

Dental Practice-Based Research Network
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DPBRN 17: Peri-operative Pain and Root Canal Therapy

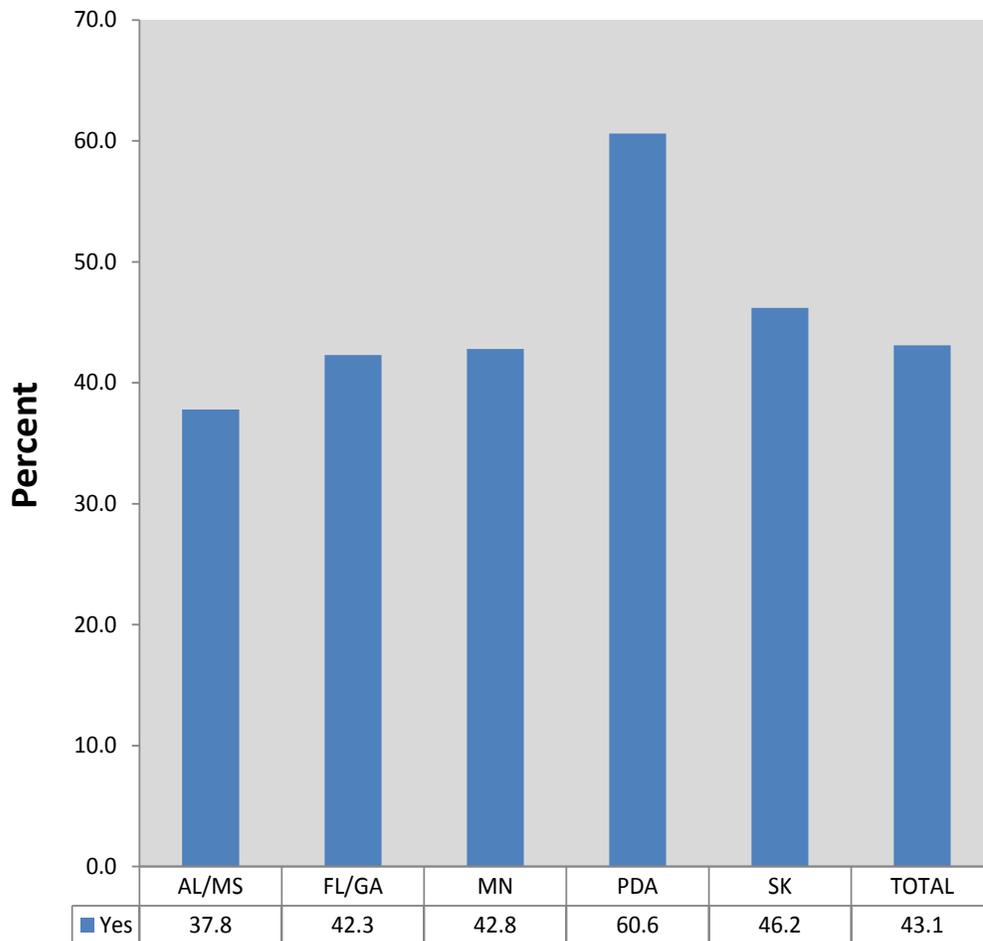
Results: Overall and by Region (Graphs)

Date prepared: January 15, 2012

Dentist Survey – Before Treatment (Diagnosis)

1. Which tooth is to be treated with a root canal? (Universal numbering system: 01- 32)
2. Does the tooth exhibit a radiolucency of endodontic origin (periradicular or apical)?
 - a. Yes
 - b. No

Question 2: Tooth exhibits radiolucency



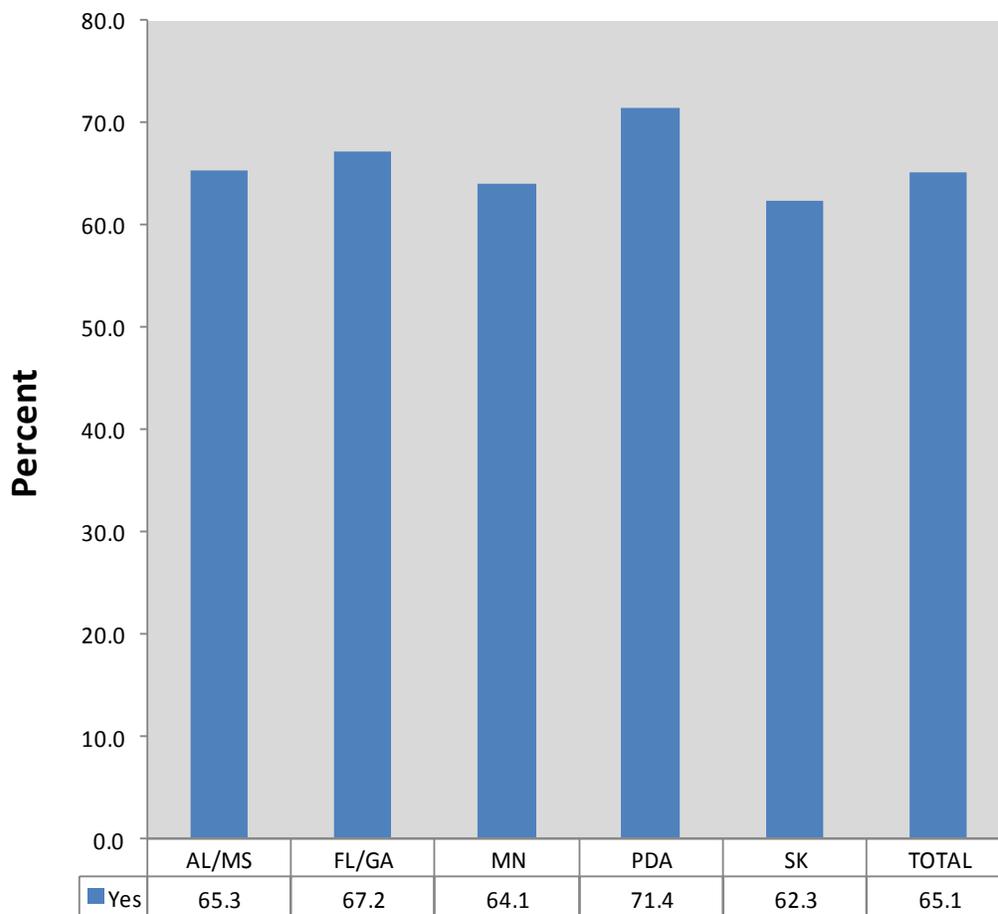
- Overall, 43% of the teeth receiving root canal treatment exhibited radiolucency. PDA was the only region showing a majority that exhibited a radiolucency of endodontic origin at about 61%.

Physical Exam

3. Was the tooth tender to percussion?

- a. Yes
b. No

Question 3: Tooth Tender to Percussion



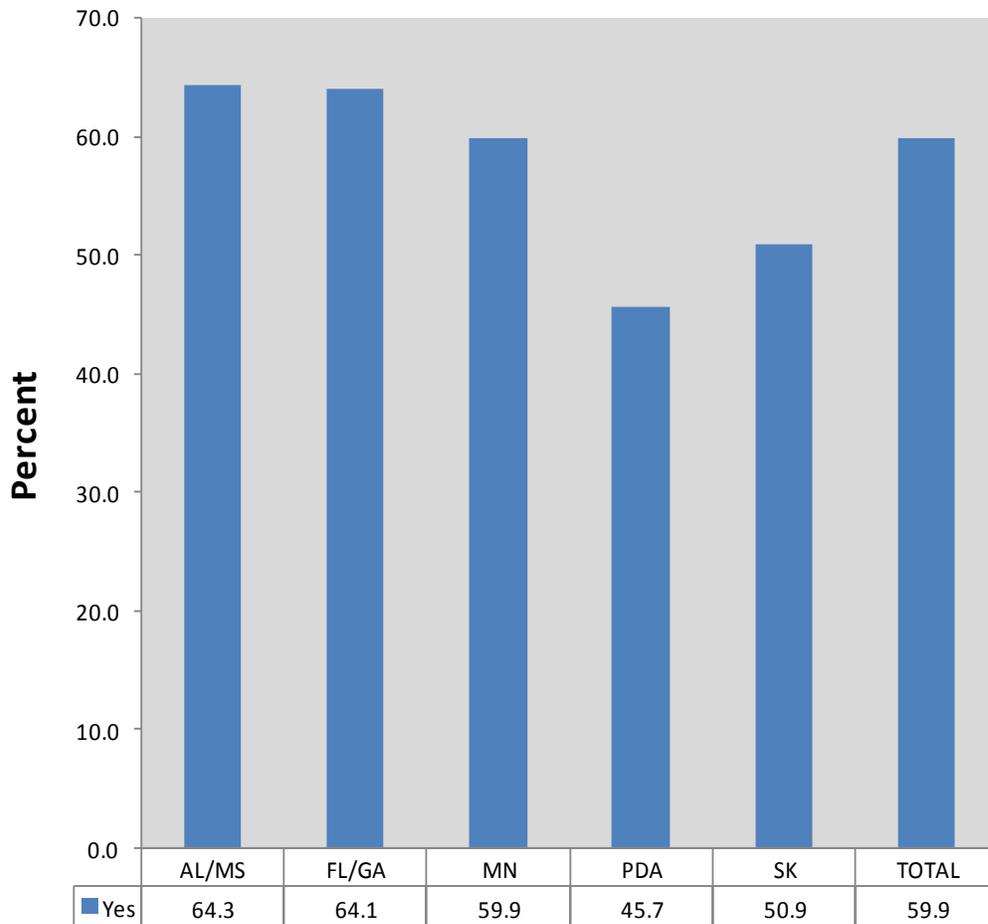
- Overall, participants reported the tooth was tender to percussion in 65% of patients, ranging from 62% (SK) to 71% (PDA).

4. Was the tooth tender to biting pressure?

a. Yes

b. No

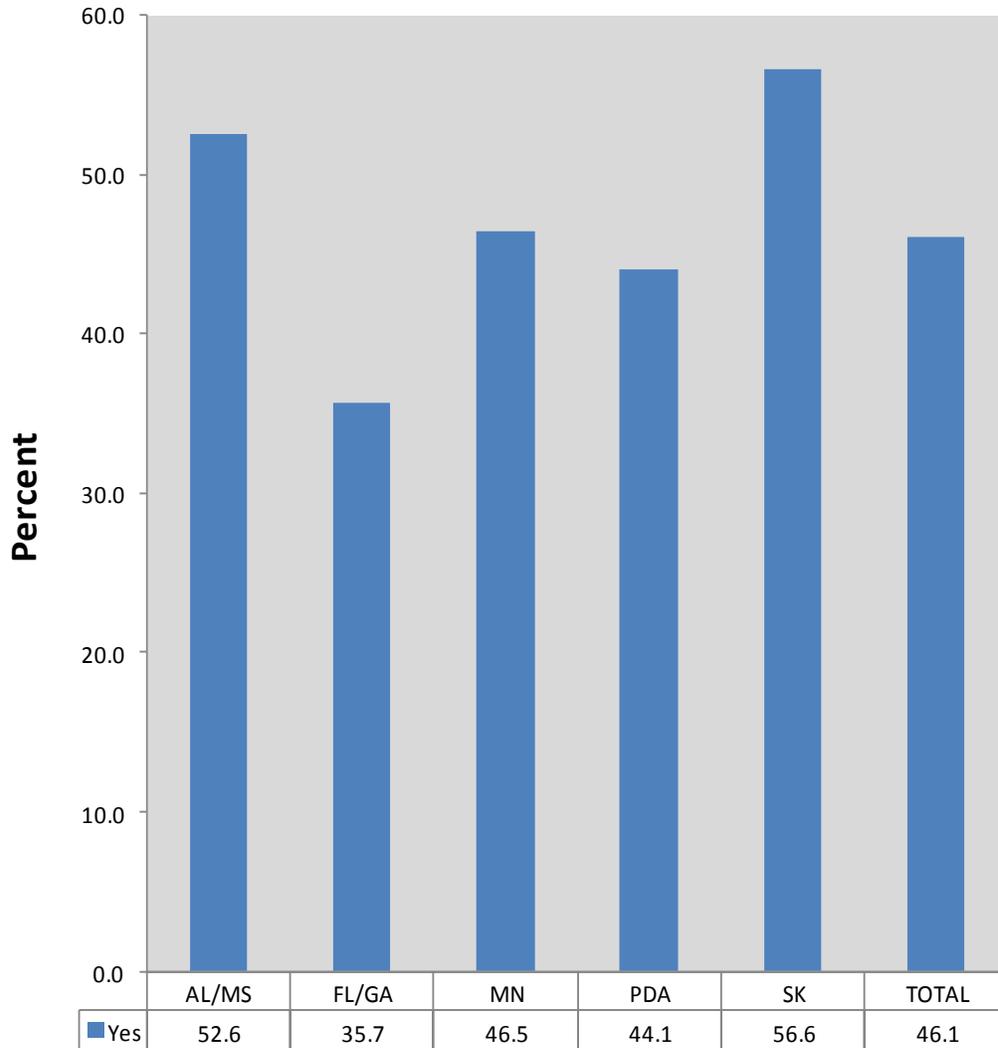
Question 4: Tooth tender to biting pressure



- Overall, participants reported the tooth was tender to biting pressure in about 60% of patients with PDA being slightly lower at 46%.

5. Did the tooth respond to cold testing (if **no**, skip to question 7)?
- Yes
 - No

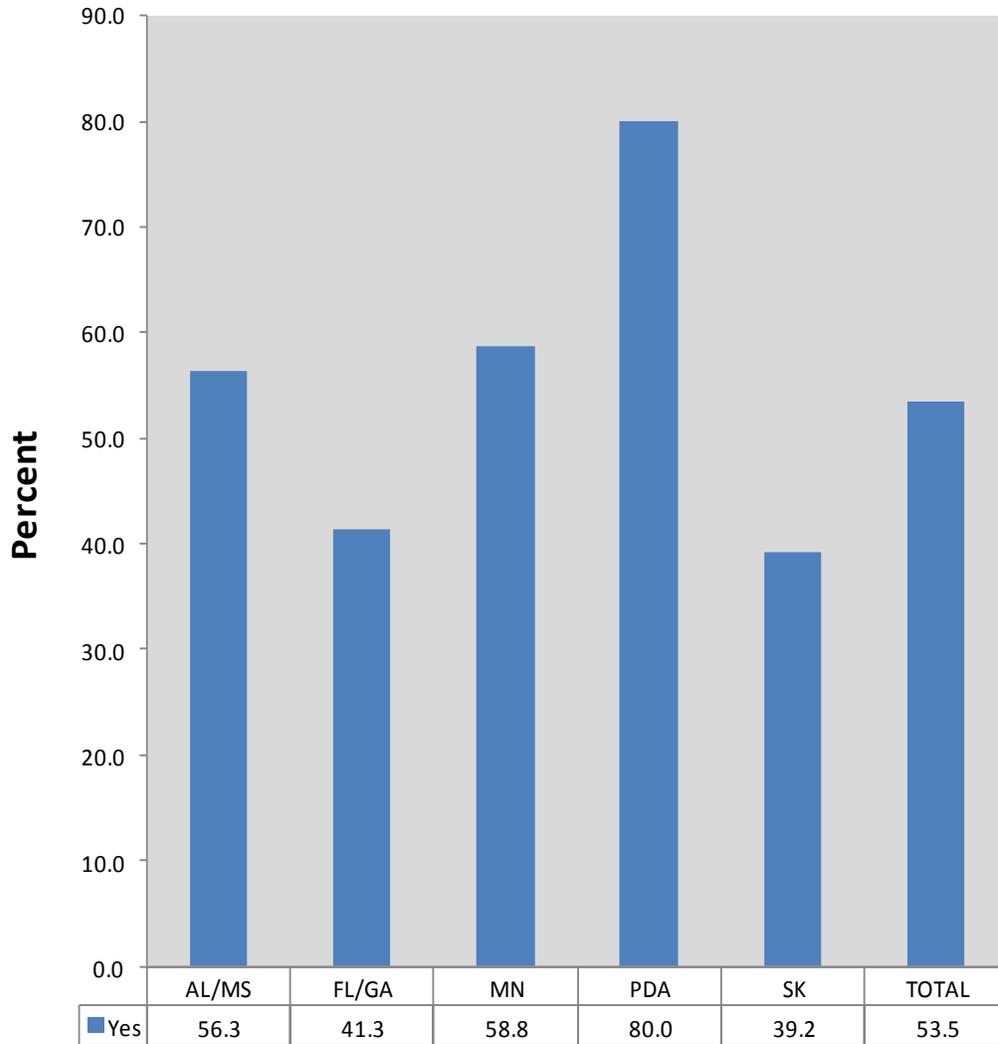
Question 5: Tooth responded to cold testing



- The proportion of patients whose tooth responded to cold testing was 46% overall, ranging from 35% (FL/GA) to 57% (SK).

6. Was the response to cold testing prolonged compared to adjacent teeth?
- a. Yes
- b. No

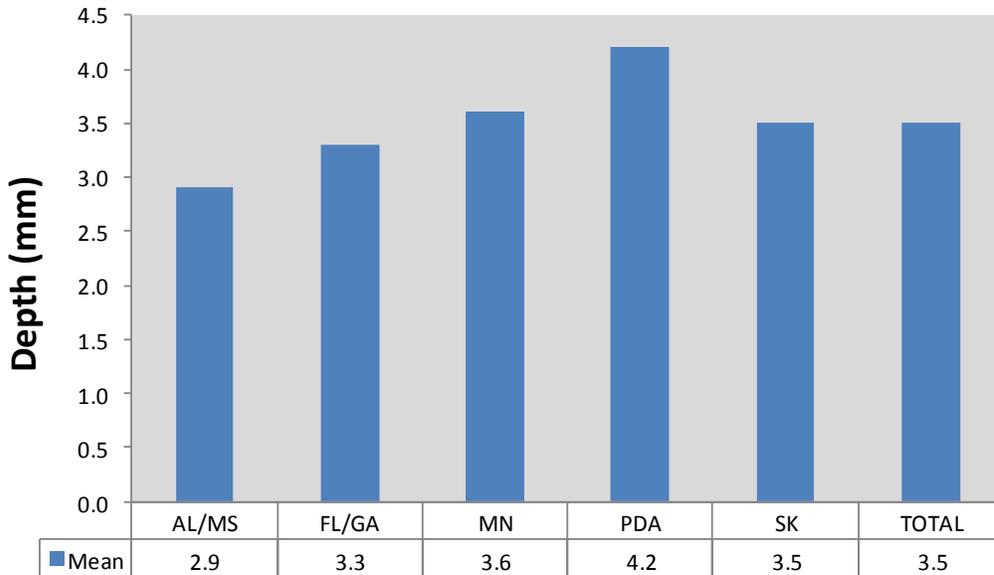
Question 6: Response prolonged compared to adjacent teeth



- The proportion of patients whose tooth experienced prolonged response to cold testing was about 54% overall, ranging from 39% (SK) to 80% (PDA).

7. What was the greatest probing depth for this tooth? mm

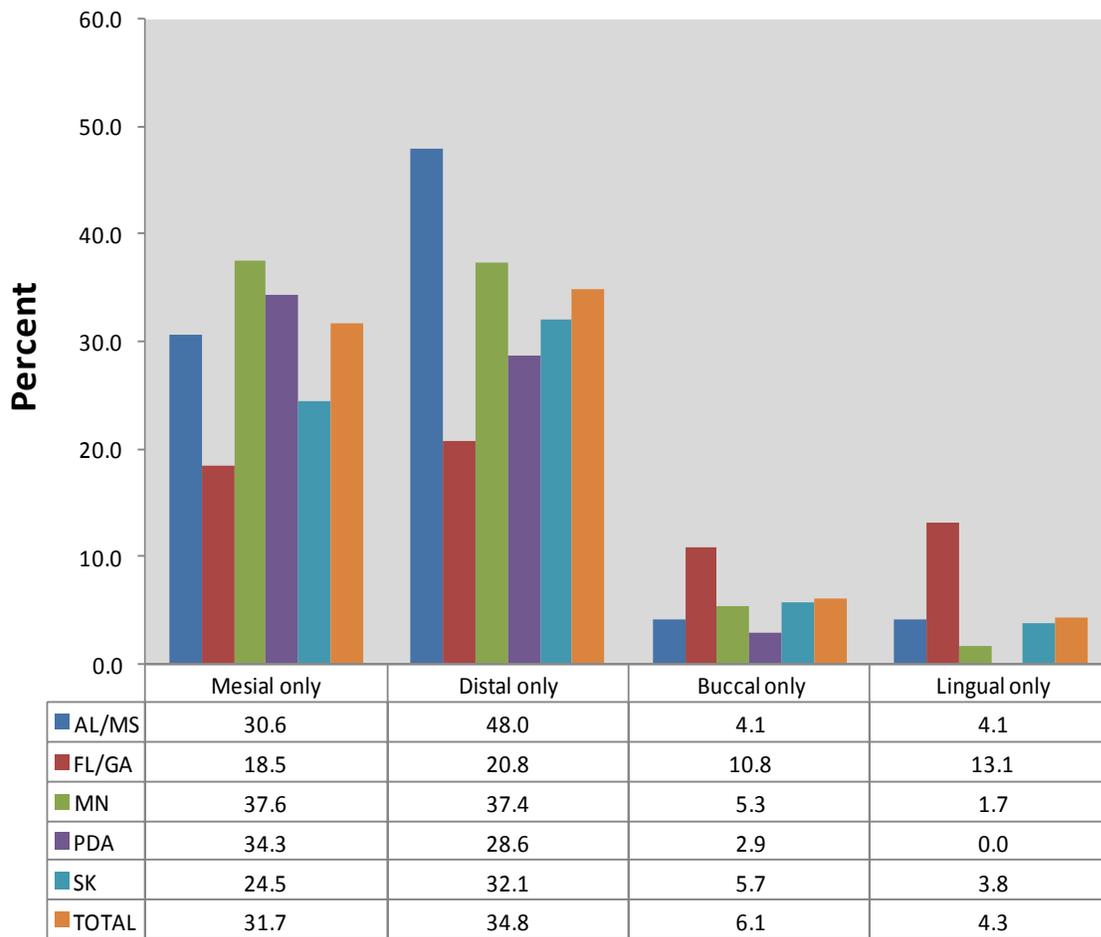
Question 7: Greatest probing depth



- Overall, the greatest probing depth for the tooth averaged 3.5 mm, ranging from a mean of 2.9 mm in the AL/MS region to 4.2 mm in the PDA region.

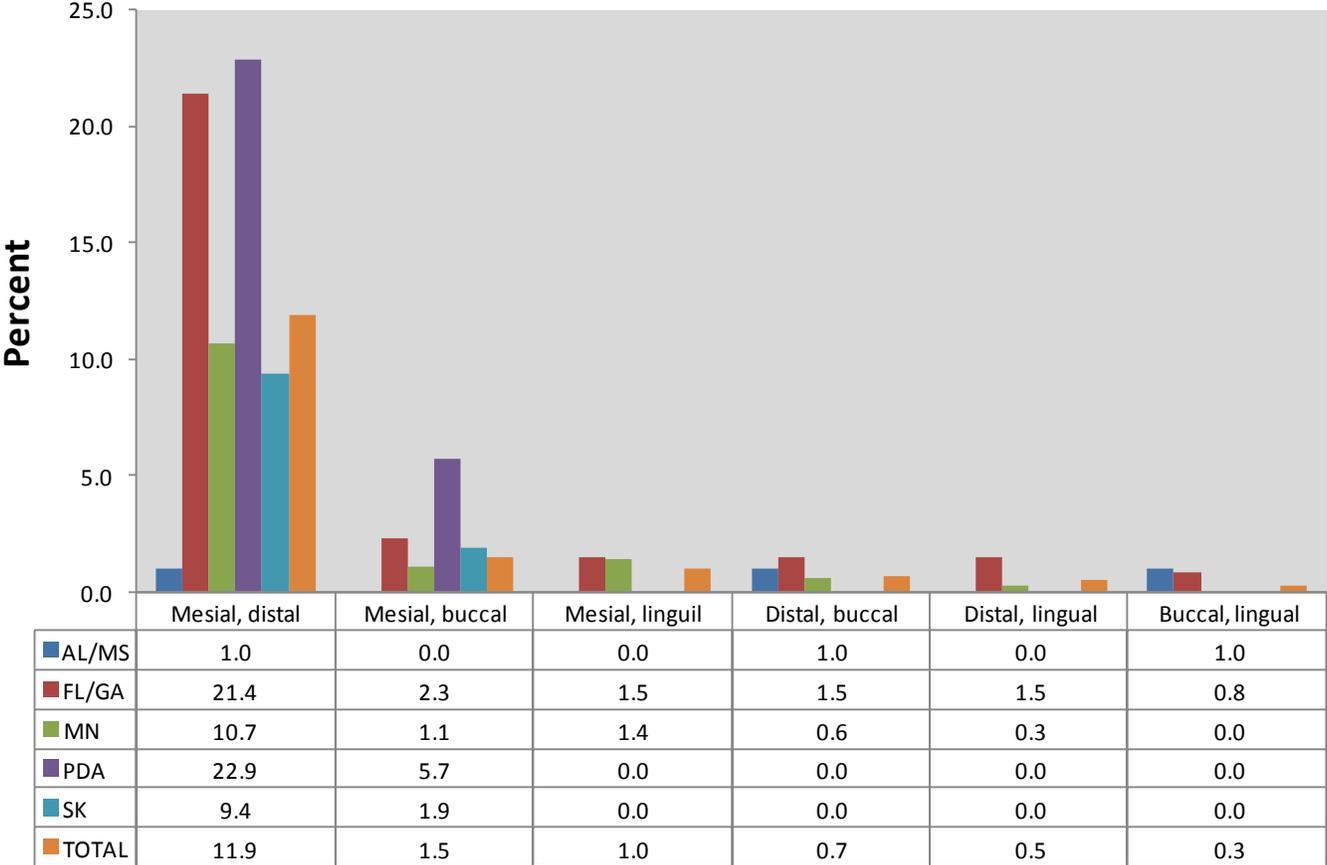
8. What was the location of this greatest probing depth?
- Mesial
 - Distal
 - Buccal
 - Lingual

Question 8 (A): Location of greatest depth (one surface only)



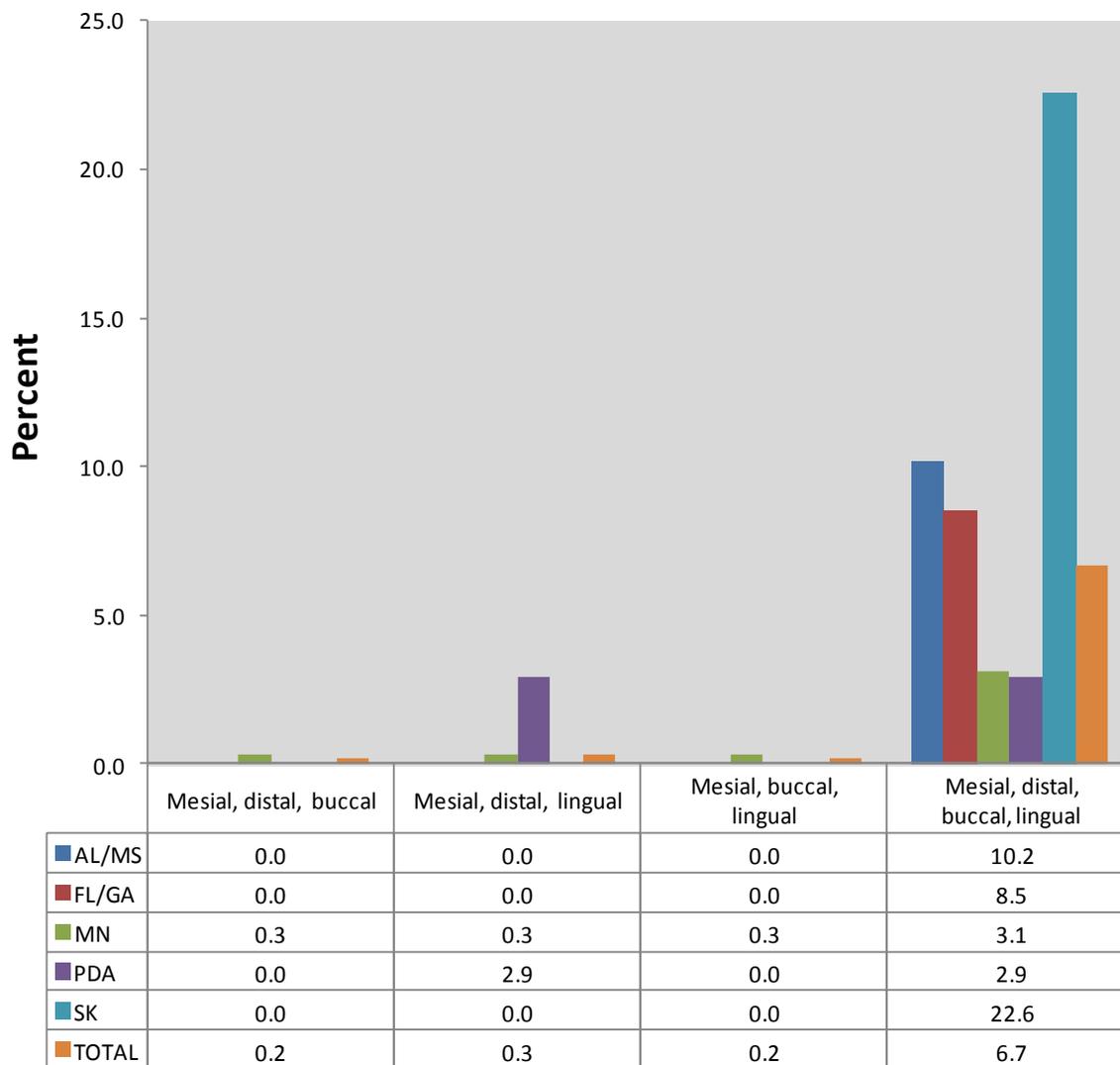
- Summary is on page 10.

Question 8(B): Location of greatest depth (two surfaces)



- Summary is on page 10.

Question 8(C): Location of greatest depth (3 and 4 surfaces)



- The greatest probing depth involved only one surface for the majority of patients with mesial or distal surfaces being the most common at about 32% and about 35%, respectively.
- Overall, about seven percent of patients had an equally great probing depth on all four tooth surfaces listed.

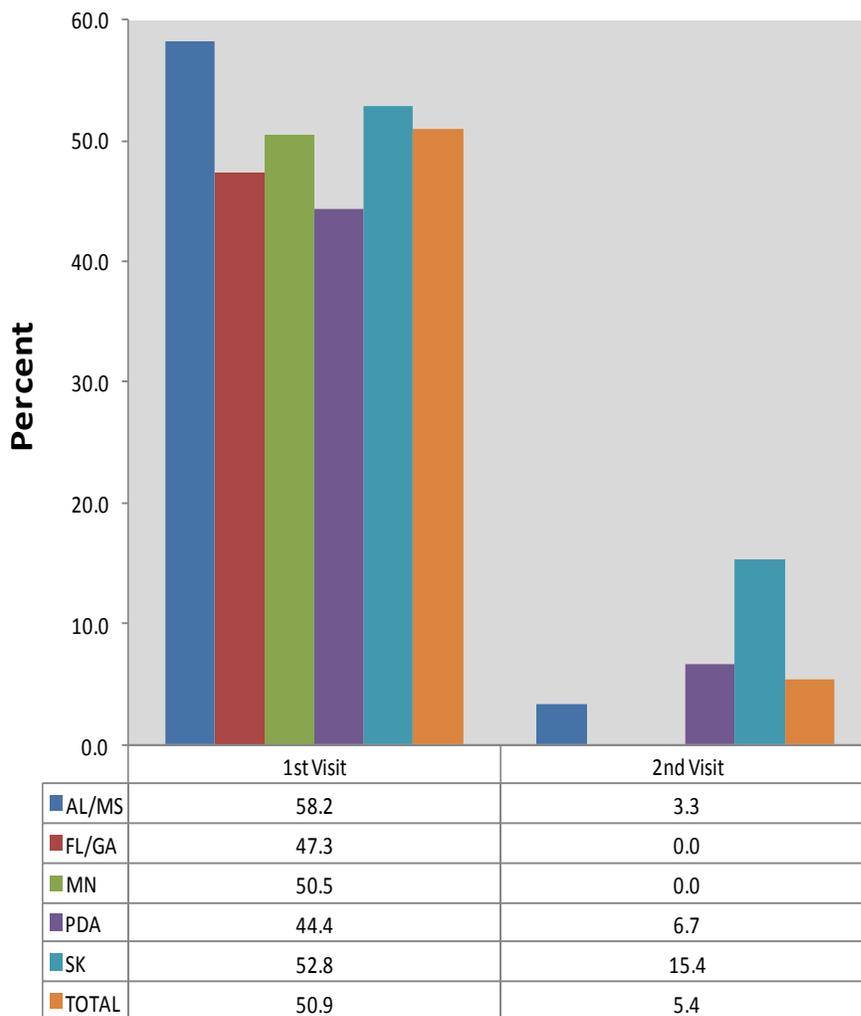
Dentist Survey – Post-Treatment

Please answer these questions **after completing treatment for the day.**

1. Was bleeding present within the pulp chamber?

- a. Yes
 b. No

Question 1: Bleeding present in the pulp chamber

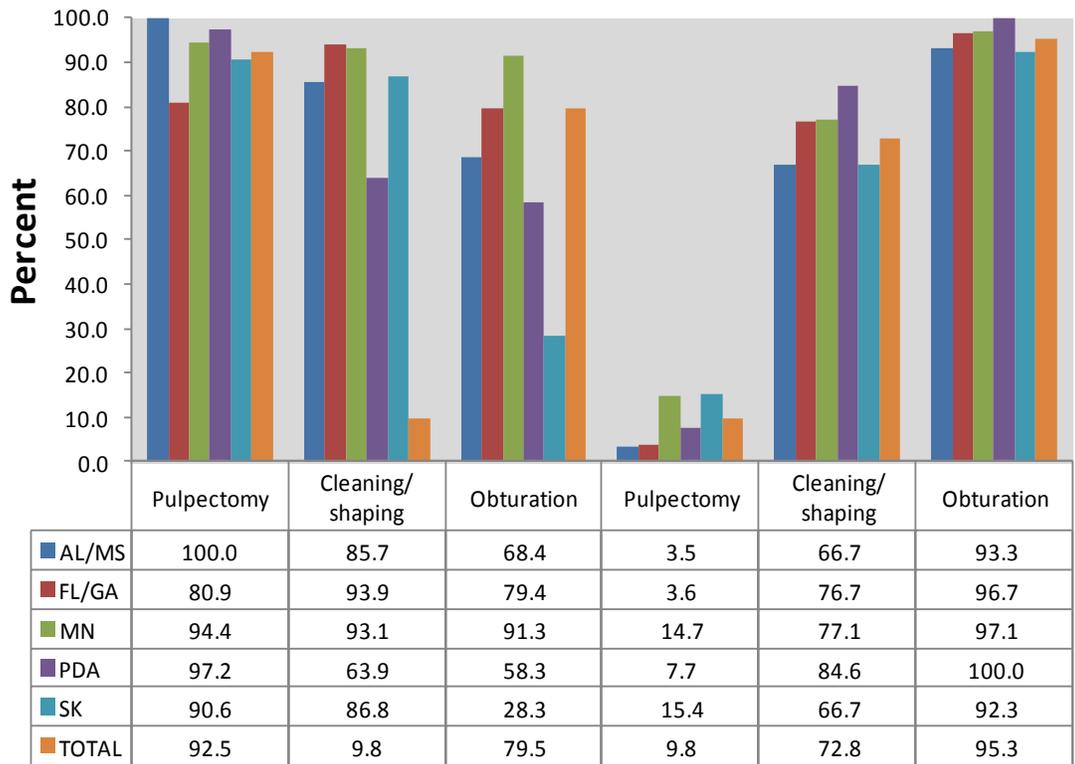


- Bleeding within the pulp chamber was present for about 51% of the patients seen on the first visit. Among patients who had a second visit, only 5% had bleeding within the pulp chamber.

*Third visits were not graphed due to the small numbers of participants.

2. What procedures were performed during this appointment? (mark all that apply)
- Pulpectomy and/or debridement of canal contents
 - Cleaning and shaping
 - Obturation

Question 2: Procedures performed each visit



First Visit

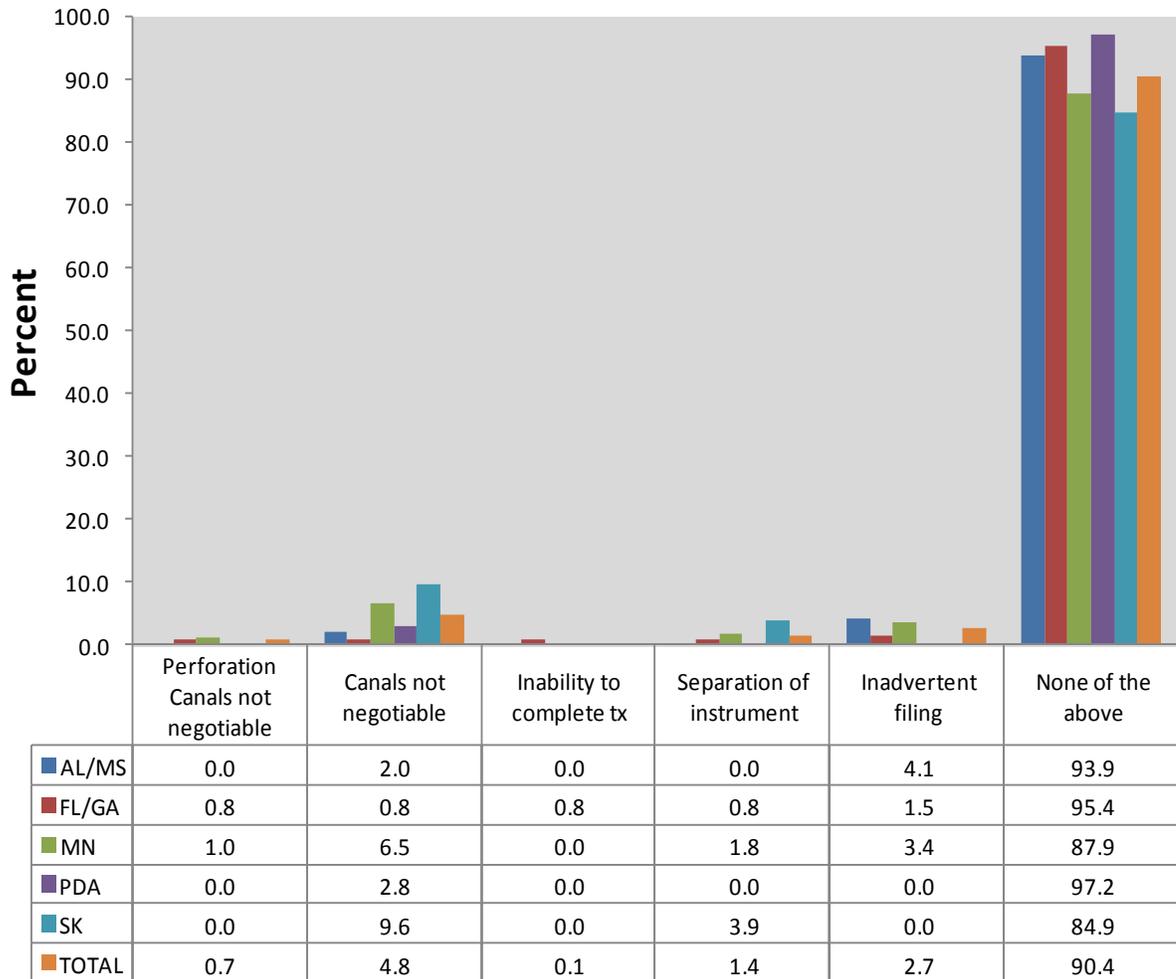
Second Visit

- On the first appointment pulpectomy was the most common procedure performed at about 93% with about 80% of patients having obturation completed at this visit.
- The majority of patients (95%) who required a second appointment completed obturation at this visit, with cleaning and shaping the most common procedures performed at about 73%.
- Less than one percent of patients needed a third visit to complete obturation.

*Third visits were not graphed due to the small numbers of participants.

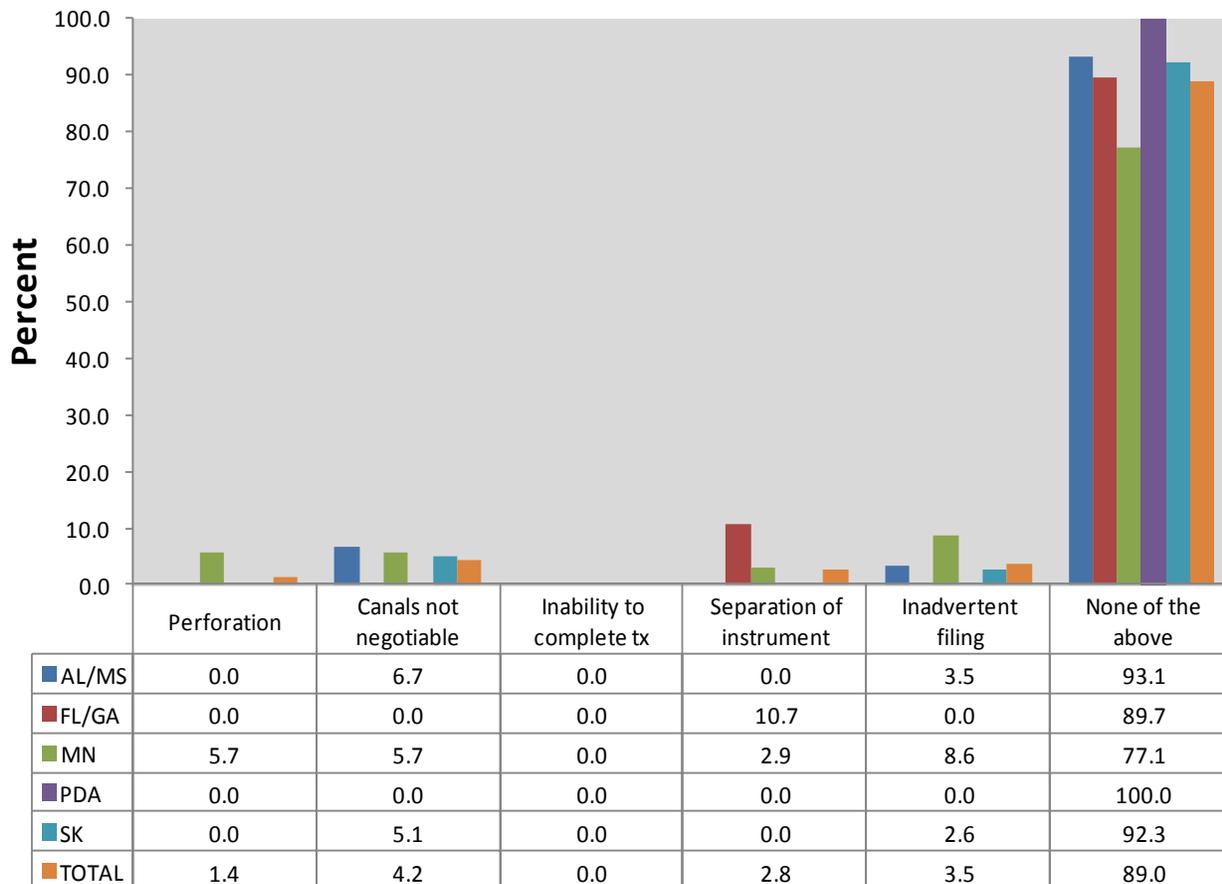
3. Did any of the following occur during treatment? (mark all that apply)
- Perforation (opening from chamber or root into bone)
 - One or more canals not negotiable within 2mm of radiographic apex
 - Inability to complete treatment due to discomfort during treatment
 - Separation of instrument in canal space
 - Inadvertent filing or file placement past the root apex
 - None of the above

Question 3: Occurrences during Treatment (1st Visit/Treatment)



- Summary is on page 14.

Question 3: Occurrences during Treatment (2nd Visit/Treatment)

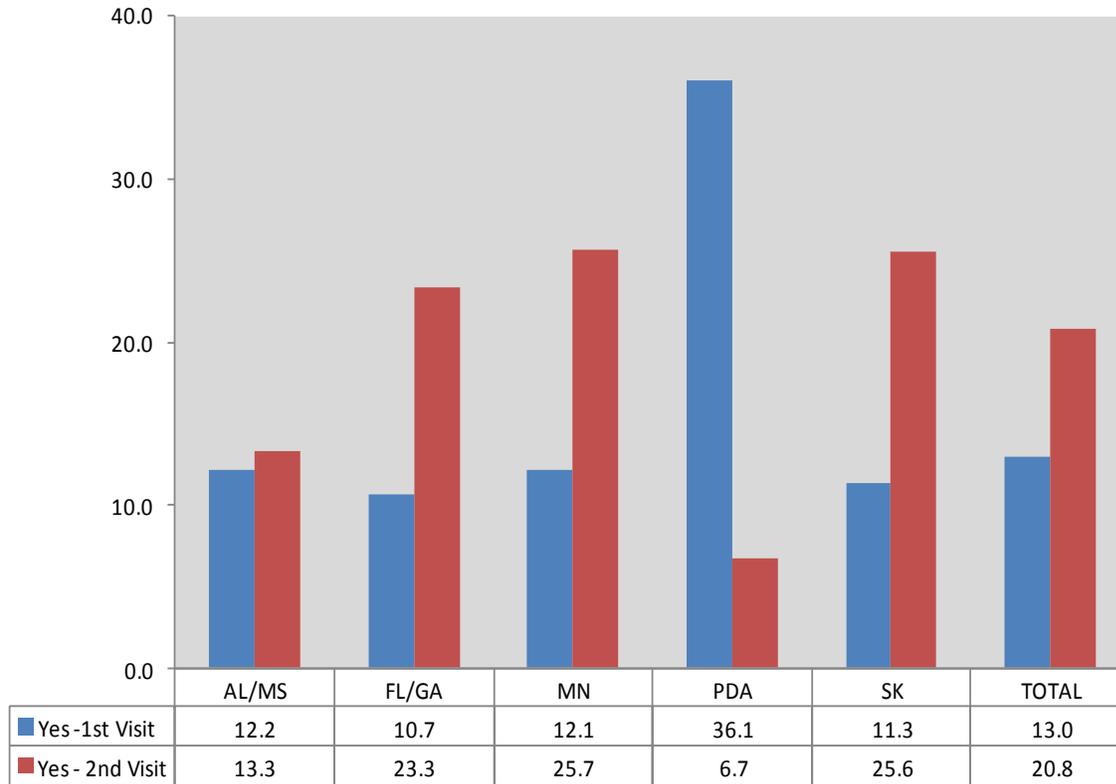


- The majority of participants selected “none of the above” occurrences for all three patient visits: 90% (first visit), 89% (second visit), and 83% (third visit).
- The most common issue that occurred during treatment was “canals not negotiable,” regardless of first, second or third visits (about 5%, 4%, and about 17%, respectively).

*Third visits were not graphed due to the small numbers of participants.

4. In your opinion, was this procedure significantly more difficult than the typical root canal therapies you perform in your practice?
- Yes
 - No

Question 4: This procedure more difficult than others

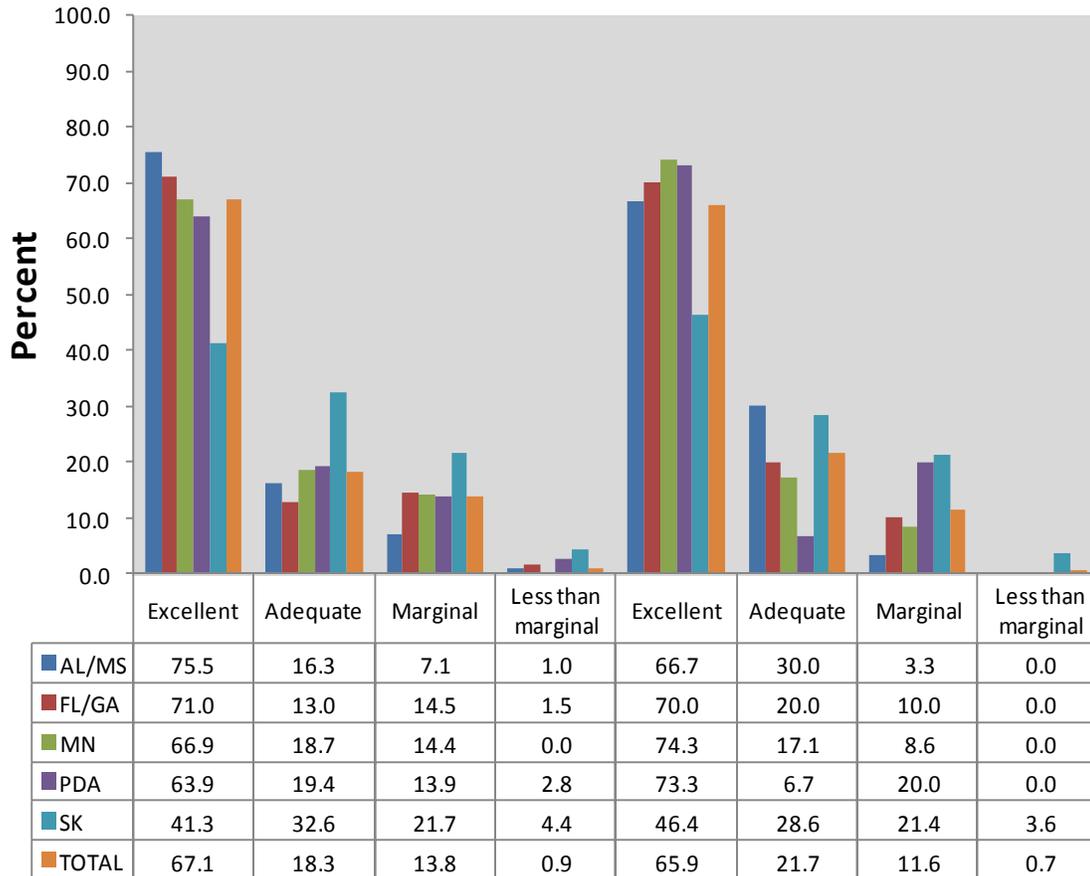


- For the first visit, the procedure was not considered to be more difficult than typical root canals for the majority of practitioners. For those reporting “significantly more difficult,” PDA had the highest percentage of patients (36%) out of all regions.
- Overall, most of the practitioners that indicated a second visit was required considered the procedure typical of root canal therapies in 79% of their patients.
- For the few patients requiring a third visit, only the SK region indicated that the procedure was significantly more difficult than usual occurring in 75% of their patients.

*Third visits were not graphed due to the small numbers of participants.

5. During the root canal procedure, what was your impression about the quality of the local anesthesia? (mark one that is representative of the entire procedure)
- Excellent, patient felt 'nothing'
 - Adequate, patient experienced non-painful sensations
 - Marginal, patient experienced some pain
 - Less than marginal, patient experienced a lot of pain

Question 5: Quality of Anesthesia



1st Visit/Treatment

2nd Visit/Treatment

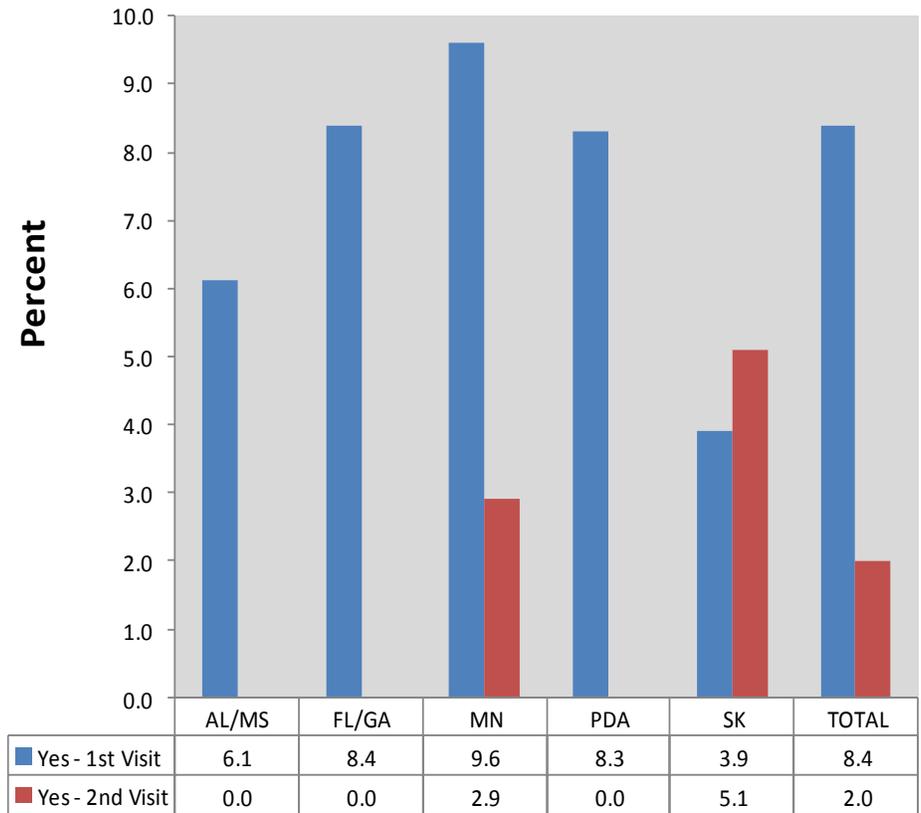
- For the first visit, practitioners considered anesthesia quality to be either excellent or adequate for 85% of their patients with SK reporting the lowest proportion of excellent/adequate quality of anesthesia, about 74% of their patients.
- For the second visit, overall proportions of impressions for anesthesia quality were similar to first visit reports, with the SK region again reporting the lowest percentage of excellent or adequate anesthesia of any region.
- All practitioners who recorded any patients needing a third visit described the quality of anesthesia as excellent for that visit.

*Third visits were not graphed due to the small numbers of participants.

6. Was there a draining sinus tract (fistula) associated with this tooth?

- a. Yes
- b. No

Question 6: Sinus tract drainage

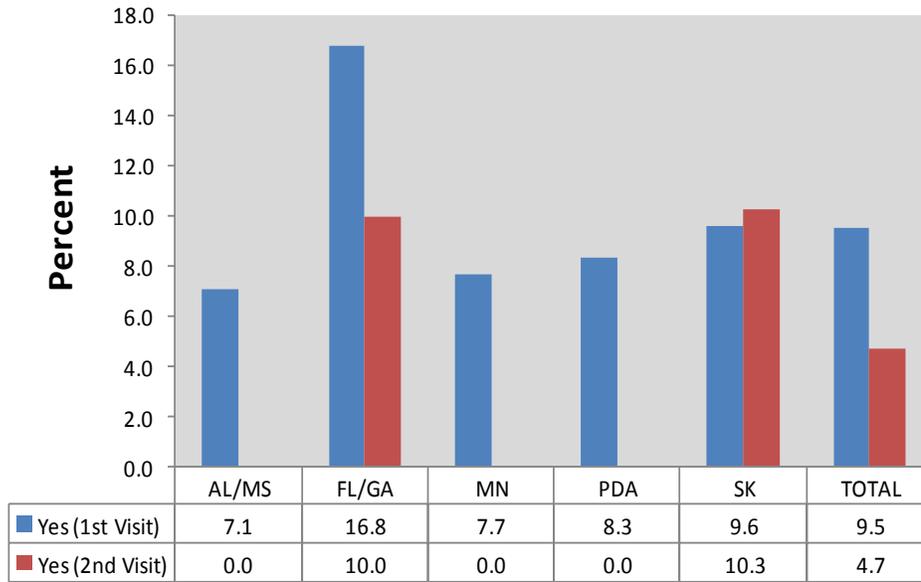


- For the first visit, a draining sinus tract associated with the tooth was present only 8% of the time overall, with SK reporting the lowest at about 4%.
- MN (about 3%) and SK (5%) were the only regions reporting a draining sinus tract associated with the tooth on the second visit.
- No draining sinus tracts associated with the tooth were reported on the third visit.

*Third visits were not graphed due to the small numbers of participants.

7. Did you identify swelling associated with this tooth?
- a. Yes
- b. No

Question 7: Swelling associated with tooth

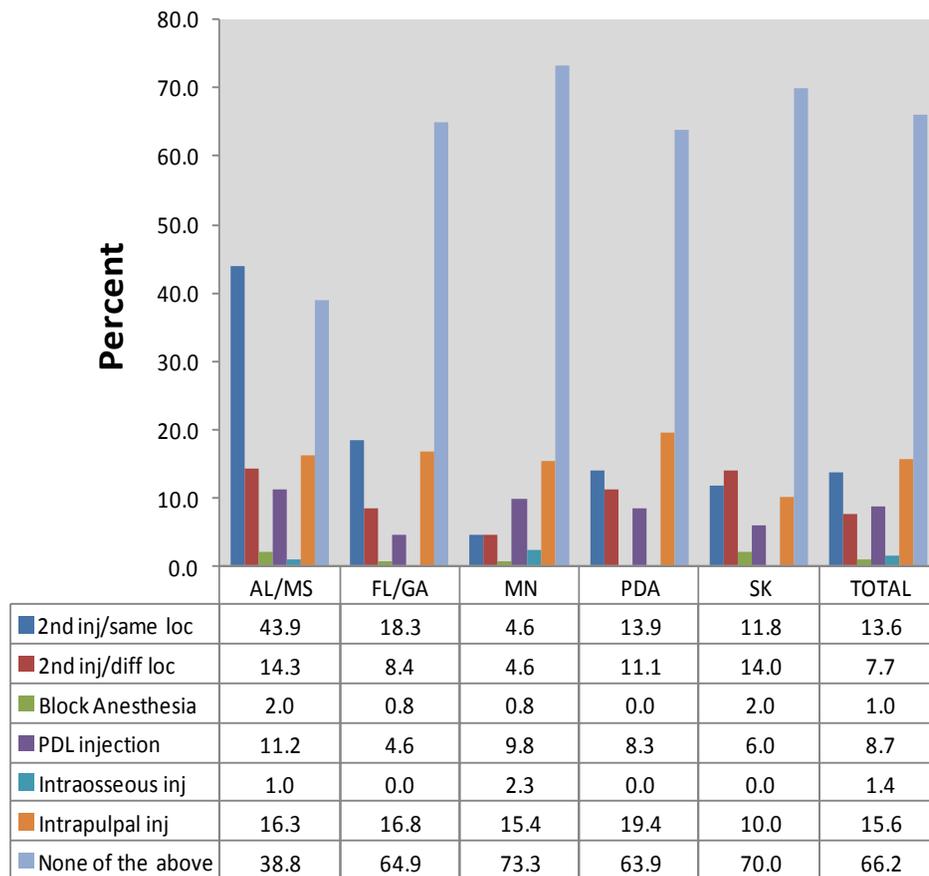


- Overall participants reported swelling associated with the tooth at the first visit in about 10% of patients with the FL/GA region being slightly higher than other regions at about 17% of their patients.
- For the second visit, only FL/GA and SK regions reported patients having swelling associated with the tooth at 10% each with an overall total of about 5%.
- There was no swelling associated with the tooth reported on the third visit.

*Third visits were not graphed due to the small numbers of participants.

8. Were any of the following necessary to obtain adequate anesthesia to perform treatment? (mark all that apply)
- Second injection of the same type into the same location
 - Second injection of the same type into a slightly different location
 - Block anesthesia technique different from previously provided (e.g., Gow-Gates or PSA)
 - Periodontal ligament (PDL) injection
 - Intraosseous injection other than PDL (e.g., Stabident or X-tip)
 - Intrapulpal injection
 - None of the above

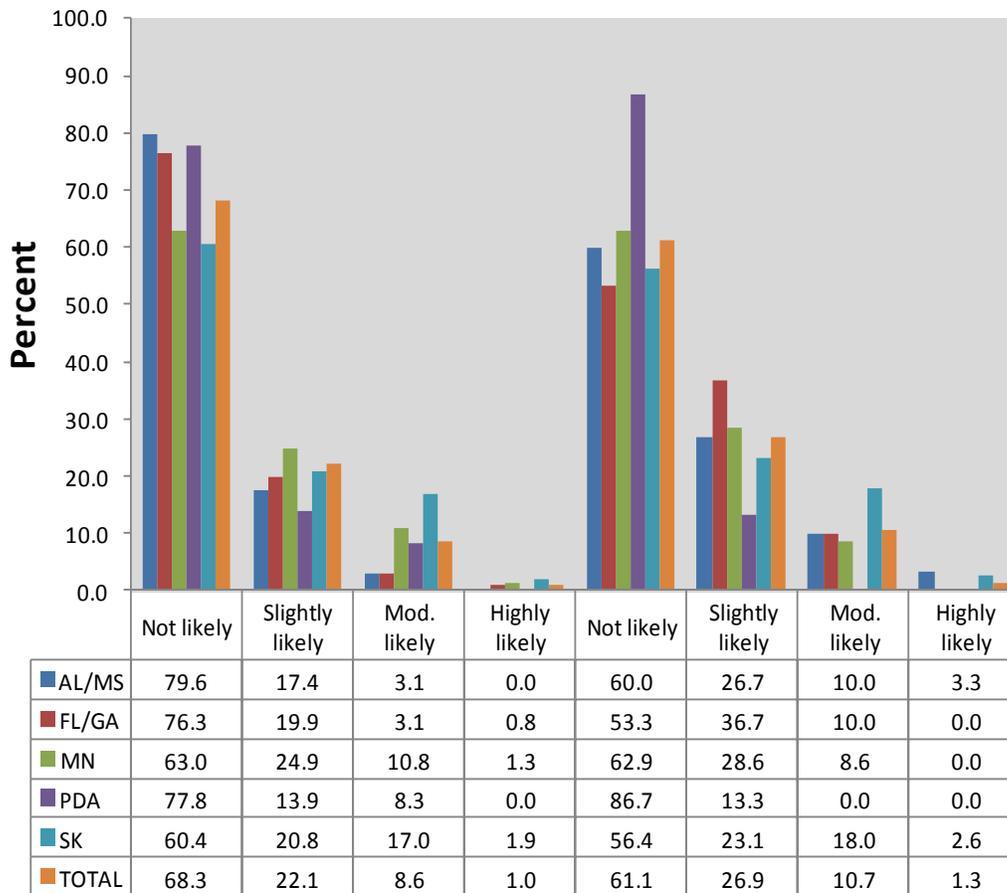
Question 8: Necessary procedures for anesthesia



- The majority of participants selected "none of the above" occurrences for all three visits: 66% of patients (first visit), about 91% of patients (second visit), and 100% of patients (third visit).
- For the first visit, intrapulpal injection and second injection same location were the most common procedures (16% and 14%, respectively). For the second visit, second injection of the same type into the same location was the most common procedure at 4%.
- Overall, the least common procedures performed for the first visit were block anesthesia (1.0%) and intraosseous injection (1.4%).

9. In your opinion, what is the likelihood that persistent pain will be present in 6 months' time? (mark one)
- Not likely (<0.1%)
 - Slightly likely (0.1-1%)
 - Moderately likely (1-5%)
 - Highly likely (>5%)

Question 9: Likelihood pain occurring 6 months later



First Visit/Treatment

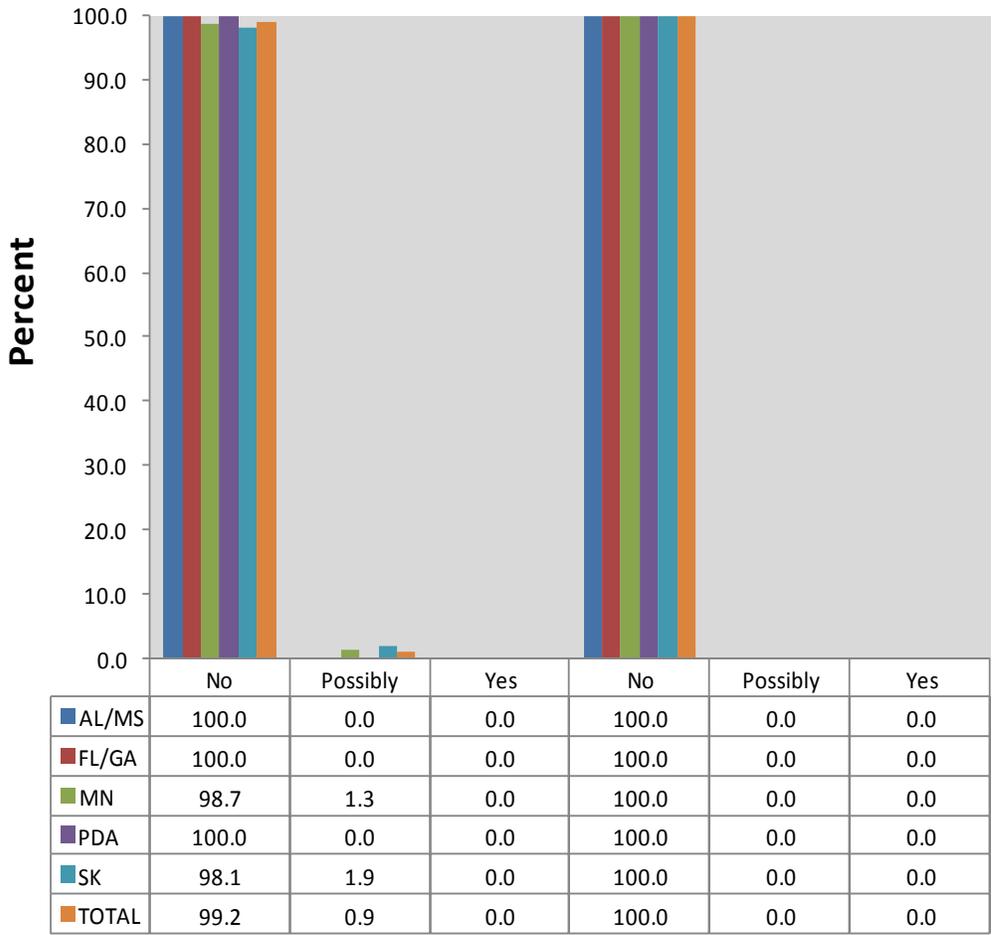
Second Visit/Treatment

- The majority of practitioners felt that the likelihood of persistent pain was either unlikely or slightly likely for 90% of their patients (first visit), 88% of their patients (second visit) and about 67% of their patients (third visit). Practitioners felt that there was a high likelihood of persistent pain after the first and second visits for only 1% of their patients.

*Third visits were not graphed due to the small numbers of participants.

10. Do you think the patient may have been feigning pain to obtain a narcotic prescription? (mark one)
- a. No
 - b. Possibly
 - c. Yes

Question 10: Patient feigning pain for prescription



First Visit/Treatment

Second Visit/Treatment

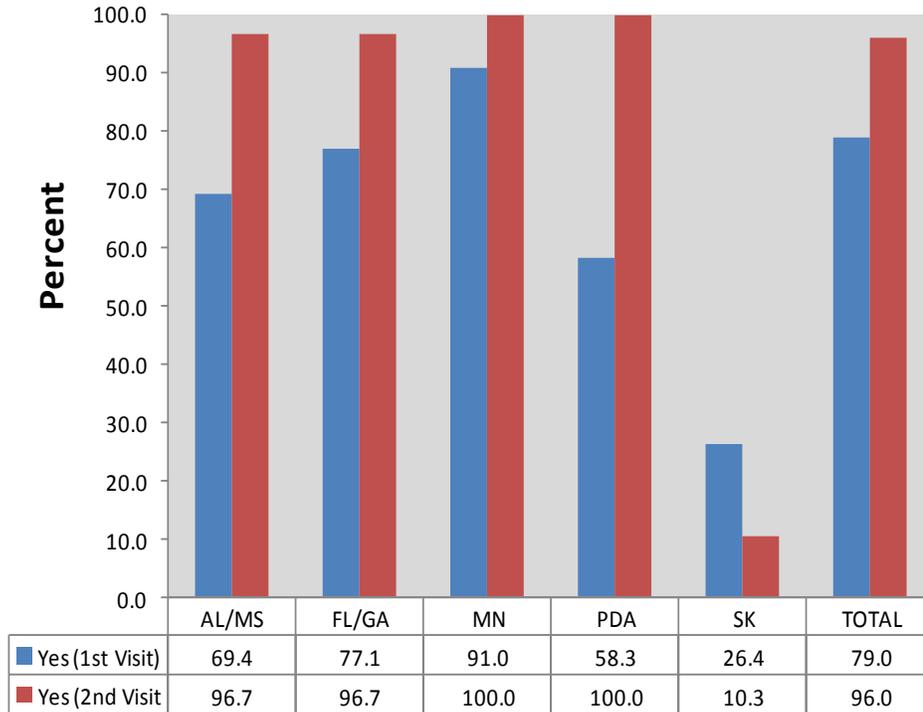
- On the first visit, the vast majority of practitioners (99%) felt that the patient was not feigning pain to obtain a narcotic, with confidence increasing to 100% at the second and third visits.

*Third visits were not graphed due to the small numbers of participants.

11. Was the tooth obturated and the RCT completed today?

- a. Yes
- b. No

Question 11: All treatments completed today



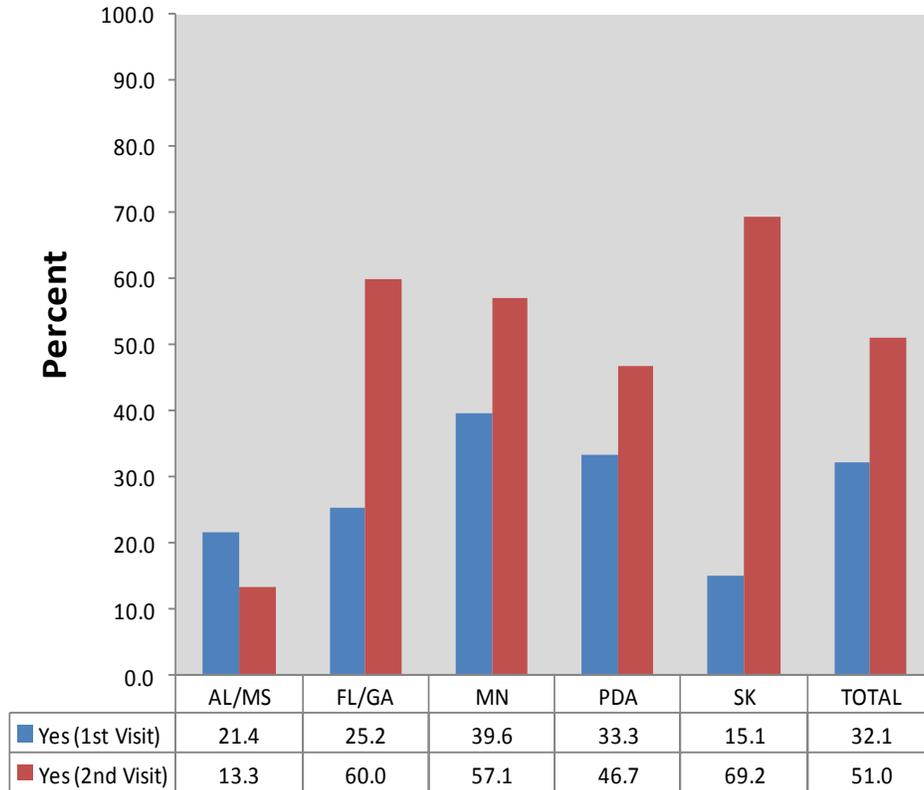
- Overall, the RCT procedure was completed for 79% of the patients on the first visit, 96% of remaining patients on the second visit, and all remaining patients on the third.

*Third visits were not graphed due to the small numbers of participants.

12. Was a permanent restoration placed in the access?

- a. Yes
- b. No

Question 12: Permanent restoration

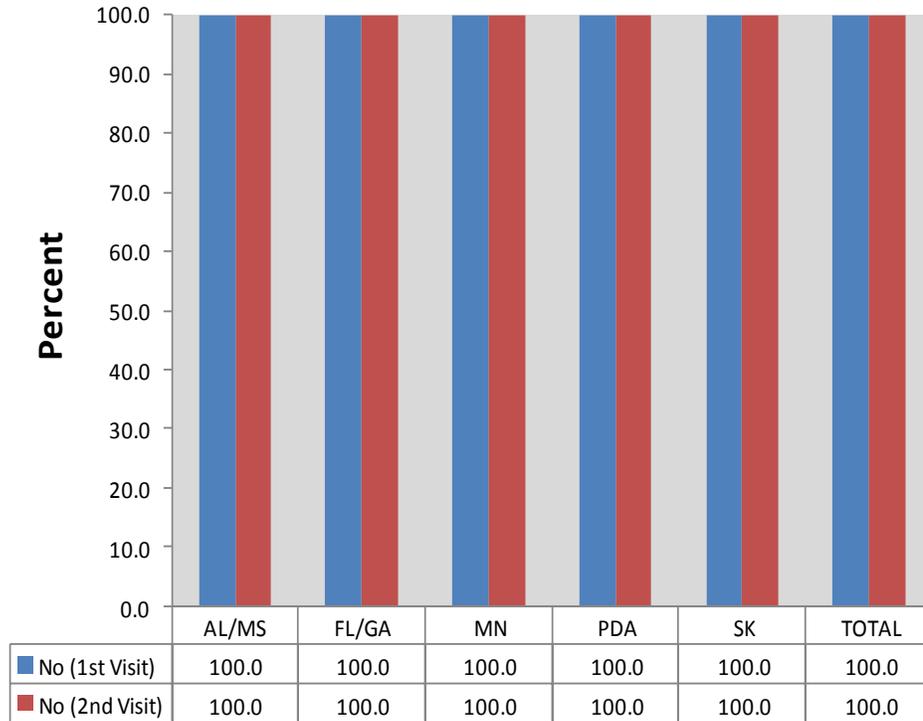


- Overall, a permanent restoration was placed in the access on 32% of the patients on the first visit, 51% of remaining patients on the second visit, and 67% on the remaining patients who required a third visit.

*Third visits were not graphed due to the small numbers of participants.

13. Did the treatment have to be stopped because the tooth was not amenable to RCT (e.g., required an extraction)?
- a. Yes
 - b. No

Question 13: Treatment stopped; tooth not amenable to RCT



- For all three visits, no treatment had to be stopped because the tooth was not amenable to RCT.

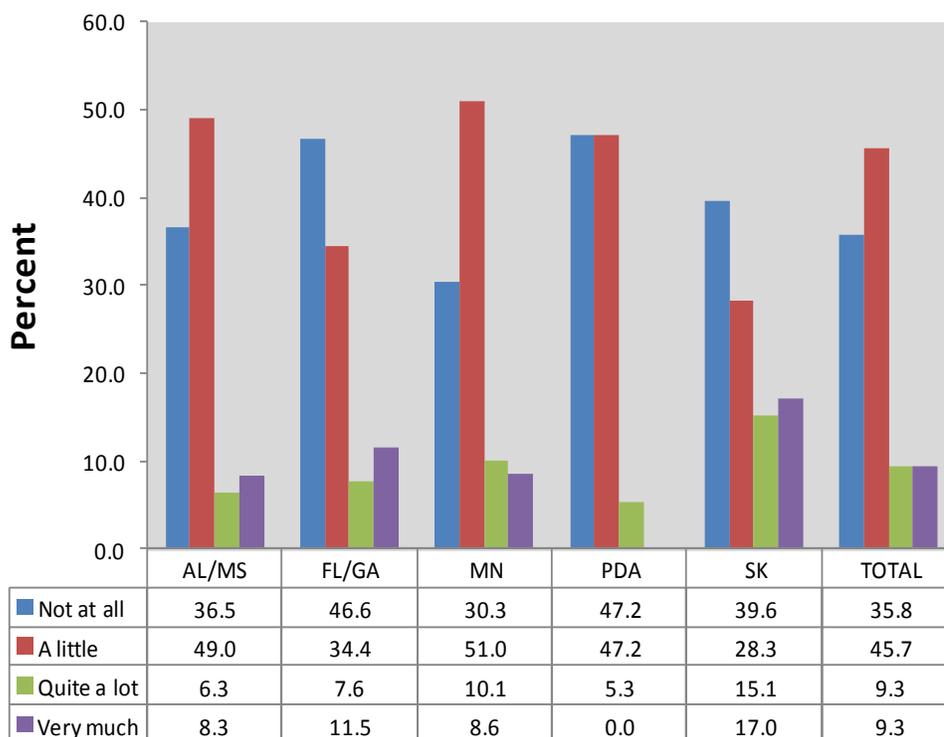
*Third visits were not graphed due to the small numbers of participants.

Patient Survey — Before Treatment

1. Are you fearful about today's appointment?

- a. Not at all
- b. A little
- c. Quite a lot
- d. Very much

Question 1: Patient is fearful

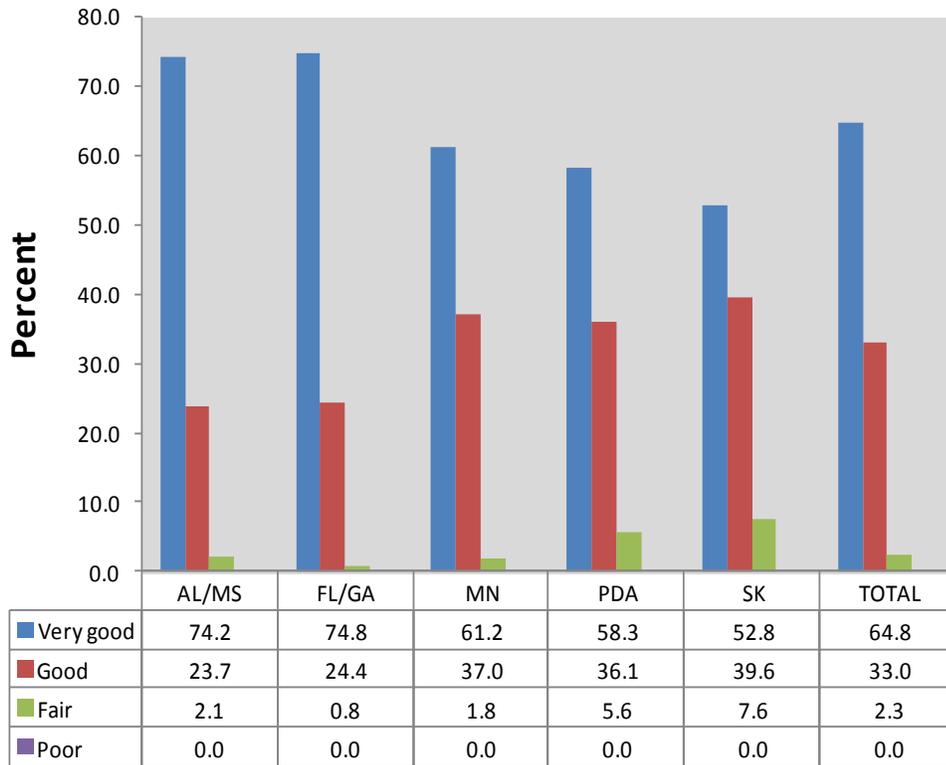


- The majority of patients expressed very little fearfulness about the appointment, with the proportion of patients reporting little or no fear ranging from about 68% in the SK region to 94% in the PDA region.

2. I feel that the treatment outcome for my tooth will turn out (mark one):

- a. very good
- b. good
- c. fair
- d. poor

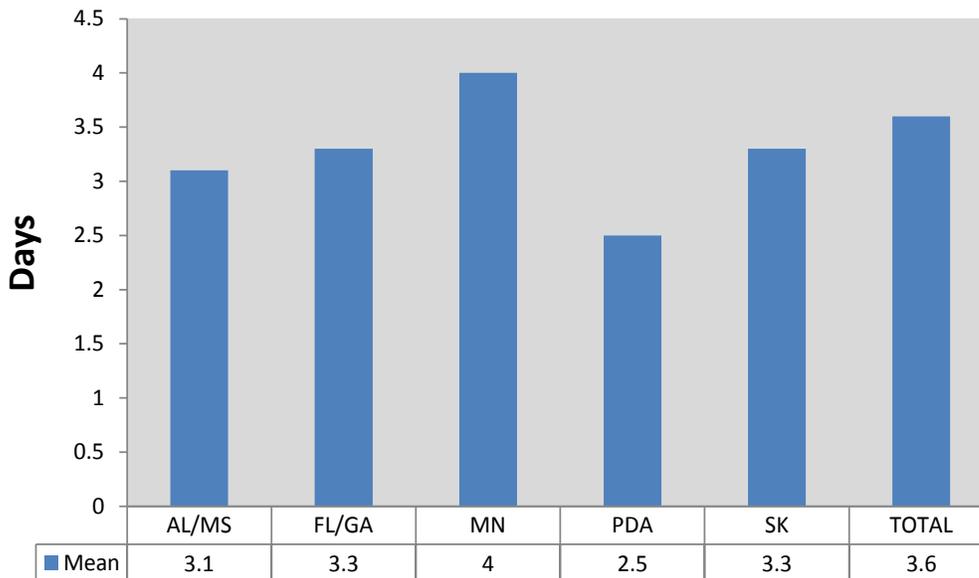
Question 2: Patient’s feelings about outcome



- At nearly 98%, virtually all of the patients had favorable (good or very good) expectations about the outcome of the treatment.

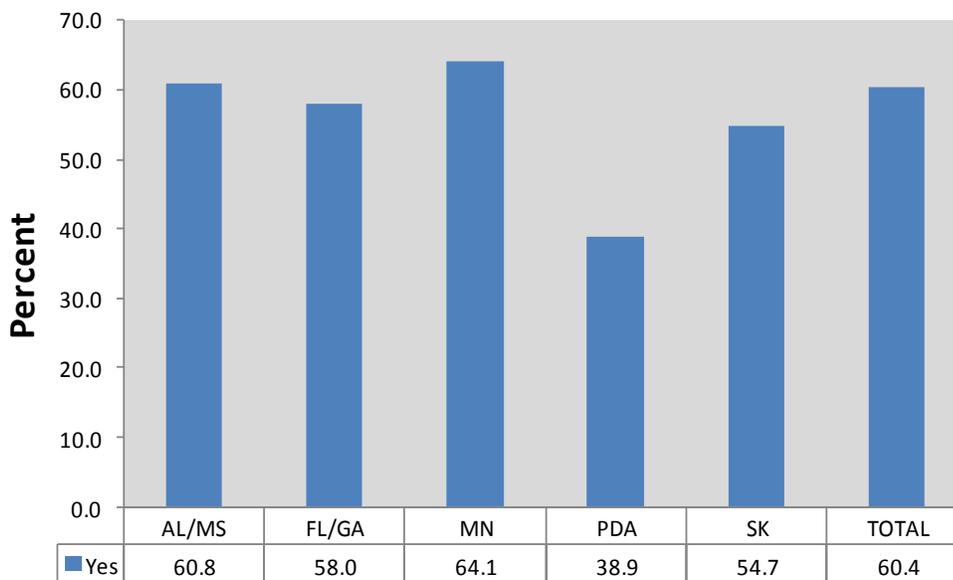
3. How many days in the past week have you had tooth pain? Days (If no pain, please write "0")

Question 3: Days patient was in pain in the past week



- Overall, the average number of days patients had pain was about 4.
4. Have you taken anything for the pain (over-the-counter or prescription medication, herbal, other) in the last 7 days?
- Yes
 - No

Question 4: Taken pain meds in last 7 days

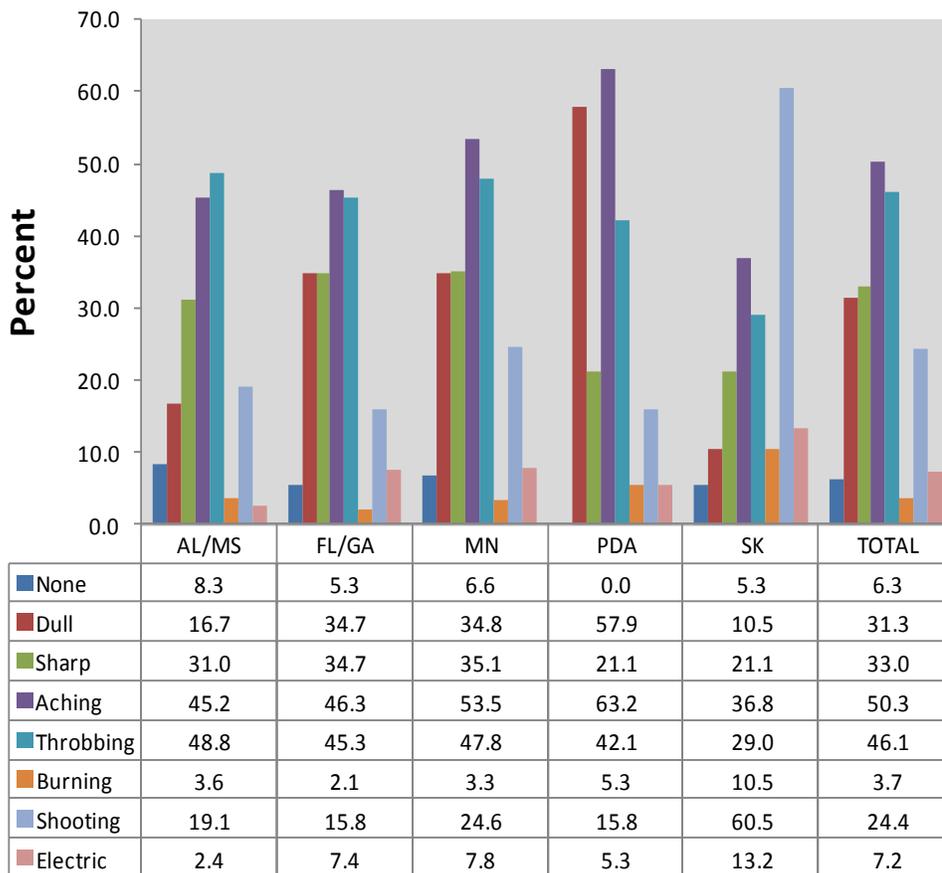


- Overall, the majority of patients (60%) had taken something for pain with the lowest proportion of pain medication reported by patients in the PDA region (about 39%).

5. Pain quality (mark all that apply)

- e. none
- f. dull
- g. sharp
- h. aching
- i. throbbing
- j. burning
- k. shooting
- l. electric

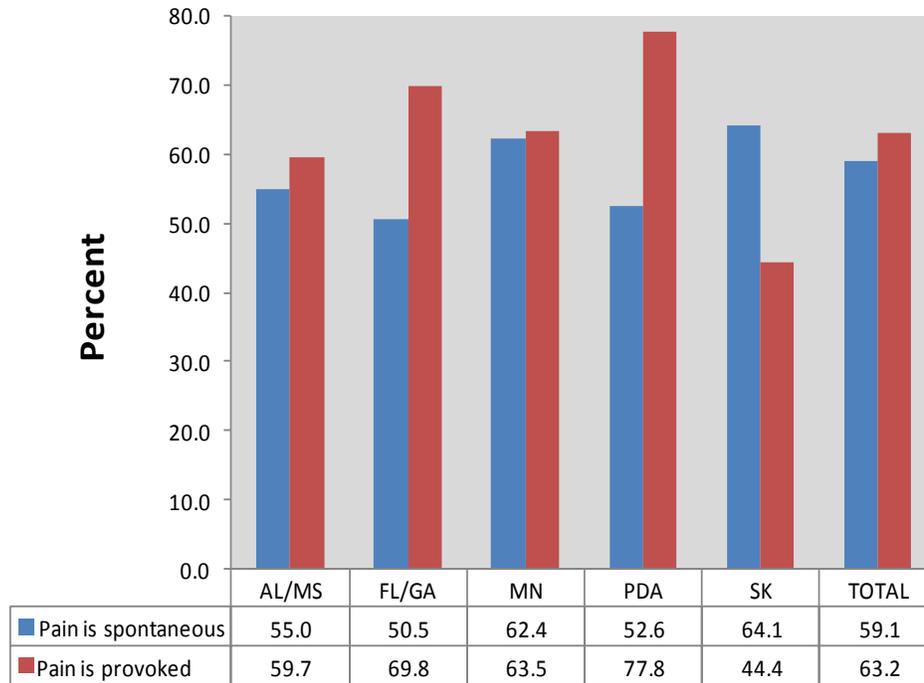
Question 5: Pain quality



- Overall, pain was most commonly described as aching or throbbing (50% and 46%, respectively). Exceptions were dull pain reported by PDA (58%) shooting pain reported by SK (61%).

6. Does this pain? (mark all that apply)
- a. start all by itself for no known reason (spontaneous)
 - b. start after the tooth is used or irritated (provoked)

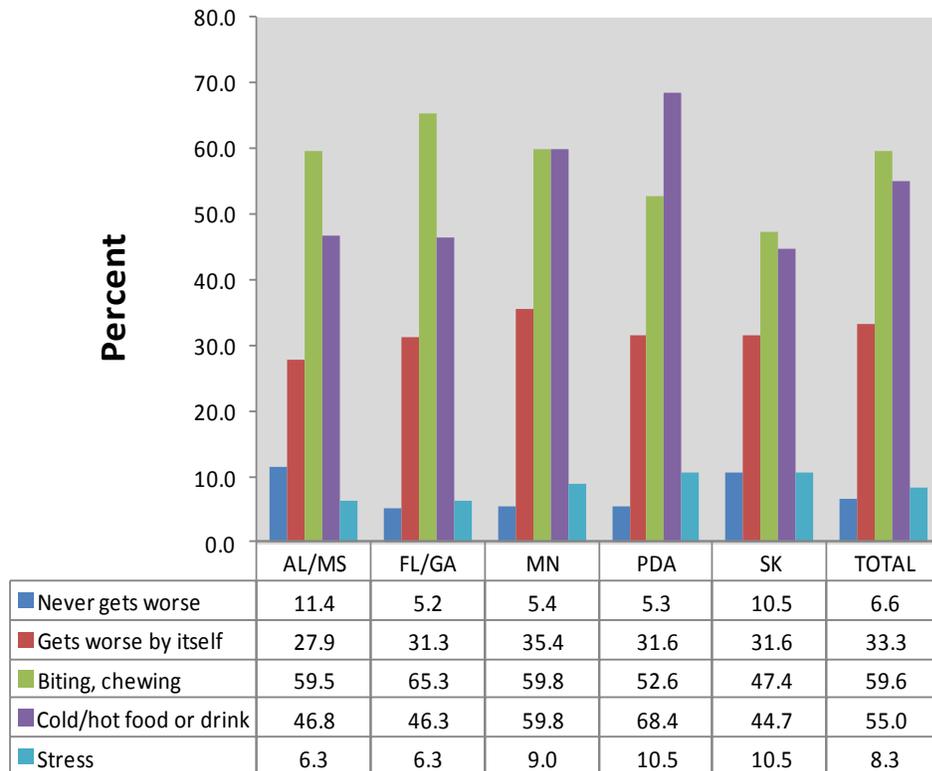
Question 6: Pain is spontaneous or provoked



- Overall, 59% of patients described the pain as spontaneous and 63% described the pain starting after the tooth was used or irritated; the responses were not mutually exclusive.

7. What makes this pain worse? (mark all that apply)
- a. Nothing, never gets worse
 - b. Nothing, gets worse all by itself
 - c. Biting, chewing
 - d. Cold and/or hot food or drink
 - e. Stress

Question7: What makes pain worse



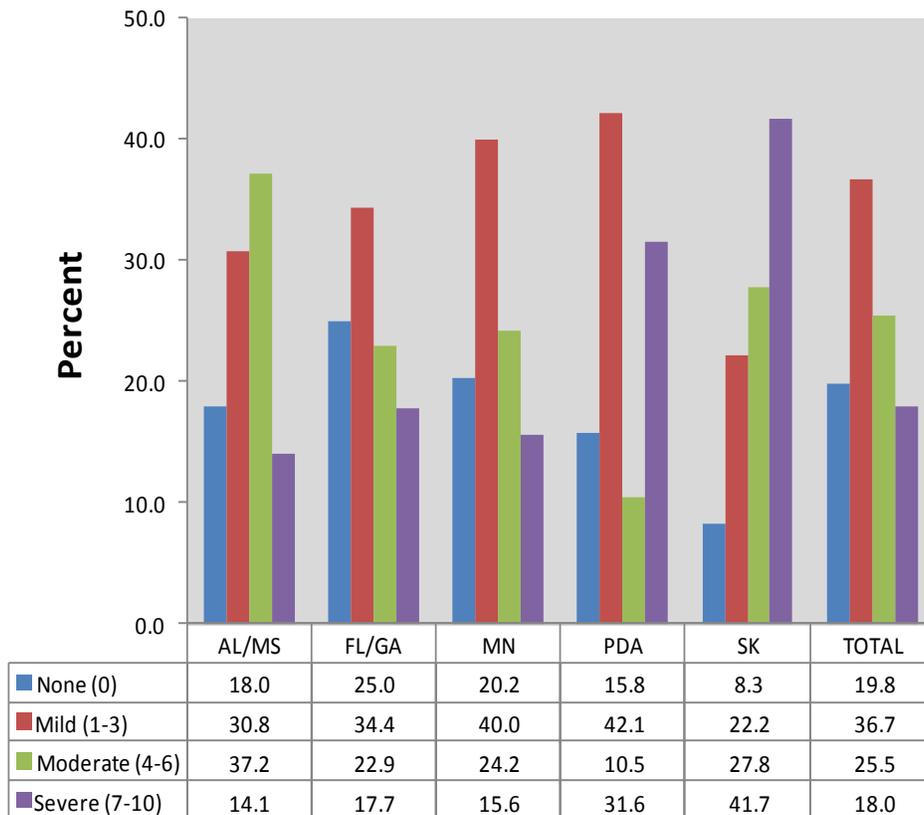
- The most common reasons selected for “stimuli that makes the pain worse” were biting/chewing (60%) and cold/hot food or drink (55%). Stress and the response “never gets worse” were the least common choices for making the pain worse (8% and 7%, respectively).

Please CIRCLE ONE NUMBER when answering questions #8 – 10 below.

8. How would you rate your tooth pain on a 0 to 10 scale at the present time, that is right now, where 0 is "no pain" and 10 is "pain as bad as could be"?

No Pain 0 1 2 3 4 5 6 7 8 9 Pain as bad as could be 10

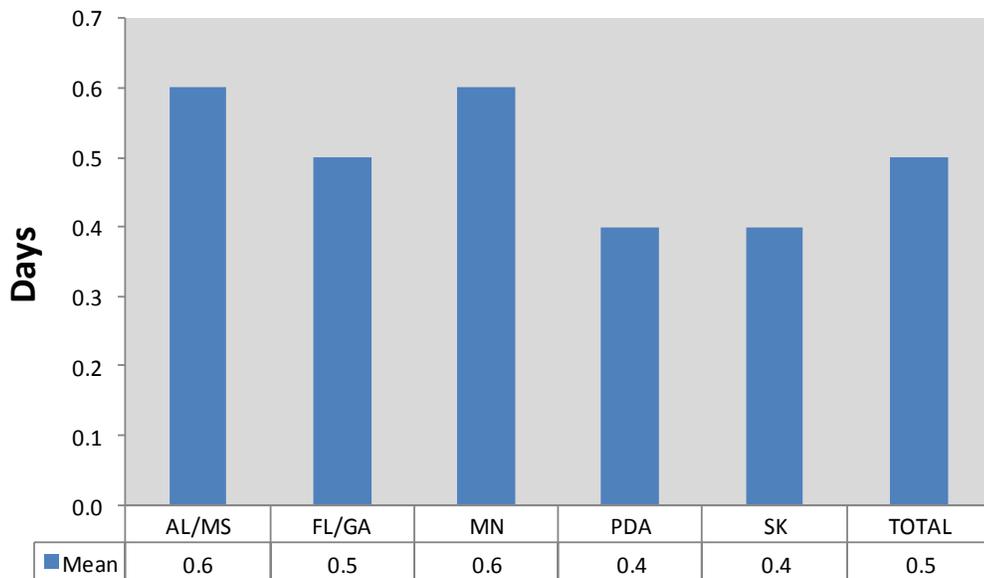
Question 8: Patient rating pain at present time



- Over one-half of patients rated the tooth pain at the present time as either none or mild pain (1 to 3 on scale of 0 to 10).

11. How many days in the past week have you been kept from your usual activities due to pain? (work, school or housework, etc.) days? (If none, please write "0")

Question 11: Days kept from usual activities due to pain



- Although the majority of patients had reported that they experienced moderate to severe levels of pain intensity, the pain interfered with daily activities in less than 1% of patients surveyed.

Please CIRCLE ONE NUMBER when answering questions #12 – 14 below.

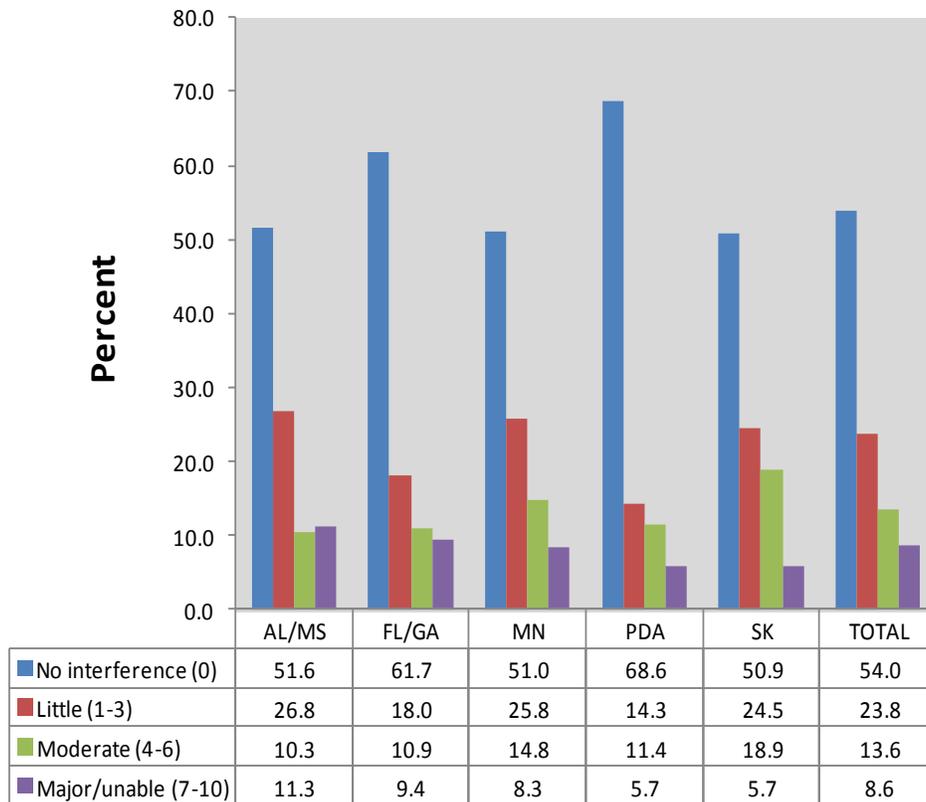
12. In the past week, how much has tooth pain interfered with your daily activities rated on a 0 to 10 scale where 0 is "no interference" and 10 is "unable to carry on any activities"?

No interference

Unable to carry on any activities

0 1 2 3 4 5 6 7 8 9 10

Question 12: How much tooth interfered with daily activities



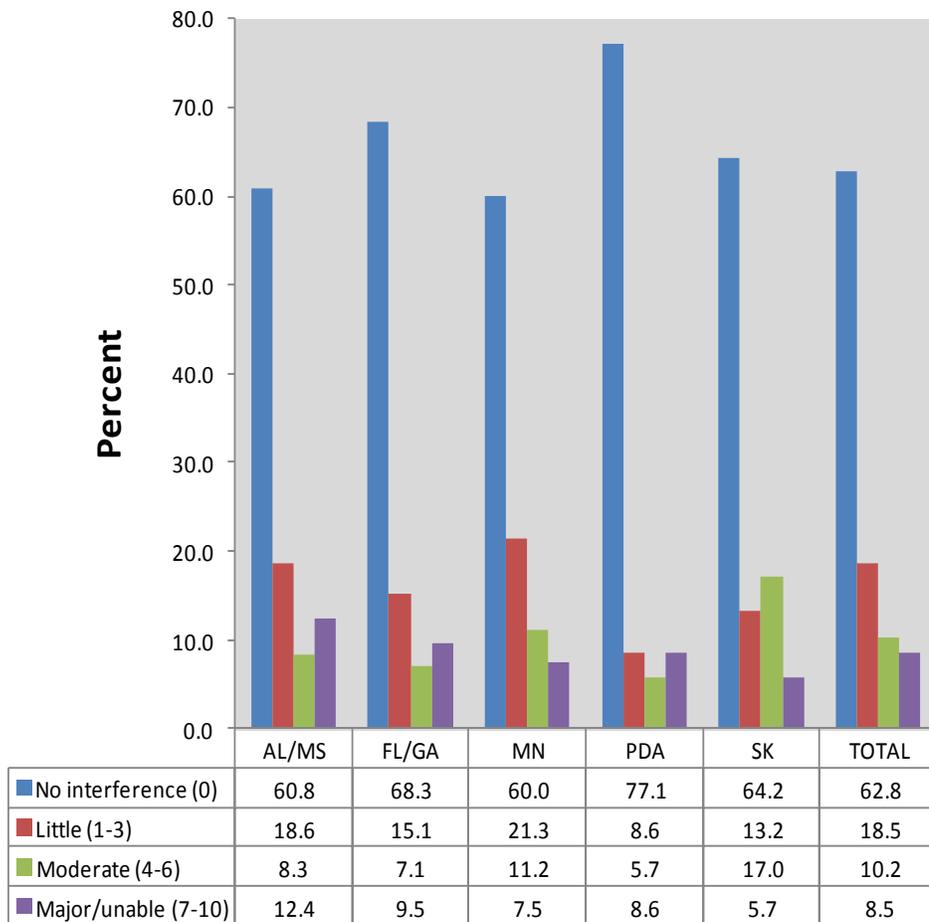
- Over one-half of patients (54%) reported that tooth pain did not interfere with daily activities; less than 9% indicated that pain was a major impediment (rated at least 7 on scale of 0 to 10).

13. In the past week, how much has tooth pain interfered with your ability to take part in recreational, social and family activities where 0 is "no interference" and 10 is "unable to carry on any activities"?

No interference **Unable to carry on any activities**

0 1 2 3 4 5 6 7 8 9 10

Question 13: Tooth causing interference with recreational activities



- Overall, about 63% of patients reported that tooth pain did not interfere with recreational, social and family activities with PDA having the highest at 77%.

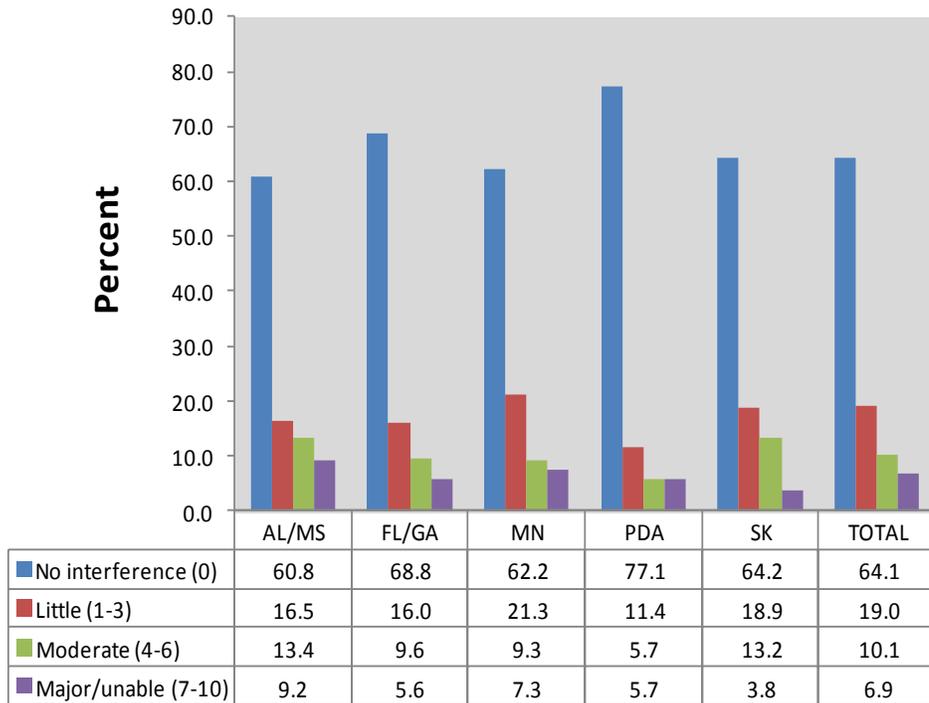
14. In the past week, how much has tooth pain interfered with your ability to work (including housework) where 0 is "no interference" and 10 is "unable to carry on any activities"?

No interference

Unable to carry on any activities

0 1 2 3 4 5 6 7 8 9 10

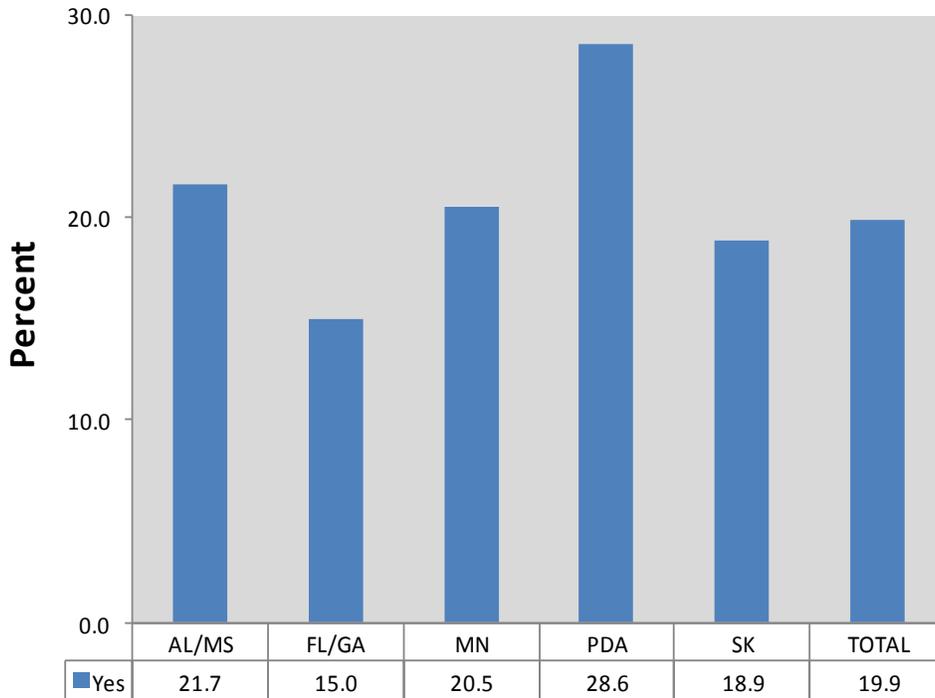
Question 14: Interference with work



- The majority of patients (64%) reported tooth pain did not interfere with their ability to work during the past week, ranging from about 61% (AL/MS) to 77% (PDA).

15. 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

Question 15: How often pain was present

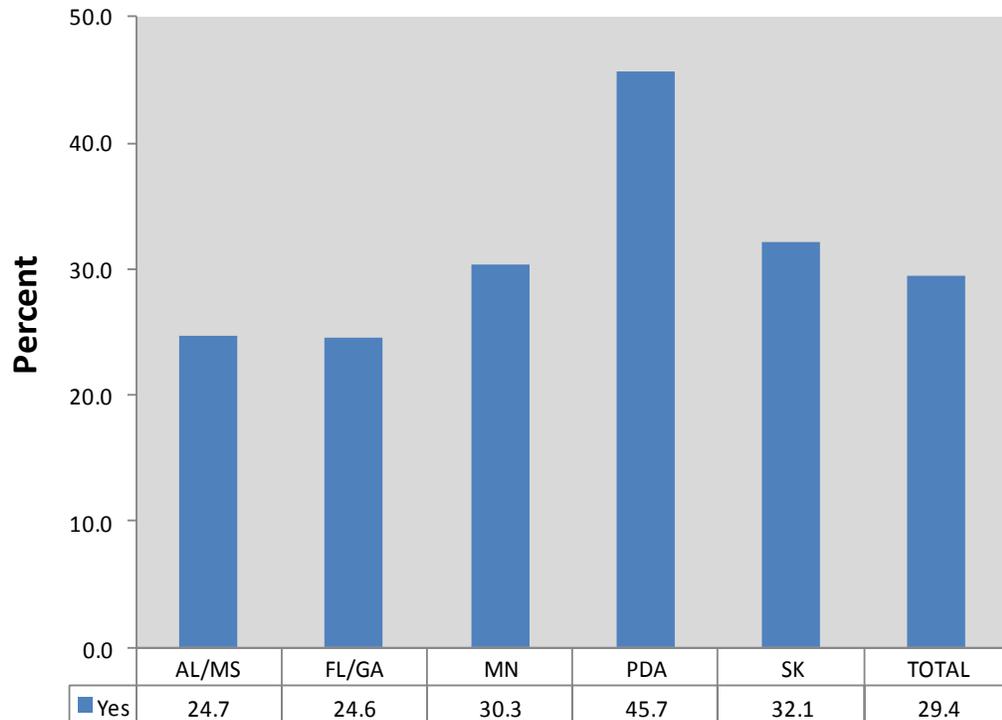


- Overall, about 20% of patients reported having pain at least 8 hours a day, 15 days or more a month over the last 3 or more months ranging from 15% (FL/GA) to 29% (PDA).

16. For at least the last 3 months, have you experienced pain in more than one area of your body during at least 4 days each week?

- a. Yes
- b. No

Question 16: Pain located in more than one area of body

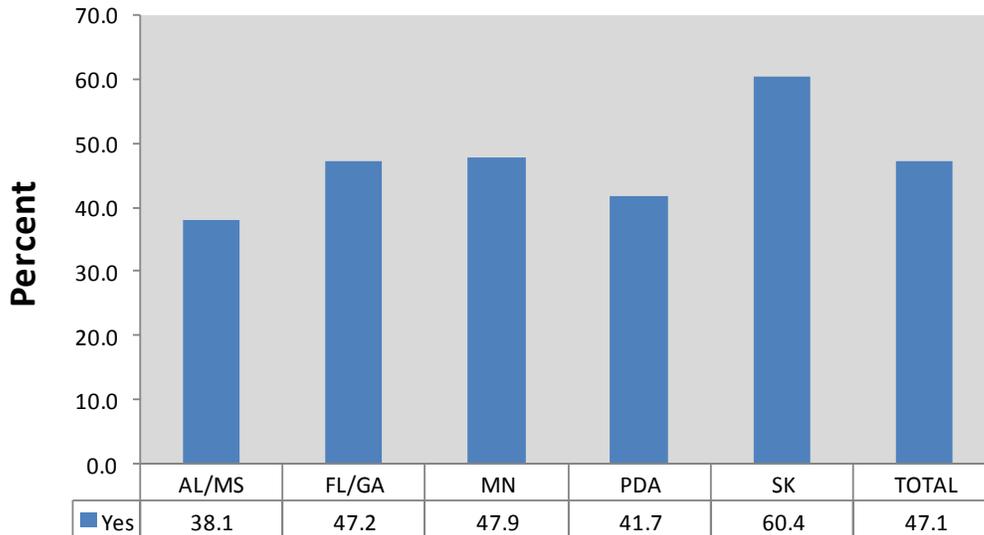


- Over the past 3 months, 29% of patients reported experiencing pain other than tooth pain at least 4 days every week.

17. During your entire life, have you smoked at least 100 cigarettes?

- a. Yes
- b. No (if **No**, skip to question #20)

Question 17: Smoked 100 cigarettes

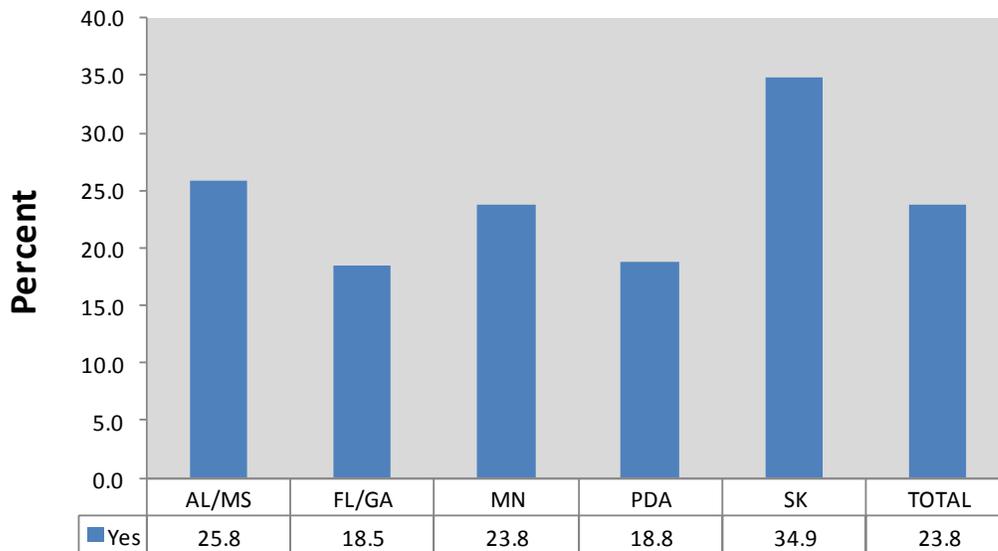


- Overall, almost one-half of patients had smoked at least 100 cigarettes in their lifetime, with the SK region reporting the highest proportion of patients with a history of smoking (60%).

18. Do you smoke cigarettes now?

- a. Yes
- b. No

Question 18: Smoke cigarettes now

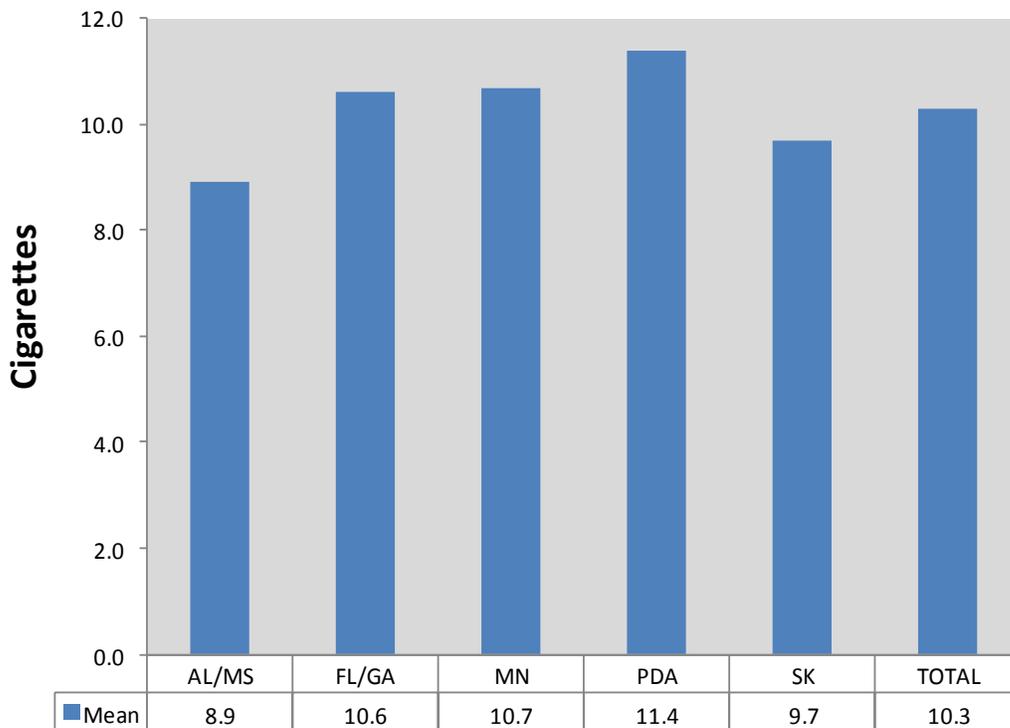


- Almost 24% of all patients reported being current smokers, with the SK region having the highest at about 35%.

19. On average, how many cigarettes do you (or did you) usually smoke each day?

cigarettes

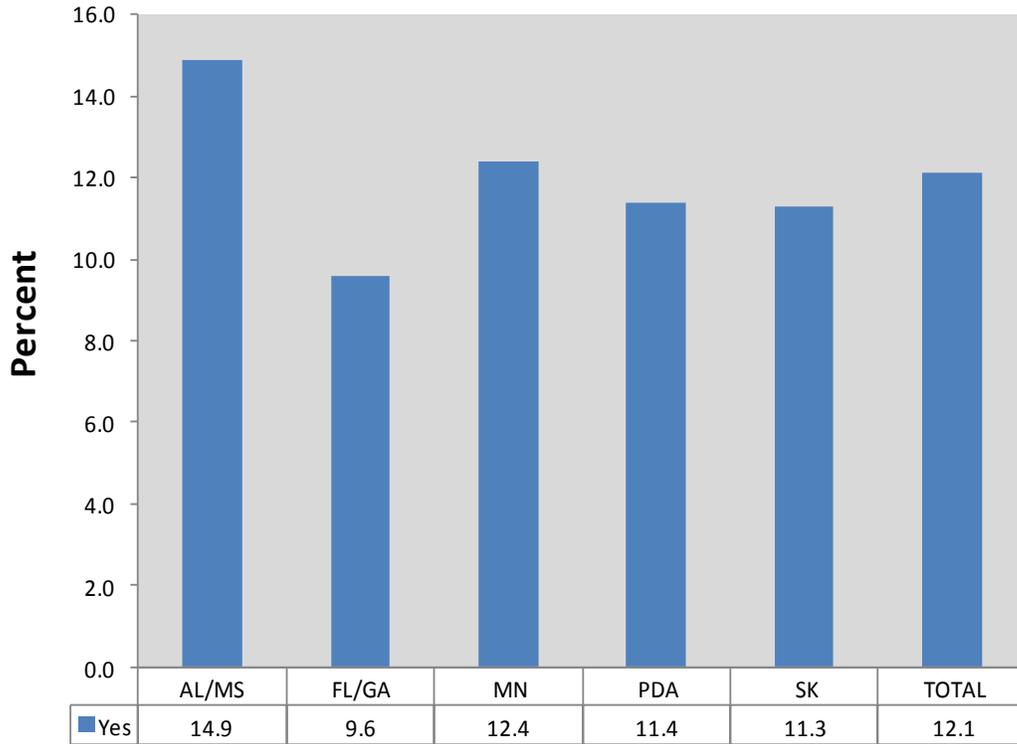
Question 19: Cigarettes smoked daily



- For patients who were either active smokers or had a history of cigarette smoking reported an average of 10 cigarettes smoked per day.

20. Has a doctor ever told you that you had diabetes or high blood sugar? (For women, not during pregnancy.)
- a. Yes
 - b. No

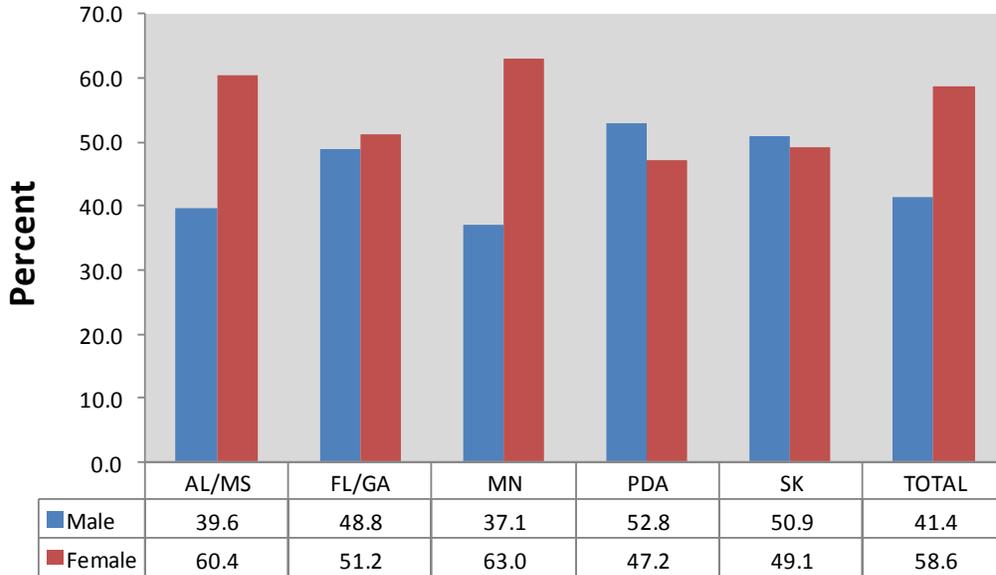
Question 20: Patients diagnosed with diabetes



- Overall, 12% of patients had received a diabetes diagnosis by a physician with the AL/MS region reporting the highest prevalence of patients having been diagnosed with diabetes (about 15%).

21. Your gender
- a. male
 - b. female

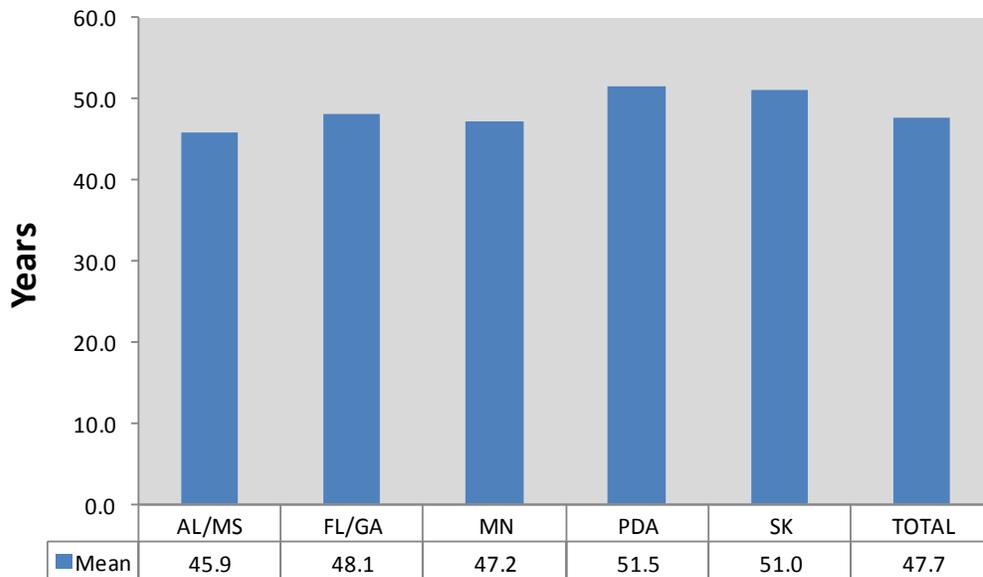
Question 21: Gender



- Overall, a higher proportion of the patients were female (59%).

22. Your age in years

Question 22: Age

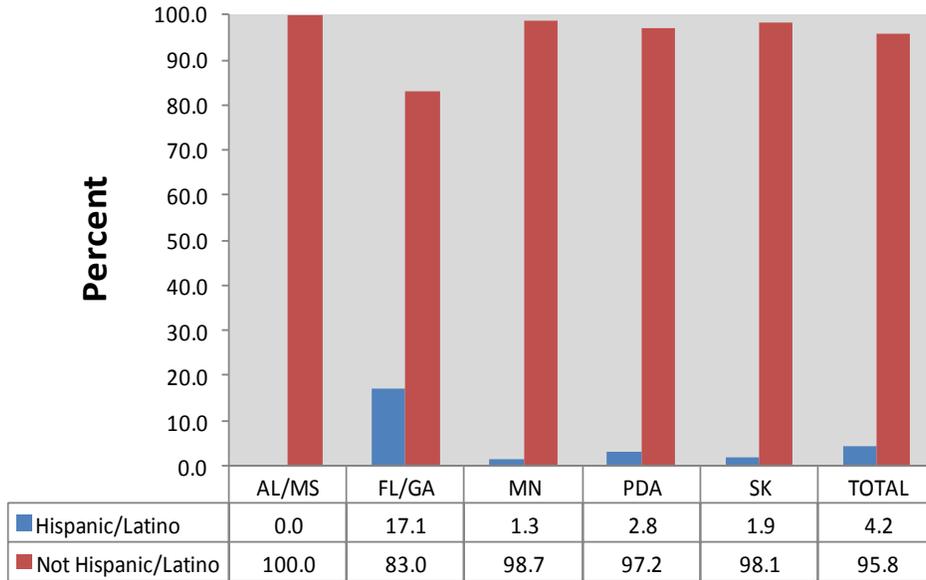


- The overall average age of study patients was 48 years, being fairly consistent across all regions.

23. Your ethnicity

- a. Hispanic or Latino
- b. Not Hispanic or Latino

Question 23: Ethnicity

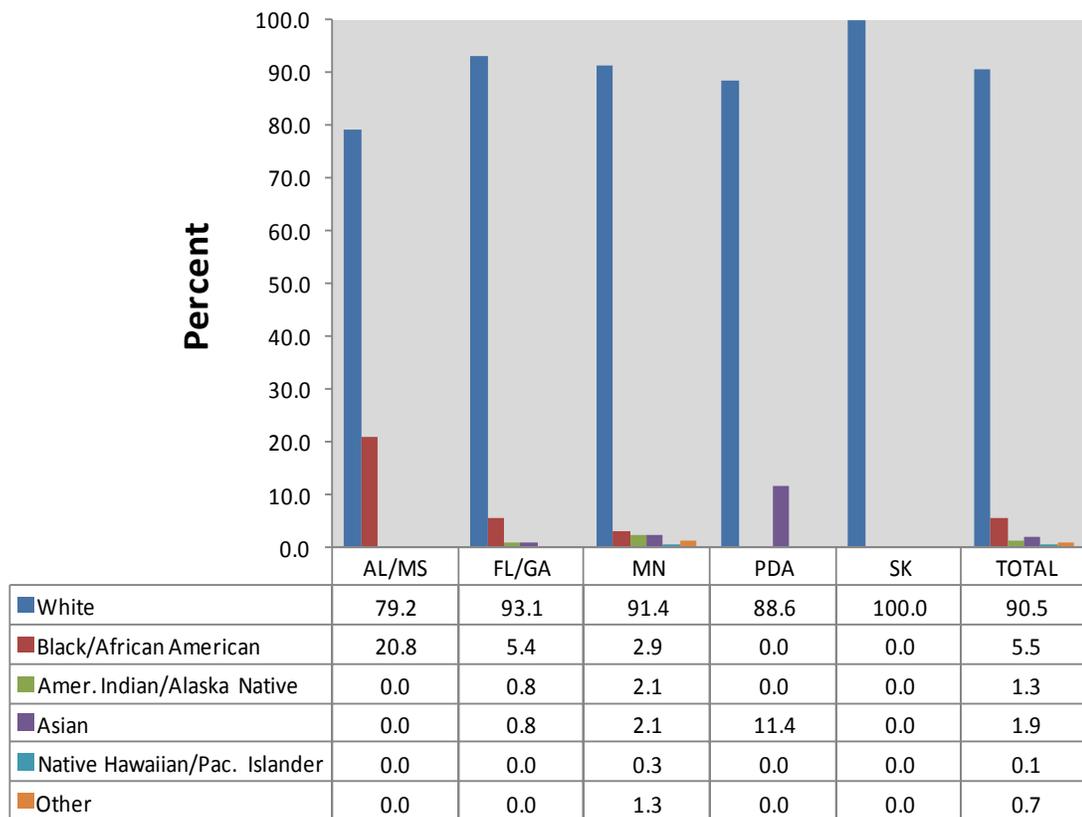


- Only 4% of study patients self-identified as Hispanic or Latino ethnicity with FL/GA being the highest at 17%.

24. Your race

- a. White
- b. Black or African American
- c. American Indian or Alaska Native
- d. Asian
- e. Native Hawaiian or Pacific Islander
- f. Other (please specify) _____

Question 24: Race

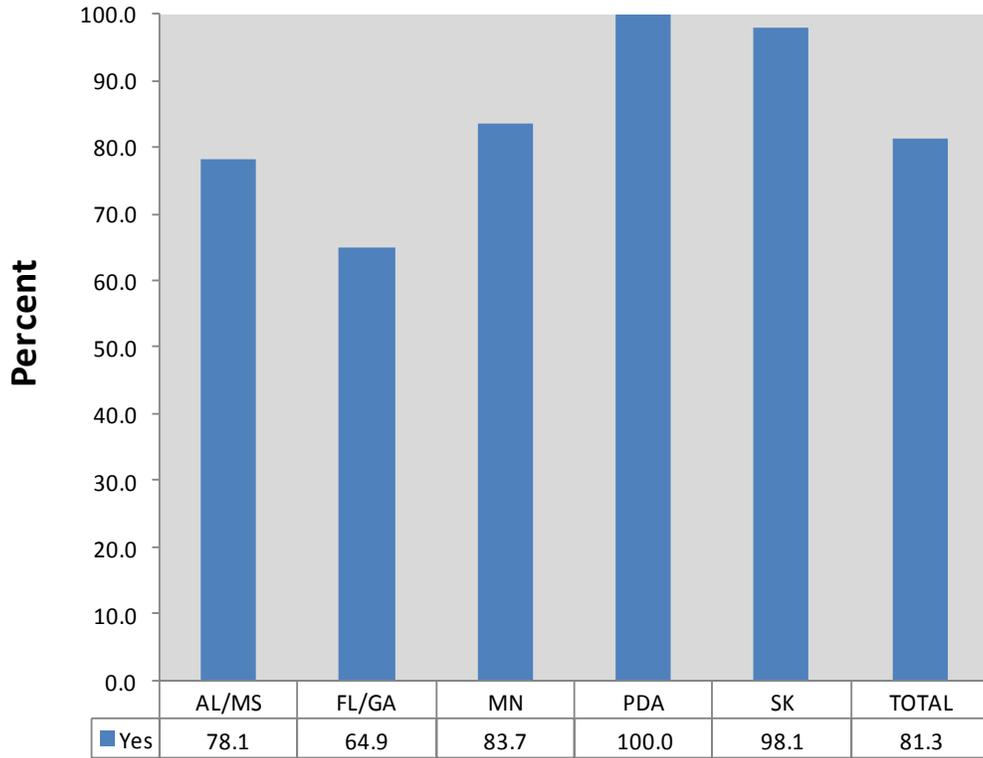


- Over 90% of all study patients self-identified as being of white race and 5% as African American with AL/MS having the highest proportion of African Americans at 21%.

25. Do you have dental insurance or third party coverage?

- a. Yes
- b. No

Question 25: Insurance coverage

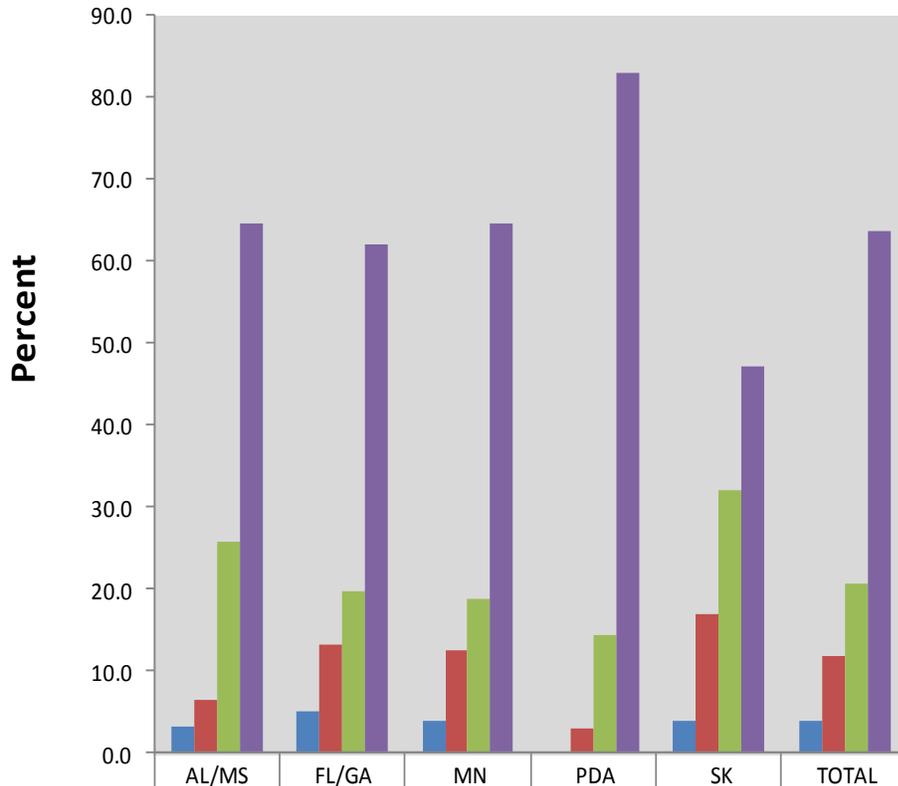


- Overall, 81% of patients had dental insurance coverage; ranged from 65% (FL/GA) to 100% (PDA).

26. Indicate your household annual income

- a. < \$10,000 per year
- b. \$10,000 - \$29,000 per year
- c. \$30,000 - \$49,999 per year
- d. > \$50,000 per year

Question 26: Annual household income

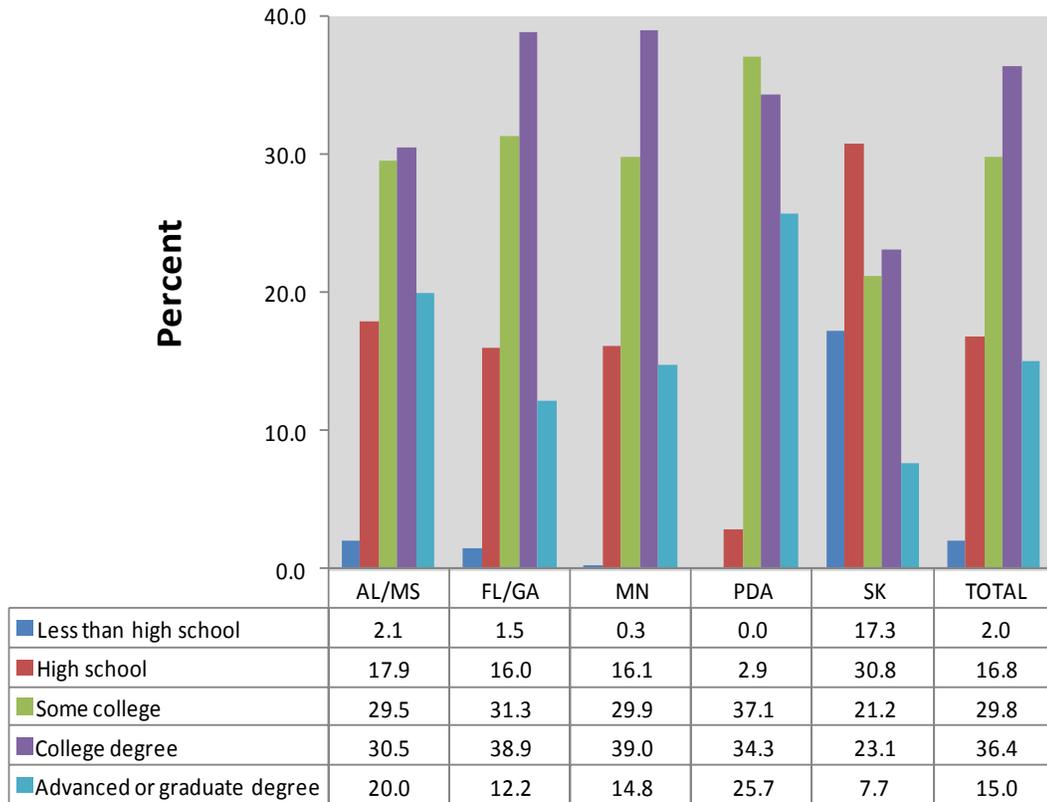


	AL/MS	FL/GA	MN	PDA	SK	TOTAL
<\$10,000/yr	3.2	5.0	4.0	0.0	3.8	3.9
\$10,000 - 29,000/yr	6.5	13.2	12.6	2.9	17.0	11.7
\$30,000 - \$49,999/yr	25.8	19.8	18.8	14.3	32.1	20.7
>\$50,000/yr	64.5	62.0	64.6	82.9	47.2	63.7

- Overall, about 64% of patients reported a household annual income of at least \$50,000.

27. Indicate your highest level of education
- a. less than high school
 - b. high school
 - c. some college
 - d. college degree
 - e. advanced or graduate degree

Question 27: Highest level of education



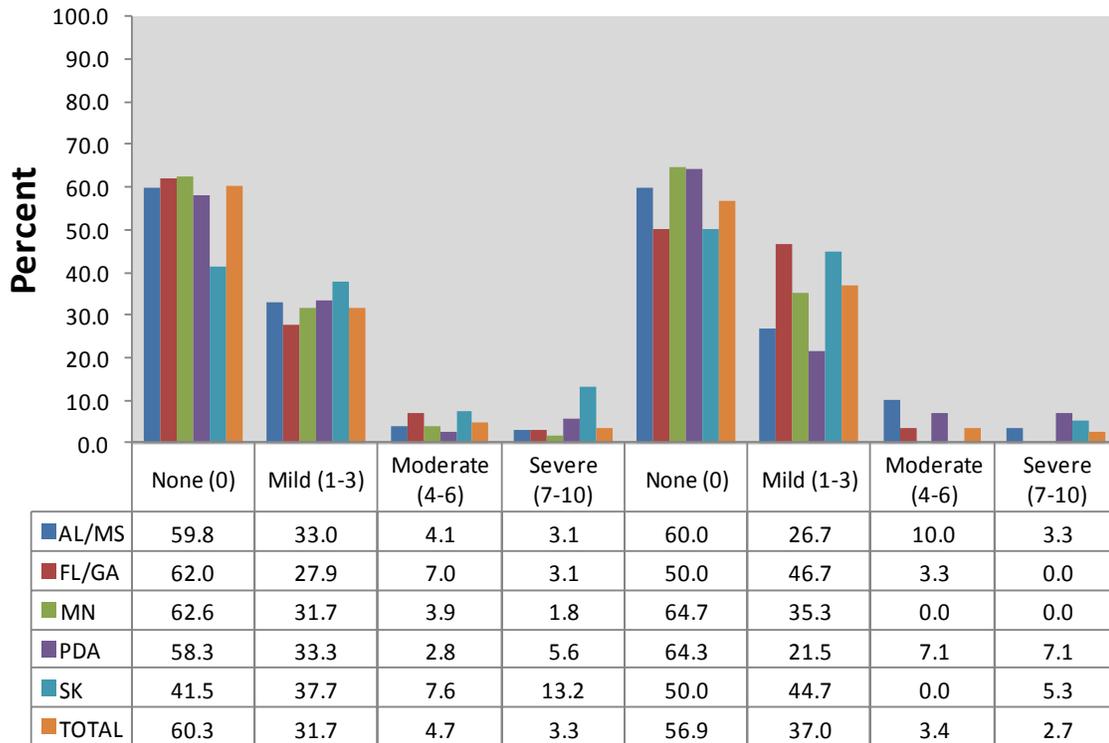
- Overall, 2% of patients reported having less than a high school education with SK being highest at 17%.
- Patients completing a college degree ranged from about 31% (SK) to 60% (PDA) with the overall average being 51%.

Patient Survey – Immediately After Treatment

1. How intense was your tooth pain **during** the root canal on a 0 to 10 scale, where 0 is "no pain" and 10 is "pain as bad as could be"?

No Pain 0 1 2 3 4 5 6 7 8 9 Pain as bad as could be 10

Question 1: Intensity of pain during root canal



First Visit

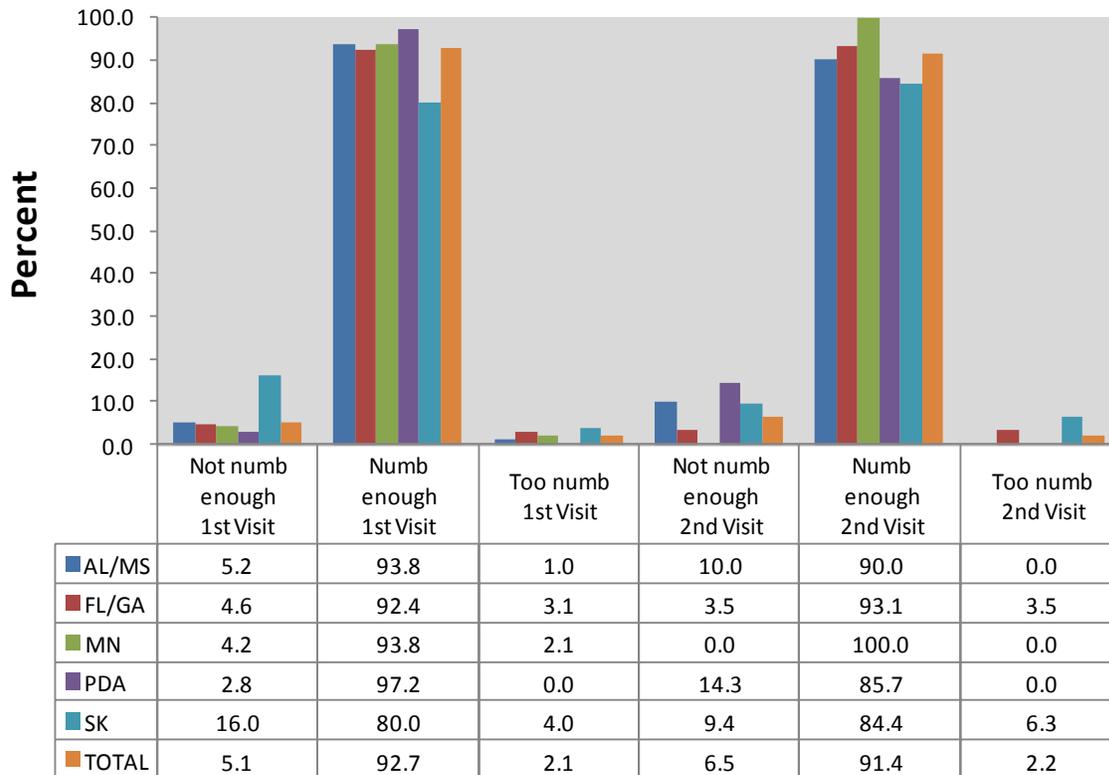
Second Visit

- Immediately after treatment on the first visit, 60% of patients overall reported no tooth pain during the root canal with approximately 32% reporting pain categorized as mild (1 to 3 on a pain scale 0 to 10).
- For those requiring a second visit, patients reporting no pain was about 57% with 37% reporting pain as mild (categorized as 1 to 3 on a scale of 0 to 10).
- For the 6 patients requiring a third visit, 83% reported no pain during the procedure and about 17% reported pain categorized as mild on a scale of 0 to 10.

*Third visits were not graphed due to the small numbers of participants.

2. Please rate how numb your tooth felt during the root canal treatment (mark one).
- The tooth was not numb enough.
 - The tooth was numb enough.
 - The tooth was too numb.

Question 2: How tooth felt during RCT

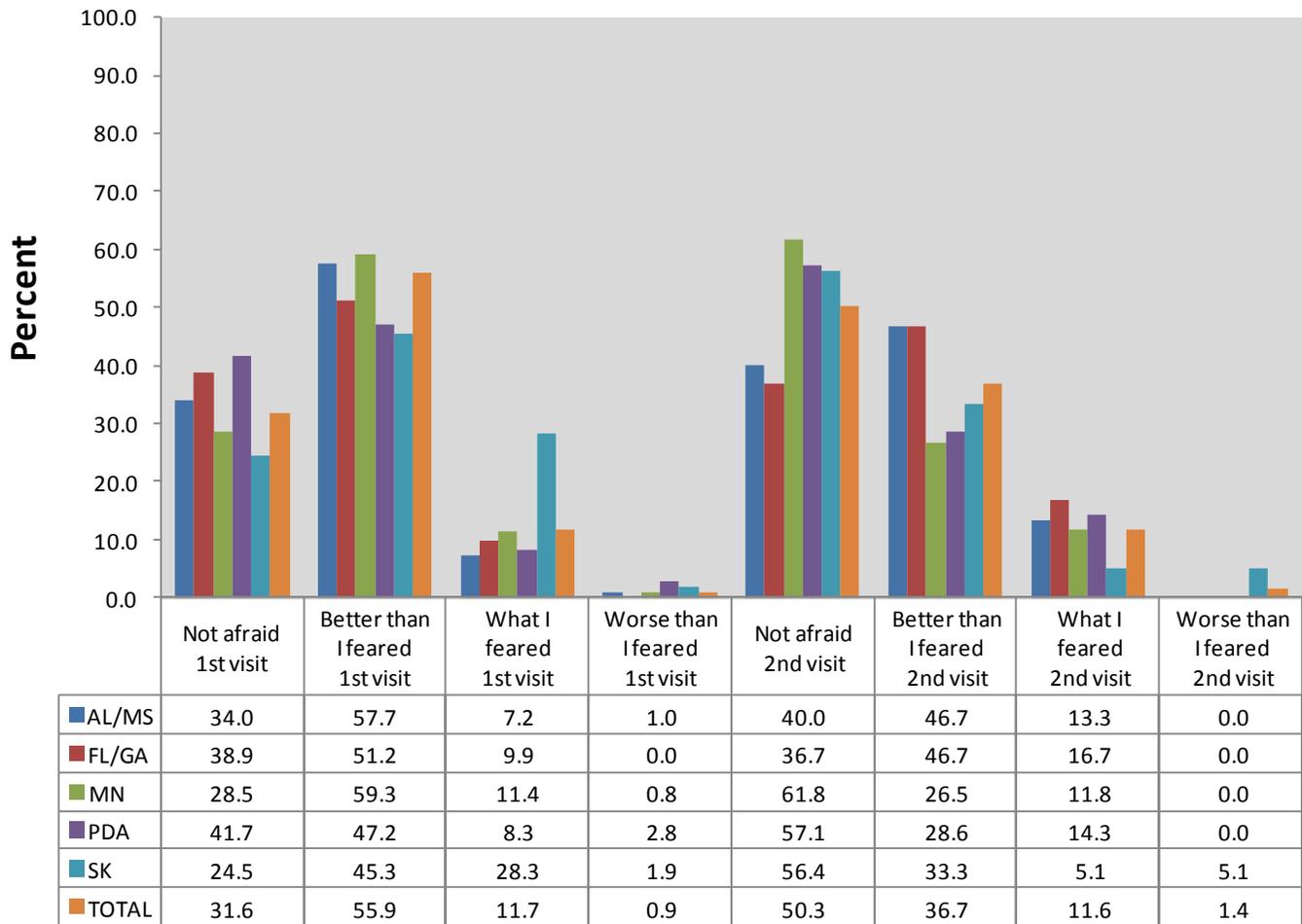


- Overall, approximately 93% of patients reported the tooth felt numb enough during the root canal treatment on the first visit with SK being slightly lower at 80%.
- Where a second visit was required, most patients (91%) reported the tooth was sufficiently numb during the root canal treatment, with SK being the lowest at 84%.
- Of the six patients requiring a third visit, four (about 67%) reported that the tooth was sufficiently numb during the root canal treatment.

*Third visits were not graphed due to the small numbers of participants.

3. Please rate how your feelings of fear compared to the actual experience.
- Does not apply – I was not afraid.
 - The experience was *better* than I feared.
 - The experience was about what I feared.
 - The experience was *worse* than what I feared.

Question 3: Feelings of fear



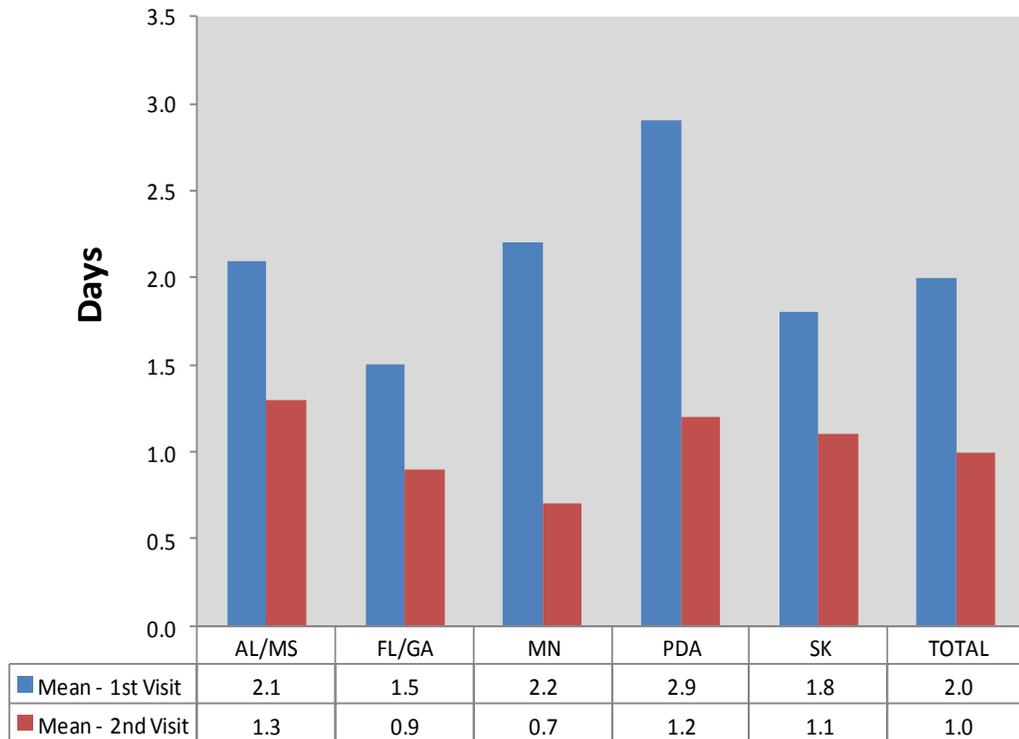
- For the first visit, nearly 88% of patients overall were either unafraid (about 56%) or felt the experience was more positive than originally feared (about 32%). Of the remaining patients, nearly 12% indicated the visit was about what they had feared and less than one percent indicated the visit was worse than they feared.
- The second visit showed similar results overall as the first.

*Third visits were not graphed due to the small numbers of participants.

Patient Survey -- 1 Week after Treatment

1. How many days in the past week have you had tooth pain? Days (If no pain, please write "0")

Question 1: Days with tooth pain in past week

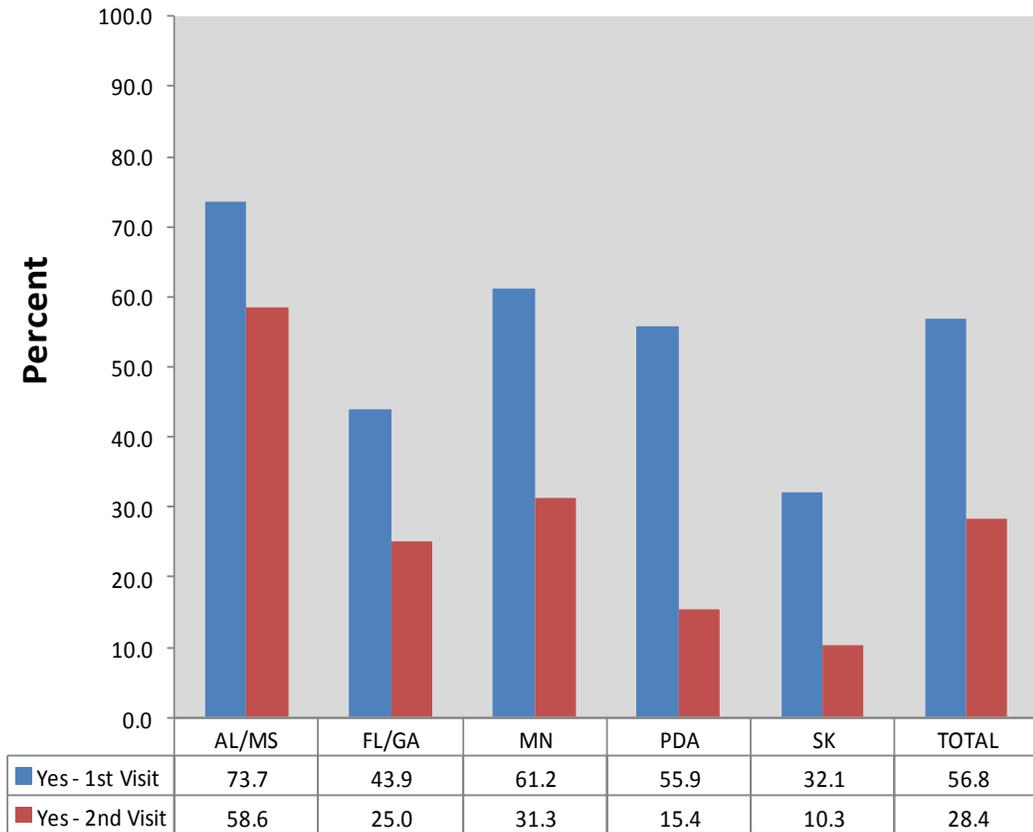


- The average number of days that a patient experienced pain following the first visit for root canal treatment was 2 days, an average similar for all regions. The average number of days of pain afterward dropped to an average of 1 day for those patients requiring a second visit.

*Third visits were not graphed due to the small numbers of participants.

2. Have you taken anything for the pain (over-the-counter or prescription medication, herbal, other) in the last 7 days?
- a. Yes
- b. No

Question 2: Taken pain medications



- Overall, about 57% of patients took medication for pain in the week following the root canal procedure, ranging from 32% (SK) to about 74% (AL/MS).
- Only 28% of patients overall took pain medication after the second visit, again with AL/MS region and SK reporting the highest and lowest proportions, respectively.

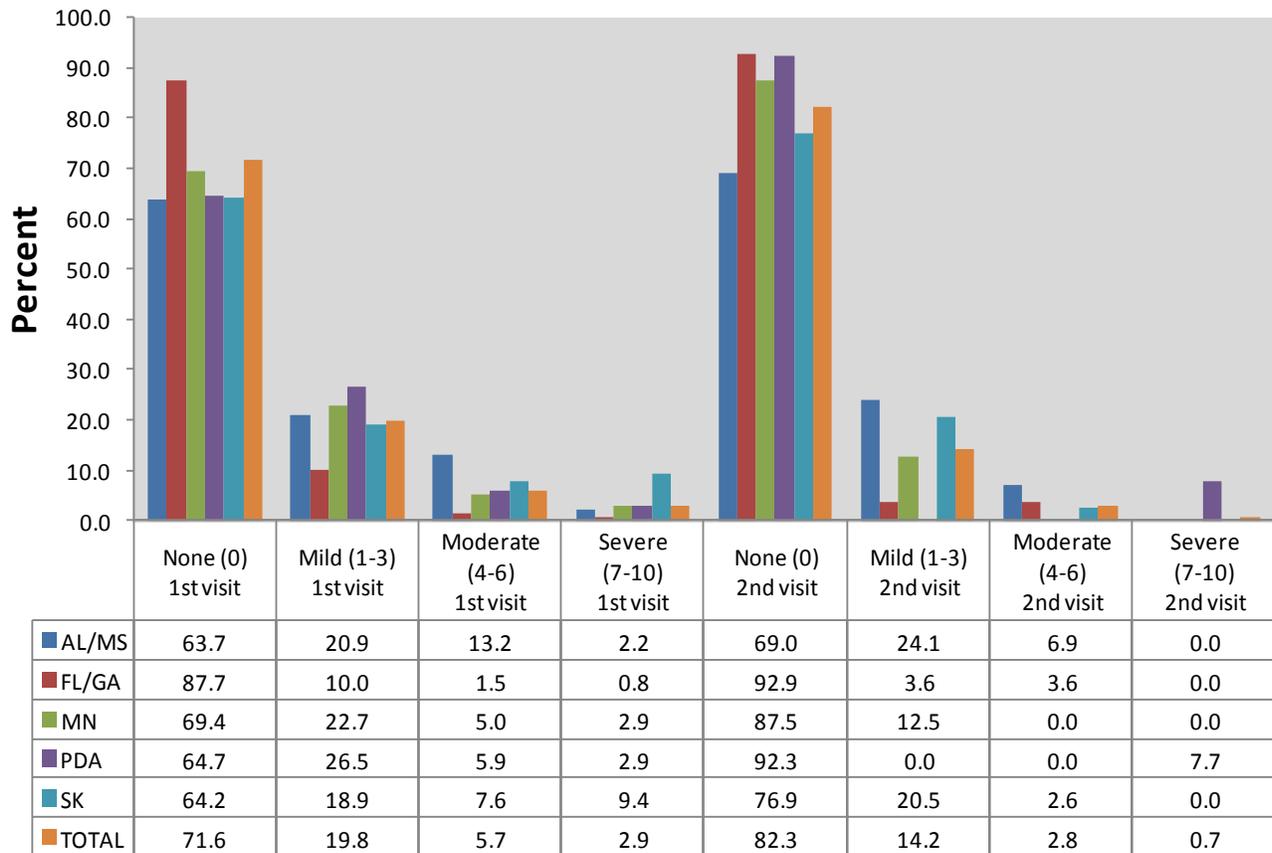
*Third visits were not graphed due to the small numbers of participants.

Please CIRCLE ONE NUMBER when answering questions #3 – 8 below.

3. How would you rate your tooth pain on a 0 to 10 scale at the present time, that is right now, where 0 is "no pain" and 10 is "pain as bad as could be"?

No Pain Pain as bad as could be
 1 2 3 4 5 6 7 8 9 10

Question 3: Tooth pain at present time



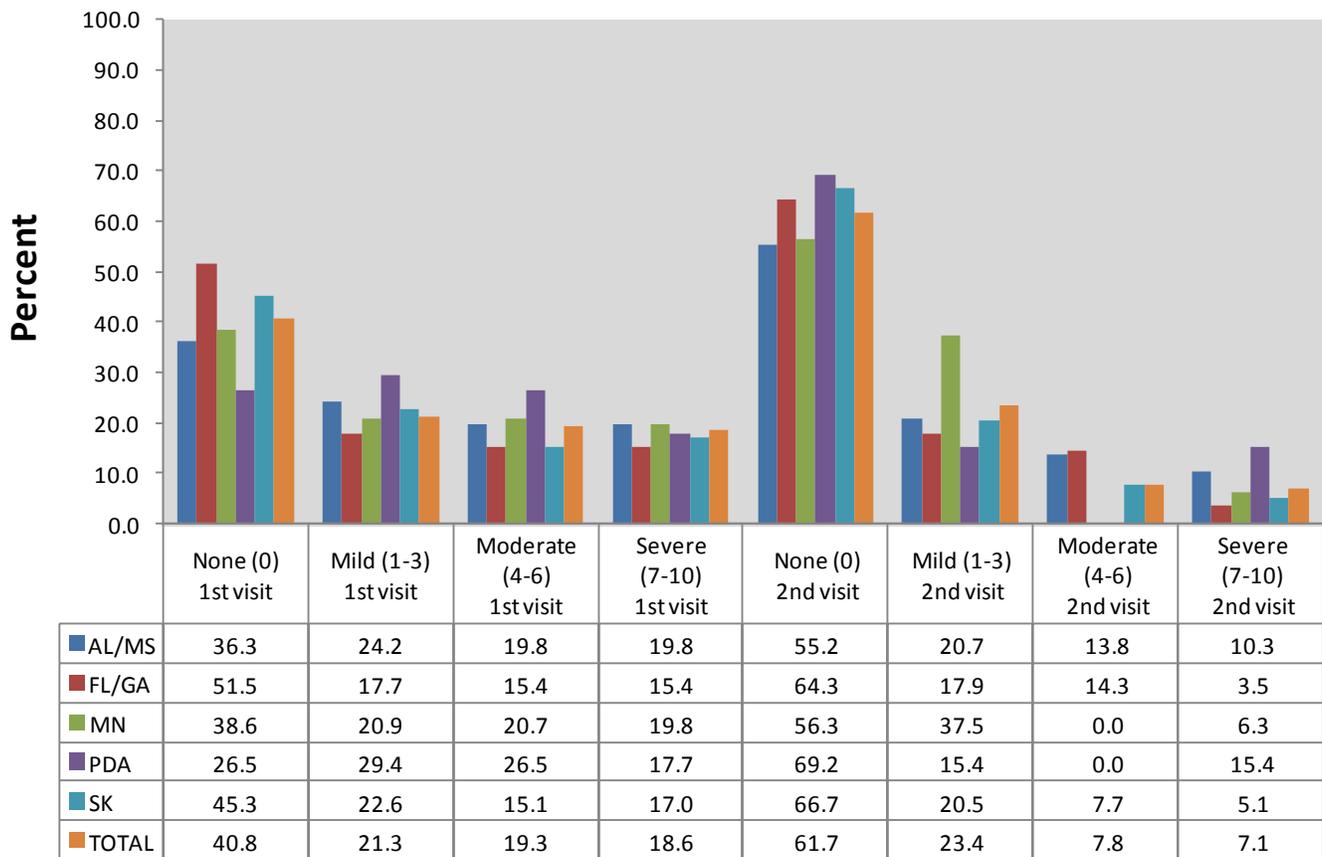
- One week after the first visit, about 72% of patients overall reported having no current tooth pain, approximately 20% mild, about 6% moderate and almost 3% severe. FL/GA region had the highest percent of patients reporting no pain (almost 88%) and SK had the highest percent reporting severe pain (9%).
- Among patients who needed a second visit, 82% reported no pain one week and less than 1% reported severe pain.

*Third visits were not graphed due to the small numbers of participants.

4. In the past week, how intense was your worst tooth pain rated on a 0 to 10 scale where 0 is "no pain" and 10 is "pain as bad as could be"?

No Pain 0 1 2 3 4 5 6 7 8 9 10 **Pain as bad as could be**

Question 4: Intensity of worst pain in past week



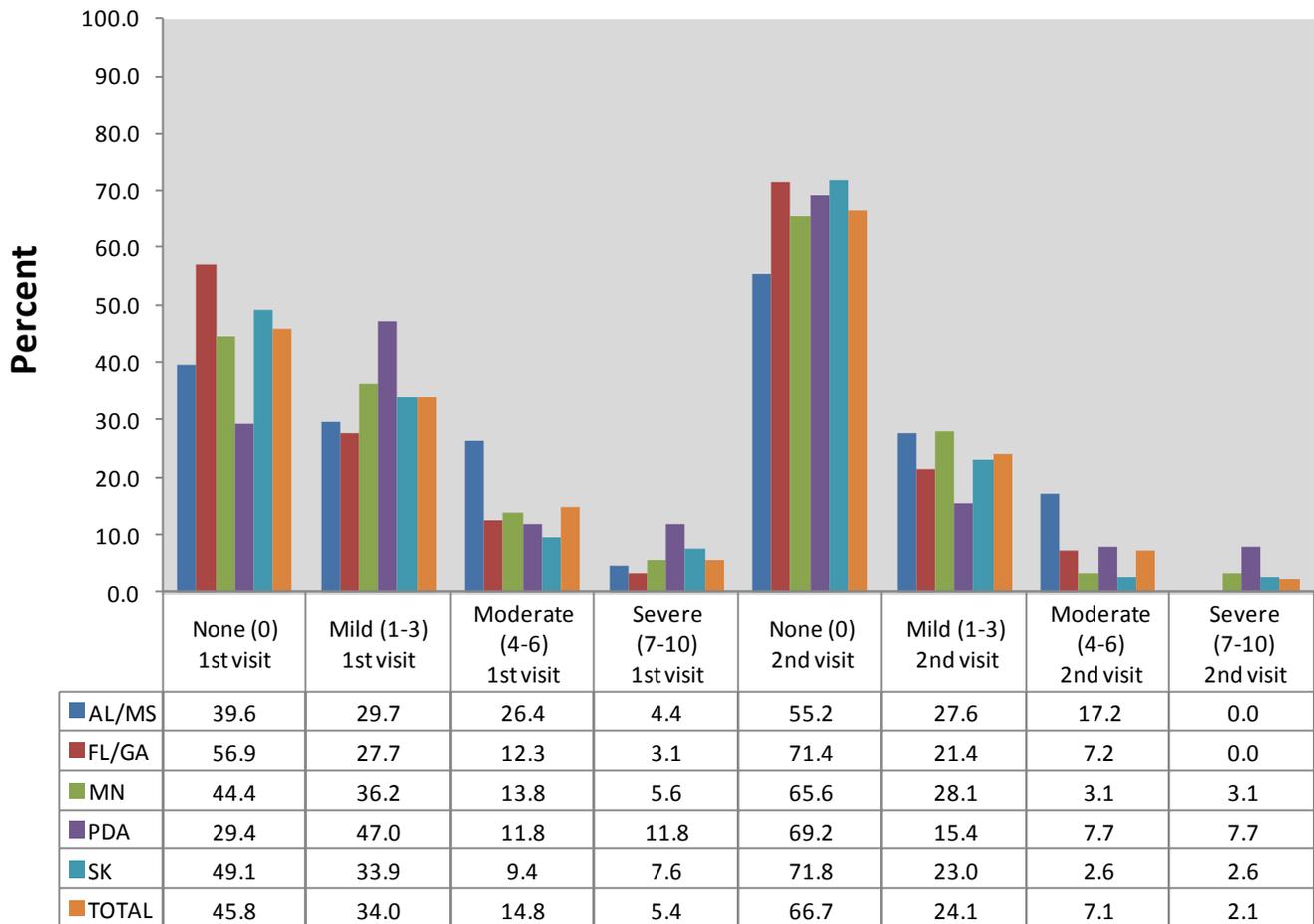
- Overall, at the one week post-treatment visit, about 41% reported experiencing no pain following root canal treatment, 21% reported having had mild, 19% moderate and 19% severe pain.
- Among patients who required a second visit, the overall proportion who reported no pain was about 62%, 23% having had mild, 8% moderate and 7% severe pain.
- None of the 6 patients requiring a third visit reported having any pain in the past week.

*Third visits were not graphed due to the small numbers of participants.

5. In the past week, on the average, how intense was your tooth pain rated on a 0 to 10 scale where 0 is "no pain" and 10 is "pain as bad as could be"? [That is, your usual pain at times you were experiencing pain]

No Pain 0 1 2 3 4 5 6 7 8 9 Pain as bad as could be 10

Question 5: Intensity of average tooth pain in past week



- During the week following root canal treatment, approximately 46% of patients overall reported, on average, no pain, 34% reporting mild pain, 15% moderate and 5% severe pain.
- Overall, approximately 67% of patients who needed a second visit for complete obturation reported experiencing no pain during 1-week post-treatment.

*Third visits were not graphed due to the small numbers of participants.

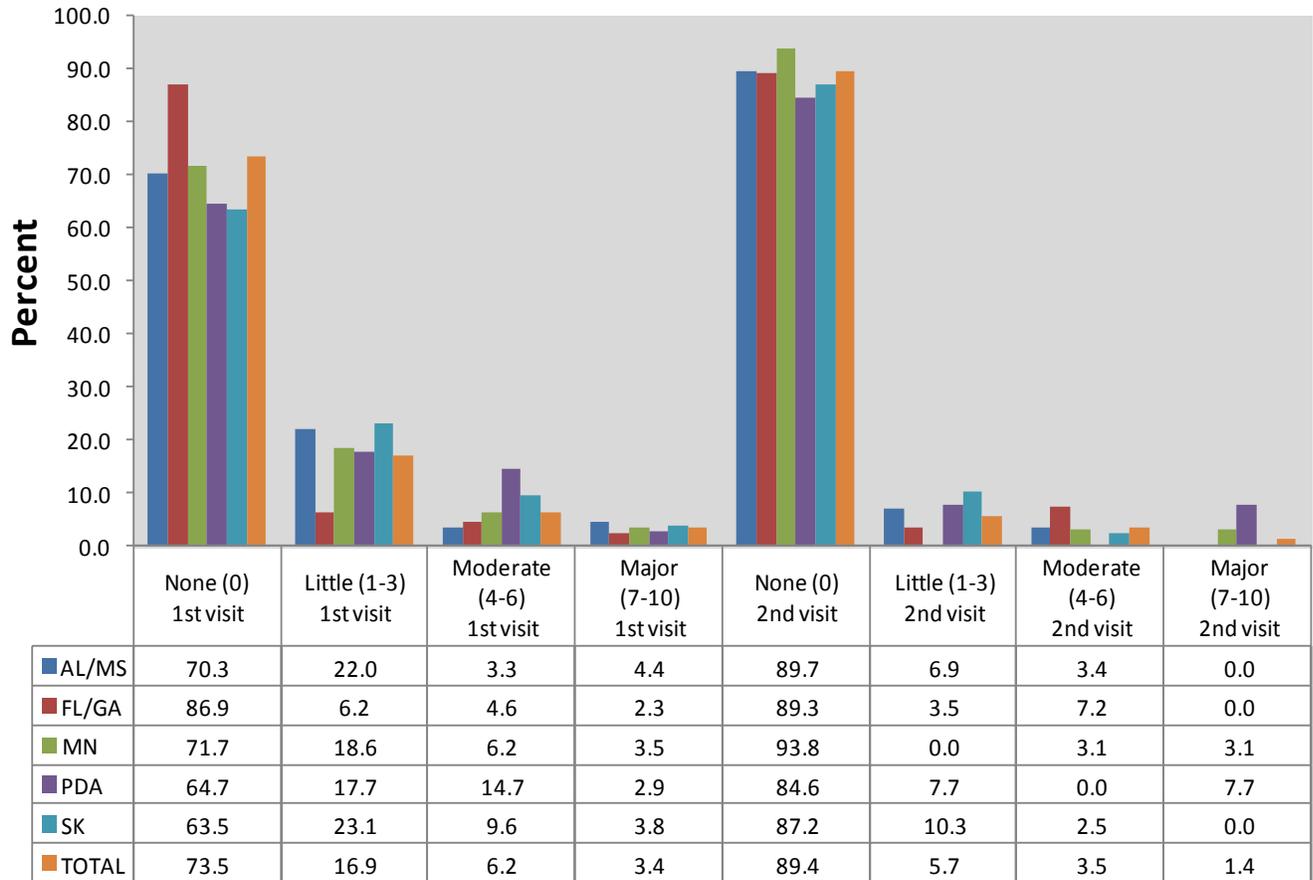
6. In the past week, how much has tooth pain interfered with your daily activities rated on a 0 to 10 scale where 0 is "no interference" and 10 is "unable to carry on any activities"?

No interference

Unable to carry on any activities

0 1 2 3 4 5 6 7 8 9 10

Question 6: Interference with daily activities due to pain

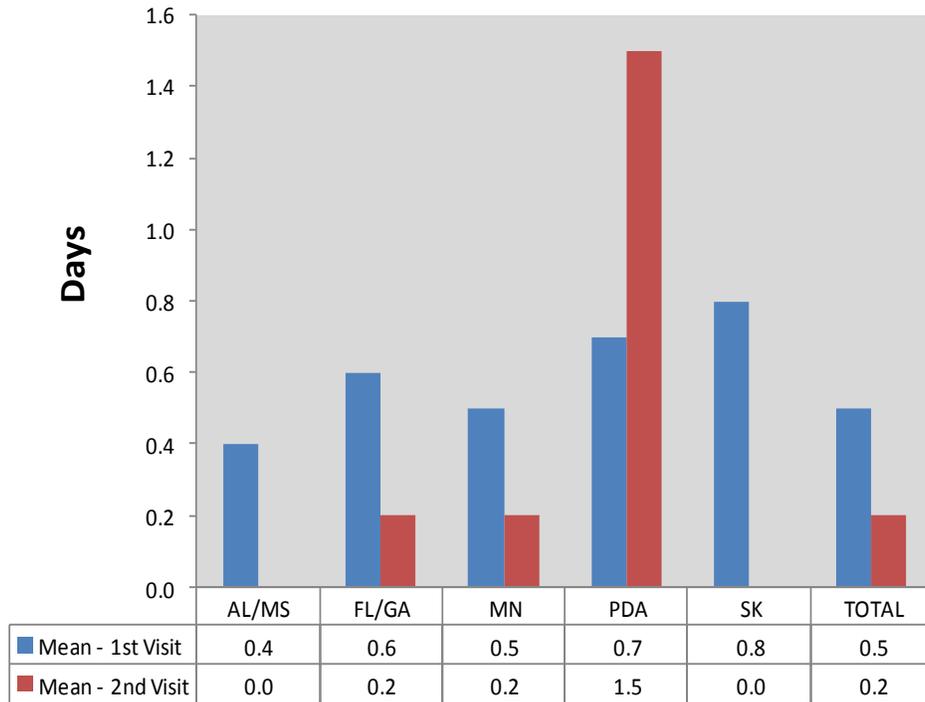


- Overall, in the week following root canal treatment, the majority of patients (about 74%) did not have tooth pain which interfered with daily activities, with FL/GA being slightly higher at about 87%.
- Among patients requiring a second visit, only about 11% of these patients reported having any tooth pain that interfered with daily activities.

*Third visits were not graphed due to the small numbers of participants.

9. About how many days in the past week have you been kept from your usual activities (work, school or housework, etc.) because of tooth pain? Days (If no pain, please write "0")

Question 9: Days kept from usual activities

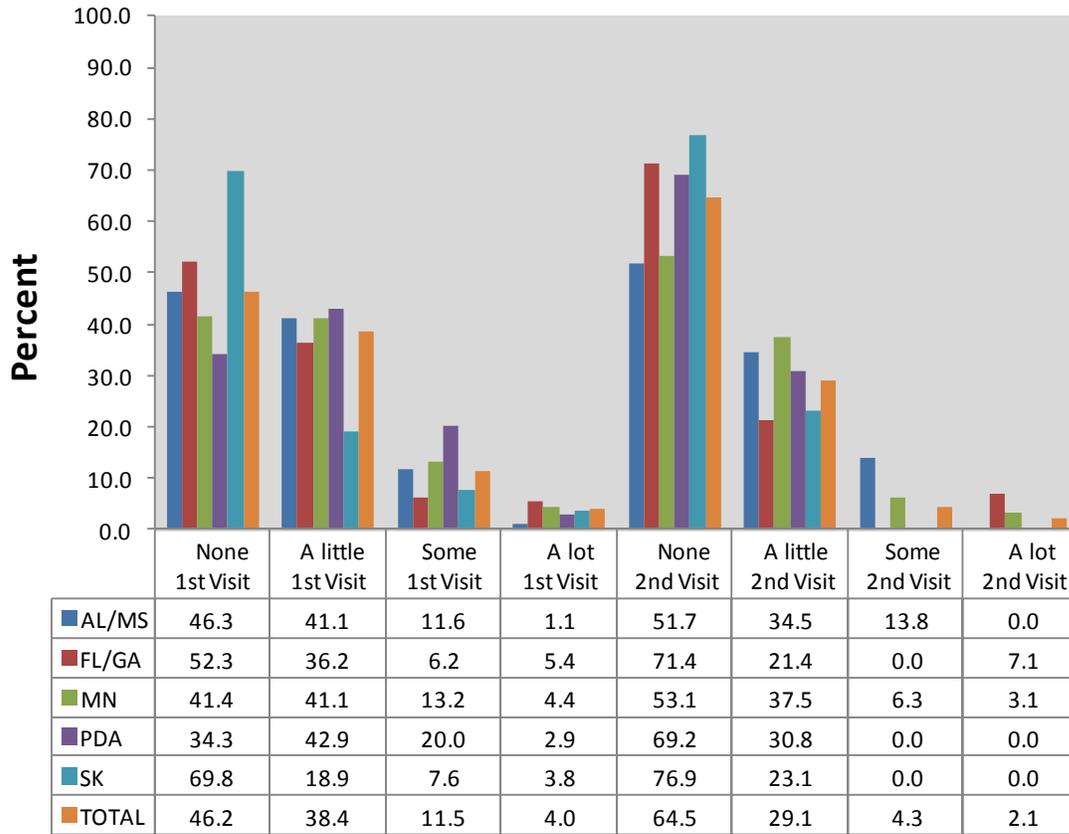


- Overall, at 1 week post-treatment, patients reported losing an average of one-half day during the previous week due to tooth pain.

*Third visits were not graphed due to the small numbers of participants.

10. How much swelling did you experience in or around the root canal treated tooth?
- None
 - A little
 - Some
 - A lot

Question 10: Amount of swelling

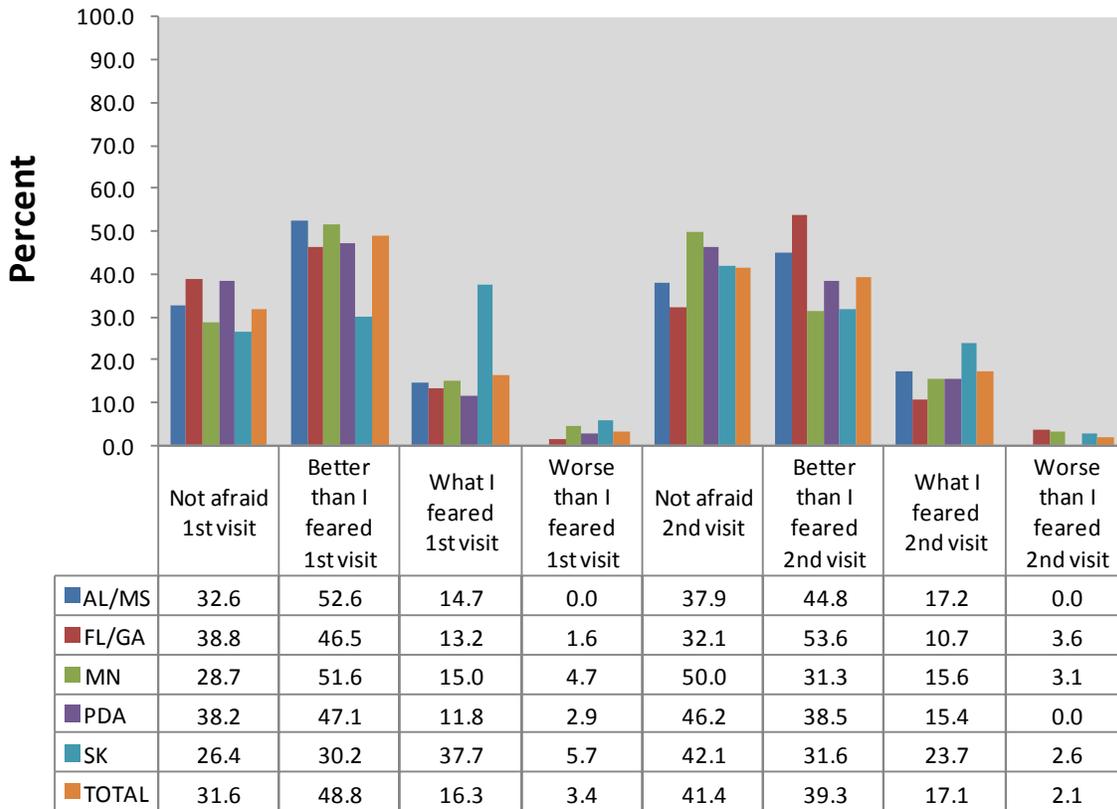


- Overall, at 1 week post-treatment, nearly 85% of patients reported no or only a little swelling around the root canal treated tooth.
- For those patients needing a second visit for complete obturation, after the initial 1 week post-treatment visit 94% reported no or minimal swelling at the root canal treatment site.

*Third visits were not graphed due to the small numbers of participants.

11. Please rate how your feelings of fear about having a root canal compared to the actual experience.
- Does not apply – I was not afraid.
 - The experience was *better* than I feared.
 - The experience was about what I feared.
 - The experience was *worse* than what I feared.

Question 11: Feelings of fear



- At the 1 week post-treatment visit, comparing the actual experience to anticipated fear of the procedure, 32% had not been afraid and 49% found the root canal experience better than anticipated.
- Among patients who required a second and/or third visit following the initial 1 week post-treatment visit, the majority of patients reported either no anticipated fear or that the procedure went better than initially feared, almost 81% first visit, and 83% second visit.

*Third visits were not graphed due to the small numbers of participants.