid research can be implemented. Furthermore, in this Special Section we are able to introduce case samples on research focusing on the consequences of the COVID-19 pandemic for the school system in India (Suman Verma), and with regard to mental health challenges in the same country (Prerna Sharma). In addition, we present empirical studies on the psychological consequences of the pandemic in Spain and in Germany. Paula Collazo-Castineira and her group discuss not only the consequences for the individuals, but also for the mental health care system. Sabine Walper in her paper reports on brand-new findings on the effects of the COVID-19 pandemic on adolescent development, thereby comparing interesting data from before and after the lockdown in Germany. Additionally, we are happy that Ann Masten wrote a paper for the Special Section reflecting on multisystem resilience of children within disasters. This paper points out how important adaptive systems, identified within resilience research, become even more important nowadays when life is threatened during the COVID-19 pandemic, and everyday situations become completely disarranged.

With the Special Section we aim at reflecting on a hot topic of today's developmental research. With the studies we present here, and the commentary by Ann Masten, we believe that readers will be inspired to think on both a national and international level of the consequences of this pandemic, and that we all learn for the future to effectively deal with large-scale crises on a societal, institutional, and family level. In these times, while many countries experience a resurgent virus, and the second lockdown of public life, we can greatly profit from the insights gained from research on the consequences of the pandemic during the past months on a scientific and practical level.

We wish that you and your families all stay healthy and safe!

Towards a Globally Collaborative Behavioral Science: An Organizational Approach from Pandemic Psychology

*N. Pontus Leander, Edward P. Lemay Jr., Bertus F. Jeronimus, Anita C. Keller and on behalf of the PsyCorona Collaboration**

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The COVID-19 pandemic is among the greatest global disruptions to civil life in modern history. To mitigate the virus spread, many countries instituted various forms of lockdown, and urged citizens to take physical distancing measures to prevent transmission, some of which may be required for years to come (Anderson, Heesterbeek, Klinkenberg, & Hollingsworth, 2020; Kissler, Tedijanto, Goldstein, Grad, & Lipsitch, 2020; Parker, Knight, & Keller, 2020). Each new pandemic is uncharted territory, and there is a paucity of research examining whether and how people can initiate or maintain such behavioral changes. Furthermore, global challenges may require globally-oriented collaborations, which in turn require organizational models that fit the situation.

The PsyCorona collaboration is a research project to examine processes involved in the COVID-19 pandemic, such as behavior that curbs virus transmission, which may implicate social norms, cooperation, and self-regulation. The study also examines psychosocial consequences of physical distancing strategies and societal lockdown, such as frustration of psychological and social needs, economic stressors, relationship strains, prejudice, psychological stress, and deteriorating mental health (e.g., Brooks et al., 2020). Related consequences were observed in past epidemics such as the 1918 flu pandemic (Dolan, 2020; Honigsbaum, 2019; Jeronimus, 2020). A global collaboration allows us to study the role of culture, and to make generalizable predictions on societal responses to virus infections. Culture may influence our living arrangements and how easily we adjust and cooperate at the societal level to mitigate virus transmission. Moreover, because the evolving coronavirus pandemic has implications for ongoing psychological and social development, we continue to track people over time.

The study was launched in March 2020, mere days after the World Health Organization (WHO) declared COVID-19 a pandemic. We took a holistic approach to this global challenge. The study assesses virus-related and lockdown-related behavior, cognition, emotion, and motivation in tens of thousands of participants in dozens of countries around the world (for details, see Kreienkamp et al., 2020). The project provides the opportunity for examining individual-level processes across diverse contexts as well as collective-level processes over time. Respondents who volunteered for the longitudinal study completed weekly follow-up assessments through mid-June, and then monthly assessments thereafter.

The initial cross-sectional survey examines basic associations and cultural differences. The longitudinal follow-ups examine changes over time. We also linked respondents' survey data with interdisciplinary databases containing information specific to their region, such as infection rates and mortality, societal characteristics, and lockdown policies. Such data can provide insight into the situational conditions that correspond with specific psychological and behavioral responses.

Cross-cultural and longitudinal analyses allow us to examine the psychological factors that guide responses to the pandemic at the individual and societal level. Disaster literature suggests vulnerability can differ by people's socioeconomic status, risk of exposure, gender and age, and whether they experience additional stressors or otherwise have scarce and/or deteriorating psychosocial resources (Rodríguez, Donner, & Trainor, 2018). Such factors may moderate psychological and behavioral change in response to the pandemic.

One hypothesis guiding the design of the PsyCorona project pertains to the phenomenon of "covid fatigue" (i.e. frustration with the restricted freedoms associated with virus containment), which is rooted in research and theory on the psychology of frustration and psychosocial need deprivation. People can experience frustration of their material needs (e.g., financial or health insecurity), but also their psychosocial needs (e.g., loneliness, freedom, boredom, see Jeronimus & Laceulle, 2017). Even when material needs are met, psychological frustrations can motivate risky behaviors or hostility to vulnerable groups (Kopetz & Orehek, 2015; Leander et al., 2020). Over time, these processes may undermine vigilance and cooperation. Societal attempts to control the pandemic may exacerbate this psychosocial frustration by undermining autonomy and inducing a sense of social isolation. Thus, the very psychological consequences of trying to control the pandemic can deprive people's psychological needs and drive unfavorable developmental trajectories. Our research group prepared manuscripts guided by this perspective.

Organization and operations

PsyCorona is a spontaneous and informal collaboration of academics of all career stages from 37 countries. The project was centrally organized, but the scientific operations were spread across the network of collaborators. We took a rolling start to first initiate data collection and then develop the organization in real-time. A core team coordinated survey design, data collection, collaboration and communications (via virtual meetings, shared drive, Slack, GitHub, and email). Using a hub-and-spoke organizational design, the core team coordinated with an international network of researchers to provide survey translations, data collection, documentation, and feedback. Each national team implemented their own plan to disseminate the survey link in their region of responsibility.

The rest of the organization was developed while data were being collected. A data management team was formed to aggregate, protect, and prepare the data for analysis, as well as to identify unique issues that arise in data collection across cultures, including response sets and equivalence of measurement (Gelfand, Raver, & Ehrhart , 2002; Henrich, Heine, & Norenzayan, 2010). A data science team gathered COVID-relevant databases and integrated them with the survey data, and an internal board was formed to manage scientific output. In addition to the above, multiple project managers and senior scientific strategists provided flexible support. By the time the vast majority of the data were collected, the data management team and data science team and internal board were ready to invite collaborators to self-organize into manuscript teams to submit analysis proposals.

The first twelve weeks of the collaboration were intensive to adequately assess early public reactions to the pandemic. While bilingual collaborators translated the survey and distributed the survey link, other collaborators managed quality control, prepared documentation, and applied for funding to boost data collection in several countries to ensure age-gender representativeness because, at the time of the study, age and (male) gender were identified as vulnerability factors (Centers for Disease Control and Prevention, 2020; Wenham et al., 2020). These rapid efforts resulted in responses from approximately 60,000 participants globally. After completing the cross-sectional survey, participants were invited to sign up for the longitudinal component of the study. Each follow-up assessment typically received 4,000+ responses. While these research efforts were ongoing, the internal board started reviewing data analysis proposals for rigor and conceptual uniqueness. To address the urgency of the times, the data management team created an online data visualization tool to provide public access to portions of the data (aggregated at the country-level; see psycorona.org/data).

What can we learn from this large-scale, collaborative, and rapid research endeavor?

In addition to the substantive research findings emerging from this project, PsyCorona is instructive with regard to research processes and organizational management. Conducting rapid research with distributed work teams is inherently risky. Members of the research team had some operational experience from conducting rapid response surveys in the wakes of violent events, but nothing on this scale. It requires researchers to do the work using only existing infrastructure – and do so over and above their various other obligations (at work and at home). We treated time as a resource, but time pressure and intensity also increased risk of costly errors, delays, or disruptions. All these risks had to be attenuated through, for instance, open and transparent procedures and documentation, a climate of inclusiveness and error detection, and situational responsiveness. For example, two independent institutions maintained redundant survey infrastructure to ensure the continuation of the project in the event that one institution was disabled (Univ. Groningen & New York University – Abu Dhabi). Rapid research inherently raises concerns for a speed-accuracy tradeoff and thus small teams were tasked to manage quality control. Beyond these operational issues, a project of this size and scope required an organizational model designed to maximize cooperation and academic creativity and minimize internal competition and conflict. We thus instituted an inclusive, collective co-authorship agreement, as well as the formation of an internal board to help delineate data analysis plans in a manner that could ensure the quality of outputs while maintaining the individual freedom researchers need to conduct their best work.

There are inevitable limitations to this research approach. It was hard to forecast the feasibility of the project because the pandemic context created unpredictable research conditions and resources. For example, the need to move quickly may have put some pressure on the collaborators to design the study more quickly than is typical. The collaborators

also needed to rely on existing professional networks and institutional resources, which can lead to underrepresentation in both the collaboration and the samples. In addition, our *ad hoc* organizational model may have been effective in the short-term, but it may not be a sustainable model over the long-term.

While longitudinal data collection is ongoing, internal and external collaborators have proceeded with certain planned analyses, which presently span three general themes:

Psychological vulnerability and resilience. One research theme focuses on the impact of the pandemic on behavioral and psychological functioning. Some investigations have considered group-based disparities in these outcomes. For example, one investigation examines intergenerational differences in psychological responses to the pandemic and its effects on people's plans, daily routines, and mental states. Preliminary results indicate that older respondents, despite potentially facing a more serious health threat from the virus, were less likely to perceive the pandemic as interfering with their life plans (Jin et al., under review). Younger respondents showed stronger emotional reactivity. Such disparities in vulnerability may produce cohort differences in behavior and health outcomes.

Social psychological processes. The pandemic may require people to choose between protecting their health and maintaining other important contributors to quality of life, such as financial security, high-quality interpersonal relationships, and personal autonomy. Several research questions focus on how people resolve this dilemma. One research team is examining the role of personal values in guiding the decisions people make. Preliminary results indicate that those who tend to value agency (i.e., values related to competition in social hierarchies, such as ambition and competence) place a greater value on their personal autonomy, whereas those who value communion (i.e., values related to maintaining harmonious relationships and care for others' welfare) are more likely to engage in virus mitigation behaviors that protect other people. In addition, they are more likely to help others suffering from the pandemic (Lemay et al., under review). Other investigations examining social psychological processes examine the role of threat perceptions, trust in the government and affective states in guiding this prosocial behavior.

Virus mitigation behavior. Another objective of this research was to identify the most important predictors of virus mitigation behavior. We designed the survey to cast a wide net, including variables that are intrapersonal (e.g., affect), interpersonal (e.g., relationships, norms), societal (e.g., employment conditions, government efficacy, living situation), and cultural (e.g., national lockdown policy or virus severity in one's country). Given the numerous potentially relevant predictors, we used both deductive and inductive approaches to analyze the data. That is, in parallel to planned deductive analyses in which we tested various theoretically-driven hypotheses, an independent team conducted data-driven analyses. Such inductive analyses can help advance our understanding of virus mitigation phenomena in ways that may not have been anticipated by extant theories. Moreover, this research has the potential to identify the most important predictors of virus mitigation at multiple levels of analysis, and may identify targets for intervention at each of those levels.

In sum, PsyCorona may serve as an exemplar of a large-scale, collaborative, and rapid approach to behavioral science research that emerges bottom-up and is equipped to study global challenges as they occur. If psychological science is to understand human behavior within context, then we must be able to collect data while that context is unfolding. It is our hope that PsyCorona provides theoretical and practical insights regarding the impact of disease and disasters on social and behavioral development, while also serving as a test case for how independent scientists can rally to conduct research into pressing social problems.

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Schooling During COVID-19: Experiences of Indian Children

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India's COVID-19 caseload on November 10, 2020 reached 8.59 million. The percentage of active cases has fallen over three times in the past two months indicating declining trends. However, the threat of the second wave looms large. The pandemic has resulted in the loss of jobs, mass reverse migration from the urban to the rural areas, depletion of household resources and finances for sustenance. The increase in economic distress threatens to cause a spike in child marriage, child labor, and institutionalization of children in childcare homes. Children on the move and/or on the streets are at an increased risk of trafficking, and sexual abuse and exploitation (UNICEF, 2020). Quarantine, isolation and traumatic bereavement are leading to post-traumatic stress disorders among the children and adolescents (Jacob, Ghosh, & Sagar, 2020). Due to the disruption of life-saving interventions, many more children could die from treatable and preventable conditions (Kumar, Nayar, & Bhat, 2020). Access to education, food, health and social services has been dramatically affected leading to inequity in living conditions and access to developmental services.

In this article I focus on issues related to access, quality, and equity in the schooling experiences of children across India using available data from two national surveys. I also share preliminary results of my study on experiences of adolescents in on-line learning. The final section highlights policy implications of the findings to ensure no child is left behind.

The Lockdown

The schools across the country closed on March 25, 2020. School-going children across the country were affected resulting in suspension of classes, cancellation of exams, postponement of entrance tests, and the need to gear up for the shift to online learning. The pandemic created both challenges and opportunities for the schools to strengthen their infrastructure, train their teachers, and reach out to the students through available online modes.

According to a UNICEF report (2020), in India, school closures have impacted 247 million children enrolled in elementary and secondary education and 28 million children who were attending pre-school education in *Anganwadi* centers. This is in addition to the more than 6 million girls and boys who were already out of school prior to the COVID-19 crisis. With schools closed, more than 430 million children have had to rely on remote learning which has only partially filled the gap; many households – especially in rural areas – have no electricity, let alone internet access. Available data indicate that approximately only a quarter of households (24 per cent) in India have access to the internet and there is a large rural-urban and gender divide. A large number of children are likely to miss out on distance learning opportunities. School feeding and nutrition programs have been disrupted. Phone helplines are reporting a surge in calls from children suffering violence and abuse during confinement at home. Some children are struggling with depression, even resulting in attempts at suicide (UNICEF, 2020).

Multiple channels have been engaged by the government for continuity of education, including web portals, mobile apps, TV channels, radio, and podcasts to reach children, through platforms such as Diksha, Swayam Prabha TV channels, e-Patshala and the National Repository of Open Educational Resources. The States/Union Territories and Ministry of Education have been making efforts to provide education to children at their homes through alternate means of delivery, such as distribution of textbooks at the homes of learners, telephonic guidance by teachers, online and digital content through various media, and online classes conducted by the teachers. The National Council for Educational Research and Training (NCERT) has released the Alternative Academic Calendar for classes 1-12 with suggested activities to guide learning at home (NCERT, 2020).

The Ministry of Education entrusted NCERT with the task of constituting a committee to address the issues related to gaps and/or loss of learning among students, during and after the lockdown, comprising academic and curricular experts drawn from various educational institutions. The Committee conducted a nationwide survey in schools affiliated to the Central Board of School Education (CBSE) for collecting information about various digital modes being used by students to receive online education, and their concerns regarding children not having digital devices. In the following section I present findings from the NCERT (2020) survey and the Annual Status of Education Report (ASER, 2020) survey conducted on children from rural India.

Findings from Two National Surveys

NCERT Survey: *A* nationwide Google survey was conducted in the month of July in schools run by the central government with an aim to study views about online education, use of different digital and other tools, subjects in which students faced difficulties, and awareness about the Alternate Academic calendar of NCERT. Survey participants included classes 8-12 students (N=18,188), teachers (N=3,543), school principals (N=253), and parents (N=12,614). While 60-70% of the respondents said that teaching and learning during COVID-19 was joyful and satisfactory, about 20 to 30% reported that they had a

difficult experience and about 10-20% said that it was burdensome. Reasons given by students for finding online learning enjoyable were: learning on their own schedule (46.4%), interesting activities planned by teachers (46.4%), and parental participation in the teaching/learning process (34%). On the contrary, the following factors created hindrance in learning for close to one-fifth of the students: poor Internet/network connectivity, intermittent/lack of electricity, sharing and use of contents for online classes was difficult through mobile phones, and lack of expertise and knowledge in using devices for effective educational purposes. Close to 50% of the students did not have the school textbooks nor were they aware of the e-text books available on the NCERT website. Almost 27% of the students mentioned the non-availability of smart phones and laptops. Television and radio were the least utilized devices for the teaching/learning in the current pandemic situation. Mathematics was the most difficult subject for students to understand using the online mode. They reported difficulty in understanding the mathematical concepts that require interaction, continuous support, and monitoring from the teacher as some of the limitations of the online learning method. Science was rated as the next most difficult subject due to lack of practical experimentation options that are generally carried out in labs under the supervision of the teacher. Other subjects with which students had difficulties were social science and languages.

The teachers used various tools for learning assessment of students such as: assignments, oral questions during online class interactions, question papers shared on various online platforms, worksheets, online quizzes, question papers shared on WhatsApp and evaluation sheets received through email or WhatsApp. Close to three-fourths of students did not find these modes of evaluation comfortable, reporting difficulties in learning through the online mode.

The situation is likely to be far grimmer at the state-funded schools and the poorer private schools where the majority of the students are enrolled. The Education Ministry has released a set of *Learning Enhancement Guidelines* framed by NCERT (2020) and has directed the States to develop detailed plans to reach and identify the unique requirements of every learner and provide equitable learning experiences to those with digital or without digital device access along with tracking and monitoring each learner's progress to avoid the beginning of a vast learning divide in the learners. The guidelines focus on helping the community work alongside schools to provide learning materials to students by setting up helplines at the community centers for the purpose of education, forming a team of student volunteers to help those students who do not have digital resources, and parental orientation for support and participation in the learning process of their children.

ASER Survey: The phone-based survey conducted in September explored provision of and access to distance education mechanisms, materials and activities for children in rural India, and the ways in which children and families are engaging with these remote learning alternatives from their homes. ASER 2020 was conducted in 26 states and 4 Union Territories. It reached a total of 52,227 households and 59,251 children in the age group of 5-16 years, as well as teachers or head teachers from 8,963 government schools offering primary grades. Some significant findings emerged that have serious policy implications. School enrollment patterns when compared to ASER 2018 show a small shift from private to government schools, across all grades and among both girls and boys. Higher proportions of children not enrolled are visible mostly among the youngest children (ages 6 and 7), possibly because they have not yet secured admission to school. Children rely mainly on the resources available at home to help them learn. These resources can consist of people who can help them to study (for example, educated parents); technology (TV, radio or smart phone); or materials (such as textbooks for the current grade). More than 80% of children have textbooks for their current grade. This proportion is higher among students enrolled in government schools (84.1%) than in private schools (72.2%).

Regardless of parents' education level, families invest significant effort in supporting children's learning. Almost three quarters of all children receive some form of learning support from family members. Notably, even if neither parent has studied beyond primary school, family members do provide support. Older siblings play an important role in providing learning support to children in these households. Children in lower grades get more family support than do children in higher ones. Similarly, children with more educated parents receive more family support than those with less educated parents.

A variety of mechanisms have been used by the government and by private schools to share diverse learning materials with students during school closures. These include activities using traditional materials like textbooks or worksheets; online or recorded classes; and videos or other materials shared via phone or in person, among others. ASER 2020 asked whether households had accessed or received any such materials from children's schools in the week prior to the survey. About one-third of enrolled children had received some form of learning materials or activities from their teachers during the week preceding the survey. This proportion was higher in higher grades than in lower ones; and higher among students in private schools than in government schools. Regardless of school type, WhatsApp was the most common medium through which activities and materials were received. However, this proportion was much higher among children in private schools (87.2%) than for those in government schools (67.3%). Among the roughly two-thirds of all households that reported not having received learning materials during the reference week, the majority said that the school had not sent any materials.

To examine regular engagement with learning activities, ASER 2020 asked whether children had done any type of learning activity during the previous week, regardless of whether or not the school had shared learning materials during that week. Although only a third of children had received materials from their teachers during the week preceding the survey, most children (70.2%) did do some sort of learning activity during that week. These activities were shared by diverse sources such as private tutors and family members themselves, in addition to or instead of what was received from schools. Major types of activities done by children involved textbooks (59.7%) and worksheets (35.3%). One major difference visible by school type is that children in private schools (28.7%) were much more likely to have accessed online resources than those in government schools (18.3%).

Findings from the NCERT and the ASER survey reveal that the digital modes of learning in the schooling system risk pushing many children into deeper inequality in learning opportunities. There are wide disparities within the country in the educational experiences that children have experienced.

The Chandigarh Study on Learning under Conditions of COVID-19

This study that I undertook along with Mukul Dabas is part of an international collaboration initiated by B. Schober, M. Lüftenegger and C. Spiel from the Faculty of Psychology, University of Vienna, Austria. Given the current situation arising due to COVID-19, children across the globe are facing the challenge of home learning. This study examines how children are adapting and coping with the current learning situation, their psychological states and well-being.

Students from a randomly chosen government model (N=10) and private schools (N=14) responded to a Google Form during the period of June 24 to June 30, 2020. A total of 2,775 students (Boys =1,280 , Girls =1,468, Others: 27) from grades 9 to12 in the age range of 13 to 18 years participated in the online survey. Contact was established with the Principal of each school and the link to the Google survey was shared with the class teacher who further shared the link with the students via WhatsApp groups already created for each class. When the response was not very positive or was delayed from some schools, we adopted the child-to-child snowball technique. That worked very well. Children were very enthusiastic and shared the survey link in their WhatsApp groups with other children. During data collection all schools were offering online classes. Close to 30% of students from the disadvantaged section (those with internet limitations or non-availability of either a smart phone or laptop) were not accessing online classes. The survey questions comprised both open- and closed-ended questions with a five-point Likert scale ranging from '*Strongly agree*' to '*strongly disagree*.'

On an average, children spent 3.71 hours daily doing school work. However, the range of time spent varied from 0 to 12 hours among children. Only 51.2 % of children had their own computer/laptop/tablet/smart phone. Close to 71% of children were satisfied with their performance in school and aspired for good grades (93%). Most children reported family support with home learning (94.2%) wherein mother (30.6%), father (24.1%) and siblings (38.6%) provided guidance with school work. Challenges faced by children ranged from planning their day, to dealing with slow internet and other technical issues related to computers/smart phones, to finding a peaceful place of work at home to avoid distractions.

When asked about digital teaching and learning, children did not sound very optimistic about how effectively they were handling issues related to comprehending assigned tasks given by teachers or their ability to solve tasks on the computer/laptop/mobile. Children gave high ratings to their teachers on their ability to deliver E-learning classes, how helpful they were, and regular contact with the teacher or how accessible the teachers were if the student needed to clarify questions (most responses ranging from *strongly agree* to *agree*).

Children reported average positive affect with the current home learning situation. The categorical response by most to "*even if things are tough, all will be okay*" was '*agree.*' On the other hand, learning motivation seemed low with children 'somewhat agreeing' that school work is fun, enjoyable and exciting. There were no gender differences. However, type of school differences emerged with government school children when compared to their private school counterparts, the latter finding school work more fun (Government: M= 2.12, Private: M= 2.85, t=2.56**), enjoyable (Government: M= 2.11, Private: M= 2.64, t=2.77**), and exciting (Government: M= 2.10, Private: M= 2.76, t=3.15**). Social relatedness is an important psychological need. A majority of the children '*agreed*' that they could reach out to someone if they were worried about something, share their thoughts with them, and that others cared about how they were doing. They were in constant touch with their friends.

Children reported average levels of competence in handling and completing school work with improved knowledge gains in handling online learning. Children agreed that e-learning offered them opportunities to choose tasks to be undertaken while studying, learn at their own speed, and adopt the method of their choice for study.

Self-regulation is an important factor in learning outcomes and well-being among students. To understand the extent to which students could self-regulate their e-learning at home we asked questions related to how effectively they set goals and planned their school work, used time management, created a conducive learning environment, found ways to motivate themselves, handled procrastination, and tried out different strategies for problem solving. Children's responses reflected an average level of self-regulation mechanisms while doing school work. The well-being of students was examined by questions related to their level of engagement, and their perseverance while studying. On the whole children depicted an average level of well-being. Private school children when compared to the government school students were better in planning their daily school-related tasks (Government: M=2.04, Private: 2.33, t= 3.55**), sticking to their work schedule (Government: M=2.08, Private: 2.61, t= 2.91**), their time management skills (Government: M=2.11, Private: 2.43, t= 2.74**), seeking feedback (Government: M=2.13, Private: 2.55, t= 2.96**), perseverance in finishing school tasks (Government: M=2.08, Private: 2.62, t= 3.31**), and sticking to the work plan (Government: M=2.06, Private: 2.47, t= 2.57**).

The flip side of online teaching was evident from the interviews with the teachers. They reported juggling among several tasks, such as handling online classes, preparing for lectures, addressing messages from students and their parents, monitoring students, dealing with internet issues, and devoting uninterrupted hours before the computer to mention some. Several teachers undertook crash courses on e-learning teaching methods to develop their communication skills and adopt appropriate pedagogical strategies while teaching online.

A wide range of responses from the open-ended questions revealed the challenges that children faced during distance learning. When asked about what worried them most children responded with "*corona virus and my studies*", "*tests*", "*when school reopens and the stress of it*", "*how we will access the video lectures of our teachers*", "*board exams.*" Some

responses to the question '*what do you currently find hard when studying*?' were "*concentration*", "*interaction with teachers and concentration in studies during online classes*", "*meeting deadlines of maths homework*", "*understanding new concepts because visual learning and understanding is pretty hard*", "*dealing with network problems.*" I would like to end on a positive note by quoting what a 12th-grade student wrote to me in a follow-up email after filling in the form: *"I think that we both can agree that this pandemic caused some kind of modernization in our studies which were immensely required as in India majority of the schools only teach you the same way they have been teaching for a very long time, the feeling of studying that way wasn't "refreshing" it was the same 'go to school understand the teacher, write what she/he says go home practice it, go to tuitions, come home do homework and study and sleep'. But this situation made it very enjoyable to study and personally, I don't want this kind of learning to change, the students can study at their own pace and use internet in their studies which in the past kinds of studies we didn't, because everything was so "limited" the knowledge and feeling of learning was like, we are in a room and all we can do is interact with the things in the room and explore only where the room ends and now . . . . it's like you're seeing this endless land of knowledge and what you can understand and study. I would strongly agree on having this new flair in schools and knowledge that this pandemic has brought us, we feel our time is a lot more flexible and not just situated in a small "box"."*

Policy Implications for Schooling in India

A set of learnings from the findings of the studies cited flag the burden of digital inequality on children. As ASER (2020) suggests, it is imperative to monitor school dropouts, document learning loss, build family support into planning for learning improvement, devise multiple ways of reaching the learner, and improve digital content and delivery by assessing what works in different geographical regions to reduce the digital divide. We need to scale up low-tech learning solutions especially for vulnerable groups such as girls, children with special needs, street kids and those living in remote areas to ensure continuity of quality education for their health, safety, and well-being.

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The Psychological Impact of the COVID-19 Pandemic in Spain and the Challenges for the Mental Healthcare System

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Impact of the COVID-19 Crisis on Mental Health in Spain

The COVID-19 pandemic is having a massive impact worldwide. Spain is one of the European countries most heavily impacted by the pandemic. Since the beginning of the health crisis, several measures were taken to control the virus spread, such as the national lockdown from March to May 2020. As a consequence, the Spanish population has experienced significant changes that affect a wide range of life areas, including finances, employment, restriction in movements, cancelation of important activities, and a generalized impairment in mental health (Rodríguez-Rey, Garrido-Hernansaiz, & Collado, 2020). Studies conducted in Spain have shown that between 15 and 41% of the participants scored above the cut-off points for anxiety, depression, and post-traumatic symptoms (González-Sanguino et al., 2020). In addition, Rodríguez-Rey et al. (2020) found that what concerned the Spanish population the most was the personal psychological impact of the crisis. Furthermore, those who were more concerned about their psychological state during this crisis also scored higher in distress. In this essay, we focus on the results obtained in the Spanish population; however, it should be kept in mind that similar outcomes have been reported in many other countries (e.g. Boyraz & Legros, 2020), showing that the pandemic has indeed had a profound impact on mental health worldwide.

Factors that Worsen the Psychological Impact of the COVID-19 Crisis

Considering the current evolution of the COVID-19 pandemic, it unfortunately seems that the crisis is still far from being over. Thus, we face a long-lasting stressor which comes along with changes and situations that become stressors themselves.

First of all, the impact on the economy has been critical (World Bank Group, 2020) and it will likely have long-lasting and still unknown consequences. During the economic recession that took place in Spain, starting in 2007-2008 (Lopez Bernal, Gasparrini, Artundo, & McKee et al., 2013), suicide became the leading cause of external mortality (especially for people of working age; Spanish Statistics National Institute-INE, 2010) a fact that can help us anticipate the great risk for mental health that the current threat to financial stability carries. In fact, the virus' impact is related to socioeconomic status. As Baena-Díez, Barroso, Cordeiro-Coelho, Díaz, & Grau (2020) found, the incidence of COVID-19 tends to be higher in lower-income areas, possibly due to various reasons such as a lower possibility to telework or more frequent use of public means of transportation (Cartenì, Di Francesco, & Martino, 2020). Additionally, lower socioeconomic status is associated with worse mental health during the lockdown in the general population: those with lower income, who were concerned about an income reduction or even about losing their jobs, or who had to stop working due to COVID-19 showed higher scores on depression, anxiety, and stress (Rodríguez-Rey et al., 2020). Moreover, a higher household density during the confinement period (i.e., more people living in smaller houses) was also associated with worse psychological health (Rodríguez-Rey et al., 2020). These data show that the population experiencing economic difficulties or job insecurity and those living in economically deprived areas are especially vulnerable to the negative effects of this health crisis. Specific measures should be taken to prevent and palliate these negative psychological consequences in a population with a high risk and very few resources.

Another set of variables that play a relevant role in mental health are loneliness and lack of social support. While loneliness during the lockdown period was positively correlated with depression, anxiety, and post-traumatic stress disorder (PTSD) symptoms, social support was shown to be a protective factor (González-Sanguino et al., 2020). Previous studies have shown that indeed loneliness is related to both impaired mental health and physical issues such as cardiovascular health risks (high blood pressure, cholesterol level, etc.). Senior adults deserve special consideration in this regard, since they are more likely to experience loneliness. For instance, the highest prevalence of chronic or frequent loneliness in Spain has been found in those aged over 60 (Yang & Victor, 2011). Consequently, the severe measures required to contain the spread of the COVID-19

(including social distancing and restrictions on social activities) may have a stronger impact over those who already are more vulnerable to experience loneliness. However, given that the available studies were conducted online, a method that usually has trouble recruiting older people (González-Sanguino et al., 2020), there is a dearth of information about how the pandemic is affecting this population group. Thus, special efforts should be invested to gather more knowledge about their current situation and develop specific measures to take care of them.

The Spanish Mental Healthcare System

An increased need for mental healthcare is to be expected due to the major psychological impact of the pandemic. Therefore, it is particularly relevant to understand how the Spanish health system is organized, as well as its handicaps. In Spain, people access mental health services mainly through primary healthcare. In fact, it has been reported that 70% of the population who require mental health support seek the support of general practitioners rather than psychologists or psychiatrists (Pastor Sierra, 2008). Primary healthcare is supposed to detect cases in need of specialized mental health aid and refer them to mental health services. However, this system usually fails, hindering patients' right to obtain adequate treatment (Pastor Sierra, 2008). As a case in point, it is estimated that 50 to 70% of patients suffering from depression in Spain do not receive either a diagnosis or the necessary treatment. Furthermore, when obtained, diagnoses are not always accurate. According to the established criteria for clinical praxis this makes treatments merely acceptable for about 30% of the cases (Pastor Sierra, 2008). Considering that the pandemic is increasing the need for mental health care, the flaws in the system are likely to increase exponentially, resulting in failure to provide the necessary care.

In addition to the above, the main treatment offered by the Spanish national healthcare system for mental or emotional issues is psychopharmacology (Spanish National Statistics Institute (INE) (2020). The prescribed medication is not always effective and the prescribing practitioners may not follow the appropriate guidelines for each disorder (Pastor Sierra, 2008). Psychiatric drugs are generally prescribed for longer periods than appropriate and are even dispensed in the absence of the clinical condition that would justify their use. This situation translates into both great costs to the Spanish government health budget and deleterious side effects for the patients. While cognitive-behavioral psychological treatment has shown an effectiveness equal to or greater than pharmacological treatment for several mental health issues (Butler, Chapman, Forman, & Beck, 2006), Spain does not have the necessary number of psychologists in the national health service to provide this treatment. In fact, there is an average of 6 psychologists per 100,000 population, which is a significantly lower number than the overall European rate of 18 psychologists per 100,000 population (Defensor del Pueblo, 2020).

The Spanish Healthcare System's Response to the COVID-19 Crisis

As noted, Spaniards' mental health is at risk while the system that should take care of them is greatly understaffed and unprepared. Hence, the Spanish healthcare system faces an enormous and unprecedented challenge. The first wave of the pandemic (March-May 2020), exposed a severe shortage of sanitary supplies. Additionally, healthcare workers are currently experiencing alarmingly high levels of psychological distress, which appears to be higher in areas with more COVID-19 incidence (Romero et al., 2020). Consequently, the workers who handle healthcare demands are one of the most psychologically affected populations. At the moment of writing this essay, Spain is at the beginning of a second wave of the pandemic, which is pressuring the healthcare system and worsening healthcare workers' mental health even further.

Thus, although the Spanish mental healthcare system is already overburdened, we may anticipate that such pressure will be further aggravated during the second and subsequent waves. As already mentioned, different studies have shown that the psychological impact of the crisis is quite high (González-Sanguino et al., 2020; Rodríguez-Rey et al., 2020). With an overwhelmed primary healthcare cadre, mental health problems will most likely not be detected and treated on time, and consequently they might worsen. Additionally, healthcare workers are themselves in need of mental health support; this can ultimately render the system understaffed in times of higher demands, considering that psychological impairment is one the main causes of work leave (Araña Suárez, 2008).

In consideration of such a difficult scenario, it seems essential to dedicate efforts and resources to strengthen primary care and mental health services. Additionally, effective protocols to detect psychological difficulties should be incorporated to help screen the medical and nursing staff in primary care for disorders such as depression (Aragonès et al., 2008). Given that emotional distress can exacerbate physical symptoms—which these patients usually present rather than psychological difficulties (Aragonès., Labad, Piñol, Lucena, & Alonso, 2005; Unützer, Schoenbaum, Druss, & Katon, 2006)—it will be particularly challenging to identify and treat psychosomatic symptoms.

Another issue to consider is the need to increase the number of psychologists in the national health system. Even though in the past few years psychologists have started to be included in some primary care services (Alonso Gómez, Lorenzo Reina, Flores Méndez, Martín García, & García Briñol, 2019), the rate of psychologists per capita is still alarmingly low. The incorporation of psychologists is especially relevant if we consider that the first-choice treatment for PTSD (a possible psychological consequence of the pandemic) is psychotherapy rather than psychopharmacology (National Institute for Health and Care Excellence, 2018). The incorporation of psychologists would facilitate timely and effective psychological interventions that would prevent or mitigate the negative effects of the crisis in the population (Duan & Zhu, 2020; Hamblen et al., 2009; Leiva-Bianchi, Cornejo, Fresno, Rojas, & Serrano, 2018). Examples of effective psychological interventions in the context of the COVID-19 pandemic include exposure to feared situations, adjustment of irrational beliefs, and behavioral control over compulsive behaviors such as constantly reviewing news about COVID-19, which is related to depression, anxiety and distress (Rodríguez-Rey et al., 2020).

Finally, it is crucial to take care of the psychological wellbeing of healthcare workers. This is especially relevant

for those in direct contact with COVID-19 patients who experience stress associated with an increased risk of infection, work overburden, emotionally demanding situations, and lack of sufficient support from their organizations (e.g., Romero et al., 2020). Psychological interventions could palliate this psychological impact, especially in high-vulnerable contexts like intensive care units or the emergency department (Chen et al., 2020; Inchausti, García-Poveda, Prado-Abril, & Sánchez-Reales, 2020). In this regard, the UH-CI project carried out in Spain (Heras & Gálvez, 2020) is incorporating psychologists into intensive care to attend not only to patients and their families, but also to workers in need of this support.

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Mental Health Challenges in India in the Time of COVID-19 Pandemic: An Overview

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COVID-19 is a war waged between nature and humankind with harsh negotiations between the two and long-term consequences of trauma that the human race must confront. The psychological impact of this virus is intertwined with the reality of the multilayered social and economic structures of India. It would take multiple stakeholders and policy makers to unravel the virus' psychological impact on each aspect of life and to integrate healthy resilient individuals back into society. The impact is not limited to the fear of getting self or loved ones infected; the effect of the virus is unfolding its layers with each new reality hitting harder than the previous one. From the strictest lockdown in the world, India has experienced job loss or low earnings in business, a pause in academic pursuits, sudden change in lifestyles, and high risk to essential workers without adequate equipment in industrial and agrarian settings. India has witnessed it all in the past few months and continues to do so in its newer forms especially as the GDP has hit a new low (Noronha, 2020).

From an existential perspective a person who must redefine the terms of living with a new reality and reinvent the ways to survive can feel immense anxiety especially when the crisis is completely unexpected. When Seligman introduced the concept of learned helplessness, he emphasized that people perceive failures which are due to uncontrollable events resulting in anxiety or depression. The fact about the coronavirus is that it has brought uncertainty and loss of control over one's life. Hence people had to begin to reinvent their lives and find newer meanings to gain back that control. Although it sounds linear or simplistic, before humans learned to find new ways to relate in life, they had to deal with the trauma that is associated with the virus given their own unique realities.

Everyone in a society experiences the impact of lockdown, but vulnerable and marginalized groups have unique issues to deal with (Nicolas, 2020). Think of sexual minorities, people with disabilities (United Nations, 2020), people below the poverty line, sex workers, homeless people, daily wagers, farmers, elderly living alone (Whiting, 2020) and vulnerable women who experience domestic violence (Kumar, 2020). To contain the virus, lockdown was the primary emergency protocol; this has delivered a double blow to vulnerable populations because they are now even more marginalized. The impact of stratification in society becomes more extreme in such cases. While the nation's focus on is on testing, preventing transmission and now rebuilding the economy, the people have been subjected to myriad psychological issues in adjusting their lives to this coronavirus, and adopting new lifestyles or survival strategies.

The pandemic has hit India hard; and the associated uncertainty is testing the psychological resilience of the masses.

Psycho-social Effects across Different Populations

General public

It is well established by now that the effect of social isolation due to the pandemic amplifies mental health issues like anxiety, fear, depressive symptoms, sleep disturbances, sense of loneliness, anger issues and more. In the long run symptoms of post-traumatic stress disorder and depression have been reported (Haider, Tiwana, & Tahir, 2020). Lockdown can have varied impacts across a whole range of socio demographic profiles; for example, those who work from home could face more stress due to increased responsibilities at home and unstructured working hours. With the suddenness and degree of the shift to remote work, the increased burden of childcare, and all the worries that accompany the pandemic and its economic fallout, burnout is intensified (Javed et al., 2020). A review published in The Lancet stated that the loss of freedom, boredom, separation from loved ones, and uncertainty can cause a deterioration in an individual's mental health (Brooks et al., 2020). Some traits, such as neuroticism, feeling loneliness, having previous mental disorders or physical complaints, have been found to increase the likelihood of suffering from anxiety or depressive symptoms, whereas extraversion, self-efficacy or a strong parental attachment style have been found to foster resilience (Braquehais et al., 2020). The possibility of increased use of substances as a maladaptive coping mechanism to deal with stress and social isolation cannot be ruled out (Pfefferbaum & North, 2020).

Children, adolescents, and young adults

Children may feel restless if they run out of options to keep themselves engaged. Children removed from structured school environments, peers and playmates can experience an abrupt shift in behavior. They can experience anxiety from social isolation and the break in their routine but

express it differently than adults. Parents may underestimate their children's distress. According to the National Education Policy in India, there are 91.2 million poor children enrolled in public schools who got mid-day meals; they now lack nutrition and are also suffering from inadequate opportunities to learn (Sharma, 2020). Children can have trouble with attention, concentration, changes in eating habits, meltdowns, temper tantrums, and increased aggressive behavior. Among college students, online classes have increased stress due to poor accessibility of the internet or malfunctioning devices. Adolescents have increased their use of social media and gaming as a coping strategy to deal with isolation and family maladjustment. Family conflicts have increased due to increased proximity and time spent together; this is especially challenging for children who are subjected to abuse at home. Academic loss or delay in graduating from college have delayed employment opportunities and curtailed earnings. The International Monetary Fund (IMF) is concerned about a global economic recession in the making. India is no different in the current scenario, with constantly decreasing growth rates–presently projected at 1.9% by the IMF–directly impacting unemployment rates. (Noronha, 2020)

Elderly population

India has a shortage of assisted living homes or day care centres for elderly people. The only source of support to the elderly is provided by family or the immediate community. The trend toward nuclear families as opposed to multi-generational households, especially in big cities in India, has isolated its elderly. Being biologically vulnerable to the coronavirus due to a weaker immune system as well as increased likelihood of existing comorbidities poses a high threat to this population. Extreme isolation and restricted physical movement can diminish psychological health (Whiting, 2020). Increased dependence on others can cause a sense of helplessness and loneliness. Their self-perceived vulnerability can also intensify, resulting in psychological trauma.

Persons with mental illness (PMI)

People suffering from pre-existing neurotic disorders like anxiety, depression, OCD, or phobias can experience an exacerbation of these symptoms due to increased fear and apprehension (Haider et al., 2020). There have been reports of abrupt psychiatric illness episodes precipitated by psychosocial factors such as sudden death in the family due to the coronavirus, loss of income, and school children's lack of internet accessibility or devices to attend online classes (Pascoe, Hetrick, & Parker, 2020). People with poor emotional regulation are reporting increased self-harm episodes to manage their stress. Cognitive impairment, less awareness of risks, and faulty understanding of protective measures can lead to increased vulnerability to virus in people with pre-existing psychiatric morbidities. People suffering from mental health conditions already experience poverty, chronic medical issues, and social disparity, hence COVID-19 is likely to adversely affect this population more acutely than the rest. Discrimination and stigmatization can potentially make psychiatric treatment less effective. Caregiving can become more burdensome with such populations where there are frequent visits to psychiatric facilities; managing them at home can be challenging due to poor self-compliance to treatment. These conditions may produce emotional stress and conflict in families, and due to the altered living conditions many of the identified risk factors like expressed emotions in families, family pathology, and isolation, will increase, most likely leading to an increase in psychiatric symptoms (Vindegaard & Benros, 2020).

People with disabilities

While people with disabilities are not more vulnerable to the virus, various psychosocial factors and specific underlying conditions make the disease more dangerous for them than for others. Such people have more healthcare needs than others such as the need for assistance in daily living and other needs linked to impairments (United Nations, 2020). Therefore, they are more vulnerable to the impact of low quality or inaccessible health-care services than others. When children with conditions such as Autism spectrum disorders, or low intellectual functioning who regularly seek the services of occupational, speech and behavioral therapies outside the home are not able to do so, the change in their immediate environment and routine can be detrimental to their conditions. Caregivers can feel burdened by the added responsibility of caring while navigating their own individual challenges. Often it is also difficult for them to process the COVID-19 situation and assign meaning to it due to their cognitive or sensorimotor limitations which cause disruptive behavior.

Women

This pandemic has exposed all kinds of societal inequalities and gender inequality is one of them. There is threat to the social security of women due to lockdown with abusive partners where they experience increased domestic violence. There has been a surge in cases of intimate partner violence and home is not proving to be a safe place for them. Women are under an increased burden of household and childcare responsibilities. Many urban women must juggle remote office work with domestic responsibilities. Women involved in poorly paid jobs without benefits, such as domestic workers, laborers, street vendors, and those engaged in small-scale services experience the economic burden more (Guterres, 2020).

Economy and psychological distress

Farmers' suicide is a well-known phenomenon in India (NCRB, 2020). Famers who do not own land and carry a burden of debt, are hit harder due to disruption in supply chains and market linkages. Migrant laborers and daily wage workers started their long journey back home on foot for thousands of miles in the extreme lockdown period because they had no work in big cities to earn wages and make ends meet. There are daily news reports about laborers' plight with the expression that before the coronavirus can kill them hunger will do it. Daily wage laborers are mostly engaged in diverse activities in the organized

and unorganized sector. But with the shutdown of industries and manufacturing sectors along with shops, their services were terminated by default, leaving them without any financial support for shelter and food. With the hospitality and retail industries getting hit by the virus, loss of business means loss of income for families dependent on them (Andrews, 2020). The vicious cycle of unemployment-poverty-social insecurity-inequality are social determinants which cannot be overlooked in causation of mental illness in the long run.

What can we do?

As individuals

Successful adaptation to stress is possible if we strengthen our innate abilities of survival such as resilience and assigning new meaning to life (Sommerfield & von Ungern-Sternberg, 2020). Victor Frankl said we always have the freedom to find meaning, even in the face of unchangeable suffering. Behavioral strategies like good sleep hygiene, self-care activities, improved lifestyle choices, developing skills to manage stress, and cognitive strategies like reducing thoughts of catastrophe are helpful. Effective cognitive appraisal of the situation can lead to better emotion regulation strategies essential for well-being. Mindfulness can promote resilience and reduce burnout. Being "here and now" mindfully can help deal with the uncertainty that the virus brings and increase our self-efficacy and resilience.

As community

As a society when we experience a collective trauma it is imperative to heal together and move forward as community. Understanding each other's vulnerabilities is significant to improve social health, withstand trauma, and recover from adversity. Building preparedness and social connectedness while maintaining physical distancing or virtual contact and improving accessible health care systems which are inclusive of mental health care, can promote community recovery. Focusing on social services, health and wellness, expanding communication and collaboration through building networks that focus on social services, behavioral health, community organizations, businesses, academia, at-risk individuals, and faith-based stakeholders in addition to traditional public health, healthcare, and emergency management partners is the need of the hour (U.S. Department of Health and Human services, 2015).

As mental health professionals

When we are back with our clients doing teletherapy or face-to-face sessions we will be navigating the fear and uncertainty associated with the virus even while dealing with psychological issues through our therapeutic alliance. As we all pass through the stages of denial of the virus to phases of acceptance, accommodation and assimilation, we must be mindful that each client is also experiencing the same stages. While adjusting to the new normal we must understand that in this post-traumatic phase we have had shared experience of living in the times of pandemic with each client; hence our empathy should be the primary drive.

Way forward

Assuming that the future is still uncertain, this is a time to contemplate our individual and social identity and take steps to improve our relationships with ourselves, our families, and our communities. Social empathy, strengthening social bonds, making conscious choices, and mindful living are the values to hold for the future. The coronavirus has taught us that when one part of the world experiences such huge effects of a highly infective illness, other parts of the world are not spared. The interconnected effect of this virus highlights the interconnectedness of the humans and their interdependency. This pandemic calls for the urgent attention of policymakers to make sensitive and inclusive health decisions for the marginalized and the vulnerable, both during and after the crisis. It provides a unique opportunity to study the psychological impact of conditions which pose a threat to the psychological integrity of a person, and in the long run imposes a huge socioeconomic impact. We must guarantee the equal rights of people with disabilities to access healthcare and lifesaving procedures during the pandemic (United Nations, 2020). Women in insecure jobs urgently need basic social protections, from health insurance to paid sick leave, childcare, income protection and unemployment benefits (Guterres, 2020). Maintaining the psychological balance of poor people is imperative to restore the social structure of the country. There is need to be informed, educated, and able to help others by engaging in community and neighborhood preparedness activities for resilience building. Helplines, psychosocial support and online counseling should be boosted, using technology-based solutions such as SMS, online tools and networks to expand social support, and to reach women with no access to phones or Internet. To get through this health crisis we need to get together to fight this humanitarian crisis first.

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Young People in the COVID-19 Pandemic: Findings from Germany[1]

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A Broader Look at COVID-19 in Germany

The COVID-19 pandemic has dramatically changed not only the public life in restaurants, theaters etc., but has also strongly affected family conditions and young people's everyday experiences. While some may have enjoyed school closure and the time with family, many families have been hit hard by the COVID-19 pandemic and its associated lockdown (e.g., Biroli et al., 2020; Lebow, 2020). In Germany, the lockdown was announced almost everywhere in March 2020. With the closure of daycare centers, nurseries and schools, the majority of parents and children were restricted to their household as the exclusive place of their everyday life. At the beginning of April, only 1.5 percent of all parents with children age 3 to 10 took advantage of emergency care, which was open to children whose parents worked in occupations needed to keep the system going (Möhring et al., 2020). Ninety-three percent of the parents looked after their children at home. Work turned into home-office for a large share of professionals, less so for workers. As might be expected, parents reduced their working hours more often than childless people, and mothers did so more often than fathers (Bünning, Hipp, & Munnes, 2020).

Early on, public concern focused consequences of the pandemic for the economy, but soon also addressed likely changes in family labor division. The potential impact of increased parenting demands on gender inequalities in families has been widely debated (e.g., Alon, Doepke, Olmstead-Rumsey, & Tertilt, 2020; Settersten et al., 2020). While there is fairly robust evidence suggesting stronger changes in mothers' than fathers' employment situation (e.g., Adam-Prassl, Boneva, Golin, & Rauh, 2020; Reichelt, Makovi, & Sargsyan, 2020), changes in couples' division of housework and childcare during the COVID-19 pandemic seemed more diverse, suggesting no clear overall increase of gender inequalities in this domain (e.g., Hank & Steinbach, 2020).

Schooling has also been widely debated. Prior to COVID-19, homeschooling was not allowed in Germany. Given the shutdown of schools, it soon became evident, how little prepared most schools were for digital teaching. According to the German School Barometer during the Corona crisis, teachers most frequently pointed to the lack of digital equipment for pupils as the greatest challenge at present (forsa, 2020). Two-thirds of the teachers stated that their students only partially had the necessary hardware (e.g. laptop or tablet), making it difficult to reach and teach all students equally.[2] Sixty-six percent of the teachers surveyed in the German School Barometer reported that their school was insufficiently prepared for the situation in terms of technical equipment (forsa, 2020).

However, several findings suggest that the pandemic has had not only negative consequences but has also offered chances. The German study JuCo, which comprised online interviews with over 5,000 young people between 15 and 30 years old, found that young people's satisfaction with how they spent their time during the pandemic was overall lower in real time than in retrospective accounts, but there was also a group who felt relieved by the contact restrictions (Andresen et al., 2020a). This was especially true for young people who suffered from mental illnesses such as depression or social anxiety. In the affiliated Study KiCo, parents with children under 15 years of age reported on their experiences in the Corona crisis (Andresen et al., 2020b). The findings show that some families enjoyed the additional time together and used it for more joint activities. Some described how everyday family life was now characterized by decreased stress levels and slowing down. Children clearly spent more time with their family under the conditions of Corona restrictions, increasing the risk of loneliness, particularly for those without siblings, but also offering chances to strengthen family cohesion (Langmeyer, Guglhör-Rudan, Naab, Urlen & Winklhofer, 2020).

While considerable attention has been paid to issues of home-office and home schooling; to young children's lack of day care; and to health risks and loneliness of the elderly in institutional care, adolescents have hardly been seen and heard during the shutdown. Although they had no access to school, had to forego outings and meeting with peers, and were "locked in" with their parents, their strains and coping with changed conditions have rarely been addressed. In the following, we seek to shed some light on adolescents' situation in the COVID-19 pandemic. Based on the German Family Panel *pairfam*, we were able to analyze changes in adolescents' well-being since the year before Corona, and could link these trends to changes in family climate.

Adolescents in the pairfam COVID-19 Survey

The Family Panel *pairfam* annually collects data from a representative German sample of three birth cohorts (1971-73, 1981-83, 1991-93) (Huinink et al., 2011). In wave 11 (conducted in 2018/2019) a new adolescent cohort (born in 2001-03) was added. In 2020, the interviews for wave 12 were interrupted by the pandemic due to COVID-19, so the

main respondents were asked to complete an additional web-survey focusing on their life during the pandemic. This survey was conducted during the first round of lockdowns in the spring of 2020 (see Walper et al., 2020). The following analyses are based on data of the new adolescent cohort who answered the pairfam COVID-19 study in 2020 and still lived with at least one of their parents during this time. Some of the data used come from wave 11 (release 11.0; Brüderl et al., 2020). This sample consists of 824 young people (43% male, 57% female) aged 16-20 years (mean age 17.4). About 20% of the respondents had separated parents (reported in wave 11). Contact restrictions still existed for 80% of the respondents during the survey. The majority (77%) stated that they were still students in school at the time of lockdown, while others were in training or doing an internship. Only a few respondents had already started their university studies (4%).

For Better or for Worse: Changes in Family Climate and Adolescents' Well-Being

Changes in family climate at home in comparison to the time prior to the pandemic were assessed with five items (e.g. "The atmosphere is . . . anxious and worried", ". . . happy, we are having fun together"), asking for each aspect whether this was more or less the case than before or whether there was no change. Taking the content of items into account and calculating the mean perceived change across all five items, 27 percent of the young people stated that there was an improvement in family climate during lockdown, whereas almost half of the respondents (47%) reported an overall negative change. For 26 percent, the family climate remained the same as prior to the pandemic. To be able to inspect positive as well as negative changes separately, these five items were used to create two cumulative scores that indicate the number of items in which the family climate improved or deteriorated. While less than half of the respondents (43%) experienced a positive change in at least one of the items, 62 percent reported a negative change in at least one item. Compared to the rates of overall change reported above, this suggests that positive and negative changes may well coincide. In fact, 21 percent of the adolescents reported positive as well as negative changes in family climate.

We used multiple regression analyses for a brief first look at who was more or less likely to report positive or negative changes in family climate. Findings for demographic and socioeconomic characteristics (gender, age, economic deprivation; N = 811) show that positive changes in family climate were only linked to adolescents' age, being more prevalent among younger adolescents (beta = -.121, p < 01). Older adolescents (beta = .115, p < .01) and females (beta = .079, p < .05) were more likely to report a deterioration of family climate. Economic deprivation one year prior to the pandemic had no effects on changes in family climate.

Adolescents' well-being during the lockdown was assessed using several indicators, three of which were also part of wave 11, allowing for longitudinal comparisons: loneliness (1 item) activity (3 items), and stress (3 items) (for further information on the indicators see Thönnissen, Wilhelm, Alt, Reim, & Walper, 2020; Walper et al., 2020). Similar to our findings for perceived changes in family climate, a trend in both directions was evident: Based on difference scores, 29 percent of the young people indicated that they felt less alone during the pandemic than reported earlier, while 36 percent felt more alone, and 35 percent did not evidence any change. Regarding activity, the change was stronger in the negative direction: Only 17 percent felt more active and energetic, while the opposite was true for 45 percent, and 38 percent reported the same activity level as before. The higher prevalence of reduced activity is not surprising since sports clubs remained closed and everyone was asked to stay at home during the lockdown. Finally, as activity decreased, so also did stress: 39 percent of the adolescents felt less stressed or overburdened than in the year before the lockdown, while only 29 percent felt more stressed (32 % no change). Overall, this shows that the Corona crisis with the accompanying lockdown had negative as well as positive effects: It could lead to an increase in loneliness on the one hand, but it could also reduce the stress levels for many on the other hand.

Based on the many findings suggesting links between family climate and adolescents' well-being (e.g., Gomez-Baya & Muñoz-Silva, 2020; Herke, Knöchelmann, & Richter, 2020; Phillips, 2012) we expected that perceived changes in family climate would also be linked to longitudinal changes in well-being. For respective correlational analyses, positive and negative changes in well-being were measured separately as the number of dimensions (activity, stress, loneliness) in which well-being improved or worsened. This indicator rather measures breadth of change instead of intensity. As expected, negative changes in family climate were significantly linked to a deterioration in well-being (r = .158, p < .001, N = 796) and weakly linked to lower chances for an improvement in well-being (r = -.083, p < .050, N=796). Furthermore, an improvement in the family climate during the COVID-19 crisis was weakly accompanied by an improvement in the well-being of the adolescents (r = .077, p < .05, n = 796) while being negatively linked to a deterioration of well-being (r = -.111, p < .01, N = 796). When combining positive and negative changes by subtracting positive from negative changes for both, family climate and for well-being, the link between changes in family climate and changes in well-being proved highly significant, but still limited in strength (r = .152, p < .001, N = 796).

Conclusion

These findings point to the heterogeneity of adolescents' experiences and responses to the COVID-19 pandemic. In their subjective accounts, negative changes in family climate compared to the time prior to the pandemic were more prevalent than positive changes, but still every fourth adolescent felt that the family climate had improved. With respect to well-being, positive and negative changes seemed to be similarly prevalent. Almost 40 % reported more loneliness than they had indicated in the year before, but a similar share of adolescents also experienced relief from stress. These numbers do not inform about differences in the amount of change, and negative changes may be stronger than positive changes. However, they support the notion that experiences during the pandemic are not

uniform. While perceived changes in family climate seem to contribute to changes in adolescents' well-being, these links are only weak. Further analyses will be needed to identify vulnerable groups and consider other factors, most prominently the role of peers.

Notes

1. This paper uses data from the German Family Panel pairfam, coordinated by Josef Brüderl, Sonja Drobnič, Karsten Hank, Franz Neyer, and Sabine Walper. pairfam is funded as long-term project by the German Research Foundation (DFG). We are grateful to all participants.
2. see: https://fobizz.com/umfrage-ergebnisse-so-sehen-lehrkraefte-die-corona-krise-in-der-bildung/

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Multisystem Resilience for Children in Disaster: Reflections in the Context of COVID-19

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The COVID-19 pandemic is an alarming wake-up call to humanity indicating that we are not prepared for global, cascading disasters that threaten multiple systems supporting human life and healthy child development (Masten & Motti-Stefanidi, 2020). The pandemic has underscored glaring inequities in vulnerability, resources, and resilience at multiple levels of functioning from the immune system of individuals and medical care or food access of families to leadership of state and national governments. In this commentary, I reflect on the value of a multisystem perspective on resilience for understanding and addressing the risks posed to children and their families by mass-casualty disasters. I discuss the nature of cascading challenges arising during this pandemic in relation to research on disasters, advocate for a definition of resilience that is portable and scalable across system levels, and propose that the systems driving psychosocial resilience show striking parallels across levels because they co-evolved and often function interdependently to foster positive adjustment and development. In conclusion, I address implications for research and disaster preparedness.

Observations on the Cascading Challenges of COVID-19

All disasters, by definition, threaten the lives or functioning of large numbers of people and often overwhelm many socioecological systems simultaneously or in a sequence. COVID-19 has generated a complex and cascading disaster challenging the wellbeing of children, families, and communities worldwide, as well as the governmental, nongovernmental, and infrastructure systems that support human lives (Cluver et al., 2020; Gruber et al., 2020; Masten & Motti-Stefanidi, 2020; Rolland, 2020; Settersten et al., 2020; Walsh, 2020). Challenges of the virus have spread from individual immune systems to individual mental health, family function, medical services, workplaces, schools, communities, national governments, and international agencies.

The literature on disaster for decades has consistently indicated dose effects, where impact over time depends on the acute and chronic adversities that result from the disaster as well as pre-existing conditions of adversity or deprivation (Masten, Narayan, Silverman, & Osofsky, 2015). The lives of children and families in the time of COVID-19 have been profoundly disrupted by illness, deaths, and quarantines; shutdowns at many levels of society, including childcare, school, and college closures; job losses; evictions; cancellations of large gatherings for celebrations, sporting events, vacations; and many other experiences valued by children, youth, and families. School closures and distance learning have challenged children, teachers, parents, and employers. Diverse scholars and professionals have voiced concerns about the immediate and longer-term dangers posed by the pandemic to the mental health and development of children and youth due to losses, social isolation, interruptions in education, restricted opportunities to play, family violence, food insecurity, and other threats (e.g., Fitzpatrick, Carson, & Weisz, (in press); Roades et al., 2020; Petrowski., Cappa, Pereira, Mason, & Daban, 2020).

The pandemic also has revealed striking disparities in access to resources critical for responding to these challenges, with devastating consequences to children already at risk for health and education problems due to poverty, nutritional deficits, racism, marginalization, housing instability, exposure to violence in the home or community, and other well-established threats to child development. In the United States, data indicate disproportionate effects of the pandemic on ethnic-racial minority children due to their precarious access to food, housing, healthcare, and essential tools for distance learning, such as internet service and computers (Ambrose, 2020). Globally, evidence suggests that the pandemic has affected humanitarian outreach programs and child protection services. Contacts to child helplines reportedly surged during 2020, even as the reporting of child maltreatment declined (Petrowski et al., 2020).

As the pandemic wears on, new challenges are emerging. Fatigue is setting in and hope for "turning the corner" soon or to resume normal lives is fading as new waves of infections and deaths unfold. Surge capacity mobilized at many levels, to increase personal protective equipment or to cheer up family members and friends, seems depleted. Is it any wonder that attention to resilience is increasing?

The rising interest in resilience is not new, although the pandemic has accelerated the rise. Increasing threats around the world from weather-related disasters as well as political conflicts already appeared to be driving attention to resilience before the pandemic (Masten, 2014a). In the context of COVID-19 and the pandemic's unprecedented threats to the present and future of children, it is important to consider what we have learned about resilience of children in disasters and what we need to know to prevent problems, protect development, and prepare for future challenges.

Defining Resilience for Scalability and Portability Across Disciplines

Disasters, including epidemics, pose multisystem challenges. Therefore, adequate responses are likely to benefit from the integration and application of knowledge from multiple disciplines. In that regard, I believe it is crucial to define resilience for scalability and portability across disciplines, for the sake of communication, collaborative research and interventions, and training. My personal conversion to this view began with participation in a small multidisciplinary network on resilience funded by the National Science Foundation (Masten, in press; see Masten & Obradović, 2008). In order to address the issues posed by large-scale shocks, such as natural disasters, pandemics, or terror attacks, it was helpful to align our concepts, including resilience. It was evident as well that we shared a systems perspective on adaptation to disturbances, even though we focused on different kinds of systems (people, lakes, computers, etc.).

Since that time, I have advocated for a multisystem definition of resilience akin to the following (Masten, 2007, 2014b, in press): The capacity of a dynamic system to adapt successfully to challenges that threaten the function, survival, or development of the system. The system in question could be an individual child, that child's immune system, a family, an economy, a community, an organization, or an ecosystem of some kind.

This definition is also congruent with developmental systems theory, which has infused the study of child development over the past few decades (Masten, Lucke, Nelson, & Stallworthy, in press; Overton, 2013). Resilience in a child or family is always changing because the situation and the systems involved are always changing. Children continually change as a result of ongoing experiences and many interactions across systems from molecular to sociocultural levels that shape development and learning.

Resilience refers to the capacity a system has to respond to disturbances or threats confronting the system. We usually observe the results of the multiple processes involved in this mobilization in the system's "manifested resilience" or adaptive function by whatever criteria are judged to be important. The underlying processes responsible for positive adaptation typically are inferred rather than observed or measured directly. Many systems contribute to the capacity of a child to respond to challenges, including not only individual neurobiological systems and learned know-how, but also the support of relational systems, families, schools, and communities. COVID-19 is producing particularly difficult challenges for children because it has overwhelmed or disrupted the function of many of the most important adaptive systems that contribute to resilience in child development.

Parallel Drivers of Psychosocial Resilience: Children, Families, Schools, Communities

What makes a difference when children experience significant threats? This question has motivated many developmental studies of resilience. Over the years, numerous answers emerged from this body of research. Initially the focus of research centered on the promotive and protective factors or processes involved in resilience of children at risk due to adversity or deprivation. From early in the study of resilience in children at risk for various reasons, there was considerable consistency in the answers, despite the variety of adversities under study (Garmezy, 1983; Rutter, 1987). I began to call the list of widely reported resilience factors the "shortlist" around 20 years ago (Masten & Barnes, 2018). Recent narrative reviews continue to support the idea that a core set of factors are common in studies of child resilience (e.g., Ungar & Theron, 2020); moreover, a growing number of systematic reviews of resilience in the context of diverse threats also align well with the shortlist (e.g., Fritz, de Graaff, Caisley, & van Harmelen, 2018a; Gartland et al., 2019; Meng et al., 2018). I have proposed that the salient resilience factors typically appearing on these lists reflect fundamental adaptive systems shaped by biological and cultural evolution because they support adaptability under diverse conditions (Masten, 2014b).

Over time, research on resilience in families and communities grew in parallel with research on individual resilience in children (Norris, Stevens, Pfefferbaum, B., Wyche, & Pfefferbaum, R. L., 2008; Walsh, 2016), although with surprising lack of integration across levels of analysis and disciplines. Then, with equally surprising speed, disparate bodies of research on resilience began to coalesce in the work of various scholars, often motivated by mass-trauma threats of terrorism, war, and climate change (Masten, 2018; Ungar & Theron, 2020).

I have suggested, together with my collaborators, that the shortlist of resilience factors (and adaptive systems the list represents) extends across multiple system levels (Masten, 2018; Masten et al., in press; Masten & Motti-Stefanidi, 2020). We posit that the parallels in the protective/adaptive systems noted in the literature on individual children, families, schools, and communities are too similar to be coincidental. We believe that common protective/adaptive systems are co-active and likely co-evolved to work in concert. These attributes of human individuals and social systems align well because they engage the same basic adaptive systems at multiple levels of organization (Masten et al., in press). The multisystem list includes resilience factors such as close relationships and social support; a sense of belonging or cohesion; self-regulation or executive leadership; purpose and a sense of meaning; hope or optimism; and other attributes associated with resilience at individual and social levels. Communities as well as individuals fare better when they have a sense of purpose, belonging, and positive view of the systems (e.g., "Boston strong" after the Boston Marathon bombing).

Effective preparation and response to disasters, including COVID-19, may call for deliberate alignment of multisystem capacities. In other words, it may be crucial in large-scale calamities that individual as well as family and community leadership are effective. Disaster response is better when multiple systems are coordinated and deployed well (Aldrich, 2012; Danese, Smith, Chitsabesan, & Dubicka, 2020).

Multisystem Networks: The New Frontier?

Understanding the multilevel dynamics of resilience may represent the new frontier of resilience science (Masten et al., in press). Neurobiological systems research on resilience has been expanding for several decades at the same time that multicultural and cross-cultural research has grown.

There is interest not only in transdiagnostic risk influences on child development but also in the possibility of transdiagnostic protective processes against adverse childhood experiences in development (Masten et al., in press; McLaughlin, Colich, Rodman, & Weissman, 2020). Concomitantly, investigators are proposing intriguing new methods for analyzing interconnected risk and protective factors and processes, including network analysis, dynamic modeling, and other strategies for analyzing dynamic interactions in complex adaptive systems in resilience research (Fritz, Fried, Goodyer, & Wilkinson, 2018b; Iaonnidis, Askelund, Kievit, & van Harmelen, 2020; Kalisch et al., 2019).

Conclusion

Disasters on the scale of the COVID-19 pandemic are complex with cascading effects over time. The challenges posed by this crisis to children are partly direct (e.g., dangers to health and shortages of food) but largely due to major disruptions and damaging effects of the pandemic on the many systems that support healthy child development and learning. Immediate and long-term effects will depend on developmental timing of challenges and effective responses, the severity of accumulating risks and adversities, the pre-existing vulnerability of individual children or families, availability of resources (food, shelter, medical care, etc.), and the mobilization of resilience in systems supporting children and their families in coordinated and flexible ways. Resilience for children depends on resilience in many other systems that support child development. As those systems are harmed, overwhelmed, or lost, it is crucial for families, communities, and societies to replenish and nurture fundamental drivers of resilience in human development with sensitivity to developmental, individual and cultural differences. It is crucial to support or restore caregiving and supportive relationships, hope and purpose, safety and a sense of belonging and meaning, cultural rituals and celebrations, and opportunities for children to play, learn, and experience agency through action and helping others.

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Notes from The President

Dear ISSBD Members, Colleagues and Friends,

As I write, we continue to live with the global pandemic that emerged at the beginning of the year. These are indeed challenging times. I hope you are all doing as well and coping as well as can be expected with the difficult times in which we are living.

While it seems incredible, in many countries we face, again, rising cases of the COVID-19 virus. We have all had personal experiences related to the pandemic, which have varied from minimally to maximally stressful. We have lived with mandates to shelter in place, lockdowns of various sorts, working from home and increasing needs to connect virtually. In addition, we have witnessed the ways in which the pandemic has affected those around us personally and professionally, as well as its effects nationally and internationally.

As a developmental scientist, I have been impressed by the growing awareness of the lay public of how important social connections are, the potential negative effects of social isolation, as well as the link between social and/or psychological health and physical health. Many of us are involved in helping to assess the influence of the pandemic on individuals contemporaneously. As developmental scientists we are also acutely aware of the potential long-term effects of the pandemic – and how this will differentially influence children, adolescents, young, middle-aged and older adults. Indeed, I am quite certain that none among us will disagree that this point in time marks a historical event that will indelibly influence the behavioral development of every person currently alive. Even as I write those words, I know they sound dramatic. Nevertheless, I believe them to be true.

During these unprecedented times, there is much work to do be done. Fortunately, as concerned citizens of both our own countries and the world, and as experts in human behavior, we have a great deal to offer. I believe we will be called upon to identify, assess and potentially intervene to offset the most negative effects of the pandemic. Never before has developmental science seemed so relevant.

I urge you to be cautious and careful both with your own health and those around you. I also urge you to contribute in any way that seems appropriate to helping yourself and others cope with these unprecedented times. And as they say on the airplane . . . . put your own mask on before helping others . . . . translated to ISSBD and the current times, please make sure you first take care of yourself, and then reach out to help others as best you can. Make adjustments to your life. Don't expect more of yourself than is humanly possible. Celebrate your successes. Reach out to others for help and to help. Innovate. We will have to be creative in order to get through this. And there will be years ahead when our help will be needed to help ourselves and others recover.

Let me also report a few adaptations ISSBD has made. Since we had to postpone our 2020 biennial meeting in Rhodes until 2022, I invited each of our planned keynote speakers to deliver virtual pandemic keynotes. As a result, we were able to broadcast 6 pandemic keynotes live:

Title: Multisystem Resilience for Children and Youth in Disaster: Reflections in the Time of COVID-19
Speaker: Ann Masten, University of Minnesota, USA.

Title: Adolescents' contributions to the needs of self and others: Longitudinal brain and behavioural development and effects of Covid-19
Speaker: Eveline Crone, Erasmus University Rotterdam, the Netherlands.

Title: *Developmental Robotics for Language Learning, Trust and Theory of Mind
Speaker: Angelo Cangelosi, University of Manchester and Alan Turing Institute, UK.

Title: Challenges and Opportunities in the Aged Society
Speaker: Hiroko Akiyama, University of Tokyo, Japan.

Title: Young Children's Imagination: Reality-Based or Fantastical?
Paul Harris, Harvard University, USA.

Title: Context and Research Capacity Enhancement in the Majority World
Speaker: Kofi Marfo, Aga Khan University, South-Central Asia & East Africa, and University of South Florida, USA.

Fortunately, this was a highly successful endeavor.

First, I am eternally grateful to these internationally distinguished scholars for donating their time and expertise to this effort. Second, I am pleased to report that an advantage of virtual keynotes is that people who would not have been able to attend the biennial meeting in Rhodes were able to hear the insightful remarks of our invited speakers. Additionally, the keynotes were recorded, with permission, and are available to an even wider audience through the ISSBD website.

Further, we have and continue to explore new ways to offer emerging scholars, most notably our Developing Countries Fellows and our Jacobs Fellows, mentorship and guidance virtually. Because we were unable to have the planned workshops in Rhodes, a number of virtual meetings have been held to provide advice and guidance on ongoing and/or planned projects.

If you have found any successful adaptation that you think might be useful for ISSBD to adopt, please be sure to let me or any other member of the Executive Committee know.

I hope you and your loved ones are safe and healthy. After these many long months, each of us has been touched by this pandemic. I stand with you and urge you to join together. By supporting one another I have no doubt that we will find the strength to withstand this pandemic and emerge from it prepared to advance the science of human development to the benefit of all.

Warm regards,

Toni C. Antonucci

Minutes of the ISSBD Executive Committee Meeting

June, 1st 2020 via Zoom, 3 to 5 p.m. (Rhodes, Greece time)

Present in the Zoom meeting of the EC:

Toni C. Antonucci
Xinyin Chen
Karina Weichold
Nancy Galambos
Tina Malti
Marcel van Aken
Charissa Cheah
Sabine Walper
Julie Bowker
Antonella Marchetti
Frosso Motti-Stefanidi

Due to the current situation of the corona pandemic, the ISSBD Biennial Meeting 2020, planned for July this year had to be postponed to 2022. Usually, the ISSBD EC meetings take place at the Biennial Meetings on-site. The President and the EC of ISSBD decided to hold the face-to-face meeting for the biennial conference on the Zoom platform. This EC meeting had the major aim to discuss among all participants urgent and pressing issues of the Society which are summarized in the following minutes.

1. Opening by the president, Toni C. Antonucci

Toni C. Antonucci welcomed the members of the Executive Committee of the ISSBD and thanked them for their willingness to take part in the Zoom meeting.

2. Approval of the minutes of the EC meeting in Athens, Greece, August 29th 2019

Action → The minutes of the ISSBD EC meeting in Athens, Greece were approved by all members of the meeting.

3. Report of the president, Toni C. Antonucci

In her report, Toni Antonucci thanked the members of the EC for their efforts during the past year. In particular, she thanked the outgoing Officers and Executive Committee members for their engagement with ISSBD. She introduced the results of the new elections that took place at the end of last year. The society had successful **elections**, and can now present the new Officers: Tina Malti (President), Luc Goosens (Secretary General), Melanie Zimmer-Gembeck (Treasurer), and Julie Bowker (Membership Secretary). In addition, new Executive Committee members were named: Kristine Ajrouch, Marc Bornstein, Silvia Koller, Frosso Motti-Stefanidi, Paul Oburu, Liqi Zhu, and for the Early Career Representative Cinzia di Dio.

Furthermore, Toni Antonucci discussed with the entire EC the various committees of the society. It was mentioned that there needs to be an update on the leadership and the composition of each of the committees, and also a review of their duties. Toni made suggestions in this regard.

Action→ Committees need to be updated and the homepage has to be adapted in order to present valid information and clear communication with regard to the ISSBD committees.

For **regional workshops** Catherine Cooper and Suman Verma were kind enough to prepare a report on how to develop a proposal and conduct a regional workshop. It was discussed where this report should be posted. Suggestions were to place it on the ISSBD webpage, or to file it with the Secretary General in order to be able to send it to potential applicants. This has to be decided in the near future.

As mentioned earlier, the **ISSBD Biennial Meeting** had to be shifted to 2022. The president summarized the internal discussions with the local organizers and the EC meeting on that issue (postpone the meeting to 2021 or 2022). There was an agreement with the President and the EC in conjunction with the local organizer Frosso Motti-Stefanidi that the decision to postpone the meeting to 2022 is definitely a good one because at the moment, and maybe also during the next year, the travel situation may be limited and the financial situation of universities to support the travel of their scientists may be insecure too, because of the corona pandemic. In line with that, the ISSBD Meeting which was planned for 2022 in Lisbon, Portugal had to be postponed too. Certainly, the local organizers were disappointed about this decision because some arrangements had already been made with local institutions. However, in these difficult times, it was agreed that these decisions had to be made. Manuala Verissimo and her team are consulting with their university about the possibility of moving their meeting to 2024. However, all recognized that things continue to be uncertain as the pandemic unfolds.

The President also focused in her report on the **Jacobs-ISBBD capacity building partnership**. Although plans for having meetings in person in the Ivory Coast also had to be postponed, the new initiative with the Jacobs Foundation moves forward. Six PhD fellows were selected from the Ivory Coast and ten professional development fellows were selected from Africa more generally, all of whom will be part of this program.

4. Report of the Secretary General, Karina Weichold

Karina Weichold thanked the President Toni Antonucci, all members of the EC, and the colleagues from SAGE (Livia Melandri and Kerry Barner) for the excellent cooperation. In her last report as Secretary General, Karina gave a short overview on the duties she had to fulfill during the past year. First, she summarized the content and discussion of the EC meeting, which took place at the ECDP conference in Athens, Greece. Minutes were circulated and published. Second, together with the colleagues from SAGE, online elections of the society were prepared, nominees invited, and the results summarized. New positions were outlined in the President's report. Karina Weichold congratulated all the new officers and members of the EC. She thanked the president Toni Antonucci for the great cooperation during the past time and also all members of the EC for the excellent collaboration. She wished all new officers and members of the EC best of luck for their new position.

5. Report of the ISSBD Membership Secretary and Membership Committee, Tina Malti

Tina Malti thanked the EC and the president for their support, and summarized her activities as Membership Secretary and Chair of the Membership Committee during the past year. Currently, ISSBD has 882 members which is a drop in the members number recently. Renewal letters and email reminders were sent out over the course of the year. In addition, regional coordinators were active and tried to recruit new members for the society. A growth in the following countries was observed during the past year: Brazil, UK, Russia, Turkey, and the USA. In contrast, a decrease of members during the past year was observed in Australia, Ghana, India, Zambia, and Zimbabwe. With the entire EC membership, it was discussed what could be strategies to keep members in the society. One approach was to offer "pandemic lectures," to take place virtually instead of at the Biennial Meeting in Rhodes, Greece. Members were invited to present their keynotes. However, some members may not have received the invitations, which is an issue that needs to be addressed further with the colleagues from SAGE (there may have been a technical problem). Finally, regarding her activities on the Membership Committee, Tina suggested to appoint new committee chairs and perhaps additional regional coordinators where the representation of ISSBD is currently not so strong, for instance, in Scandinavia.

6. Report of the ISSBD Treasurer and Chair of the Finance Committee, Nancy Galambos

Nancy Galambos reported that the society is in very good shape, with over USD 3,600,000 in assets (December 31, 2019). Investment did exceedingly well in 2019, even with the recent downturn in the economy Nancy estimates that the expenditures for 2020 could exceed income by over USD190,000. Such a scenario, however, can be compensated by the financial cushion of the Society. In 2019, 53% of the expenditures were spent on the promotion of early career scholars. Because a main mission of the society is to promote human development research all over the world with a specific focus on early career scholars, these expenditures can be even higher during the coming years. As a consequence, Nancy Galambos and the entire EC supported the idea to spend more of the society's money in support of early career members.

7. ISSBD Meeting 2022 in Rhodes, Greece, Frosso Motti-Stefanidi

Frosso Motti-Stefanidi took part in the Zoom meeting as a guest to report on the current status and on the plans for further proceeding with the ISSBD Biennial Meeting in Rhodes, Greece. As we all know, due to the corona pandemic, this biennial meeting needed to be shifted from this year to 2022. This decision was taken only a few weeks before the planned date of the meeting. Frosso reported that there were at this stage more than 2,100 submissions for the conference, which is a record-breaking number for a biennial meeting of the society. As a consequence, if the biennial meeting in Rhodes had been held in 2020 it would likely have been attended by more than 1,300 people. It was decided earlier, based on email exchanges, that all bank transfer costs for the registered participants of the conference would be reimbursed. Frosso Motti-Stefanidi thanked the president and the EC of ISSBD for having the Biennial Meeting in 2022 in Rhodes. Together with the EC, she set the exact date.

Action → The president and the EC decided that the Biennial Meeting of ISSBD will take place from June 19th to 23rd 2022 in Rhodes, Greece.

The president and the EC apologized for the many inconveniences that the local organizing team had to deal with and together we all positively look to the future while we are very much looking forward to having the Biennial Meeting 2022 in Rhodes, Greece. Everyone was certain that this meeting will be a great success!

In the discussion, it was also mentioned that the **pre-conference workshops** were already organized, thanks to the efforts of Marcel van Aken and Julie Bowker. Six workshops were planned for that meeting. Marcel and Julie are both eager to organize the workshops again for the upcoming biennial meeting in 2022.

In line with this, the applications for the **Early Career Travel Grants** were discussed. For the Biennial Meeting in Rhodes 2020 there were 280 applications for that program, which is the highest rate of applications ever. It was

discussed with the members of the EC that the Early Career Travel Grants are only designed for supporting the activities of early career scholars. This needs to be advertised also on the webpage for ISSBD 2022.

8. Other Issues

With regard to the **DCF (Developing Country Fellowship)** fellows it was discussed with the president and the EC that the fellows will have, instead of meeting in person at the ISSBD 2020 Biennial Meeting, a virtual poster session. Thereby, the DCF fellows are supported and there will be scientific guidance and support on a virtual basis. This is to ensure that they receive feedback on their current work so that they can progress even without meeting personally at the conference.

Furthermore, the President and the EC discussed together an issue that had arisen around **awards**. In particular, for the so-called "Lifetime Achievement Awards" it was argued that this should be possibly renamed because it is not actually an award, but is given by the president of ISSBD in recognition of long-term contributions to the Society. Suggestions that were discussed are for instance "Presidential Recognition" or "Distinguished Lifetime Member." However, no final decision on the concrete new name was made. The president and the EC agreed on the point that for this award there should be no advertisement, for instance on the webpage, because it is appointed by the president of ISSBD.

Action → This award needs to be renamed in the near future.

At the end of the EC meeting via Zoom, the president Toni C. Antonucci and the present EC members plan to have the next meeting in the Autumn of this year, again on a virtual basis.

Karina Weichold, Secretary General of ISSBD