

Feasibility and acceptability of a digital parent group chat intervention to prevent child and adolescent maltreatment in the Philippines

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This study examined the feasibility, acceptability, and preliminary outcomes of MaPaChat, a parent support intervention delivered using Viber group chat to caregivers in the Philippines during the COVID-19 pandemic. Forty caregivers of children aged 4–17 from predominantly low-income households participated in a culturally adapted version of the Parenting for Lifelong Health ParentChat programme. Feasibility was assessed by enrolment, attendance, and dropout rates. Semi-structured interviews with caregivers and programme facilitators explored programme acceptability. A single-group pre-post design was used to explore changes in child maltreatment, positive parenting, parenting stress, and other secondary outcomes. The mean attendance rate was 82% and the dropout rate was 10%. Caregivers and facilitators found the programme helpful in enhancing parenting knowledge and skills and were satisfied with the programme delivery using Viber group chat but also reported experiencing technological challenges. Pre-post comparisons suggested that the intervention has potential in reducing physical and emotional abuse and associated risk factors. The findings suggest that a parenting intervention delivered over digital group chat by trained community service providers may be a feasible and acceptable way to support caregivers in low-resource settings.

Keywords: Child abuse; Digital intervention; Group chat; Parenting; Violence prevention.

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RMJ led the coordination of the study, conducted data analyses, and drafted the manuscript. JML, RMJ, and LPA conceptualised the study and designed the methods. JML, LPA, JCR, and BLM worked on the design and adaptation of the intervention. DHAM supported the coordination of the study and conducted data analyses. SE-P, QH, and FC supported study coordination, data management, and data analyses. LPA and JML edited the manuscript. All authors critically reviewed and approved the manuscript.

Violence against children (VAC) is a serious public health concern because of its negative effects on psychological, behavioural, and health outcomes of children and adolescents (Mehta et al., 2023). Apart from its immediate consequences such as physical injury and cognitive difficulties, VAC is associated with long-term adverse outcomes in areas of social–emotional functioning, substance use, sexual health, and physical and psychological well-being (Bacchus et al., 2017; Strathearn et al., 2020). In the Philippines, a national survey revealed that 60% of respondents experienced physical violence at home during childhood, with mothers and fathers most frequently committing these acts ranging from corporal punishment to more severe forms of abuse (Council for the Welfare of Children & UNICEF, 2016). Risk factors for VAC in the Philippines include family financial stress, domestic violence in the household, parental substance abuse, authoritarian parenting, and parental history of abuse (Ramiro et al., 2022), further highlighting the importance of caregivers in the prevention of VAC within familial settings.

Concerns about the negative impact of VAC were exacerbated by COVID-19, with global reports showing increased levels of physical and emotional abuse in the home along with declines in emotional well-being among children and caregivers (Fore, 2021). The enforced community quarantine in the Philippines affected the livelihood of vulnerable individuals and put a strain on family functioning due to limited financial resources and increased health concerns (Cho et al., 2021; UNICEF, 2020). Extended school closures led to parental concerns regarding balancing work with management of their children's daily routines and online schooling (UNICEF, 2020). The compounded risk factors associated with parenting during the pandemic posed a significant risk to parents' well-being and highlighted the immediate need for caregiver support (Weeland et al., 2021; Wu & Xu, 2020).

To address the needs of caregivers during this critical time, international development agencies such as UNICEF and WHO advocated for initiatives that can broaden access to parenting support. Parenting for Life-long Health (PLH) is one such initiative that supports the development, evaluation, dissemination, and scaleup of low-cost and evidence-based parenting programmes to prevent VAC and improve child well-being in low- and middle-income countries. The PLH for Young Children (PLH-YC) programme was originally developed and tested in South Africa and was found to improve positive parenting and reduce child maltreatment and conduct problems among families with children aged 2–9 (Lachman et al., 2017; Ward et al., 2020). Drawing from social learning theories, the PLH-YC programme uses Hanf's two-stage model that strengthens parent–child relationships before equipping parents with learning strategies to manage child behaviour (Reitman & McMahon, 2013). A similar programme for parents and adolescents aged

10–17 years, PLH for Teens, was developed and tested in South Africa with results from a cluster randomised controlled trial (RCT) demonstrating positive intervention effects across multiple parent and adolescent outcomes (Cluver et al., 2018).

In the Philippines, the local version of the PLH programmes, called *Masayang Pamilya* (Happy Family) or MaPa, have been systematically adapted and tested (Alampay et al., 2018; Mamaug et al., 2021). The PLH-YC and PLH for Teens programmes were adapted as MaPa Kids and MaPa Teens, respectively. A pilot RCT with families enrolled in the Philippine government's conditional cash transfer (CCT) system found that MaPa Kids led to reduced levels of child maltreatment, dysfunctional parenting, child behaviour problems, and intimate partner violence (IPV), with sustained effects on reduced child maltreatment after 1 year (Lachman et al., 2021). A feasibility pilot of MaPa Teens conducted with CCT beneficiaries likewise showed reductions in caregiver- and adolescent-reported child maltreatment, attitudes supporting punishment, depressive symptoms, parent–adolescent relationship problems, and child behaviour problems (Jocson et al., 2023).

Prior to 2020, the PLH and MaPa programmes were delivered in an in-person group-based format. In response to calls to support caregivers during COVID-19, PLH adapted programmes for delivery using different digital formats, including a parent support group intervention via WhatsApp or Viber group chat. The programme, named ParentChat, was adapted using content and materials from both PLH-YC and PLH for Teens for delivery to parents of children aged 2–17. ParentChat was tested in a feasibility pilot across six countries including the Philippines, where the programme was called MaPaChat. The programme was delivered using Viber, a messaging app that is more commonly used in the country compared to WhatsApp (Statista, 2021). Whereas the facilitators of the previous MaPa programmes were graduate students and professionals, this was the first time that the programme facilitators were trained frontline community service providers.

In this study, we evaluated the feasibility of the MaPa programme delivered using Viber group chat. Meta-analytic studies of online or digital parenting programmes or support groups showed positive effects on parental knowledge, self-efficacy, and parenting skills (Corralejo & Domenech Rodríguez, 2018; Fluja-Contreras et al., 2019). Thus, online interventions provide a promising and potentially cost-effective means to address mental health burdens and parenting challenges during COVID-19. Whereas several parenting programmes have been delivered online, most of them are web-based, and there is limited knowledge on their feasibility and effectiveness when delivered to vulnerable families (Corralejo & Domenech Rodríguez, 2018). Digital interventions have the potential to reach a larger number of Filipino caregivers due to the widespread

use of mobile phones particularly in urban areas (Cho et al., 2021). To our knowledge, MaPaChat is one of the first evidence-based parenting programmes delivered to caregivers in the Philippines using digital group chat. Our study aimed to (a) explore the feasibility, acceptability, usefulness, and relevance of MaPaChat, and (b) examine preliminary effects on the primary outcomes of child maltreatment, positive parenting, and parenting stress; and secondary outcomes such as parent depression, child behaviour problems, and attitudes towards punishment at post-intervention.

METHOD

Participants

The sample included 40 primary caregivers recruited from a city in Metro Manila who participated in the MaPaChat programme. The following were the inclusion criteria for primary caregivers: adults aged 18 or older caring for a child aged 2–17, spend time with the child at least two times a week, and have access to a smartphone. The sample also included nine programme facilitators (89% female) who led the parent groups. Seven of the nine facilitators were frontline community service providers and two facilitators were experienced MaPa facilitators who served as coaches to the other facilitators.

Procedure

The study received ethics approval from Ateneo de Manila University and University of Oxford (trial registration—[ClinicalTrials.gov](https://clinicaltrials.gov) [NCT04809272]). Recruitment was conducted by distributing brochures to families through coordinators in the community, which included social welfare officers and parent volunteers. The research team also introduced the programme at community orientation meetings with small groups of caregivers. Participants who agreed to join the parenting programme provided informed consent and answered questionnaires prior to the start of the programme and within 1 month after the programme ended. The questionnaires were administered in Filipino by trained graduate student research assistants via one-on-one structured phone interviews that lasted 30 minutes to 1 hour.

Cultural relevance, acceptability, and usefulness were explored through in-depth qualitative interviews with caregivers and facilitators after the programme. To gain different perspectives on programme engagement, we interviewed 10 caregivers who had varying levels of attendance: three with less than 60% attendance, four with 60–90% attendance, and three with 100% attendance. Interviews with caregivers were conducted by trained researchers in Filipino via one-on-one phone

calls, and interviews with programme facilitators were conducted in pairs or a triad via video conferencing sessions. Participants were given the option to complete the interview in multiple parts if they wanted to take a break or if the connection was unstable. Interviews lasted 35 minutes to 1 hour in total for caregivers and 1–2 hours for facilitators.

Intervention

Participants joined five Viber groups composed of eight parents, led by one or two trained facilitators. Two process observers were also in the group but did not participate in the chat activities. Seven facilitators received three half-day trainings (12 hours) from local PLH trainers, with a 4-hour refresher orientation conducted a day before programme delivery. The PLH trainers also conducted weekly coaching sessions with the facilitators through the duration of the programme. The parent chat sessions were delivered over a period of 8 weeks with interactive 1- to 2-hour group chat sessions conducted every Monday for the topic introduction and every Friday for problem-solving and feedback on home practice. The sessions covered the following topics: (a) one-on-one time with your child; (b) talking about feelings; (c) keeping it positive with praise; (d) keeping it positive by giving specific, positive, and realistic instructions; (e) keeping your child safe with household rules and routines; (f) positive discipline; (g) responding to difficult situations and crises; and (h) problem solving with children. Facilitators moderated discussions and feedback sessions using text, audio, photo (including illustrated stories or *komiks*), and video messages, and sent daily check-in and reminder messages, as prescribed in the facilitator manual. In line with the core principles of the PLH programmes, facilitation involved collaborative chat discussion and problem-solving, modelling of positive behaviours (e.g., conveying acceptance, empathy, praise in chat messages), and practicing of skills in groups and at home.

Measures

Implementation outcomes

Programme adherence. We assessed rates of enrolment, attendance, and dropout of participants in the programme. Parents are considered to have enrolled in the programme if they posted at least one message in the group chat. Attendance rates were calculated using the ratio of the number of attended sessions out of the 16 group chat sessions. Dropout rates were calculated as the percentage of participants who did not attend at least two consecutive group chat sessions and failed to attend any session after missing those two consecutive sessions.

Participant satisfaction. In the post-intervention assessment, caregivers rated five items asking how helpful the programme was (e.g., in supporting challenges as a parent, in their relationship with their child) using a scale from 1 (*very unhelpful*) to 5 (*very helpful*).

Acceptability, usefulness, and relevance. We used a semi-structured interview guide with caregivers and programme facilitators. The questions were designed to address the research question on the programme's feasibility, acceptability, usefulness, and relevance, and thus included questions on the following: (a) experiences during the programme; (b) perceptions of the acceptability, usefulness, and relevance of the programme content and delivery format; (c) barriers and supports to participation or programme facilitation; and (d) suggestions for programme enhancement (see Appendix S1 for sample questions).

Primary outcomes

Child maltreatment. Child maltreatment was measured using a reduced version of the ISPCAN Child Abuse Screening Tool-Trial Parent version (ICAST-TP) (Meinck et al., 2018). Caregivers indicated how many times they disciplined their child in the past week using two items indicating *physical abuse* (spanking, slapping, or hitting with hand; hit with an object) and two items indicating *emotional abuse* (shout, yell, or scream; say mean things) using a scale of 0 (*never*) to 8 (*8 or more times*). The scale demonstrated concurrent validity and sensitivity to change over time (Meinck et al., 2018) and adequate internal consistency in previous studies in the Philippines (Jocson et al., 2023; Lachman et al., 2021). We summed the four items to indicate overall abuse and summed subscale items for physical and emotional abuse. Reliability for the total maltreatment scale was $\alpha = .68$.

Positive parenting. We used an adapted version of the Parent Daily Report (PDR) (Patterson et al., 2016) to assess positive parenting. Caregivers reported on two items asking how many times in the past week they engaged in positive parenting behaviours (do something fun together with child, praised child for doing well) using a scale of 0 (*never*) to 8 (*8 or more times*). The PDR demonstrated concurrent validity, test-retest reliability, and sensitivity to treatment effects in previous studies (Nadler & Roberts, 2013), and an adapted version was used in a previous study with Filipino parents (Lachman et al., 2021). Reliability for the adapted two-item scale was low, $\alpha = .41$.

Parenting stress. We used one item adapted from the PDR (Patterson et al., 2016) to assess parenting stress. Caregivers reported how many times in the past week they

felt very stressed as a caregiver using a scale of 0 (*never*) to 8 (*8 or more times*).

Secondary outcomes

Caregivers reported on secondary outcome measures of parent depression, child behaviour problems, child behaviour problem intensity, parent self-efficacy to prevent sexual abuse risk, intimate partner violence victimisation and perpetration, and attitude towards punishment (see Appendix S1 for the description and references of secondary outcome measures).

Socio-demographic information

At baseline, caregivers indicated demographic information such as age, gender, marital status, education level, literacy, employment, relationship to target child, and target child information such as child age and gender. They also indicated how COVID-19 affected their family (e.g., experienced COVID-19 symptoms, experienced financial stress).

Data analyses

Data on programme adherence and satisfaction were summarised using descriptive statistics. Caregiver and facilitator interviews were transcribed verbatim and analysed using thematic analysis procedures (Braun & Clarke, 2006). Three researchers fluent in Filipino and English reviewed and annotated the transcripts in the original language, and generated initial codes based on prominent features across the data. The coders engaged in lengthy discussions to compare and consolidate coding categories and to establish standard criteria for coding responses. Using the research objectives as a guide, the codes were collated into overarching themes and subthemes that reflected key perspectives of caregivers and facilitators, while also attending to deviant cases. The themes were reviewed and cross-checked with the transcripts to ensure that they represent the extracted codes and the entire data set meaningfully. All analyses steps were documented to ensure reliability of the analytic process. In addition, the themes were presented to facilitator participants for verification and feedback. Further refinements were made to clearly define and distinguish themes regarding programme acceptability, usefulness, and relevance.

To examine changes in study outcomes from baseline to post-intervention, we used linear mixed models to handle the hierarchical structure of the data that involved repeated measurements and participant groupings. For count data, we conducted distribution checks and used linear mixed models for normally distributed outcomes and Poisson mixed models for outcomes that violated the

Shapiro–Wilk normality test. Analyses were conducted using R (version 4.1.1). All participants were invited to participate in post-assessments regardless of attendance levels. Of the 40 caregivers who had baseline data, one did not attend any programme session and did not provide post-assessment data. There were no other missing data. Given the low percentage of missing data (1%), no imputations were conducted and missing data were removed from analyses.

RESULTS

Participant characteristics

Of the 50 families approached, 40 (80%) were eligible and participated in baseline assessments and 10 declined to participate. Table 1 presents socio-demographic characteristics and COVID-19 experiences among the sample at baseline. The participants represented a socio-economically disadvantaged group, with more than half (55%) receiving government assistance through the national conditional cash transfer programme. Most participants reported experiencing financial stress (85%) and emotional stress (56%) due to COVID-19.

Implementation outcomes

Programme adherence

Thirty-nine out of the 40 (98%) participants enrolled in the programme (i.e., attended at least one session), 95% attended at least half of the sessions (8 or more), 78% attended at least three-quarters of the sessions (12 or more), and 35% attended all 16 sessions of the 8-week programme. The programme had an overall attendance rate of 82% or 13 out of 16 sessions. The dropout rate was four out of 40 (10%) participants. Two participants did not attend from week 6, one participant attended only the first session, and one participant failed to attend any of the sessions.

Programme satisfaction

On a scale of 1 (*very unhelpful*) to 5 (*very helpful*), caregivers gave ratings above the midpoint on the following items: (a) the programme was helpful in their relationship with their child ($M = 3.87$, $SD = 0.34$); (b) the programme was helpful with other personal or family problems not directly related to their child ($M = 3.64$, $SD = 0.48$); (c) the programme was helpful in supporting them with challenges as a parent ($M = 3.85$, $SD = 0.36$); (d) the activities during chat sessions were helpful ($M = 3.79$, $SD = 0.41$); and (e) the facilitators were helpful in addressing challenges experienced during the programme ($M = 3.85$,

TABLE 1
Socio-demographic characteristics and COVID-19 experiences of participants at baseline

Variable	<i>n</i> (%)
Female	39 (98%)
Mean age (<i>SD</i>)	42.38 (8.10)
Target child female	17 (43%)
Mean target child age (<i>SD</i>)	11.63 (3.70)
Biological parent	37 (93%)
Married or living with partner	32 (80%)
Education	
Some high school education	3 (8%)
Completed high school	16 (40%)
Some college	12 (30%)
Completed college	6 (15%)
Employed	24 (60%)
Mean number of adults at home (<i>SD</i>)	3.10 (1.26)
Mean number of children at home (<i>SD</i>)	2.08 (0.89)
Presence of other caregiver	32 (80%)
Experienced hunger in the past month	22 (55%)
Can read	40 (100%)
COVID-19 experience	
Family not affected by COVID-19	4 (10%)
Family experienced emotional stress due to COVID-19	23 (56%)
Family experienced financial stress due to COVID-19	34 (85%)
Family member died of COVID-19	0 (0%)
Family member experienced COVID-19 symptoms	12 (30%)

Note: $N = 40$. Means with *SDs* are presented when indicated. Otherwise, numbers represent the frequency of the category with percent of sample.

$SD = 0.36$). The overall mean satisfaction score was 3.80 ($SD = 0.28$).

Programme acceptability, usefulness, and relevance

Qualitative interviews with caregivers and programme facilitators yielded the following themes: (a) appreciation of learnings and skills gained; (b) effective delivery using digital group chat; and (c) navigating technological difficulties.

Appreciation of learnings and skills gained. Caregivers expressed appreciation of the learnings and skills they gained from the programme. A mother of a 13-year-old shared, “I don’t just see the bad behaviors now. I should also praise the good behavior of my child.” Another mother of a 17-year-old mentioned that one-on-one time was helpful in making her aware of her child’s school concerns and shared, “It’s a big help that I talk to my child every day. That helps, even if I am busy, I allot time.” A mother of a 4-year-old liked interacting with parents with children of different ages because they gave her ideas on how to handle issues with their own child when they get older. Facilitators identified one-on-one time, talking about feelings, taking a pause, and giving positive and

specific directions as topics that engaged the participants the most.

Effective delivery using digital group chat. Caregivers appreciated the opportunity to share their experiences with other parents in a group setting. Some caregivers found it helpful that Viber chat allowed them to read previous messages if they want to review topics or if they missed sessions, “The nice thing is, when you forget something you said or if you want to go back to something someone said ... you can backread.” Despite the opportunity for remote participation, some caregivers had difficulties attending the scheduled sessions because they worked long hours or had to attend to family emergencies.

Facilitators likewise identified positive aspects of digital programme delivery. One facilitator shared that facilitation was “relatively easy” because they can do it remotely from home, adding that the structured and scripted format of the messages made it easy to copy and postdiscussion points, which helped them focus more on conversing with the parents. Some facilitators liked that they were able to make messages more personal and engaging using stickers and emojis. Another facilitator mentioned the usefulness of features like the reply-to option to respond to a specific chat message and bold-text feature to highlight important concepts. Caregivers found the facilitators’ follow-up messages were helpful because they were able to ask questions about previous sessions or refresh their learnings before the next session.

Navigating technological difficulties. Caregivers mentioned technological challenges such as having unstable internet connection and running out of data credits. A facilitator shared that some participants had difficulties navigating Viber, “If facilitators themselves are just learning the ropes, what more for target participants who are not ‘techie’? They do not have high-tech gadgets.” A mother shared challenges with acquiring a working phone, “I could not attend because my son’s cellphone was not working, he was using my cellphone and the session coincided with my son’s class.” A father was eager to participate but was only able to attend one session because his mobile phone stopped working and he had difficulties acquiring a new device.

Other challenges include the difficulty of establishing rapport via chat. One facilitator shared that sharing videos compensated for the lack of face-to-face interactions to some extent, though another facilitator noted, “it’s still different when you see them [in person] because you can show your concern, or empathy, or they can see your joy when they succeed in their parenting practices, through your facial expressions.” Another challenge was the added time needed for group chat interactions. Facilitators agreed that 1 hour was not enough to cover all

activities planned for each session because it takes time for participants to think about and type their responses and for facilitators to reply to each response.

Primary and secondary outcomes

Table 2 presents means and standard deviations for all study outcomes and test results comparing baseline and post-intervention scores. After conducting distribution checks, Poisson mixed models were conducted for overall maltreatment, physical abuse, emotional abuse, positive parenting, parenting stress, intimate partner victimisation, and intimate partner perpetration. Linear mixed models were conducted for parental depressive symptoms, child behaviour problems, child behaviour problem intensity, and efficacy in sexual abuse risk prevention. Results showed reductions in overall maltreatment, physical abuse, emotional abuse, parenting stress, parent depressive symptoms, child behaviour problems, child behaviour problem intensity, intimate partner victimisation for women; and an increase in parental efficacy in sexual abuse risk prevention. The increase in positive parenting and decreases in attitudes supporting physical punishment and women’s intimate partner violence perpetration were not statistically significant. The programme had no negative effects.

DISCUSSION

This study examined the feasibility, acceptability, and preliminary outcomes of MaPaChat, a parent support programme delivered to Filipino caregivers using Viber group chat. Overall, the findings suggest the acceptability and feasibility of the programme for delivery with families from socially disadvantaged backgrounds. Caregivers had a high attendance and low dropout rate and gave relatively high programme satisfaction ratings. Caregivers appreciated the learnings and skills they gained from the programme, such as spending one-on-one time with their child, using praise, noticing positive child behaviours, and how these skills helped in improving their relationship with their children. Caregivers and facilitators found the group chat helpful in cultivating mutual support. Despite the lack of face-to-face interaction, the integration of the facilitators in the community may have helped in establishing trust and rapport within the groups. The online chat format also proffered certain advantages, such as participants being able to “backread” previous posts to review topics. The remote delivery meant that caregivers could access the messages at a convenient time. That key concepts and discussion points can be readily copied and pasted from the manual eased the programme delivery for the facilitators.

Initial examination of changes in outcomes suggested reductions in physical and emotional abuse,

TABLE 2
Baseline and post-intervention outcomes^a

Outcome	Baseline <i>M</i> (<i>SD</i>), <i>n</i> = 40	Post-intervention <i>M</i> (<i>SD</i>) <i>n</i> = 39	<i>B</i>	<i>SE</i>	<i>p</i>	Effect size ^b [95% <i>CI</i>]
Overall maltreatment	5.85 (5.12)	3.46 (3.39)	-0.54	0.11	<.001	IRR = 0.58 [0.47, 0.72]
Physical abuse	0.98 (1.87)	0.58 (1.19)	-0.54	0.12	<.001	IRR = 0.58 [0.46, 0.73]
Emotional abuse	4.88 (3.98)	2.87 (2.70)	-0.52	0.26	.048	IRR = 0.59 [0.35, 0.99]
Positive parenting	10.55 (3.61)	11.79 (3.31)	0.11	0.07	.097	IRR = 1.12 [0.98, 1.28]
Parenting stress	3.65 (2.55)	2.67 (2.16)	-0.30	0.13	.019	IRR = 0.74 [0.58, 0.95]
Parental depression	4.70 (2.85)	3.03 (2.21)	-1.68	0.43	<.001	<i>d</i> = -0.62 [-1.07, -0.17]
Child behaviour problems	7.58 (4.32)	5.00 (3.61)	-2.63	0.59	<.001	<i>d</i> = -0.64 [-1.10, -0.19]
Child behaviour problem intensity	4.30 (2.10)	1.95 (2.20)	-2.38	0.37	<.001	<i>d</i> = -1.39 [-1.88, -0.90]
Sexual abuse risk prevention efficacy	6.55 (2.09)	7.54 (0.76)	0.98	0.34	.007	<i>d</i> = 0.49 [0.03, 0.95]
Intimate partner victimisation ^c	1.00 (1.73)	0.32 (0.87)	-1.13	0.36	.002	IRR = 0.32 [0.16, 0.66]
Intimate partner violence perpetration ^c	0.29 (1.62)	0.13 (0.72)	-0.81	0.60	.177	IRR = 0.44 [0.00, 1.44]
Attitude supporting physical punishment ^d	11.00 (28%)	6.00 (15%)	0.90	—	.344	—

^aBold indicate significant effect sizes based on 95% *CI* not overlapping zero for Cohen's *d* and not overlapping 1.00 for incidence risk ratio (IRR).

^bCohen's *d* for linear mixed models; IRR for Poisson mixed models. ^cAnalyses conducted for *n* = 31 women living with a partner at post-intervention.

^dValues compare the number of participants (%) agreeing that physical punishment is necessary to raise their child at baseline and post-intervention using the McNemar change test.

parenting stress, parent depressive symptoms, child behaviour problems, child behaviour problem intensity, women's IPV victimisation; and an increase in parental efficacy in preventing sexual abuse from baseline to post-intervention. These findings are consistent with the positive results found in previous in-person trials of MaPa Kids and Teens (Jocson et al., 2023; Lachman et al., 2021), although more rigorous evidence is needed to provide evidence of the effectiveness of the programme when delivered using digital group chat.

The results are promising given the vulnerability of the participants when the programme was delivered during the enforced community quarantine in the Philippines. At baseline, more than half of the families reported experiencing emotional stress and 85% reported experiencing financial stress due to COVID-19. The findings are consistent with previous studies conducted with socially disadvantaged families showing that digital parenting programmes may be effective if they incorporate contact with and support from coaches or facilitators (Harris et al., 2020). They also align with previous findings with Filipino adults on the usefulness of online support groups in improving psychological well-being during the pandemic (Hechanova et al., 2021). The groups may have provided an opportunity for parents to share their experiences and draw support and resources from other parents with similar experiences, thus reducing feelings of isolation and enhancing psychological health. Improved well-being, along with increased self-efficacy and knowledge of positive parenting strategies, in turn, reduce the likelihood of use of harsh parenting and child behavioural problems (Gardner et al., 2010; Reitman & McMahon, 2013).

The findings raised important points for improvement of the programme. First, caregivers and facilitators

encountered technological difficulties in participating and running the programme. Given caregivers' reported concerns regarding poor internet signal, insufficient data credits, sharing gadgets with family members, and mobile device malfunction, the programme may be supplemented with resources that can be accessed offline, such as printed materials that can be distributed by community facilitators. To address the concern regarding participants' familiarity with the messaging app, it would be helpful to include an orientation on how to navigate the group chat in the introduction session. Alternatively, using an app that is more commonly used by the participants (e.g., Facebook Messenger) may be explored.

Caregivers mentioned work hours and family-related concerns as barriers to attendance. As found in previous studies, socially disadvantaged families often encounter logistical challenges in attending parenting programmes because of transportation difficulties, less flexible work schedules, and lack of child care (Harris et al., 2020). The higher attendance rate we found in this digital intervention (82%) compared to the face-to-face versions (62–73%; Jocson et al., 2023; Lachman et al., 2021) suggests that delivering the programme digitally may address some logistical barriers pertaining to programme attendance. However, accessibility remains limited because participation was available only to caregivers who had access to a smartphone. Although the digital format may make it easier for caregivers to participate in a parenting programme without having to be physically present, it is important to address issues regarding negotiating use of shared devices and to supplement the programme with resources that can reach caregivers that may not have access to this technology.

The limitations of the study should be noted. The single group pre-post design used in this pilot study

precludes causal explanations of programme effects. Given that assessments had to be conducted remotely, we used shortened versions of validated questionnaires, and this may have contributed to low internal consistency of some of the measures like positive parenting. In addition, conducting self-reported assessments over the phone may have led some caregivers to report socially desirable responses to interviewers, especially for sensitive questions regarding child maltreatment and IPV. Moreover, the study included a small convenience sample of mostly female caregivers who were residing in one municipality in an urban setting, and the study findings may not apply to other contexts. These limitations increase the potential for bias in the evaluation of outcomes, and future studies with more rigorous designs are needed to determine programme effectiveness. To mitigate some of these limitations, forthcoming analyses from the wider six-country study of ParentChat will provide further evidence of programme feasibility and impact across multiple countries in Southeast Asia, Africa, and Europe with a larger sample size to examine potential differential effects by population characteristics.

In conclusion, results from this pilot study indicate that a parenting intervention delivered using digital group chat and facilitated by trained community service providers is a feasible and acceptable way to support caregivers in low-resource settings. Our findings inform adaptations for future implementation of the programme, particularly the need to address barriers related to digital access and navigation to maximise its potential for scalability.

COMPLIANCE WITH ETHICAL STANDARDS

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committees at (AdMUREC_20_044) and University of Oxford (R72537/RE001) and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

INFORMED CONSENT

All individual adult participants of the study provided informed consent.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix S1 Supporting Information.

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