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A mixed methods study of early childhood providers' perceptions of the acceptability and feasibility of parenting for lifelong Health tip sheets in Ontario, Canada

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Abstract

Background Universal parenting campaigns are efficient, cost-effective and can eliminate barriers to accessing conventional, face-to-face parenting interventions. The aims of the CHAMPP4KIDS study were to assess Canadian early childhood providers' perceptions of the acceptability and feasibility of implementing a universal parenting resource, the Parenting for Lifelong Health tip sheets.

Methods Using a convergent mixed method design, an online survey of providers working with families with young children in Ontario, Canada was followed by focus group discussions with a subset of providers to explore their perceptions of using the tip sheets in their professional practice.

Results Providers generally perceived the tip sheets to be acceptable but had reservations with respect to the feasibility of distributing the sheets to their clients as standalone, universal parenting resources. Providers agreed the tip sheets covered topics pertinent to caregivers' concerns, offered useful strategies and, therefore, had the potential to be valuable, engaging resources for families. However, many providers said the sheets would only be effective as complementary resources to facilitated in-person sessions, especially for high-needs families.

Conclusion Providers suggested that future iterations of these resources take into consideration more accessible design and formatting, literacy levels, word choice and further cultural adaptation. Insight into the nuances and potential divergence between provider perceptions of universal materials' acceptability and feasibility can help adapt materials to pre-emptively respond to potential implementation barriers, facilitate intervention fidelity and, ultimately, increase the likelihood of intervention acceptability and feasibility of both providers and caregivers.

Keywords Universal parenting resources, Prevention, Health promotion, Early childhood development, Early childcare providers, Parenting for lifelong health

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Background

The developmental benefits of parenting interventions which facilitate nurturing relationships between caregivers and children are well documented [1]. However, many families face barriers accessing parenting programs that have been traditionally delivered in-person at home or in the community, and increasingly online. Demanding program schedules, logistical issues such as transportation and childcare, caregiver fatigue, lack of motivation and burnout can prevent families from participating in parenting programs [2, 3]. Even free programs can have barriers to access such as indirect costs and stigma associated with seeking out support [4]. These obstacles are exacerbated for families with multiple, complex needs (i.e., social determinants of health), widening inequities in access to early childhood and parenting services and associated benefits in health and developmental outcomes [5].

Universal campaigns, which are interventions that do not involve face-to-face contact, [6] utilise a variety of platforms including print, television and radio broadcasts, social media, and online outlets [7]. These campaigns are distinct from universal parenting programs, which can also be offered at the population-level and are considered to be a public health strategy; however, universal parenting programs are generally more intensive, often involving multiple sessions, are manualized and are typically facilitated by a trained professional or paraprofessional [8]. Universal campaigns are efficient, cost-effective and can eliminate barriers that hinder access to conventional, face-to-face interventions [9]. Such interventions have positively influenced health knowledge, attitudes, behaviours and norms related to a range of health outcomes [7]. While there is evidence of universal campaigns improving child health behaviours [10] and parent-adolescent communication, [11] more research is needed to understand whether such campaigns improve parenting practices and related outcomes and mitigate inequities in accessing traditional parenting programming [12]. A first step to before assessing the effectiveness of universal campaigns is to determine whether the messages and tips are acceptable to the people who deliver them, and end users (caregivers). It is also important to understand the feasibility of introducing such materials into various pathways of service. This is relevant given that the format of educational resources and when they are presented is related to the acquisition of knowledge and skills and the overall effectiveness of such endeavours [13–15].

The COVID-19 pandemic, and the social protection measures implemented to limit virus transmission, resulted in an unprecedented number of stressors for individuals and families worldwide, [16] with greater burden for racialized and Indigenous populations, low-income, and rural households [17, 18]. Caregivers globally experienced an increase in childcare and education responsibilities and added life stressors were associated with a decline in parenting quality [16]. These challenges underscored the pressing need for a substantial shift in how parenting support is offered to families; especially for equity-deserving populations [19].

At the beginning of the pandemic, the Parenting for Lifelong Health (PLH) group collaborated with the World Health Organization, UNICEF, and other international organizations to develop open-source, evidence-based parenting resources to convey knowledge, offer support, and provide practical parenting tools to caregivers [20]. The PLH resources were offered in 100 languages in various formats (i.e., infographics, audio packs, social media, and service announcements) and are available at https://www.covid19parenting.com/#/tips. The PLH package includes downloadable tip sheets which provide strategies for caregivers of children of different ages. To our knowledge, only one study has examined the feasibility and accessibility of the PLH tip sheets to caregivers, facilitators within organisations which disseminated resources, and adolescents in 14 low- and middle-income countries (LMICs) [21].

Despite the widespread dissemination of PLH resources (https://www.covid19parenting.com/#/impact-map#), as evidenced by the distribution map, it is not known whether these tip sheets would be acceptable and feasible to use in a high-income country (HIC). Universal, population-based parenting informational campaigns are appropriate within HIC context to address common barriers related to reach and awareness [15, 22]. Formative evaluation measuring implementation outcomes, such as acceptability and feasibility, can uncover potential barriers to intervention implementation and be used to adapt and improve interventions in different contexts [23, 24].

Champions of Positive Parenting 4 Kids (CHAMP-P4KIDS) was a mixed methods study including early childhood service providers and caregivers of children aged 2–6 years in Ontario, Canada [25]. The aims of the CHAMPP4KIDS study were to assess the feasibility of implementing the PLH parenting tip sheets in early childhood services in a Canadian context [25]. In this article, we report on early childhood service providers' perceptions of the acceptability of the PLH tip sheets and the feasibility of integrating these parenting resources into their professional practice. The results of our study will provide information about the potential utilization of the PLH materials in high-income settings beyond the scope of the pandemic and inform what additional resources may need to be developed for widespread dissemination.

Methods

CHAMPP4KIDS used a convergent mixed method design [26] in Ontario, Canada. Ontario is the second largest and most populous province, home of approximately 39% of the population in Canada [27]. Ontario has an ethnically diverse population, with one third of Ontario's total population identified as members of a visible minority, with more than 98% of individuals identifying as members of visible minorities, living in large urban areas [28]. We first conducted an online survey of providers working with families with young children and caregivers of young children across the province; however, this paper focuses specifically on service providers only. Then, we facilitated focus group discussions with a purposeful sub-sample of these participants to give context to survey responses and explore providers' perceptions regarding the potential use of these tip sheets in practice. We used *Rogers' Diffusion of Innovation Theory* [29] and the *Consolidated Framework for Implementation Research Constructs* [30] to guide our investigation and develop data collection tools [25]. Tables 1 and 2 list the theoretical constructs and related questions used within the context of this study.

Table 1 Theoretical constructs, related survey questions and qualitative prompts for providers' perceived acceptability of the PLH tip sheets [29, 30]

Construct & Definition	Quantitative survey question	Qualitative focus group discussion prompt
Adoption of material: the likelihood key decision-makers will decide to put the innovation in place (Damschroder, 2009).	These materials will educate my clients by helping them understand various tips and techniques. These tip sheets are effective in delivering their messages on the stated topic	• Do you think these tip sheets are effective in delivering their messages?
Relevance to your practice: the extent to which a concept, theory, or research finding aligns with and contributes to the goals and objectives of a specific professional field or practice.	The information contained in the tip sheets are relevant to the issues and concerns expressed by caregivers that typically attend my practice.	• Which top three sheets address some of the biggest challenges facing caregivers of young children today? • Why did you select the sheets that you did? • Are there any important caregiving topics you think are missing from these materials?
Compatibility: the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters (Rogers, 1995).	The items and information in these materials align with your beliefs and values. These materials will benefit clients/ caregivers in our practice. The materials use language that is condescending or patronising. The materials use images that are condescending or patronising. Parents and caregivers will feel confident enough to utilise the tips mentioned in the materials. Parents and caregivers have enough information provided on the tip sheets to put these strategies into practice.	• What are your first impressions of/ reactions to the sheets? • Do you believe that parents and families will feel confident enough to utilise the tips mentioned in the materials? • Do you think families would need any extra information or support to put them into practice? • Can you comment on the language used on the tip sheets? • Can you comment on the graphic representations of families (blue characters) used on the sheets? • Do you think these sheets would be easy or difficult for families you work with to use and process?
Complexity: the degree to which an innovation is perceived as relatively difficult to understand and use (Rogers, 1995)	The materials are easy to read and use. The materials are clear and understandable.	• Does the language feel accessible and appropriate for the intended audience? • How do you think the sheets help the reader/ intended audience understand the main topics presented?
Readability: the degree with which a written text can be understood by its intended audience. It encompasses various factors, including the complexity of sentence structures and vocabulary.	I can easily read the information presented in the materials. The level of grammar used in the materials is not too complicated. Families I work with would find it easy to use these tip sheets.	• Does the language feel accessible and appropriate for the intended audience? • Do you think these sheets would be easy or difficult for families you work with to use and process?
Observability: refers the degree to which the results of an innovation are visible to others (Rogers, 1995).	These materials would be beneficial to my clients/ caregivers.	• Do you believe that parents and families will feel confident enough to utilise the tips mentioned in the materials?
Visual appeal: the degree of aesthetic qualities of elements in a presentation, document, or any form of visual communication.	The visual layout of the materials makes them easy to read and understand. The visual aids in the materials encompass all the information presented in them. I have a general understanding of what will be discussed in the materials based on their infographics.	• What are your thoughts on the format/ layout/ design of the sheets? • Can you please comment specifically on the graphic representations of families (blue characters)?

Table 2 Theoretical constructs, related survey questions and qualitative prompts for providers' perceived feasibility of the PLH tip sheets [29, 30, 41]

Construct	Quantitative survey question	Qualitative focus group discussion prompt
Trialability: the degree to which an innovation may be experimented with on a limited basis (Rogers, 1995)	I could use these materials in my practice, and they would be easily adopted by my clients. I could modify the materials to suit the goals of my practice.	• Would you use these tip sheets in your practice – why or why not? • If yes, how do you envision incorporating them into your practice?
Behavioural intention: an individual's subjective likelihood or readiness to perform a specific behaviour (Ajzen & Fishbein, 1972)	I would incorporate PLH materials into my practice.	
Perception of accountability: refers to an individual's awareness and acknowledgment of being responsible for their actions and the consequences that may result.	Clients of my practice would utilise these materials. The tip sheets are culturally accessible and appropriate for the families I work with.	• What benefits do you see in using these materials? • What barriers do you see to using these materials? • Can you please comment on the cultural adaptation, accessibility and appropriateness of the tip sheets? • Do you think these sheets are culturally appropriate/ adapted for the families you work with?
Perception of uptake: how readily individuals are inclined to utilize the intervention. This may be influenced by factors such as the accessibility, clarity, and relevance of the intervention to the target population.	It would be easy to engage caregivers in using these tip sheets.	

Adaptation of Parenting for Lifelong Health tip sheets

To reduce study participants' burden and response times, we limited the number of tip sheets included. To choose the most relevant topics, we first consulted with an advisory group consisting of international experts and service providers, ultimately selecting eight of the original 16 PLH tip sheets. The selected tip sheets in our study offered generalised parenting advice and were not specific to circumstances of pandemic social protection measures such as school closures and lockdowns. Given that this study was launched in late 2022, pandemic-specific content was no longer relevant and was removed or adapted from the selected tip sheets, with permission from the developers. Otherwise, the tip sheets were identical to the original content. Please see Appendix A for the eight tip sheets.

Ethics approval

This study was approved by the Hamilton Integrated Research Ethics Board (HIREB Project # 15065). Informed consent was obtained from all participants prior to survey or focus group participation. Data was collected between December 2022 and 19 June 2023.

Study recruitment & participants

Our study sample included providers who served families with children aged 2–6 years based in Ontario, Canada. Providers were considered professionals who offered services in mental health, parenting programs, childcare, education, and other community services, with roles ranging from direct service providers and frontline staff to managers and supervisors. To recruit participants, we collaborated with a variety of community organisations across different sectors, including public health units, mental health agencies, and early childhood services. A standardized email accompanied with a flyer was sent to our community partners inviting providers in their networks to participate in the study. Providers were guided to our survey landing page for a study overview. Interested providers completed a digital informed consent form and then completed the online survey generated through REDCap [31]. Participants received a $20 gift card upon completion. A total of 202 participants completed the survey. Demographic information was collected from each participant (see Table 3). Of note, demographics of participants who completed the survey, those that indicated contact for follow-up in the focus groups, and those who participated in the focus groups, were comparable – there were no significant differences noted between quantitative and qualitative participants.

Survey measures

The survey consisted of four constructs to evaluate providers' perceptions of the acceptability and feasibility of the eight selected tip sheets. Specifically, we assessed initial perceptions, ranking by importance, anticipated uses in professional practice and provider feedback for improving the sheets. After reviewing electronic versions of the tip sheets, providers were prompted to share their level of agreement with a series of statements to assess their initial perceptions. These statements were designed to evaluate the attributes of the tip sheets that might impact their adoption in professional practice. A 5-point Likert scale was employed to assess level of agreement (from 1"*strongly disagree*" to 5 "*strongly agree*"). A full list of the statements used in the survey can be found in Tables 1 and 2. Providers were then tasked with ranking the eight tip sheets from "most (1) to least (8) important

Table 3 Survey and focus group discussion participant demographics

		Full Sample (*N* = 202)		Focus Group (*N* = 24)	
		N	%	N	%
Gender	Woman	178	88.1%	23	95.8%
Ethnicity	White	170	84.2%	22	91.7%
	Black	9	4.5%	0	0.0%
	Latin American	8	4.0%	0	0.0%
	South and Southeast Asian	7	3.5%	0	0.0%
	Indigenous	6	3.0%	0	0.0%
	Other	9	4.5%	4	16.7%
Education Level	High School/College Diploma	88	43.6%	0	0.0%
	Undergraduate Degree	60	29.7%	15	62.5%
	Post-Graduate (Master's or Doctoral Degree	49	24.3%	6	25.0%
	Other	5	2.5%	3	12.5%
Years of experience working with caregivers of young children	0 to 5 years	56	27.7%	6	25.0%
	5 to 10 years	37	18.3%	6	25.0%
	10 years +	109	54.0%	12	50.0%
Years of experience working with families with complex needs	0 to 5 years	84	41.6%	5	20.8%
	5 to 10 years	42	20.8%	10	41.7%
	10 years +	69	34.2%	8	33.3%
	Prefer not to answer	7	3.5%	1	4.2%
Work Sector	Public Health	112	55.5%	16	66.7%
	Education	64	31.7%	0	0.0%
	Mental Health	34	16.8%	7	29.2%
	Child Protective Services	20	9.9%	0	0.0%
	Primary Care	12	5.9%	0	0.0%
	Private Sector	7	3.5%	0	0.0%
	Other	5	2.5%	6	25.0%

Note: Participants were given the option to choose multiple response options for the "Ethnicity" and "Work Sectors" questions

for their [professional] practice". Providers were then asked to review each tipsheet separately and indicate the likelihood of using each sheet in their professional practice, with a '*would use/would not use*' response option. The survey included two open-ended questions asking providers about any missing topics and feedback specific to each sheet. At the end of the online survey, providers were asked about their interest in participating in a Focus Group Discussion (FGD) to discuss the tip sheets.

Focus group discussions

Sixty-six providers who expressed interest in participating in a FGD were contacted to provide informed consent and schedule the FGD. From January-April 2023, we facilitated seven focus groups with 24 providers in total (of the original 66, 21 were excluded because they were no longer interested or available; 21 were unable to attend any of the focus group dates). The demographics of those who expressed interest in the focus groups closely aligned with the full sample. Overall, participants in the focus groups were representative of the full sample as well, however, attendees had slightly higher levels of education and more years of experience working with families with complex needs. Table 3 describes participant demographics. The focus groups were held online using Zoom Video Communications, Inc (1.0) and permission to audio record the interviews was obtained. The facilitator, an experienced qualitative researcher, first asked providers to select the top three tip sheets they felt would have the most impact on positive parenting practices and address the challenges facing caregivers of young children, and to explain their selection. The research team developed a semi-structured interview guide (see Appendix B) from theoretical constructs of acceptability and feasibility. Focus group discussions explored providers' perceptions of the acceptability of the materials for the families they serve (see Table 1 for constructs and questions) and the feasibility of integrating the tip sheets into their professional practice (see Table 2 for constructs and questions). Audio files of the interviews were transcribed verbatim by a third party. A secure file transfer protocol was followed in sending the audio recordings to the third-party transcription service. This service signed a confidentiality agreement with the Principal Investigator and McMaster University. Audio recordings were destroyed after uploading to McMaster

University's secure server, where transcripts are kept private and will be destroyed seven years post-publication. A $50 gift card was provided.

Data analysis

Quantitative and qualitative data were collected and analysed. Quantitative analyses were conducted using SPSS v.28. Descriptive statistics for participant demographics were computed, as well as frequency and proportion of responses from the survey. The Likert scale scores were collapsed into three consolidated categories: "*agree*," "*neutral*," and "*disagree*" to enhance data interpretability and address skewed data distribution, offering a clearer representation of respondents' views. Then, we computed percent agreement for each construct to assess the acceptability and feasibility of each tipsheet. We further identified the top ranked tip sheets. For this purpose, sheets ranked as one, two, and three were considered indicative of top-ranking choices; responses ranked as four and five were categorized as 'middle rank', and responses ranked as six, seven, and eight were grouped as the bottom-ranking. To evaluate providers' willingness to incorporate the sheets into practice, the proportion who indicated they 'would or would not use' the tip sheets was reported.

For qualitative analysis of the transcripts and the open-ended survey question responses, the focus group facilitator and another experienced qualitative researcher used Rapid Qualitative Inquiry (RQI) [32]. The analysts first drafted a table for data extraction. Analytical categories in the initial table were deductively developed from theoretical constructs explored in the quantitative survey and the semi-structured interview guide [33]. The analysts double coded the same two transcripts separately, meeting to ensure consistency in data extraction and synthesis and to finalise the analytical categories via consensus decision making. This included the iterative, inductive development of additional emergent themes [33]. One analyst, not the FGD facilitator, completed RQI for the rest of the data, summarised findings across FGDs and the qualitative survey responses and selected the most relevant illustrative quotes. The FGD facilitator validated final qualitative findings.

Quantitative and qualitative datasets were brought together in a convergent joint display table by the analysis team [34, 35]. Divergence between results was rarely observed; rather, mixed methods triangulation allowed for a more in-depth, nuanced understanding of providers' perceptions.

Results

Findings from quantitative and qualitative analyses are presented together by theoretical construct for providers' perceived acceptability of the tip sheets (Table 4) followed by their perceptions of the feasibility of integrating the sheets into their professional practice (Table 5). Overall, there was extremely positive responses (≥90%), however in some cases we noted less agreement (if<75%) for certain constructs compared to others. In these cases, we noted that responses were less favourable, and the proportions were combined with qualitative feedback to indicate where providers felt uncertain or recommended improvements to the tip sheets.

Acceptability

These constructs describe providers' perceived acceptability of the tip sheets for the needs and capacities of the families they serve, and in the context of the beliefs and values guiding providers' own professional practice.

Adoption of material

Providers overwhelmingly agreed (90.1%) that the sheets "would educate their clients by helping them understand various tips and techniques", and that the sheets were "effective in delivering their messages on the stated topic" (88.6%). Across FGDs, providers said the sheets offered important information including clear, concise core messages and concrete suggestions.

Relevance to providers' practice

Providers said the information featured in the sheets was relevant to their professional practice, as they addressed caregivers' recurrent needs and requests for information or support. The most pertinent topics addressed by the tip sheets according to both survey and focus group responses included handling parental stress, managing children's behaviour, and spending adequate one-on-one time with children. Survey participants also ranked caregivers' keeping a positive attitude (using strategies, e.g., praise and realistic expectations) was important. Family budgeting was not considered important by many providers (18.3% of survey participants; three FGD participants). Focus group participants explained they felt family conversations about money might be inappropriate and stressful for both caregivers and children, especially if a family was experiencing financial distress. Providers were also asked in the survey and focus groups if there were any important caregiver topics missing from the eight tip sheets. From these responses, we developed six key themes to describe topics providers perceived as priorities for their clients in future iterations of universal parenting materials (Table 6).

Compatibility

Almost 95% of survey participants said the fundamental approach of the tip sheets aligned with their beliefs and values. Participants in one focus group, all social workers at the same organization, said that while most of

Table 4 Provider perceptions of tip sheets' acceptability, by construct

Construct & Definition	Quantitative	Qualitative	
	% "Agree" or "Strongly Agree"	**Analysis**	**Illustrative quote(s)**
Adoption of material	90.1%	• Information is easy to understand. • Core messages are concise and accompanied by an adequate amount of information. • Concrete behavioural suggestions are clear.	*…Parts of [the sheets] are great with the …simple option for how to implement [the core message]…It's like quitting smoking. I know I should [quit smoking] but [just] telling me I should [quit] doesn't help me. …I know that's what my families look for. 'Well what do I do in this situation, and what do I do in this situation?'P2, FGD2*
Relevance to your practice	87.1%	• Topics covered and suggested strategies in line with information sought by caregivers. • Additional topics also relevant to caregivers' and families' needs were suggested (see Table 6).	*These are actually topics that come up quite frequently, whether it's in a parent network program or just through daily conversation with the parents when they're talking about stresses at home. [One] parent feels like she yells at her child and she has guilt afterwards on what to do, so she's been reading books, and then we can tie that into the sheet. P2, FGD6*
Compatibility	81.4%	• Sheets conveyed information aligned with their practice. • Images, language were not considered condescending, but some language should be revisited to avoid conveying judgement or stigmatisation. • Few providers felt caregivers would feel confident enough to implement the sheets on their own. • Caregivers might feel they are 'failing' if they cannot implement a suggested behaviour or strategy.	*The tip sheets were a little too behavioural…which is what parents come to me wanting, behavioural. So much of my job is convincing parents to put aside the behavioural approaches and just try to trust the process of 'Let's work on connection first before the correction piece.' So for me these tip sheets would be tough cause it would be working against what I think I would be trying to do with parents in terms of … focusing on the connection. P1, FGD5* *The 'misbehave' point, it…puts a negative connotation on the child. So looking at everything from a positive aspect I think should be super helpful. P2, FGD4* *Negative connotation with 'driving us crazy', [it] promotes a negative mental health stigma. [But I] appreciate the intent to be casual. Survey participant 79*
Complexity	80.2%	• First overall impressions of the sheets were positive. • Layout, visuals frequently critiqued for being too "busy"; perception they could detract from messaging (see *Visual Appeal* below).	*Having designed materials for parents and worked with designers, I don't believe the colour scheme, layout or amount of text is conducive to success with these. They are overly wordy and not as clearly laid out as they need to be in order to keep the readers' attention. I think they need a re-design. Survey participant 34*
Readability	80.9%	• Overall messages were easy to understand. • Some providers felt literacy levels were appropriate, others felt literacy was too high, especially for new English learners.	*In general all of the tip sheets contain great material and tips in them….I…find that many of them are quite busy and might be a challenge for those with literacy issues. I think with some of my clients I would need to read these materials to the client in order to get across the information/tips. Survey participant 100*
Observability	88.6%	• Overall, sheets address challenges and offer "relevant and useful" information for caregivers.	*These handouts definitely check off a lot of the boxes and have some really great messaging and can be built upon to send home with families. So these are great. P4, FGD3*
Visual appeal	74.8%	• Sheets are visually busy and text heavy, can be hard to follow the 'flow' of the messaging and information. • Not all visuals convey the in-text messages well. • Opinions on non-human cartoon characters mixed.	*I do love the little blobby blue people…They draw me in…They're non-descript…they're not supposed to single out any kind of culture…so I think that's good. P3, FGD4* *The images do not add to understanding of the concepts; the 'people' are strange looking, images of real people or at least graphics with limbs would be more effective. Survey participant 33*

their clients do ask for behavioural approaches to parenting like those outlined in the sheets, their organization's approach to caregiving prioritised caregiver-child connection and attachment over prescriptive behavioural strategies. While providers overall did not feel the sheets used condescending language or images, they did recommend reconsidering certain word choices. For example, "bad" or "misbehave" could be perceived as negative or judgemental of a child who exhibits a particular behaviour, and the phrasing "[kids] can drive us crazy" could be stigmatizing. Some providers recognized that the use of such "slang" could be relatable to the everyday emotions and language used by caregivers. However, all but one provider who commented on word choice felt it was ultimately more important to use phrasing which avoided potential stigma.

Although 89.1% of survey participants indicated that the "*Materials would benefit caregivers in their practice*," less than three-quarters of providers responded that *"Caregivers will feel confident enough to utilise the tips mentioned in the materials"* (70.3%). Qualitative findings converged with these survey results: while providers

Table 5 Provider perceptions of tip sheets' feasibility, by construct

Construct & Definition	Quantitative	Qualitative	
	%'Agree' or 'Strongly Agree'	Analysis	Illustrative quote(s)
Trialability	76.0%	• Providers were enthusiastic, but concerned the tip sheets would be challenging for families to adopt on their own. • Almost all would integrate sheets into practice but modify the use.	*Yes, I think I would [use the sheets]… but I could see myself using them…to aid in discussion about something but to also leave with [clients] and… 'throw it on the fridge' where [clients] can look at it from time to time or be reminded of some of the messaging. P1, FGD3*
Behavioural intention	75.7%	• Almost all providers said they would use the sheets in their practice to plan or 'complement' facilitated, one-on-one or group sessions, but not as a standalone resource.	*It would not be something that you would leave for parents to pick up on their own. If the purpose is to be a quick tipsheet that the parents can look over and get some ideas and feel good about what they're already doing, I don't think it's going to do that. It would require a little hand over with most families. P1, FGD2*
Perception of accountability	71.3%	• Literacy levels could be too high. • Suggested strategies might not be feasible for high needs families, including 'hidden costs.' • Generally, sheets speak across cultures.	*…there's not a lot that necessarily stands out as offensive. It's more just, 'Oh no that doesn't work for me. That doesn't make sense for me.' … you're never going to get stuff that caters to everybody. The more important part is not to have things that are judgemental or offensive. P1, FGD6*

Table 6 Important parenting topics to consider addressing in future universal parenting materials, as identified by providers

Child development & brain science	Nutrition & exercise
• Developmental milestones, expectations & neurodiversity • Science of emotions	• Nutrition, mealtime • Healthy relationships with food and body • Physical activity for entire family
Family life & routines	**Positive parenting & discipline**
• Co-parenting • Household routines, including sleep • Sibling interactions • Practical support for financial stress	• Behaviour as communication • Preventative behaviour strategies • Culturally sensitive discipline and strategies • Reducing parental stigma, asking for help • Empathising with, validating children
Mental health & emotional regulation	**Children's resilience**
• Managing caregiver stress, anxiety, self-regulation • Building community • Working and raising kids • Effects of trauma on caregiving • Substance use • Intimate partner and intergenerational violence	• Developing resilient children • Processing stressful events with children • Secure and safe attachment • Protecting children from 'adult' challenges • Safe adults and friends

generally said the materials addressed pertinent topics, offered valuable information and a unique way to engage caregivers, they did not feel that most caregivers would have the capacity or resources to implement the suggested strategies, especially for historically underserved populations (i.e., those facing multiple social determinants of health). Caregivers might also feel they were "failing" if they fell short of behaviours or benchmarks suggested in the sheets.

Complexity, Readability and Visual Appeal

Most providers surveyed agreed that materials were "*easy to read and us*e" (79.7%) and "*were clear and understandable*" (80.7%). While providers' overall first impressions of the sheets were equally positive in the focus groups, when asked about the visual appeal of the tip sheets, providers raised concerns regarding the "wordy", "busy" layout and design. The majority (84.2%) of survey participants agreed the grammar *"used in the sheets was not too complicated,"* however, in the interviews providers were divided on the ease of literacy levels. Most providers who commented on literacy levels said the sheets used too high a literacy level for their clients. Quantitative and qualitative results on ease of use of the sheets converged: 68.3% of surveyed providers said, "*families they work with would find it easy to use these tip sheets*," and in FGDs, providers felt the readability could detract from the sheets' effectiveness.

A relatively lower percentage of providers agreed that the visual layout *"made the sheets easy to read*" (72.8%). In the FGDs, some providers explained that while the bold use of colour, shapes and overall design could be "eye catching," they found the visually text- and information-heavy content might detract from the effective communication of the messages to their clients. Providers also expressed mixed opinions about the blue cartoon

characters used. Some positive perceptions of the characters included their inclusivity and neutrality, making them appealing across cultures and identities. While providers who critiqued the characters did not find them offensive, many said they did not 'get' the characters and would have preferred representations of real people in their sheet graphics.

Observability

Despite critiquing certain aspects of the sheets, close to 90% of the survey participants saying, "*the materials would be beneficial to their clients/ caregivers.*" In the FGDs, providers said the idea for "fresh", engaging, quick reference sheets addressing caregiver priority concerns was "excellent."

Diversity, representation, and inclusivity

Across focus groups, providers emphasised the importance of representation when developing parenting materials to ensure materials are widely inclusive and accessible. Given the recurrence of these unprompted discussions, we iteratively developed the theme *diversity*, *representation*, *and inclusivity*. Table 7 details the specific considerations related to representation raised.

Feasibility

Providers' perceptions of the feasibility of integrating the sheets into their professional practice and of their clients' willingness and ability to actualize advice into daily parenting are summarized in Table 5. In the survey, providers generally rated feasibility lower compared to acceptability rankings, with data from the focus groups confirming this finding.

Trialability

It is significant to note that less than 75% of providers reported that they *"could use the sheets in their practice, and they would be easily adopted by clients."* FGDs revealed concerns around their clients finding it challenging to use the sheets on their own. They cited perceived barriers to implementation such as requirement for high literacy; busy visual layout; caregivers feeling stigmatized or overwhelmed by the information and a lack of caregiver confidence or resources to implement the advice.

Behavioural intention

A major finding of our study was identifying the nuances of providers' anticipated use of the tip sheets in their professional practice. The percentage of providers who said they *"would incorporate PLH materials into their practice"* was relatively low (75.7%) when compared to all but one construct related to acceptability. Qualitative data clarified that providers were generally open to using the sheets in their practice but did not envision distributing sheets as standalone resources. Providers within one distinct focus group who shared that the sheets' framing of parental advice did not align with their organisation's caregiver-child attachment- and relational-centric approach were the only providers who agreed they would "rarely" use the sheets in their professional practice, if at all. While these providers agreed that the sheets' general concept and format were good, they felt the behaviour-centric parenting advice might actually "work against" how they were trying to work with parents.

While providers in other groups expressed reservations about using the sheets as standalone resources in their current form, they indicated that there would still be ways to integrate them into practice. Most providers envisioned using the sheets as supplemental resources to

Table 7 Providers' perspectives on diversity, representation, and inclusivity in parenting tip sheets

Theme	Findings	Illustrative quote(s)
Educational background & literacy	• Ensure grammar and the use of colloquial language is appropriate for all educational and literacy levels, including English learners	*In terms of literacy, it was a little bit high level. I think for some of the people in my community, they might not be able to comprehend some of the words being used. P3, FGD2*
Gender	• Use gender neutral language and imagery when developing materials.	*[The blue cartoons] are very gender neutral…nondescript of anything so I think that the whole point is [it] kind of keeps it light. … Its not like [the viewer is] getting lost in 'I'm not feeling represented.' P1, FGD4*
Neurodiverse & screen-reader assisted viewers	• Excessive use of colour could be inaccessible for neurodiverse viewers. • Layout, font could be inaccessible for screen readers.	*If you want [viewers] to actually be able to absorb the information…you've got to tone down the colours because I'm thinking of someone whose not neurotypical right… it's definitely going to overwhelm them. P2, FGD6*
Physical ability	• Important to include representations of various physical abilities.	*What I liked about it was the little blobs are very gender neutral. There was one in a wheelchair.…these are the things that I noticed [and said],'Oh this is really great.' P2, FGD7*
Socio-economic status, food (in) security	• Be aware of 'hidden costs' of suggested activities. • Including: activities which require materials; food/ cooking as 'play.'	*My only concern is just financials. Not all families may have access to colouring materials, books, even data to play music at home. …When it says do a chore together, make cleaning and cooking a game. A big thing that we're talking about in [our community]…is food security so we're not always promoting things like cooking and using food as a toy more of like an actual resource and how we can support that. P2, FGD6*

plan programming that could complement or highlight themes they were exploring during one-on-one or group parenting sessions. Almost all FGD participants said they anticipated needing to facilitate their clients' interpretation of the sheet information. Making sheets available to clients or distributing in public spaces without opportunities for discussion was perceived as ineffective; one provider indicated that it could offend caregivers if done without explanation.

Providers across FGDs suggested incorporating interactive components (i.e., provide space for caregiver reflections or formulating solutions to challenges; links to external resources such as videos or websites) to increase the likelihood of provider use and client uptake. Providers said that caregivers are increasingly turning to social media for parenting information, but some families still prefer hard copies of resources. Therefore, a mix of digital and print resources would be necessary to meet the needs and preferences of all families. No provider spontaneously expressed concerns about internet access for digital distribution. A concern was raised, that printed information risked being "put into a pile and not looked at," in addition to the costs for organisations to print high quality sheets in bright colours.

Perception of accountability

Approximately 71% of providers agreed that *"clients of their practice would utilise these materials."* In addition to potential barriers highlighted in qualitative data, one provider also emphasized that some of the suggested activities have "hidden costs" to implement. For example, families may not have access to materials to play music or colouring books. In addition, food-related activities which frame "food as play" should also be reconsidered so as not to further marginalise families experiencing food insecurity.

Results on cultural accessibility did not converge across methods. While 71.3% of providers said that the sheets were *"culturally accessible and appropriate for families,"* during FGDs, providers expressed that the sheets generally spoke across cultures, with at least one provider saying the cartoon characters' generic design contributed to this cultural accessibility. No participant expressed concern that the sheets might be perceived as offensive by a particular population, though providers who were probed further, emphasized that assessments of cultural accessibility should be directed to members of target populations themselves.

Perception of uptake

About 72% of providers responded that *"it would be easy to engage caregivers."* In FGDs, providers specified that the "general population" could engage easily with the tip sheets, but it would be challenging for families with specialized or complex needs to absorb information without further support (e.g., provider input). Despite concerns with layout, the overall design and bright colours were seen as a potential "conversation starters". Discussion prompted by the sheets was perceived to be a more effective way to engage with clients than simply handing them a paper.

Discussion

This mixed methods study assessed early childhood providers' perceptions of the acceptability and feasibility of integrating PLH parenting tip sheets into their professional practice with caregivers of children aged 2–6 years in a Canadian context. Providers generally perceived the PLH tip sheets to be acceptable but had reservations with respect to the feasibility of distributing the sheets to their clients as standalone, universal parenting resources. Providers agreed the tip sheets covered topics pertinent to caregivers' concerns, offered useful strategies and, therefore, had the potential to be valuable, engaging resources for families. However, many providers also said the sheets would only be effective as complementary resources to facilitated in-person sessions, especially for high-needs families.

Providers highlighted important considerations for further development of these resources. For example, topics identified as missing, or in need of further expansion included caregiver mental health, stress, and emotional regulation. While providers had overall positive first impressions of the sheets and their potential effectiveness, they felt the design might overwhelm viewers, literacy levels were too high, and some word choices should be reconsidered. Finally, it is important that materials are culturally appropriate and relatable for all caregivers.

Our study findings were consistent with those of Sherr et al.; providers in both studies said the PLH sheets were "engaging" and "easily understandable" [21 (p11)]. However, providers in LMICs positively perceived the visual appeal and design of the sheets, contrasting with the concerns related to design and accessibility expressed by our study participants. Resource literacy levels were not mentioned as a barrier by Sherr and colleagues, [21] while this was a major concern of Canadian providers, especially for families with complex needs. However, this difference may be attributable to the resources in the Sherr study [21] being available in multiple formats including radio announcements and videos and requires further study within a HIC context. Cultural acceptability of the sheets was discussed by providers in both studies as a potential barrier to adoption, though Canadian providers felt the content and design generally acceptable across cultural groups. Both studies also highlighted the importance of considering logistics and accessibility, albeit identifying different concerns: in LMICs limited internet coverage

was a challenge to accessing digital media, while in our study providers said the costs of color printing could be prohibitive. Dissemination of digital and hard copies was recommended to reach Canadian clients.

The potential limits of tip sheets as stand-alone interventions were a theme raised by participants in our study, and by others analysing mass media and other universal resources for health behaviour change [36, 37]. Regarding the use of mass media by nurses for health promotion, Whitehead [36] has discussed the perceived impersonal, limited, and ineffective nature of these interventions if they are not used in the context of follow-up support services. A major finding in our study was that while providers perceived the PLH tip sheets to be generally acceptable, they considered feasibility relatively lower. Providers did not generally feel it would be effective to integrate the sheets into their practice as a standalone resource but could act as an entry point for discussion and further services. Similarly, Cowley and colleagues [37] found that providers tended to use mass media materials to prevent hot drink scalds in children to complement, rather than drive, client interactions: to facilitate communication with clients, as conversation starters, and as visual aids for discussions with clients on the targeted topic. Participants in both our study and Sherr and colleagues' study [21] spontaneously suggested different ways to make the PLH tip sheets and information transfer to caregivers more interactive through, for example, reflection prompts with spaces for writing on the sheets themselves or videos or links to supplemental resources, as is available on the COVID-19 parenting website. Providers in our study and other analyses raised concerns that if universal parenting resources are not used in parallel with face-to-face client interactions, intervention messaging cannot be adapted to the specific needs of different populations [36]. It is important to note that a universal campaign, is not necessarily intended to act as a standalone intervention. As highlighted by Sanders and Prinz, [3] public health campaigns serve to promote positive parenting, increase awareness, decreases stigma, and have the potential to create a 'social contagion' effect where caregivers can speak about parenting challenges.

Our mixed methods approach was a strength of this study. Triangulating our findings using different data collection methods allowed for a more nuanced understanding of providers' perceptions of the tip sheets [34]. For example, converging quantitative survey results with qualitative findings allowed us to understand providers' reasoning for high acceptability ratings and lower feasibility ratings. Another strength of our study was the profile of our sample population. Providers in our study had extensive experience working with young children and families with complex needs, making them well positioned to offer perspectives on use of the tip sheets among diverse populations.

Some study limitations should be considered. Our knowledge on the total number of providers and the geographical reach is limited due to study recruitment through our community partners. Given this, we were unable to calculate the survey response rate, restricting our ability to assess sample representativeness and generalizability to the broader provider population. Additionally, for the quantitative survey, we had representation across multiple sectors, but fewer participants worked within child protection. For the qualitative portion of the study, all participants worked within public health or mental health sectors. While we had good convergence from our qualitative and quantitative data, it would have been helpful to have the perspectives from other sectors for the in-depth interviews. Future research should examine whether universal campaign resources work well within multiple contexts and families with varying needs. Additionally, while providers in our study had experience working with diverse caregivers and families, the providers themselves were predominantly white and female-identifying. The results of our study should be considered in the context of how providers' positionalities might affect their perceptions, including implicit bias, of client populations. The provider-client demographic- and socio-cultural-mismatch observed in our study reflects a larger challenge in Canadian health and social services to increase the diversity of healthcare providers, especially those serving Indigenous and racialized communities [38, 39]. It is, therefore, essential to examine both provider and caregiver perceptions of tip sheets. We also explored acceptability and feasibility of the PLH tip sheets with caregivers. A comparative analysis of findings from providers and caregivers will be reported in a subsequent publication. In addition, we only examined the PLH tip sheets and not the entire suite of materials available; however, the sheets are the most widely disseminated and accessed resources. Future studies should examine augmenting and adapting accompanying materials (videos, workbooks, and other supplemental resources), as highlighted by provider feedback from our findings. Given study time constraints, we did not engage in any participant validation, but acknowledge this could be a valuable priority to increase research credibility on this topic in future studies. We conducted this study in a single province, Ontario, and although this is the most populous province with the greatest ethnic diversity, we cannot assume these findings are generalizable to all of Canada. Finally, as with all qualitative and quantitative research, our findings are specific to the context in which research was conducted and may not be generalizable to other settings.

Conclusion

Persistent inequities in access to early childhood and parenting services point to a need for innovative strategies to reach families, especially those who are typically underserved and experience barriers to services [40]. In summary, while early childhood providers expressed overall positive perceptions of the acceptability of universal parenting resources, this did not imply that the materials could be effectively incorporated into their professional practice without adaptation and accompaniment of additional provision of resources if needed, e.g., provider feedback and discussion, and/or videos or more detailed online resources. It is important to understand the nuances and potential divergence between provider perceptions of universal materials' acceptability and feasibility, especially for the populations they serve. This insight can help adapt and present materials in ways that address the specific needs and concerns of different populations and contexts, pre-emptively responding to potential barriers to implementation, facilitate intervention fidelity and, ultimately, increase the likelihood of intervention acceptability and feasibility.

Abbreviations

PLH	Parenting for Lifelong Health
LMICs	Low- and middle-income countries
HIC	High-income country
CHAMPP4KIDS	Champions of Positive Parenting 4 Kids
FGD	Focus Group Discussion

Supplementary Information

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Supplementary Material 1

Supplementary Material 2

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Author contributions

AG, AS, and SJ developed the study; JR, JB collected data; MD, JR, JB data analysis; MD, JR, JB AG, drafted the manuscript; MD, SJ, JR, AS, JB, TB, HLM, AG edited and revised the manuscript. All authors read and approved the final manuscript.

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Data availability

The datasets generated and/or analysed during the current study are not publicly available due to the privacy and confidentiality of our research sample but are available from the corresponding author upon request.

Declarations

Ethics approval and consent to participate

This study was approved by the Hamilton Integrated Research Ethics Board (HiREB# 15065). Informed consent was obtained from all participants prior to participation.

Competing interests

The authors declare no competing interests.

Consent for publication

Not applicable.

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