



Dental Practice-Based Research Network
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DPBRN 18: Persistent Pain and Root Canal Therapy

Results: Overall and by Region

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Table 1: Practitioners and patients by DPBRN region

| | AL/MS | | FL/GA | | MN | | PDA | | SK | | TOTAL | |
|----------------------|-------|------|-------|------|-----|------|-----|-----|----|------|-------|-------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Practitioners | 10 | 16.1 | 14 | 22.6 | 26 | 41.9 | 5 | 8.1 | 7 | 11.3 | 62 | 100.0 |
| Patients | | | | | | | | | | | | |
| 3 month | 90 | 14.1 | 127 | 19.8 | 337 | 52.7 | 34 | 5.3 | 52 | 8.1 | 640 | 100.0 |
| 6 month | 83 | 12.8 | 127 | 19.5 | 354 | 54.4 | 35 | 5.4 | 52 | 8.0 | 651 | 100.0 |

The report is based on 640 patients (90.4% of 708) from 62 practitioners who completed a 3 month follow-up of DPBRN Study 17 (Peri-operative Pain and Root Canal Therapy Study), and 651 (91.9%) who completed a 6 month follow-up of the study.

Unless otherwise stated, totals that do not sum to 640 for the 3 month follow-up or to 651 for the 6 month follow-up are due to missing data.

3. Has your tooth pain been present at least 8 hours a day, 15 days or more a month over the last 3 or more months?

- a. Yes
- b. No (If **No**, skip to question #5):

Table Q3: Pain present at least 8 hours per day by DPBRN region

| | AL/MS | | FL/GA | | MN | | PDA | | SK | | TOTAL | |
|---|-------|------|-------|------|-----|------|-----|------|----|-------|-------|------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Has your tooth pain been present at least 8 hours a day, 15 days or more a month over the last 3 or more months? | | | | | | | | | | | | |
| Yes | 2 | 2.3 | 5 | 4.0 | 20 | 6.1 | 1 | 2.9 | 0 | 0.0 | 28 | 4.5 |
| No | 87 | 97.8 | 121 | 96.0 | 307 | 93.9 | 33 | 97.1 | 52 | 100.0 | 600 | 95.5 |

- About 5% of responding patients reported continued pain during the 3 months following completion of obturation; none from SK reported having continued pain.

4. How many days ago did it go away?* (Not included in the summary report)

- a. Pain is still present.
- b. Pain disappeared. Last pain was days ago.

5. In the last 3 months, which of the following treatments have you sought to manage pain associated with your tooth that received root canal therapy? (**Mark all that apply and indicate the number of treatments in the last 3 months.**)

A. Additional dental treatment(s):

- 1. Additional root canal treatment(s): How many appointments?
- 2. Extraction of the tooth (tooth was removed)
- 3. Additional x-rays: How many appointments?

B. Medication(s) or supplement(s):

- 1. Pain medication (prescription or over the counter)
- 2. Antibiotics
- 3. Herbal/botanical

C. **Appointment(s) with a medical doctor:** How many appointments?

D. Alternative, complementary, or non-traditional health therapies:

- 1. Chiropractic care: How many appointments?
- 2. Acupuncture or acupressure: How many appointments?
- 3. Other: (please list) _____

E. **None of the above.**

Table Q5: Methods of pain management by DPBRN region

| | AL/MS | | FL/GA | | MN | | PDA | | SK | | TOTAL | |
|--|-------|------|-------|------|-----|------|-----|------|----|------|-------|------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| In the last 3 months, which of the following treatments have you sought to manage pain associated with your tooth that received root canal therapy? | | | | | | | | | | | | |
| Additional dental tx | | | | | | | | | | | | |
| Additional root canal tx | 0 | 0.0 | 2 | 1.6 | 13 | 3.6 | 3 | 8.6 | 5 | 9.6 | 23 | 3.4 |
| Tooth extraction | 1 | 1.0 | 0 | 0.0 | 7 | 1.9 | 0 | 0.0 | 0 | 0.0 | 8 | 1.2 |
| Additional x-rays | 0 | 0.0 | 3 | 2.3 | 15 | 4.1 | 0 | 0.0 | 3 | 5.8 | 21 | 3.1 |
| Medications/Supplements | | | | | | | | | | | | |
| Pain Medication | 1 | 1.0 | 5 | 3.9 | 56 | 15.3 | 7 | 20.0 | 1 | 1.9 | 70 | 10.3 |
| Antibiotics | 0 | 0.0 | 5 | 3.9 | 15 | 4.1 | 0 | 0.0 | 1 | 1.9 | 21 | 3.1 |
| Herbal/botanical | 0 | 0.0 | 1 | 0.8 | 4 | 1.1 | 0 | 0.0 | 0 | 0.0 | 5 | 0.7 |
| Appt w/ medical doctor | 0 | 0.0 | 2 | 1.6 | 11 | 3.3 | 1 | 2.9 | 0 | 0.0 | 14 | 2.2 |
| Alternative | | | | | | | | | | | | |
| Chiropractic tx | 0 | 0.0 | 0 | 0.0 | 6 | 1.6 | 0 | 0.0 | 0 | 0.0 | 6 | 0.9 |
| Acupuncture | 0 | 0.0 | 0 | 0.0 | 3 | 0.8 | 0 | 0.0 | 0 | 0.0 | 3 | 0.4 |
| Other | 2 | 2.0 | 1 | 0.8 | 9 | 2.7 | 2 | 5.7 | 0 | 0.0 | 14 | 2.2 |
| None of the above | 87 | 96.7 | 112 | 88.2 | 264 | 78.6 | 24 | 70.6 | 39 | 75.0 | 526 | 82.3 |

- Of the various modalities to manage pain, use of pain medication was most common, reported by 10% of patients; ranged from lows of 1%-4% (in AL/MS, SK, FL/GA) to highs of 15-20% (MN and PDA).
- 82% of responding patients had NOT used any type of medication, regular or alternative treatment modalities to manage pain associated with receipt of root canal therapy; ranged from about 71% (PDA) to 97% (AL/MS).

Patient Survey – 6 Months After Treatment

1. How many days in the past month have you had pain in the area that was treated with a root canal?

Days (If no pain, please write "0/0")

Table Q1: Number of days pain was present in last month by DPBRN region

| | AL/MS | | FL/GA | | MN | | PDA | | SK | | TOTAL | |
|--|-------|------|-------|------|-----|------|------|------|------|------|-------|------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| How many days in the past month have you had pain in the area that was treated with a root canal? | | | | | | | | | | | | |
| >=1 | 4 | 4.8 | 7 | 5.5 | 43 | 12.2 | 6 | 17.1 | 12 | 23.1 | 72 | 11.1 |
| ZERO | 79 | 95.2 | 120 | 94.5 | 311 | 87.8 | 29 | 82.9 | 40 | 76.9 | 579 | 88.9 |
| Among >=1 | | | | | | | | | | | | |
| Mean | 3.2 | | 7.0 | | 8.2 | | 10.3 | | 15.6 | | 9.2 | |
| (SD) | 2.5 | | 10.6 | | 8.7 | | 11.1 | | 11.6 | | 9.7 | |

- Six months after obturation was completed, 11% of patients reported having pain at least one day in the prior [6th] month. This varied considerably across region, from around 5% (AL/MS, FL/GA) to 23% (SK).
- Among the 11% reporting pain on any day in prior month, the average number of days had pain was 9.2; this also differed by region, from 3.2 (AL/MS) to 15.6 (SK).

2. Have you taken anything for the pain (over-the-counter or prescription medication, herbal, other) in the last 1 month?

- a. Yes
b. No

Table Q2: Taken pain medication by DPBRN region

| | AL/MS | | FL/GA | | MN | | PDA | | SK | | TOTAL | |
|--|-------|------|-------|------|-----|------|-----|------|----|------|-------|------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Have you taken anything for the pain in the last 1 month? | | | | | | | | | | | | |
| Yes | 2 | 2.4 | 3 | 2.4 | 25 | 7.2 | 4 | 12.1 | 3 | 5.8 | 37 | 5.8 |
| No | 80 | 97.6 | 124 | 97.6 | 324 | 92.8 | 29 | 87.9 | 49 | 94.2 | 606 | 94.3 |

*Note: 3 patients who reported zero days having pain in past month, took something for pain in prior month.

- Approximately 6% of patients overall were still taking pain medication 6 months after treatment; ranged from 2% (AL/MS, FL/GA) to 12% (PDA).

IF PAIN WAS NOT PRESENT IN THE PAST ONE MONTH, SKIP TO QUESTION #12

Questions 3 – 11 below based on 75 patients: 72 who reported pain at least one day and additional 3 who did not report pain but were taking something for pain

11. If yes, what do you think was the cause of this tooth-type pain (please mark **only ONE** response)?

AMONG the 17 patients who indicated persistent pain, only overall numbers are indicated below:

- a. dental disease / infection (e.g., toothache) n=3
- b. dental treatment (e.g., root canal therapy) n=7
- c. trauma (e.g., traffic accident, injury, fall) n=1
- d. illness (e.g., cold, sinus infection, ear infection) n=0
- e. other pain(s) (e.g., headaches, TMJ/TMD) n=0
- f. stress n=0
- g. don't know n=6

12. Please rate how your feelings of fear about having a root canal compared to the actual experience.

- a. does not apply – I was not afraid.
- b. the experience was *better* than I feared.
- c. the experience was about what I feared.
- d. the experience was *worse* than what I feared.

Table Q12: Feelings of fear comparison by DPBRN region

| | AL/MS | | FL/GA | | MN | | PDA | | SK | | TOTAL | |
|---|-------|------|-------|------|-----|------|-----|------|----|------|-------|------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Please rate how your feelings of fear about having a root canal compared to the actual experience. | | | | | | | | | | | | |
| Doesn't apply | 28 | 34.2 | 50 | 39.7 | 96 | 27.6 | 12 | 34.3 | 17 | 33.3 | 203 | 31.6 |
| Better than feared | 47 | 57.3 | 64 | 50.8 | 193 | 55.5 | 20 | 57.1 | 17 | 33.3 | 341 | 53.1 |
| About what I feared | 7 | 8.5 | 9 | 7.1 | 46 | 13.2 | 3 | 8.6 | 16 | 31.4 | 81 | 12.6 |
| Worse than feared | 0 | 0.0 | 3 | 2.4 | 13 | 3.7 | 0 | 0.0 | 1 | 2.0 | 17 | 2.7 |

- When comparing feelings of fear to the actual experiences, overall more patients reported better than feared at 53%; SK was lower with 33% indicating better than feared.

13. In the last 3 months, which of the following treatments have you sought to manage pain associated with your tooth that received root canal therapy? **(Mark all that apply and indicate the number of treatments in the last 3 months.)**

A. Additional dental treatment(s):

1. Additional root canal treatment(s): How many appointments?
2. Extraction of the tooth (tooth was removed)
3. Additional x-rays: How many appointments?

B. Medication(s) or supplement(s):

1. Pain medication (prescription or over the counter)
2. Antibiotics
3. Herbal/botanical

C. **Appointment(s) with a medical doctor:** How many appointments?

D. Alternative, complementary, or non-traditional health therapies:

1. Chiropractic care: How many appointments?
2. Acupuncture or acupressure: How many appointments?
3. Other: (please list) _____

E. **None of the above.**

Table Q13: Methods of pain management by DPBRN region

| | AL/MS | | FL/GA | | MN | | PDA | | SK | | TOTAL | |
|--|-------|------|-------|------|-----|------|-----|------|----|------|-------|------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| In the last 3 months, which of the following treatments have you sought to manage pain associated with your tooth that received root canal therapy? | | | | | | | | | | | | |
| Additional dental tx | | | | | | | | | | | | |
| Additional root canal tx | 0 | 0.0 | 0 | 0.0 | 10 | 2.7 | 3 | 8.6 | 3 | 5.8 | 16 | 2.4 |
| Tooth extraction | 0 | 0.0 | 3 | 2.3 | 4 | 1.1 | 0 | 0.0 | 1 | 1.9 | 8 | 1.2 |
| Additional x-rays | 0 | 0.0 | 1 | 0.8 | 12 | 3.3 | 1 | 2.9 | 5 | 9.6 | 19 | 2.8 |
| Medications/Supplements | | | | | | | | | | | | |
| Pain Medication | 2 | 2.0 | 3 | 2.3 | 36 | 9.8 | 5 | 14.3 | 4 | 7.7 | 50 | 7.4 |
| Antibiotics | 0 | 0.0 | 2 | 1.6 | 7 | 2.0 | 0 | 0.0 | 0 | 0.0 | 9 | 1.4 |
| Herbal/botanical | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 1 | 0.2 |
| Appt w/ medical dr | 0 | 0.0 | 1 | 0.8 | 5 | 1.4 | 1 | 2.9 | 0 | 0.0 | 7 | 1.0 |
| Alternative | | | | | | | | | | | | |
| Chiropractic tx | 0 | 0.0 | 0 | 0.0 | 2 | 0.6 | 0 | 0.0 | 0 | 0.0 | 2 | 0.3 |
| Acupuncture | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 1 | 0.2 |
| Other | 0 | 0.0 | 1 | 0.8 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 2 | 0.3 |
| None of the above | 78 | 94.0 | 121 | 95.3 | 308 | 87.0 | 29 | 82.9 | 42 | 80.8 | 578 | 88.8 |

- Of the various modalities to manage pain, use of pain medication was most common, reported by 7% of patients; ranged from lows of 2%-3% (AL/MS, FL/GA) to 14% (PDA).
- Nearly 90% of responding patients had NOT used any type of medication, regular or alternative treatment modalities to manage pain associated with receipt of root canal therapy.