# Outcome progress letter types

## *Parent and physician preferences for letters from pediatric mental health services*

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## Abstract

***Objective*** To determine health care professional and parental preferences for receiving progress letters from a pediatric mental health program between a traditional text-only format and a version in which information was presented using graphs and tables with limited text.

***Design*** Mailed survey.

***Setting*** Nova Scotia.

***Participants*** Parents (n=98) of children who received treatment from and health care professionals (n=74) who referred patients to the Strongest Families Program (formerly the Family Help Program) were eligible. Most of the health care professionals were family practitioners (83.8%).

***Main outcome measures*** Preference between 2 letters that contained the same content (including progress in the program, results from a questionnaire, and resolved and ongoing problems) in different formats—one using text only, the other using graphs as well as text.

***Results*** In total, 83.8% of health professionals and 76.5% of parents indicated that they preferred to receive feedback in letters containing information in graphical format. Background and demographic information did not predict preferences. Parents preferred to receive progress letters at the beginning, midway through, and at the end of treatment, and health professionals preferred to receive progress letters at the beginning and end of treatment.

***Conclusion*** When receiving progress letters from a pediatric mental health program, health care professionals and parents preferred to receive letters that used graphs to help convey information.

### EDITOR'S KEY POINTS

- The Strongest Families Program is a distance treatment program for families whose children have anxiety, enuresis, recurrent stomach and head pain, or disruptive behaviour. Health professionals (usually family physicians) who refer children and the children's parents receive plain-language outcome progress letters midway through treatment and at the end of treatment. The content and format of these letters had never been evaluated, so this study was conducted to determine what progress report format parents and referring professionals would prefer.

- Physicians and parents both preferred health outcome progress to be communicated in a graphical format, and parents preferred to receive progress update letters at the beginning, midway through, and at the end of treatment. Physicians preferred to receive such letters at the beginning and end of treatment. Effectively communicating clinical progress to referring physicians and parents can help to maintain the continuum of care after discharge from mental health programs like the Strongest Families Program, promoting improved primary care follow-up for children.

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# Types de lettres indiquant les progrès obtenus

## *Quels types de lettres les médecins et les parents préfèrent-ils recevoir des services de santé mentale pédiatrique?*

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## Résumé

***Objectif*** Déterminer si les professionnels de la santé et les parents préfèrent recevoir des lettres de suivi d'un programme de santé mentale pédiatrique sous forme de texte traditionnel uniquement ou sous un format combinant un texte plus court ainsi que des graphiques et tableaux.

***Type d'étude*** Enquête postale.

***Contexte*** Nouvelle-Écosse.

***Participants*** Étaient éligibles les parents (N=98) et les enfants qui avaient été traités par le Strongest Families Program (autrefois appelé Family Help Program), et les professionnels de la santé (N=74) qui avaient dirigé des patients vers ce programme. La plupart de ces derniers étaient des médecins de famille.

***Principaux paramètres à l'étude*** Type de format préféré entre 2 lettres ayant le même contenu (c.-à-d. les progrès réalisés au sein du programme, les résultats d'un questionnaire, et les problèmes résolus et/ou encore présents), une lettre sous forme de texte seulement et l'autre utilisant des graphiques avec un texte.

***Résultats*** Dans l'ensemble, 83,8% des professionnels de la santé et 76,5% des parents ont indiqué préférer recevoir les lettres de suivi accompagnées de graphiques. Les renseignements sur les antécédents et les données démographiques n'avaient pas d'influence sur les préférences. Les parents préféraient recevoir des lettres de suivi au début, au milieu et à la fin du traitement, tandis que les professionnels de la santé préféraient les recevoir au milieu et à la fin du traitement.

***Conclusion*** Lorsqu'ils reçoivent des lettres de suivi d'un programme de santé mentale pédiatrique, les parents et les professionnels de la santé préfèrent que ce soit sous un format accompagné de graphiques pour mieux communiquer l'information.


### POINTS DE REPÈRE DU RÉDACTEUR

- Le Strongest Families Program est un programme de traitement à distance pour des familles dont certains enfants souffrent d'anxiété, d'énurésie, de céphalées, de douleurs stomacales ou de troubles du comportement. Les professionnels de la santé (habituellement des médecins de famille) qui dirigent les enfants et leurs parents vers ce programme reçoivent des lettres de suivi au milieu et à la fin du traitement, sous forme de texte seulement. Le contenu et le format de ces lettres n'ayant jamais été évalués, cette étude a voulu déterminer sous quel format parents et médecins traitants préféreraient recevoir ces rapports de progrès.

- Les médecins comme les parents préféraient des rapports de suivi sous forme de graphique, et les parents préféraient recevoir des lettres de mise à jour des progrès au début, au milieu et à la fin du traitement. Les médecins préféraient recevoir ces lettres au début et à la fin du traitement. Une transmission efficace des progrès cliniques aux médecins traitants et aux parents peut aider à assurer la continuité des soins à la fin d'un programme de santé mentale comme le Strongest Families Program, favorisant ainsi un meilleur suivi des enfants en contexte de soins primaires.

Cet article a fait l'objet d'une révision par des pairs.
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The Strongest Families Program (formerly Family Help Program) is an evidence-based distance treatment program for families whose children have anxiety, enuresis, recurrent stomach and head pain, or disruptive behaviour.[1-6] The programs vary in length from 6 to 12 weeks. The health professional who refers the child (usually the family physician) and the child's parents receive outcome progress letters, written in plain language, midway through and at the end of treatment. The content and format of these letters has never been evaluated. In keeping with our commitment to evidence-based care, this study was conducted to determine what progress report format parents and referring professionals would prefer. We asked why parents and professionals preferred different formats and how often they would like to receive progress letters from a mental health program like the Strongest Families Program regarding a child's treatment progress.

Gandhi et al found that the most common form of communication between primary care providers and specialists is letters.[7] Referring professionals who receive feedback from consultants or specialists about their referrals are more satisfied with the referral process.[7,8] Feedback from the consultation is needed to deliver continuing, high-quality care to patients.[9] It is important for the referring health professional to understand the care and treatment that the patient received before the patient returns to usual care.[10]

Past research has focused on the content of these progress or referral reply letters, their structure, and the manner of creating such letters. Numerous studies have been conducted to determine what items professionals would like specialists' referral reply letters to contain,[7,11-14] and many have reviewed existing progress letters to determine if those elements were present.[7,9,11,13,15,16]

Several studies evaluating letter formats have concluded that a structured, standardized letter is more accessible and desired by readers.[11,17-20] Organizing problems in a list instead of describing them in paragraphs is also highly recommended.[11,17] Family physicians prefer standardized letters because they find it easier to extract information from them.[20,21] However, in 2002 Lewis reported that communications in mental health were still typically provided in a free-text format.[22]

We hypothesized, based on previously published research, that health professionals would prefer a structured, graphical letter. No research has been conducted on the format preference of parents receiving outcome progress or update letters about their children. As some pediatric mental health service providers routinely copy parents on these letters, it was important to explore parental preferences.

## METHODS

### Participants

In May 2006, 240 health care professionals and 301 parents from Nova Scotia were notified about the study. Both groups were drawn from the database of participants and referring health providers (primarily family practitioners) originally involved in the Strongest Families Program. This convenience sample was used because all those in the database were familiar with the Strongest Families Program. Parents who had withdrawn from the program (investigator or participant withdrawal) or who could not be contacted were ineligible to participate; all other parents were included, as were all referring health professionals.

Institutional ethical approval was obtained before the study began. Consent to participate was implied by the return of the completed questionnaire. For returning a questionnaire, the parent and health professional respondents were entered into a draw (1 prize per group) to win a weekend getaway at a local resort.

### Study design

Participants in each group were mailed a package containing 2 formats of a sample end-of-treatment progress letter describing a fictional but typical child. One was titled "Graphical letter" and the other "Narrative letter." A one-page questionnaire about each letter was also included. The types of letters were randomly ordered in each group. Half of the participants in each group received a package with the narrative letter and questionnaire first and the graphical letter and questionnaire second. The other half received the inverse.

Both letter formats contained the following information:

- when the participant was enrolled,
- how many sessions were completed,
- the beginning and end-of-treatment outcome results from the Brief Child and Family Phone Interview Questionnaire (BCFPI),[23,24]
- parent rating of the child's progress through the program,
- a problem list with resolved and ongoing problems,
- recommendations for the health professional,
- ongoing follow-up information, and
- a brief description of the skills taught in the program.

In the graphical letter (**Figure 1**), the BCFPI scores and parent ratings were displayed graphically. In the narrative report, the scores and ratings were described in a paragraph. The problem list and the description of skills were in table format in the graphical letter and paragraph format in the narrative letter. Otherwise the letters contained identical information.

### Questionnaires

Each participant was asked a series of background questions along with the questions about each letter format.

**Figure 1.** Sample of the Strongest Families Program graphical letter: *Fictitious data presented.*

January 15, 2010

Dr. Smith
101 Front Road
Halifax, Nova Scotia
Z0Z 0Z0

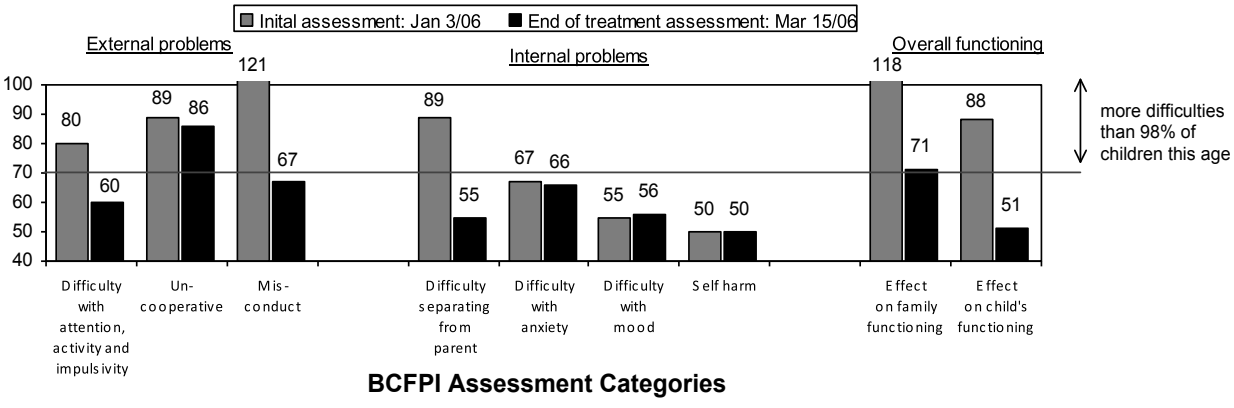
**End of treatment update on progress in Strongest Families program**
RE: Natalia Day DOB: April 1, 2000

Dear _Dr. Smith,

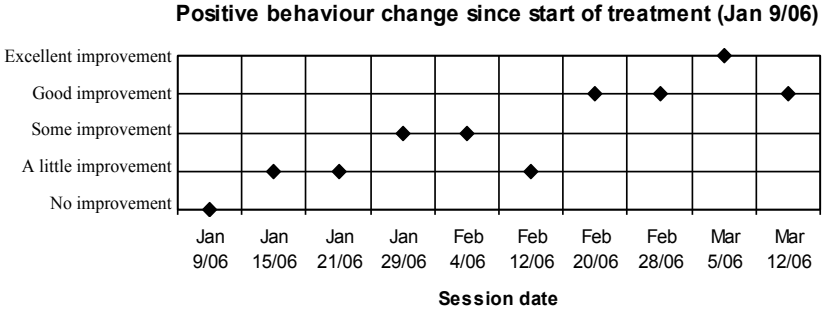
Ms. Day and her daughter Natalia have now completed the Strongest Families Program. Since the beginning of treatment, Ms. Day has completed 12 of 12 sessions and has learned a variety of skills to improve Natalia's challenging behaviour.

**End of Treatment Assessment**
On the graph below are t-scores from a questionnaire (the Brief Child and Family Phone Interview - BCFPI) assessing how Natalia compares to children of her own age and gender in several behavioural areas before Strongest Families (gray bar) and after Strongest Families (black bar). T-scores that appear above 70 are areas in which Ms. Day reports Natalia has moderate or significant problems (approximately 2% of children this age score above 70).

Since the initial assessment at the beginning of treatment, Ms. Day reports *moderate* improvement in Natalia's external problems, *low* improvement in internal problems and *moderate* improvement in overall functioning.




**Parent rating of Natalia's improvement**
Each coaching session, Ms. Day rated Natalia's improvement in behaviour since the beginning of treatment. She rated Natalia's improvement for the entire treatment period as good improvement. Natalia's overall improvement for the duration of time the family has been involved with the Strongest Families treatment program is depicted on the graph below.



**Problem List**
Ms. Day has made very good progress through the manual and together with her coach has solved several problems that Natalia was having. However, there are still on-going problems that Ms. Day will need to use all of her new skills to address.

| Improved Problems | On-going Problems |
|---|---|
| • Aggressive behaviour at school - hitting other children<br>• Non-compliance with mom at home and teacher at school | • Difficulties managing anxiety in groups of children<br>• Difficulties concentrating on task at hand |

**Recommendations**
No further Strongest Families follow up is required. File is closed.

**On-going Follow-up**
We ask that you encourage Ms. Day to practice the skills she has learned in the Strongest Families Program.

| Skill | Reason to use |
|---|---|
| Noticing the Good | Build a strong relationship with Natalia and encourage positive behaviour. |
| Spreading the Attention around | Teach Natalia to play better with other children. |
| Thinking positively, ignoring, and walking away from Whining and Complaining | Avoid unnecessary conflicts. |
| Using Transitional Warning | Prepare Natalia for a change from a fun activity to something more routine. |
| When-Then Statements | Help Natalia learn priorities – when more difficult tasks are completed then more enjoyable activities can be pursued. |
| Behaviour Charts and Stickers | Encourage Natalia to complete her chores and feel good about herself. |
| Planning Ahead | Help Natalia develop plans for difficult situations. |
| Planning Ahead for when others are around | Help Natalia develop plans for situations when other adults are around and help those adults plan strategies for positive interactions with Natalia. |
| Losing Points with the Behaviour Chart | Encourage positive behaviour and have a simple consequence for negative behaviour. |
| Time Out | Develop a consequence for serious problems when other skills don't work. |
| Working with the School or Daycare | Ensure Natalia learns better, participates more and enjoys school. |
| PASTE problem-solving method | Learn to effectively problem solve using this step by step problem solving method (**P**ick a problem, list **A**lternatives, **S**elect the best alternative, **T**ry it, and **E**valuate). |

If you wish to discuss this matter further or have any other questions or concerns, please do not hesitate to contact me or the Program Manager, <name> toll free at 1-866-470-7111.

Sincerely,

_____
<name>
Strongest Families Coach

_____
<name>
Strongest Families Program Manager

cc: Ms. Day

Questions posed to health professionals and to parents differed slightly.

## Analysis

We used the Wilcoxon signed ranked test to test the difference between responses for the narrative versus the graphical letters. To account for multiple testing, we used the Bonferroni correction and considered significant only those questions for which $P<.05/8$ ($P<.006$) for the parents, and $P<.05/10$ ($P<.005$) for the health professionals.

# RESULTS

Seventy-four of 240 health professionals (30.8%) and 98 of 301 parents (32.6%) returned the questionnaires within 2 months and were included in the analysis. The attributes of the respondents are listed in **Table 1**. Parents' responses for each question are displayed in **Table 2**. The health professionals' responses are displayed in **Table 3.**

## Overall letter preference

Overall, 83.8% of health professionals (62 of 74) and 76.5% of parents (75 of 98) preferred the graphical letter. This overall preference was validated by qualitative responses about specific aspects of the letter formats. Parent and health professional responses are listed in **Tables 2** and **3**.

## Comments by participants

Respondents were asked why they preferred the letters they had indicated, and room was provided for overall comments. Ninety-six percent of health professionals (71 of 74) provided a rationale for their letter preference. Nineteen offered overall comments. All 98 parents who responded gave a reason for their letter choices, and 43 gave overall comments. All comments were grouped together in themes (**Table 4**).

## Respondent demographics and letter preference

Correlations between parents' overall choice of letter and sex, age, yearly income, number of children, or highest level of education completed were not significant.

Correlations between health professionals' overall choice of letter and sex, clinical practice type, number of years in practice, number of children seen in a year, or number of children with mental health problems were also not significant.

# DISCUSSION

By far most of the health professionals and parents favoured the graphical letter because it made finding information easy; it helped with understanding the progress of the patient; and it contained an appropriate amount of information.

**Table 1. Background information of respondents**

| CHARACTERISTICS | RESPONDENTS |
|---|---|
| **Health professionals (n = 74)*** | |
| Female, n (%) | 47 (63.5) |
| Health care professional type, n (%) | |
| • Family practitioner | 62 (83.8) |
| • Pediatrician | 8 (10.8) |
| • Other (eg, psychiatrist, nurse practitioner) | 4 (5.4) |
| Mean (SD) no. of years in practice (n = 71) | 17.5 (9.4) |
| Mean (SD) estimated no. of children seen per year (n = 53) | 550.6 (481.7) |
| Mean (SD) estimated no. of children with mental health problems seen per year (n = 48) | 81.3 (152.4) |
| **Parents (n = 98)*** | |
| Female, n (%) | 94 (95.9) |
| Mean (SD) age of respondent, y (n = 95) | 38.74 (6.06) |
| Mean (SD) no. of children in family (n = 93) | 2.25 (0.89) |
| Level of education of respondent, n (%) | |
| • Some high school | 6 (6.1) |
| • High school | 13 (13.3) |
| • Community college or some university | 41 (41.8) |
| • University degree | 22 (22.4) |
| • Professional or graduate degree | 13 (13.3) |
| • Other | 2 (2.0) |
| • No response | 1 (1.0) |
| Income, n (%) | |
| • Less than $15 000 | 7 (7.1) |
| • $15 000-$24 999 | 10 (10.2) |
| • $25 000-$49 999 | 20 (20.4) |
| • $50 000-$74 999 | 26 (26.5) |
| • $75 000-$99 999 | 14 (14.3) |
| • More than $100 000 | 18 (18.4) |
| • No response | 2 (2.0) |
| Order of letters in the mailed package, n (%) | |
| • Graphical then narrative | 47 (48.0) |
| • Narrative then graphical | 51 (52.0) |

*Not all respondents answered all questions.

The open-ended comments supported the questionnaire responses, with a total of 95 comments from parents and 68 from health professionals about the ease and speed of getting information from the graphical letter, and only 16 positive comments from parents and 5 from health professionals regarding the narrative letter. The responses from the health professionals are consistent with the results of previous studies that have shown that physicians find structured letters easier to extract information from[19] and quicker to read.[20] The health professionals' preference for the graphical, structured letter also supports past studies that examined physician preferences for consultant letters.[20,21]

Interestingly, among those respondents who preferred the narrative letter overall, 78.6% of health professionals and 60.9% of parents still agreed or strongly agreed that it was easy to see the overall progress of the child in the graphical letter. This indicates that the child's progress in the graphical letter is clearly conveyed, even to those who prefer to receive the narrative letter.

**Table 2. Parent responses to questionnaire:** *Parents were asked to what extent they agreed with various statements on the presentation of data in the letters.*

| STATEMENTS | LETTER TYPE | STRONGLY AGREE, N (%) | AGREE, N (%) | NEUTRAL, N (%) | DISAGREE, N (%) | STRONGLY DISAGREE, N (%) | DIFFERENCE | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | *Z* SCORE | *P* VALUE |
| It was easy to find the information I needed in this letter | Narrative | 15 (15) | 37 (38) | 19 (19) | 24 (24) | 3 (3) | -5.097* | <.001 |
| | Graphical | 39 (40) | 48 (49) | 7 (7) | 2 (2) | 2 (2) | | |
| It was easy to understand the overall progress of the patient in this letter | Narrative | 19 (19) | 39 (40) | 16 (16) | 22 (22) | 2 (2) | -4.823* | <.001 |
| | Graphical | 47 (48) | 42 (43) | 5 (5) | 3 (3) | 1 (1) | | |
| If this letter were about my child, I would be satisfied with the information it contains | Narrative | 16 (16) | 46 (47) | 14 (14) | 20 (20) | 2 (2) | -3.112* | .002 |
| | Graphical | 39 (40) | 38 (39) | 10 (10) | 10 (10) | 1 (1) | | |
| I would like more description of the categories in the Brief Child and Family Phone Interview assessment | Narrative | 12 (12) | 32 (33) | 34 (35) | 19 (19) | 0 | -.012 | .990 |
| | Graphical | 12 (12) | 32 (33) | 33 (34) | 21 (21) | 0 | | |
| There was too much information in this letter | Narrative | 3 (3) | 17 (17) | 14 (14) | 56 (57) | 7 (7) | -3.940* | <.001 |
| | Graphical | 0 (0) | 4 (4) | 13 (13) | 66 (67) | 15 (15) | | |
| I would like this letter to contain more description of the skills taught in the program | Narrative | 6 (6) | 28 (29) | 26 (27) | 36 (37) | 1 (1) | -2.078 | .038 |
| | Graphical | 3 (3) | 20 (20) | 31 (32) | 42 (43) | 2 (2) | | |
| I would like to receive a similar letter at the start of treatment | Narrative | 14 (14) | 42 (43) | 15 (15) | 24 (24) | 2 (2) | -3.508* | <.001 |
| | Graphical | 27 (28) | 46 (47) | 13 (13) | 10 (10) | 0 | | |
| I would like to receive a similar progress letter halfway through treatment | Narrative | 17 (17) | 49 (50) | 12 (12) | 17 (17) | 3 (3) | -3.240* | .001 |
| | Graphical | 30 (31) | 50 (51) | 9 (9) | 8 (8) | 1 (1) | | |

*Significant at $P<.005$.

**Table 3. Health professional responses to questionnaire:** *A) Health professionals were asked to what extent they agreed with various statements on the presentation of data in the letters; B) Health professionals were asked how the letters compared with other progress letters they received.*

**A)**

| STATEMENT | LETTER TYPE | STRONGLY AGREE, N (%) | AGREE, N (%) | NEUTRAL, N (%) | DISAGREE, N (%) | STRONGLY DISAGREE, N (%) | DIFFERENCE | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | *Z* SCORE | *P* VALUE |
| It was easy to find the information I needed in this letter | Narrative | 5 (7) | 36 (49) | 15 (20) | 16 (22) | 2 (3) | -4.083* | <.001 |
| | Graphic | 31 (42) | 31 (42) | 10 (14) | 2 (3) | 0 (0) | | |
| It was easy to understand the overall progress of the patient in this letter | Narrative | 7 (9) | 29 (39) | 19 (26) | 18 (24) | 0 (0) | -5.350* | <.001 |
| | Graphic | 37 (50) | 31 (42) | 2 (3) | 4 (5) | 0 (0) | | |
| This letter contained all of the information that I need | Narrative | 5 (7) | 45 (61) | 18 (24) | 4 (5) | 0 (0) | -3.434* | .001 |
| | Graphic | 17 (23) | 42 (57) | 12 (16) | 1 (1) | 0 (0) | | |
| I would like more description of the categories in the Brief Child and Family Phone Interview assessment | Narrative | 2 (3) | 17 (23) | 31 (42) | 21 (28) | 3 (4) | -1.684 | .092 |
| | Graphic | 2 (3) | 23 (31) | 27 (36) | 21 (28) | 1 (1) | | |
| I would like this letter to contain more description of the skills taught in the program | Narrative | 3 (4) | 21 (28) | 26 (35) | 22 (30) | 0 (0) | -.542 | .588 |
| | Graphic | 3 (4) | 16 (22) | 33 (45) | 22 (30) | 0 (0) | | |
| There was too much information in this letter | Narrative | 2 (3) | 17 (23) | 20 (27) | 30 (41) | 3 (4) | -3.064* | .002 |
| | Graphic | 0 (0) | 5 (7) | 19 (26) | 44 (59) | 4 (5) | | |
| I understand from this letter what I can do to help as this patient's physician | Narrative | 1 (1) | 29 (39) | 29 (39) | 15 (20) | 0 (0) | -4.562* | <.001 |
| | Graphic | 10 (14) | 39 (53) | 18 (24) | 6 (8) | 0 (0) | | |
| I would like to receive a similar letter at the start of treatment | Narrative | 6 (8) | 33 (45) | 20 (27) | 12 (16) | 1 (1) | -1.319 | .187 |
| | Graphic | 13 (18) | 31 (42) | 16 (22) | 11 (15) | 1 (1) | | |
| I would like to receive a similar progress letter halfway through treatment | Narrative | 6 (8) | 22 (30) | 20 (27) | 24 (32) | 2 (3) | -2.252 | .024 |
| | Graphic | 12 (16) | 25 (34) | 17 (23) | 19 (26) | 1 (1) | | |

**B)**

| QUESTION | LETTER TYPE | MUCH BETTER, N (%) | A LITTLE BETTER, N (%) | ABOUT THE SAME, N (%) | A LITTLE WORSE, N (%) | MUCH WORSE, N (%) | DON'T USUALLY GET A LETTER, N (%) | DIFFERENCE | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | *Z* SCORE | *P* VALUE |
| How does this letter compare to other mental health letters you receive regarding patients? | Narrative | 15 (21) | 18 (25) | 19 (26) | 9 (13) | 3 (4) | 8 (11) | -4.198* | <.001 |
| | Graphic | 42 (58) | 13 (18) | 7 (10) | 5 (7) | 0 (0) | 6 (8) | | |

*Significant at $P<.005$.

**Table 4. Open-ended comments**

| COMMENTS | PARENTS, N (%) (N=98) | HEALTH PROFESSIONALS, N (%) (N=71) |
|---|---|---|
| Comments regarding graphical letter | | |
| • Easy to see changes or progress | 46 (46.9) | 17 (23.9) |
| • Easy to read, understand, or get information from | 31 (31.6) | 26 (36.6) |
| • Quick to get information from | 18 (18.4) | 25 (35.2) |
| • Compact or precise | 11 (11.2) | 9 (12.7) |
| • Like graphs or charts better than words | 23 (23.5) | 1 (1.4) |
| • Graphs oversimplified | 0 (0.0) | 1 (1.4) |
| • Intimidating or too technical | 2 (2.0) | 0 (0.0) |
| • Graphs too busy, confusing, or difficult | 6 (6.1) | 0 (0.0) |
| Comments regarding narrative letter | | |
| • More personal or better to describe people with words | 4 (4.1) | 2 (2.8) |
| • Clearer or better flow | 4 (4.1) | 3 (4.2) |
| • Easy to read or understand | 16 (16.3) | 5 (7.0) |
| • Words better or easier | 5 (5.1) | 0 (0.0) |
| • More detailed | 3 (3.1) | 0 (0.0) |
| • Too wordy or too much information | 3 (3.1) | 2 (2.8) |
| • Hard to read or understand | 2 (2.0) | 0 (0.0) |
| • Miscellaneous | 0 (0.0) | 4 (5.6) |
| Overall comments* | | |
| • Thanks for allowing to participate or a compliment on the study | 11 (25.6) | 4 (21.1) |
| • Suggested some combination of the 2 letters | 4 (9.3) | 2 (10.5) |
| • Suggested different letters for physicians and parents | 2 (4.7) | 0 (0.0) |
| • Miscellaneous | 3 (7.0) | 2 (10.5) |

*For parents n = 43; for health professionals n = 19.

The 2 questions specific to the Strongest Families Program (asking respondents if they would like more description of the BCFPI categories or of the skills taught in the program) were the only 2 questions with non-significant results for parents and represented 2 of the 4 questions with non-significant results for health professionals. There was no clear preference regarding the amount of description of the categories and skills. This suggests that the amount of description in each letter is sufficient.

Neither health professionals nor parents thought that there was too much information in the letters. However, the only questions that were posed about the amount of information in the letters addressed the amount of description of the assessment categories or of the skills taught in the program. Therefore, no conclusions can be drawn about what kind of information the respondents would have liked to have seen.

The 2 letters contained the same information in different formats. In addition, the graphical letter was actually slightly longer, filling 2 full pages, while the narrative letter was a page and three-quarters. However, 3 times as many health professionals and 5 times as many parents found that the narrative letter had too much information compared with the graphical letter, which indicates that the same information is conveyed more efficiently when displayed graphically rather than in narrative form.

In addition to the end-of-treatment letters, health professionals were more interested in receiving letters at the beginning of treatment than at the midway point (responses were not significantly different for narrative or graphical letters). Given that the average number of children seen annually by the health professional respondents is between 550 and 2500, it is understandable that health professionals only want to see the information that is most relevant to the continuing care of their patients. Parents were interested in obtaining as much information as possible about their children throughout the treatment, agreeing that they would want additional letters at the beginning and middle of treatment (significantly more parents indicated that this was the case for the graphical letters [$P<.001$]).

The health professionals were asked if the letters conveyed to them what they could do to help as the patient's health professional. Two-fifths of respondents agreed that the narrative letter indicated what they could do to help. However, more than two-thirds agreed that they understood how to help from the graphical letter. Although this is significantly more compared with the narrative letter ($P<.001$), having only 67% of the health professionals in agreement with this statement is less than ideal and represents an important area for future research. It is important to communicate to the health professional taking over the care of the patient what was done and what still needs to be done to ensure the continuum of care is maintained.

Family physicians who refer patients to specialists often comment on the lack of referral reply communication from the specialists. Gandhi et al found that 2 weeks after a referral visit, 25% of referring practitioners still had not received any information from the specialists.[7] McPhee et al reported that 61% of referring practitioners received consultation results,[13] and Forrest et al reported that only 54.6% received information back from the specialists.[8] Based on this literature, we had hypothesized that a sizable number of health professionals would report that they did not receive letters at all, but only 6 of the 74 health professionals reported not usually getting letters. (Two other respondents indicated they did not get letters when asked how the narrative letter compared with the other letters they received, but indicated that the graphical letter was much better than the letters they typically received.)

## Limitations

One limitation of this study is the modest response

rate (32.6% of parents and 30.8% of health professionals). Perhaps the short 2-month time limit imposed an unreasonable demand on already very busy schedules for family physicians and parents alike. Although this might introduce nonresponse bias, we believe that the respondents provided data that strengthen the important process of outcome progress communications to primary care physicians or other health professionals and parents. Another limitation is the generalizability of the results to other mental health programs. These results might be specific to participants in our children's mental health program. Further, most of the health professionals were physicians. Therefore, the results of this study can be generalized only to physicians, not to other health professionals. The parent sample was 96% female, and so inferences about fathers should be made with caution. Nonetheless, the fathers' ratings and comments were similar to those provided by mothers.

## Conclusion

Outcome reports should efficiently and helpfully convey progress and results to primary care physicians or other health professionals, as well as to parents. Responses to every question we asked indicated a preference for a graphical format to convey information about the children in our mental health program. Most health professionals and parents also agreed with receiving additional progress letters (eg, at the beginning of and midway through treatment). Overall, neither participant group thought that either letter type had too much information.

In order to graphically display progress, it is necessary to use quantitative measures. Not all mental health professionals use these types of outcome measures, but if they are used, graphically displaying the information is preferred by recipients of such letters.

Because this is the first study to examine parent preferences regarding letters from a pediatric mental health program, future research is needed to analyze the type of information that parents would like to receive in letters from such programs. The content for the letters used in this study was based on studies examining physician preference. Parents seem to have similar needs and desires for information, but there might be other issues that are important to parents. Further exploration might identify current gaps in parental education and health outcome communication.

Mental health programs should use graphical formats whenever possible in information letters for referring health professionals and for parents, as these are preferred by most parents and health professionals. Effectively communicating clinical progress to family practitioners and parents can help to maintain the continuum of care after discharge, promoting improved primary care follow-up for children.

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**Contributors**

**Dr Lingley-Pottie, Ms Janz,** and **Dr McGrath** contributed to the concept and design of the study; the acquisition, analysis, and interpretation of data; and the drafting and critical review and revision of the manuscript. **Drs Cunningham** and **MacLean** contributed to the concept and design of the study, the analysis and interpretation of data, and the critical review and revision of the manuscript.

**Competing interests**

The Strongest Families Institute is a registered, not-for-profit company. **Dr McGrath** is Chief Executive Officer and **Dr Lingley-Pottie** is President and Chief Operating Officer who receives salary support from the Strongest Families Institute (SFI). **Dr McGrath** does not receive salary support from the SFI at this time but might at some point in the future. **Dr McGrath** might commercialize the SFI in the future. **Dr Cunningham** receives salary support from Brief Child and Family Phone Interview Inc.

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