

Understanding Pain after Dental Procedures - POPS

NIDCR Protocol Number: 19-073-E

NIDCR Grant Number: 4 UH3 DE029158-03

Principal Investigator: Muhammad Walji, PhD

NIDCR Program Official: Dena Fischer, DDS, MSD, MS

NIDCR Medical Monitor: Kevin McBryde, MD

POPS Study Practitioner Messaging Content

Version Number: 2.0

February 8, 2022

1. Practitioners' Invitational message content

Day 0:

Message
Your patient has enrolled in the study. Please complete the Day 0 eCRF [do not reply to this text]

Days 1, 3, 5, 7, 14, 21 (only if alerts are triggered):

Message
Hello, The following alerts have been triggered: Swelling Worse, Patient Comment, Bleeding Worse. Procedure Date: MM/DD/YYYY Response Date: MM/DD/YYYY

SUS Invitational message (Ramp-Up)

Message
We thank you for being part of the Network's POPS study. Please complete the following questions on your experience using the FollowApp.Care platform using text messages as part of your patient's recovery. By clicking on the link below, you are agreeing to take the survey {{SURVEY_URL}} System Usability Scale (SUS)

UTAUT Invitational message (Full Study)

Message

We thank you for being part of the Network's POPS study. Please complete the following questions on your experience using the FollowApp.Care platform using text messages as part of your patient's recovery. By clicking on the link below, you are agreeing to take the survey
{{SURVEY_URL}} Unified Theory of Acceptance and Use of Technology (UTAUT)

Understanding Pain after Dental Procedures - POPS

NIDCR Protocol Number: 19-073-E

NIDCR Grant Number: 1 UG3 DE029158-01

Principal Investigator: Muhammad Walji, PhD

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POPS Study Practitioner Questionnaires

Version Number: 3.0

Mar 29, 2022

1. eCRF Day 0 (Baseline Data to be collected on the day of the procedure)

Provider Identifier (autogenerated by NCC data capture system)
Did you receive a message from FollowApp.Care that this patient is enrolled? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: On what date did you receive this message: MM/DD/YYYY
<p>What procedure(s) did you perform?</p> <p>1) Endodontics - Surgery</p> <p>a) Site (tooth #, quadrant, etc.) - indicate on odontogram</p> <p>b) CDT (click all that apply):</p> <ul style="list-style-type: none"> i) D3410: apicoectomy - anterior ii) D3421: apicoectomy - premolar (first root) iii) D3425: Apicoectomy - molar (first root) iv) D3426: Apicoectomy (each additional root) v) D3428: bone graft in conjunction with periradicular surgery – per tooth, single site vi) D3429: bone graft in conjunction with periradicular surgery – each additional contiguous tooth in the same surgical site vii) D3430: retrograde filling - per root viii) D3431: biologic materials to aid in soft and osseous tissue regeneration in conjunction with periradicular surgery ix) D3432: guided tissue regeneration, resorbable barrier, per site, in conjunction with periradicular surgery x) D3450: root amputation – per root xi) D3460: endodontic endosseous implant xii) D3470: intentional re-implantation (including necessary splinting) xiii) D3910: surgical procedure for isolation of tooth with rubber dam xiv) D3920: hemisection (including any root removal), not including root canal therapy xv) D3950: canal preparation and fitting of preformed dowel or post xvi) D3999: unspecified endodontic procedure, by report <p>c) Date: MM/DD/YYYY</p> <p>d) Related diagnoses (click all that apply)</p> <ul style="list-style-type: none"> i) Symptomatic reversible pulpitis ii) Symptomatic irreversible pulpitis iii) Necrosis of the pulp iv) Previously completed endodontic therapy v) Acute apical abscess

- vi) Chronic apical abscess
 - vii) Internal resorption of tooth
 - viii) External resorption of tooth
 - ix) Symptomatic periapical periodontitis
 - x) Asymptomatic periapical periodontitis
 - xi) Obliteration of root canal due to abnormal mineralization of tooth
 - xii) Other: Add text
- 2) Endodontics - Pulp Treatment (e.g. Pulpotomy, Pulpectomy)
- a) Site (tooth #, quadrant, etc.) – indicate on odontogram
 - b) CDT (click all that apply):
 - i) D3220: therapeutic pulpotomy (excluding final restoration) – removal of pulp coronal to the dentinocemental junction and application of medicament
 - ii) D3221: pulpal debridement, primary and permanent teeth
 - iii) D3222: partial pulpotomy for apexogenesis – permanent tooth with incomplete root development
 - iv) D3230: pulpal therapy (resorbable filling) – anterior, primary tooth (excluding final restoration)
 - v) D3240: pulpal therapy (resorbable filling) – posterior, primary tooth (excluding final restoration)
 - c) Date: MM/DD /YYYY
 - d) Related diagnoses
 - i) Symptomatic reversible pulpitis
 - ii) Symptomatic irreversible pulpitis
 - iii) Necrosis of the pulp
 - iv) Previously completed endodontic therapy
 - v) Acute apical abscess
 - vi) Chronic apical abscess
 - vii) Internal resorption of tooth
 - viii) External resorption of tooth
 - ix) Symptomatic periapical periodontitis
 - x) Asymptomatic periapical periodontitis
 - xi) Obliteration of root canal due to abnormal mineralization of tooth
 - xii) Tooth fracture with pulp involvement
 - xiii) Other: Add text
- 3) Endodontics – Non-Surgical (e.g. RCT, Re-treat, Apexification)
- a) Site (tooth #, quadrant, etc.) – indicate on odontogram
 - b) CDT (click all that apply):
 - i) D3310: endodontic therapy, anterior tooth (excluding final restoration)
 - ii) D3320: endodontic therapy, premolar tooth (excluding final restoration)

- iii) D3330: endodontic therapy, molar tooth (excluding final restoration)
 - iv) D3331: treatment of root canal obstruction; non-surgical access
 - v) D3332: incomplete endodontic therapy; inoperable, unrestorable or fractured tooth
 - vi) D3333: internal root repair of perforation defects
 - vii) D3346: retreatment of previous root canal therapy – anterior
 - viii) D3347: retreatment of previous root canal therapy – premolar
 - ix) D3348: retreatment of previous root canal therapy – molar
 - x) D3351: apexification/recalcification – initial visit (apical closure/calcific repair of perforations, root resorption, etc.)
 - xi) D3352: apexification/recalcification – interim medication replacement
 - xii) D3353: apexification/recalcification – final visit (includes completed root canal therapy – apical closure/calcific repair of perforations, root resorption, etc.)
- c) Date: MM/DD /YYYY
- d) Related diagnoses
- i) Symptomatic reversible pulpitis
 - ii) Symptomatic irreversible pulpitis
 - iii) Necrosis of the pulp
 - iv) Previously completed endodontic therapy
 - v) Acute apical abscess
 - vi) Chronic apical abscess
 - vii) Internal resorption of tooth
 - viii) External resorption of tooth
 - ix) Symptomatic periapical periodontitis
 - x) Asymptomatic periapical periodontitis
 - xi) Obliteration of root canal due to abnormal mineralization of tooth
 - xii) Other: Add text
- 4) Perio - Surgical
- a) Site (tooth #, quadrant, etc.) – indicate on odontogram
 - b) CDT (click all that apply):
 - i. D4210: gingivectomy or gingivoplasty – four or more contiguous teeth or tooth bounded spaces per quadrant
 - ii. D4211: gingivectomy or gingivoplasty – one to three contiguous teeth or tooth bounded spaces per quadrant
 - iii. D4212: gingivectomy or gingivoplasty to allow access for restorative procedure, per tooth
 - iv. D4230: anatomical crown exposure – four or more contiguous teeth or bounded tooth spaces per quadrant
 - v. D4231: anatomical crown exposure – one to three teeth or bounded tooth spaces per quadrant

- vi. D4240: gingival flap procedure, including root planing – four or more contiguous teeth or tooth bounded spaces per quadrant
- vii. D4241: gingival flap procedure, including root planing – one to three contiguous teeth or tooth bounded spaces per quadrant
- viii. D4245: apically positioned flap
- ix. D4249: clinical crown lengthening – hard tissue
- x. D4260: osseous surgery (including elevation of a full thickness flap and closure) – four or more contiguous teeth or tooth bounded spaces per quadrant
- xi. D4261: osseous surgery (including elevation of a full thickness flap and closure) – one to three contiguous teeth or tooth bounded spaces per quadrant
- xii. D4263: bone replacement graft – retained natural tooth – first site
- xiii. in quadrant
- xiv. D4264: bone replacement graft – retained natural tooth – each additional site in quadrant
- xv. D4266: guided tissue regeneration – resorbable barrier, per site
- xvi. D4267: guided tissue regeneration – non-resorbable barrier, per site (includes membrane removal)
- xvii. D4268: surgical revision procedure, per tooth
- xviii. D4270: pedicle soft tissue graft procedure
- xix. D4273: autogenous connective tissue graft procedure (including donor and recipient surgical sites) first tooth, implant or edentulous tooth position in graft
- xx. D4275: non-autogenous connective tissue graft (including recipient site and donor material) first tooth, implant, or edentulous tooth position in graft
- xxi. D4276: combined connective tissue and double pedicle graft, per tooth
- xxii. D4277: free soft tissue graft procedure (including recipient and donor surgical sites) first tooth, implant, or edentulous tooth position in graft
- xxiii. D4278: free soft tissue graft procedure (including recipient and donor surgical sites) each additional contiguous tooth, implant, or edentulous tooth position in same graft site
- xxiv. D4283: autogenous connective tissue graft procedure (including donor and recipient surgical sites) – each additional contiguous tooth, implant or edentulous tooth position in same graft site
- xxv. D4285: non-autogenous connective tissue graft procedure (including recipient surgical site and donor material) – each additional contiguous tooth, implant or edentulous tooth position in same graft site

c) Date: MM/DD/YYYY

d) Related diagnoses

- i) Localized Periodontitis
- ii) Generalized Periodontitis
- iii) Gingival abscess
- iv) Periodontal abscess

- v) Periodontal and endodontic lesion
 - vi) Insufficient clinical crown height
 - vii) Dental peri-implant mucositis
 - viii) Dental peri-implantitis
 - ix) Other: Add text
- 5) Extractions - Simple
- a) Site (tooth #, quadrant, etc.) – indicate on odontogram
 - b) CDT (click all that apply):
 - i) D7111: extraction, coronal remnants – primary tooth
 - ii) D7140: extraction, erupted tooth or exposed root (elevation and/or forceps removal)
 - c) Date: MM/DD/YYYY
 - d) Related diagnoses
 - i) Abnormalities of size and form of teeth
 - ii) Tooth crowding
 - iii) Tooth eruption disorder
 - iv) Non-restorable carious tooth
 - v) Periodontitis
 - vi) Fracture of tooth
 - vii) Pericoronitis
 - viii) Other: Add text
- 6) Extractions - Surgical
- a) Site (tooth #, quadrant, etc.) – indicate on odontogram
 - b) CDT (click all that apply):
 - i) D7210: extraction, erupted tooth requiring removal of bone and/or sectioning of tooth, and including elevation of mucoperiosteal flap if indicated
 - ii) D7220: removal of impacted tooth – soft tissue
 - iii) D7230: removal of impacted tooth – partially bony
 - iv) D7240: removal of impacted tooth – completely bony
 - v) D7241: removal of impacted tooth – completely bony, with unusual surgical complications
 - vi) D7250: removal of residual tooth roots (cutting procedure)
 - vii) D7251: coronectomy – intentional partial tooth removal
 - c) Date: MM/DD/YYYY
 - d) Related diagnoses
 - i) Retained dental root
 - ii) Non-restorable carious tooth
 - iii) Pulp necrosis
 - iv) Symptomatic periapical periodontitis
 - v) Chronic apical abscess

- vi) Tooth crowding
- vii) Fracture of tooth
- viii) Impacted tooth
- ix) Pericoronitis
- x) Other: Add text

7) Implants - Surgical Procedures

- a) Site (tooth #, quadrant, etc.) – indicate on odontogram
- b) CDT (click all that apply):
 - i) D6010: surgical placement of implant body: endosteal implant
 - ii) D6011: surgical access to an implant body (second stage implant surgery)
 - iii) D6012: surgical placement of interim implant body for transitional prosthesis: endosteal implant
 - iv) D6013: surgical placement of mini implant
 - v) D6040: surgical placement: eosteal implant
 - vi) D6050: surgical placement: transosteal implant
 - vii) D6100: implant removal, by report
 - viii) D6101: debridement of a peri-implant defect or defects surrounding a single implant, and surface cleaning of the exposed implant surfaces, including flap entry and closure
 - ix) D6102: debridement and osseous contouring of a peri-implant defect or defects surrounding a single implant and includes surface cleaning of the exposed implant surfaces, including flap entry and closure
 - x) D6103: bone graft for repair of peri-implant defect – does not include flap entry and closure
 - xi) D6104: bone graft at time of implant placement
 - xii) D6081: scaling and debridement in the presence of inflammation or mucositis of a single implant, including cleaning of the implant surfaces, without flap entry and closure
- c) Date: MM/DD/YYYY
- d) Related diagnoses
 - i) Dental peri-implant mucositis
 - ii) Dental peri-implantitis
 - iii) Failure of osseointegration of dental implant
 - iv) Acquired absence of teeth
 - v) Other: Add text

8) Oral Surgery Other

- a) Site (tooth #, quadrant, etc.) – indicate on odontogram
- b) CDT (click all that apply):
 - i) D7260: oroantral fistula closure
 - ii) D7261: primary closure of a sinus perforation

- iii) D7270: tooth re-implantation and/or stabilization of accidentally evulsed or displaced tooth
- iv) D7272: tooth transplantation (includes re-implantation from one site
- v) to another and splinting and/or stabilization)
- vi) D7280: exposure of an unerupted tooth
- vii) D7282: mobilization of erupted or malpositioned tooth to aid eruption
- viii) D7283: placement of device to facilitate eruption of impacted tooth
- ix) D7285: incisional biopsy of oral tissue – hard (bone, tooth)
- x) D7286: incisional biopsy of oral tissue – soft
- xi) D7290: surgical repositioning of teeth
- xii) D7291: transeptal fibrotomy/supra crestal fibrotomy, by report
- xiii) D7292: placement of temporary anchorage device [screw retained plate] requiring flap
- xiv) D7298: removal of temporary anchorage device [screw retained plate], requiring flap
- xv) D7293: placement of temporary anchorage device requiring flap
- xvi) D7299: removal of temporary anchorage device, requiring flap
- xvii) D7294: placement of temporary anchorage device without flap; includes device removal
- xviii) D7300: removal of temporary anchorage device without flap
- xix) D7295: harvest of bone for use in autogenous grafting procedure
- xx) D7296: corticotomy – one to three teeth or tooth spaces, per quadrant
- xxi) D7297: corticotomy – four or more teeth or tooth spaces, per quadrant
- xxii) D7310: alveoplasty in conjunction with extractions – four or more teeth or tooth spaces, per quadrant
- xxiii) D7311: alveoplasty in conjunction with extractions – one to three teeth or tooth spaces, per quadrant
- xxiv) D7320: alveoplasty not in conjunction with extractions – four or more teeth or tooth spaces, per quadrant
- xxv) D7321: alveoplasty not in conjunction with extractions – one to three teeth or tooth spaces, per quadrant
- xxvi) D7340: vestibuloplasty – ridge extension (secondary epithelialization)
- xxvii) D7350: vestibuloplasty – ridge extension (including soft tissue grafts, muscle reattachment, revision of soft tissue attachment and management of hypertrophied and hyperplastic tissue)
- xxviii) D7410: excision of benign lesion up to 1.25 cm
- xxix) D7411: excision of benign lesion greater than 1.25 cm
- xxx) D7412: excision of benign lesion, complicated
- xxxi) D7413: excision of malignant lesion up to 1.25 cm
- xxxii) D7414: excision of malignant lesion greater than 1.25 cm
- xxxiii) D7415: excision of malignant lesion, complicated
- xxxiv) D7440: excision of malignant tumor – lesion diameter up to 1.25 cm

- xxxv) D7441: excision of malignant tumor – lesion diameter greater than 1.25 cm
- xxxvi) D7450: removal of benign odontogenic cyst or tumor – lesion diameter up to 1.25 cm
- xxxvii) D7451: removal of benign odontogenic cyst or tumor – lesion diameter greater than 1.25 cm
- xxxviii) D7460: removal of benign nonodontogenic cyst or tumor – lesion diameter up to 1.25 cm
- xxxix) D7461: removal of benign nonodontogenic cyst or tumor – lesion diameter greater than 1.25 cm
- xl) D7465: destruction of lesion(s) by physical or chemical method, by report
- xli) D7471: removal of lateral exostosis (maxilla or mandible)
- xliv) D7472: removal of torus palatinus
- xliv) D7473: removal of torus mandibularis
- xlv) D7485: reduction of osseous tuberosity
- xlv) D7490: radical resection of maxilla or mandible
- xlvi) D7510: incision and drainage of abscess – intraoral soft tissue
- xlvi) D7511: incision and drainage of abscess – intraoral soft tissue – complicated (includes drainage of multiple fascial spaces)
- xlvi) D7520: incision and drainage of abscess – extraoral soft tissue
- xlvi) D7521: incision and drainage of abscess – extraoral soft tissue –
 - l) complicated (includes drainage of multiple fascial spaces)
- li) D7530: removal of foreign body from mucosa, skin, or subcutaneous alveolar tissue
- lii) D7540: removal of reaction producing foreign bodies, musculoskeletal system
- liii) D7550: partial ostectomy/sequestrectomy for removal of non-vital bone
- liv) D7610: maxilla – open reduction (teeth immobilized, if present)
- lv) D7620: maxilla – closed reduction (teeth immobilized, if present)
- lvi) D7630: mandible – open reduction (teeth immobilized, if present)
- lvii) D7640: mandible – closed reduction (teeth immobilized, if present)
- lviii) D7650: malar and/or zygomatic arch – open reduction
- lix) D7660: malar and/or zygomatic arch – closed reduction
- lx) D7670: alveolus – closed reduction, may include stabilization of teeth
- lxi) D7671: alveolus – open reduction, may include stabilization of teeth
- lxii) D7680: facial bones – complicated reduction with fixation and multiple surgical approaches
- lxiii) D7710: maxilla – open reduction
- lxiv) D7720: maxilla – closed reduction D7730 mandible – open reduction
- lxv) D7740: mandible – closed reduction
- lxvi) D7750: malar and/or zygomatic arch – open reduction
- lxvii) D7760: malar and/or zygomatic arch – closed reduction
- lxviii) D7770: alveolus – open reduction stabilization of teeth
- lxix) D7771: alveolus, closed reduction stabilization of teeth
- lxx) D7780: facial bones – complicated reduction with fixation and multiple approaches

- lxxi) D7810: open reduction of dislocation
- lxxii) D7820: closed reduction of dislocation
- lxxiii) D7830: manipulation under anesthesia
- lxxiv) D7840: condylectomy
- lxxv) D7850: surgical discectomy, with/without implant
- lxxvi) D7852: disc repair
- lxxvii) D7854: synovectomy
- lxxviii) D7856: myotomy
- lxxix) D7858: joint reconstruction
- lxxx) D7860: arthrotomy
- lxxxi) D7865: arthroplasty
- lxxxii) D7870: arthrocentesis
- lxxxiii) D7871: non-arthroscopic lysis and lavage
- lxxxiv) D7872: arthroscopy – diagnosis, with or without biopsy
- lxxxv) D7873: arthroscopy: lavage and lysis of adhesions
- lxxxvi) D7874: arthroscopy: disc repositioning and stabilization
- lxxxvii) D7875: arthroscopy: synovectomy
- lxxxviii) D7876: arthroscopy: discectomy
- lxxxix) D7877: arthroscopy: debridement
- xc) D7910: suture of recent small wounds up to 5 cm
- xc) D7911: complicated suture – up to 5 cm
- xcii) D7912: complicated suture – greater than 5 cm
- xciii) D7920: skin graft (identify defect covered, location and type of graft)
- xciv) D7922: placement of intra-socket biological dressing to aid in hemostasis or clot stab
- xcv) D7941: osteotomy – mandibular rami
- xcvi) D7943: osteotomy – mandibulization, per site
- xcvii) D7944: osteotomy – segmented or subapical
- xcviii) D7945: osteotomy – body of mandible
- xcix) D7946: LeFort I (maxilla – total)
- c) D7947: LeFort I (maxilla – segmented)
- ci) D7948: LeFort II or LeFort III (osteoplasty of facial bones for midface hypoplasia or retrusion) – without bone graft
- cii) D7949: LeFort II or LeFort III – with bone graft
- ciii) D7950: osseous, osteoperiosteal, or cartilage graft of the mandible or maxilla – autogenous or nonautogenous, by report
- civ) D7951: sinus augmentation with bone or bone substitutes via a lateral open approach
- cv) D795: sinus augmentation via a vertical approach
- cvi) D7953: bone replacement graft for ridge preservation – per site
- cvii) D7955: repair of maxillofacial soft and/or hard tissue defect
- cvi) D7961: buccal / labial frenectomy (frenulectomy)

- cix) D7962: lingual frenectomy (frenulectomy)
- cx) D7963: surgical placement of craniofacial implant – extra oral
- cxii) D7970: excision of hyperplastic tissue – per arch
- cxiii) D7971: excision of pericoronal gingiva
- cxiiii) DD7972: surgical reduction of fibrous tuberosity
- cxv) D7979: non – surgical sialolithotomy
- cxvi) D7980: surgical sialolithotomy
- cxvii) D7981: excision of salivary gland, by report
- cxviii) D7982: sialodochoplasty
- cxix) D7983: closure of salivary fistula
- cxix) D7990: emergency tracheotomy
- cxx) D7991: coronoidectomy
- cxxi) D7993: surgical placement of craniofacial implant – extra oral
- cxxii) D7994: surgical placement: zygomatic implant
- cxxiii) D7995: synthetic graft – mandible or facial bones, by report
- cxxiv) D7996: implant-mandible for augmentation purposes (excluding alveolar ridge),
by report
- cxxv) D7997: appliance removal (not by dentist who placed appliance), includes
removal of archbar
- cxxvi) D7998: intraoral placement of a fixation device not in conjunction
with a fracture
- cxxvii) D7999: unspecified oral surgery procedure, by report
- c) Date: MM/DD/YYYY
- d) Related diagnoses
 - i) Fibrous epulis
 - ii) Flabby alveolar ridge
 - iii) Insufficient biological width
 - iv) Exostosis of jaw
 - v) Irregular alveolar process
 - vi) Sequestrum of jawbone
 - vii) Impacted tooth
 - viii) Other: Add text

As part of your pain management plan, what medications were prescribed?
(Select all that apply - checkboxes)

- None
- Acetaminophen (Tylenol)
 - Name
 - Dose
 - Frequency
- Ibuprofen (Advil, Motrin)
 - Name

- Dose
 - Frequency
- Acetaminophen and Ibuprofen (Advil Dual Action)
 - Name
 - Dose
 - Frequency
- Naproxen (Aleve)
 - Name
 - Dose
 - Frequency
- Opioids (Codeine, Hydrocodone, Oxycodone)
 - Name
 - Dose
 - Frequency
- Combination Drug (Tylenol #3, Norco, Vicodin, Percocet, Percodan, Vicoprofen)
 - Name
 - Dose
 - Frequency
- Antibiotics (Amoxicillin, Penicillin, Clindamycin, Erythromycin)
 - Name
 - Dose
 - Frequency
- Steroid (Medrol)
 - Name
 - Dose
 - Frequency
- Other medications for dental pain
 - Name
 - Dose
 - Frequency

Did the patient receive a long-acting local anesthetic as part of the procedure? (bupivacaine, etidocaine)

- Yes
- No

What do you expect the patient's pain level to be?

- 0 - 10 scale
 - No pain (0) - Moderate pain (5) - Worst imaginable pain (10)

- a. Immediate post-op (Day 1)
- b. Short-term (Day 3 - 5)
- c. Long -term (after the 1st week)

On what day post-procedure do you anticipate the patient will be free of pain?

Day 1-21

2. eCRF Day 21 – Data to be completed 21 days after visit

Did the patient contact your office regarding their procedure within 21 days after the procedure?

If so, was it via:

- No contact
- Phone call
- Email
- Office visit
 - Unscheduled
 - Scheduled

Did you change your pain management plan?

[Display Day 0 Plan]

- No
- Yes (Click all that apply)
 - Due to information received through the app
 - Due to office communication (phone call, email, office visit)
 - Other

If Yes, what were the changes (select all that apply.):

- Stop medications
- Increase medication dosage/frequency
- Decrease medication dosage/frequency
- Switch medications
 - Name
 - Dose
 - Frequency
- Add additional medications
 - Name
 - Dose

- Frequency
- Other
 - Free text

3. UTAUT Questionnaire for Practitioners after the study has been completed (via REDCap)

Please rate your agreement with each statement below (Select from 1 to 7, from Strongly Disagree {1} to Strongly Agree {7})

1. I find FollowApp useful in my job.
2. Using FollowApp enables me to accomplish tasks more quickly.
3. Using FollowApp increases my productivity.
4. Using FollowApp will increase my chances of increasing my income
5. My interaction with FollowApp is clear and understandable.
6. It is easy for me to become skillful at using FollowApp.
7. FollowApp is easy to use.
8. Learning to operate FollowApp is easy for me.
9. Using FollowApp is a good idea.
10. FollowApp makes work more interesting.
11. Working with FollowApp is fun.
12. I like working with FollowApp.
13. People who influence my behavior think that I should use FollowApp.
14. People who are important to me think that I should use FollowApp.
15. The clinical management has been helpful in the use of FollowApp.
16. In general, my dental office has supported the use of FollowApp.
17. I have the resources necessary to use FollowApp.
18. I have the knowledge necessary to use FollowApp.

19. FollowApp is not compatible with other systems I use.
20. A specific person (or group) is available for assistance with FollowApp difficulties.
21. I could complete a job or task using FollowApp if there was no one around to tell me what to do as I go.
22. I could complete a job or task using FollowApp if I could call someone for help if I got stuck.
23. I could complete a job or task using FollowApp if I had a lot of time to complete the job for which the software was provided.
24. I could complete a job or task using FollowApp if I had just the built-in help functionality for assistance.
25. I feel apprehensive about using FollowApp.
26. It scares me to think that I could lose a lot of information using FollowApp by hitting the wrong key.
27. I hesitate to use FollowApp for fear of making mistakes I cannot correct.
28. FollowApp is somewhat intimidating to me.
29. If available, I intend to continue using FollowApp.
30. If available, I predict I would continue using FollowApp.
31. If available, I plan to continue using FollowApp.

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NIDCR Grant Number: 1 UG3 DE029158-01

Principal Investigators: Elsbeth Kalenderian DDS, MPH, PhD

Muhammad Walji, PhD

NIDCR Program Official: Dena Fischer, DDS, MSD, MS

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POPS Study Patient Messaging Content

Version Number: 1.0

May 25, 2021

1. Patients' Invitational message content

Day 0: Welcome message

Message
Welcome to the POPS study! Over the next three weeks you will receive a series of messages from your provider to check on you after your procedure. Please click on the following link to get started: {{SURVEY_URL}}. For more information about this study, click here: {{study_info_link}}

Days 1, 3, 5, 7, 14, 21:

Message
Dear [patientfirstname], we would like to help you during your recovery. Please allow us to monitor your progress by answering this brief health check. {{SURVEY_URL}}. Best wishes, Dr. [DoctorLastname] [do not reply to this text]

Day 23: SUS

Message
Thank you for being part of the POPS dental research study. For this last survey, please click on the link to complete questions describing your experience using text messages as part of your recovery. By clicking on the link below, you are agreeing to take the survey. {{SURVEY_URL}} SUS Questionnaire

Day 24: Thank You

Message
Thank you for your participation in the POPS study, we appreciate your time and effort. Based on the number of surveys you completed, you will receive your compensation check in about 6 weeks via mail from the University of Alabama at Birmingham

Understanding Pain after Dental Procedures - POPS

NIDCR Protocol Number: 19-073-E

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POPS Study Patient Questionnaires

Version Number: 1.0

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1. mHealth app Questionnaire Day 0

Question	Answer
Welcome Screen	Hi, [patientfirstname] Let's get you on the road to recovery! (takes 2 min)

1.1 Pre-procedural pain question

	Question	Answer
1	How intense was your pain at its worst 24 hours before your procedure?	0 - 10 scale No pain (0) - Moderate pain (5) – Worst imaginable pain (10)

1.2 Patient's Demographic questionnaire

In order to provide you with compensation for this study, please answer the following questions:

Patient Demographic Form

- What is your sex/gender?
 - Male
 - Female
 - Other
- In what year were you born? Year
- Are you of Hispanic or Latino origin?
 - Yes
 - No
 - Prefer not to answer
- What racial categories best describe you? American Indian or Alaska Native
 (Check all that apply)
 - Asian
 - Native Hawaiian or Other Pacific Islander
 - Black or African-American
 - White or Caucasian
 - Prefer not to answer
- What type of dental insurance do you have? (Check all that apply)

No dental insurance

Private insurance (e.g., employer sponsored, commercial, HMO, etc.)

Public/government insurance (Medicaid, military or veterans' benefit, etc.)

Other

I don't know

Prefer not to answer

6. Indicate your highest level of formal education Less than high school diploma

High school diploma or GED

Some college/Associate degree

Bachelor's degree

Graduate degree

7. How would you describe the community where you live? Urban

Suburban

Rural

8. What is the ZIP Code where you live? _____

9. Including you, how many people live in your household? _____

10. What is your family's current annual household income from all sources? Up-to (less than or equal to) \$25,000

\$25,001-\$50,000

\$50,001-\$100,000

Over \$100,000

Prefer not to answer

Patient Demographic Form v1.0 – 2020-08-20

2. mHealth app Questionnaire for Patients on Days 1, 3, 5

	Question	Possible Answers
	Welcome Screen	Hi, [patientfirstname] Let's get you on the road to recovery! (takes 3 min)
1	Good morning, thanks for participating in your dentist's study. Please click next to let your dentist know how you are doing.	Next
2	What is your level of pain right now?	0 - 10 scale No pain (0) - Moderate pain (5) – Worst imaginable pain (10)

3	Is there any discomfort from the neighboring teeth or area close to where the procedure was done?	1. Yes 2. No 3. Not sure
4	What medications have you taken related to your dental procedure in the last 24 hours? Click all that apply	1. None 2. Acetaminophen (Tylenol) 3. Ibuprofen (Advil, Aleve, Motrin, Naproxen) 4. Opioids (Codeine, Hydrocodone, Oxycodone) 5. Antibiotics (Amoxicillin, Penicillin, Clindamycin, Erythromycin) 6. Other medications for dental pain
5	If other, please list the medications you are taking:	Patient has option to enter text
6	How often have you taken pain medications related to your dental procedure in the last 24 hours?	1. Less than recommended 2. As recommended 3. More than recommended
7	Does your bleeding seem better, about the same, or worse compared to yesterday?	1. No bleeding 2. Better 3. About the same 4. Worse
8	Does your swelling seem better, about the same, or worse compared to yesterday?	1. No swelling 2. Better 3. About the same 4. Worse
9	Do you have any questions or concerns for Dr. [doctorlastname]?	1. Yes 2. No
10	Please write down your questions or concerns for Dr {doctorlastname} and then press continue. For dental emergencies contact your clinic directly (contact information on the following screen).	Patient has option to enter text
End	Ending Screen	Thanks for your response. We'll keep working with Dr. [doctorlastname] to help you recover. The doctor and care team will monitor your responses and get in touch if further action is needed. For medical emergencies call 911 For dental emergencies call [clinic phone]

3. mHealth app Questionnaire for Patients on Day 7

	Question	Possible Answers
	Welcome Screen	Hi, [patientfirstname]. Let's get you on the road to recovery! (takes 3 min)
1	Good morning, thanks for participating in your dentist's study. Please click next to let your dentist know how you are doing.	Next
2	What is your level of pain right now?	0 - 10 scale No pain (0) - Moderate pain (5) – Worst imaginable pain (10)

3	How intense was your pain at its worst following your procedure?	0 - 10 scale No pain (0) - Moderate pain (5) - Worst imaginable pain (10)
4	Is there any discomfort from the neighboring teeth or area close to where the procedure was done?	1. Yes 2. No 3. Not sure
5	What medications have you taken related to your dental procedure in the last 24 hours? (Select all that apply)	1. None 2. Acetaminophen (Tylenol) 3. Ibuprofen (Advil, Aleve, Motrin, Naproxen) 4. Opioids (Codeine, Hydrocodone, Oxycodone) 5. Antibiotics (Amoxicillin, Penicillin, Clindamycin, Erythromycin) 6. Other medications for dental pain
6	If other, please list the medications you are taking:	Patient has option to enter text
7	How often have you taken pain medications related to your dental procedure in the last 24 hours?	1. Less than recommended 2. As recommended 3. More than recommended
8	Does your swelling seem better, about the same, or worse compared to yesterday?	1. No swelling 2. Better 3. About the same 4. Worse
9	In the past 7 days, have you found it uncomfortable to eat any foods because of the pain from your dental procedure?	The scale for the response is 0-10 Does not interfere to Completely interferes
10	In the past 7 days, have you had trouble pronouncing any words because of the pain from your dental procedure?	The scale for the response is 0-10 Does not interfere to Completely interferes
11	Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from doing activities out of bed such as walking sitting in a chair standing at the sink	The scale for the response is 0-10 Does not interfere to Completely interferes
12	Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from falling asleep	The scale for the response is 0-10 Does not interfere to Completely interferes
13	Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from staying asleep	The scale for the response is 0-10 Does not interfere to Completely interferes
14	Were you allowed to participate in decisions about your pain treatment as much as you wanted to?	0-10 Not at all to Very much so
15	Select the one number that best shows how satisfied you are with your pain treatment	0-10 Extremely Dissatisfied to Extremely Satisfied
16	Did you use any non-medicine methods to relieve your pain? Check all that apply:	1. None 2. Cold pack 3. Meditation 4. Deep Breathing 5. Listen to Music 6. Distraction (such as watching TV, reading) 7. Prayer

		8. Heat 9. Relaxation 10. Imagery or Visualization 11. Walking 12. Massage 13. Other
17	If other, please list the non-medicine method you used:	
18	Do you have any questions or concerns for Dr. [doctorlastname]?	1. Yes 2. No
19	Please write down your questions or concerns for Dr {doctorlastname} and then press continue. For dental emergencies contact your clinic directly (contact information on the following screen).	Patient has option to enter text
End	Ending Screen	Thanks for your response. We'll keep working with Dr. [doctorlastname] to help you recover. The doctor and care team will monitor your responses and get in touch if further action is needed. For medical emergencies call 911 For dental emergencies call [clinic phone]

4. mHealth app Questionnaire for Patients on Days 14 and 21

	Question	Possible Answers
	Welcome Screen	Hi, [patientfirstname]. Let's get you on the road to recovery! (takes 3 min)
1	Good morning, thanks for participating in your dentist's study. Please click next to let your dentist know how you are doing.	Next
2	What is your level of pain right now?	0 - 10 scale No pain (0) - Moderate pain (5) - Worst imaginable pain (10)
3	In the past 7 days, have you found it uncomfortable to eat any foods because of the pain from your dental procedure?	The scale for the response is 0-10 Does not interfere to Completely interferes
4	In the past 7 days, have you had trouble pronouncing any words because of the pain from your dental procedure?	The scale for the response is 0-10 Does not interfere to Completely interferes
5	Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from doing activities out of bed such as walking sitting in a chair standing at the sink	The scale for the response is 0-10 Does not interfere to Completely interferes
6	Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from falling asleep	The scale for the response is 0-10 Does not interfere to Completely interferes

7	Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from staying asleep	The scale for the response is 0-10 Does not interfere to Completely interferes
8	Is there any discomfort from the neighboring teeth or area close to where the procedure was done?	1. Yes 2. No 3. Not sure
9	What medications have you taken related to your dental procedure in the last 24 hours?	1. None 2. Acetaminophen (Tylenol) 3. Ibuprofen (Advil, Aleve, Motrin, Naproxen) 4. Opioids (Codeine, Hydrocodone, Oxycodone) 5. Antibiotics (Amoxicillin, Penicillin, Clindamycin, Erythromycin) 6. Other medications for dental pain
10	If other, please list the medications you are taking:	Patient has option to enter text
11	How often have you taken pain medications related to your dental procedure in the last 24 hours?	1. Less than recommended 2. As recommended 3. More than recommended
12	Do you have any questions or concerns for Dr. [doctorlastname]?	1. Yes 2. No
13	Please write down your questions or concerns for Dr {doctorlastname} and then press continue. For dental emergencies contact your clinic directly (contact information on the following screen).	Patient has option to enter text
End	Ending Screen	Thanks for your response. We'll keep working with Dr. [doctorlastname] to help you recover. The doctor and care team will monitor your responses and get in touch if further action is needed. For medical emergencies call 911 For dental emergencies call [clinic phone]

5. SUS Questionnaire for Patients on Day 23 (via app)

Welcome Screen: Hi [patientfirstname], thanks for participating in your dentist's study. Please click start to answer a few questions about your experience in the study (takes 3 min).
The following questions ask you to rate the text messaging platform (referred to as "the system") that has sent you text messages from your dentist these last three weeks. Please rate this system from 1 to 5. (Strongly Disagree {1} to Agree {5})
1. I think that I would like to use this system frequently.
2. I found the system unnecessarily complex.
3. I thought the system was easy to use.
4. I think that I would need the support of a technical person to be able to use this system.

5. I found the various functions in this system were well integrated.
6. I thought there was too much inconsistency in this system.
7. I would imagine that most people would learn to use this system very quickly.
8. I found the system very cumbersome to use.
9. I felt very confident using the system.
10. I needed to learn a lot of things before I could get going with this system.