SCRIPTS – OSP IN RCTS ON DENTAL CARIES

Software – Stata 15.0 (Stata Corp. College Station, USA)

Descriptive analysis

```
log using "C:\PATH\Descriptive analysis.log"

tab reportguideline

tab register

tab detailedmethodology

tab opensoftwares

tab scripts

tab sap

tab opendata

tab openpeerreview

tab openaccess

tab openaccessmerged

log close
```

Logistic regression analysis

Outcome: adopted any Open Science Practice

```
log using "C:\PATH\logistic_regression_OSP.log"

logit osp_dic,

logit osp_dic, or

logit osp_dic time , or

logit osp_dic i.continent , or

logit osp_dic i.goldopenaccess , or

logit osp_dic impactfactor2021 , or

note: Multiple model

logit osp_dic time i.goldopenaccess impactfactor2021 , or

log close
```

Logistic regression analysis

Outcome: adopted any Open Science Practice except Open Access

```
log using "C:\PATH\logistic_regression_OSP_no_OA.log"
logit osp_no_oa ,
logit osp_no_oa , or
logit osp_no_oa time , or
logit osp_no_oa i.continent , or
logit osp_no_oa i.goldopenaccess , or
logit osp_no_oa impactfactor2021 , or
note: final multiple model
logit osp_no_oa time impactfactor2021 , or
log close
```

```
-------------------------------------------------------------------------------
----------------------------------
      name:  <unnamed>
       log:  C:\Users\Fausto Mendes\Downloads\Descriptive analysis.log
  log type:  text
 opened on:  11 Nov 2024, 10:12:09

. tab reportguideline

     Report |
  guideline |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        217       66.98       66.98
          1 |        101       31.17       98.15
          2 |          6        1.85      100.00
------------+-----------------------------------
      Total |        324      100.00

. tab register

   Register |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        204       62.96       62.96
          1 |        120       37.04      100.00
------------+-----------------------------------
      Total |        324      100.00

. tab detailedmethodology

   Detailed |
methodology |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        322       99.38       99.38
          1 |          1        0.31       99.69
          2 |          1        0.31      100.00
------------+-----------------------------------
      Total |        324      100.00

. tab opensoftwares

       Open |
  softwares |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        234       72.22       72.22
          1 |         12        3.70       75.93
          2 |         78       24.07      100.00
------------+-----------------------------------
      Total |        324      100.00

. tab scripts

    Scripts |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        324      100.00      100.00
```

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------------+-----------------------------------
      Total |        324      100.00

. tab sap

        SAP |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        324      100.00      100.00
------------+-----------------------------------
      Total |        324      100.00

. tab opendata

  Open Data |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        309       95.37       95.37
          2 |          2        0.62       95.99
          3 |         13        4.01      100.00
------------+-----------------------------------
      Total |        324      100.00

. tab openpeerreview

  Open peer |
     review |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        316       97.53       97.53
          1 |          8        2.47      100.00
------------+-----------------------------------
      Total |        324      100.00

. tab openaccess

Open access |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        203       62.65       62.65
          1 |         66       20.37       83.02
          2 |         20        6.17       89.20
          3 |          3        0.93       90.12
          4 |         28        8.64       98.77
          5 |          3        0.93       99.69
          6 |          1        0.31      100.00
------------+-----------------------------------
      Total |        324      100.00

. *(1 variable, 324 observations pasted into data editor)

. tab openaccessmerged

Open access |
     merged |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        203       62.65       62.65
          1 |         98       30.25       92.90
```

```
          2 |          20        6.17       99.07
          3 |           3        0.93      100.00
------------+-----------------------------------
      Total |         324      100.00

. log close
      name:  <unnamed>
       log:  C:\Users\Fausto Mendes\Downloads\Descriptive analysis.log
  log type:  text
 closed on:  11 Nov 2024, 10:16:48
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```

```
-------------------------------------------------------------------------------
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      name:  <unnamed>
       log:  C:\Users\Fausto Mendes\Downloads\logistic_regression_OSP.log
  log type:  text
 opened on:  11 Nov 2024, 10:21:35

. logit osp_dic,

Iteration 0:   log likelihood = -210.14169
Iteration 1:   log likelihood = -210.14169

Logistic regression                             Number of obs     =        324
                                                LR chi2(0)        =       0.00
                                                Prob > chi2       =          .
Log likelihood = -210.14169                     Pseudo R2         =     0.0000

------------------------------------------------------------------------------
     osp_dic |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |   .6109091    .116335     5.25   0.000     .3828967    .8389215
------------------------------------------------------------------------------

. logit osp_dic, or

Iteration 0:   log likelihood = -210.14169
Iteration 1:   log likelihood = -210.14169

Logistic regression                             Number of obs     =        324
                                                LR chi2(0)        =       0.00
                                                Prob > chi2       =          .
Log likelihood = -210.14169                     Pseudo R2         =     0.0000

------------------------------------------------------------------------------
     osp_dic |       Odds   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |   1.842105   .2143013     5.25   0.000     1.466526     2.31387
------------------------------------------------------------------------------

. logit osp_dic time , or

Iteration 0:   log likelihood = -210.14169
Iteration 1:   log likelihood = -161.40492
Iteration 2:   log likelihood = -160.61684
Iteration 3:   log likelihood =  -160.6141
Iteration 4:   log likelihood =  -160.6141

Logistic regression                             Number of obs     =        324
                                                LR chi2(1)        =      99.06
                                                Prob > chi2       =     0.0000
Log likelihood =  -160.6141                     Pseudo R2         =     0.2357

------------------------------------------------------------------------------
     osp_dic | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
```

```
-------------+----------------------------------------------------------------
        time |    .808723   .0203689    -8.43   0.000       .76977    .8496471
       _cons |   16.77842   5.138312     9.21   0.000     9.206076     30.5793
------------------------------------------------------------------------------
Note: _cons estimates baseline odds.

. logit osp_dic i.continent , or

Iteration 0:   log likelihood = -210.14169
Iteration 1:   log likelihood =  -204.5812
Iteration 2:   log likelihood = -204.45003
Iteration 3:   log likelihood = -204.44956
Iteration 4:   log likelihood = -204.44956

Logistic regression                                     Number of obs     =        324
                                                        LR chi2(5)        =      11.38
                                                        Prob > chi2       =     0.0443
Log likelihood = -204.44956                             Pseudo R2         =     0.0271

------------------------------------------------------------------------------
     osp_dic | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   continent |
           1 |   1.920027   .6172655     2.03   0.042     1.022484    3.605441
           2 |   .7265512   .2718914    -0.85   0.393     .3489217     1.51288
           3 |   1.630212     .53253     1.50   0.135     .8593854    3.092432
           4 |   1.204545   .7850015     0.29   0.775     .3358116    4.320666
           5 |   6.194805   6.622841     1.71   0.088     .7620993    50.35513
             |
       _cons |    1.45283   .2593004     2.09   0.036     1.023983     2.06128
------------------------------------------------------------------------------
Note: _cons estimates baseline odds.

. logit osp_dic i.goldopenaccess , or

Iteration 0:   log likelihood = -210.14169
Iteration 1:   log likelihood = -202.20612
Iteration 2:   log likelihood = -202.09185
Iteration 3:   log likelihood = -202.09167
Iteration 4:   log likelihood = -202.09167

Logistic regression                                     Number of obs     =        324
                                                        LR chi2(1)        =      16.10
                                                        Prob > chi2       =     0.0001
Log likelihood = -202.09167                             Pseudo R2         =     0.0383

------------------------------------------------------------------------------
--
         osp_dic | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf.
Interval]
-----------------+------------------------------------------------------------
--
1.goldopenaccess |   3.938429   1.504213     3.59   0.000     1.863038
8.325769
```

```
           _cons |   1.495238   .1885022     3.19   0.001     1.167887
1.914344
------------------------------------------------------------------------------
--
Note: _cons estimates baseline odds.

. logit osp_dic impactfactor2021 , or

Iteration 0:   log likelihood = -210.14169
Iteration 1:   log likelihood = -204.01544
Iteration 2:   log likelihood = -203.97934
Iteration 3:   log likelihood = -203.97934

Logistic regression                             Number of obs     =        324
                                                LR chi2(1)        =      12.32
                                                Prob > chi2       =     0.0004
Log likelihood = -203.97934                     Pseudo R2         =     0.0293

------------------------------------------------------------------------------
--
         osp_dic | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf.
Interval]
-----------------+------------------------------------------------------------
--
impactfactor2021 |   1.214734   .0714288     3.31   0.001     1.082502
1.363118
           _cons |   .9753095    .212316    -0.11   0.909     .6365663
1.494312
------------------------------------------------------------------------------
--
Note: _cons estimates baseline odds.

. note: Multiple model

. logit osp_dic time i.goldopenaccess impactfactor2021 , or

Iteration 0:   log likelihood = -210.14169
Iteration 1:   log likelihood = -147.93255
Iteration 2:   log likelihood = -145.16806
Iteration 3:   log likelihood = -145.14078
Iteration 4:   log likelihood = -145.14077

Logistic regression                             Number of obs     =        324
                                                LR chi2(3)        =     130.00
                                                Prob > chi2       =     0.0000
Log likelihood = -145.14077                     Pseudo R2         =     0.3093

------------------------------------------------------------------------------
--
         osp_dic | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf.
Interval]
-----------------+------------------------------------------------------------
--
            time |   .8041708   .0219607    -7.98   0.000     .7622603
```

```
.8483856
1.goldopenaccess |   5.876508   2.780029     3.74   0.000     2.325076
14.85256
impactfactor2021 |    1.41352   .1087029     4.50   0.000     1.215746
1.643468
           _cons |   4.452688   1.704308     3.90   0.000     2.102891
9.428177
------------------------------------------------------------------------------
--
Note: _cons estimates baseline odds.

. log close
      name:  <unnamed>
       log:  C:\Users\Fausto Mendes\Downloads\logistic_regression_OSP.log
  log type:  text
 closed on:  11 Nov 2024, 10:24:35
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----------------------------------
      name:  <unnamed>
       log:  C:\Users\Fausto Mendes\Downloads\logistic_regression_OSP_no_OA.log
  log type:  text
 opened on:  11 Nov 2024, 10:25:31

. logit osp_no_oa ,

Iteration 0:   log likelihood = -217.39055
Iteration 1:   log likelihood = -217.39055

Logistic regression                             Number of obs     =        324
                                                LR chi2(0)        =      -0.00
                                                Prob > chi2       =          .
Log likelihood = -217.39055                     Pseudo R2         =    -0.0000

------------------------------------------------------------------------------
   osp_no_oa |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |  -.4260844   .1136422    -3.75   0.000    -.6488189   -.2033499
------------------------------------------------------------------------------

. logit osp_no_oa , or

Iteration 0:   log likelihood = -217.39055
Iteration 1:   log likelihood = -217.39055

Logistic regression                             Number of obs     =        324
                                                LR chi2(0)        =      -0.00
                                                Prob > chi2       =          .
Log likelihood = -217.39055                     Pseudo R2         =    -0.0000

------------------------------------------------------------------------------
   osp_no_oa |       Odds   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |   .6530612   .0742153    -3.75   0.000     .5226627    .8159927
------------------------------------------------------------------------------

. logit osp_no_oa time , or

Iteration 0:   log likelihood = -217.39055
Iteration 1:   log likelihood = -153.01661
Iteration 2:   log likelihood = -149.40258
Iteration 3:   log likelihood = -149.36333
Iteration 4:   log likelihood = -149.36332

Logistic regression                             Number of obs     =        324
                                                LR chi2(1)        =     136.05
                                                Prob > chi2       =     0.0000
Log likelihood = -149.36332                     Pseudo R2         =     0.3129

------------------------------------------------------------------------------
   osp_no_oa | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
```

```
-------------+----------------------------------------------------------------
        time |   .7384729   .0259025    -8.64   0.000     .6894108    .7910265
       _cons |   7.785718   2.227512     7.17   0.000     4.443937    13.64047
------------------------------------------------------------------------------
Note: _cons estimates baseline odds.

. logit osp_no_oa i.continent , or

Iteration 0:   log likelihood = -217.39055
Iteration 1:   log likelihood = -211.48013
Iteration 2:   log likelihood = -211.47039
Iteration 3:   log likelihood = -211.47039

Logistic regression                             Number of obs     =        324
                                                LR chi2(5)        =      11.84
                                                Prob > chi2       =     0.0370
Log likelihood = -211.47039                     Pseudo R2         =     0.0272

------------------------------------------------------------------------------
   osp_no_oa | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   continent |
           1 |   1.772894   .5351591     1.90   0.058     .9811653    3.203489
           2 |   .8864469   .3595783    -0.30   0.766     .4002869    1.963062
           3 |   2.230415   .6972829     2.57   0.010      1.20859    4.116161
           4 |   .7857143   .5519644    -0.34   0.731     .1982875    3.113393
           5 |   3.142857   2.112598     1.70   0.088     .8416959     11.7353
             |
       _cons |   .4772727   .0895102    -3.94   0.000     .3304669    .6892953
------------------------------------------------------------------------------
Note: _cons estimates baseline odds.

. logit osp_no_oa i.goldopenaccess , or

Iteration 0:   log likelihood = -217.39055
Iteration 1:   log likelihood = -217.13059
Iteration 2:   log likelihood = -217.13054
Iteration 3:   log likelihood = -217.13054

Logistic regression                             Number of obs     =        324
                                                LR chi2(1)        =       0.52
                                                Prob > chi2       =     0.4708
Log likelihood = -217.13054                     Pseudo R2         =     0.0012

------------------------------------------------------------------------------
--
       osp_no_oa | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf.
Interval]
-----------------+------------------------------------------------------------
--
1.goldopenaccess |   1.229703   .3515331     0.72   0.469      .702213
2.153435
           _cons |   .6273292   .0796292    -3.67   0.000     .4891582
.804529
```

```
------------------------------------------------------------------------------
--
Note: _cons estimates baseline odds.

. logit osp_no_oa impactfactor2021 , or

Iteration 0:   log likelihood = -217.39055
Iteration 1:   log likelihood = -198.82367
Iteration 2:   log likelihood = -198.80041
Iteration 3:   log likelihood = -198.80041

Logistic regression                             Number of obs     =        324
                                                LR chi2(1)        =      37.18
                                                Prob > chi2       =     0.0000
Log likelihood = -198.80041                     Pseudo R2         =     0.0855

------------------------------------------------------------------------------
--
      osp_no_oa | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf.
Interval]
----------------+-------------------------------------------------------------
--
impactfactor2021 |   1.394057   .0847765     5.46   0.000     1.237419
1.570524
           _cons |   .2035242   .0498122    -6.50   0.000     .1259754
.328811
------------------------------------------------------------------------------
--
Note: _cons estimates baseline odds.

. note: final multiple model

. logit osp_no_oa time impactfactor2021 , or

Iteration 0:   log likelihood = -217.39055
Iteration 1:   log likelihood = -129.78961
Iteration 2:   log likelihood = -124.44417
Iteration 3:   log likelihood = -124.34655
Iteration 4:   log likelihood = -124.34636
Iteration 5:   log likelihood = -124.34636

Logistic regression                             Number of obs     =        324
                                                LR chi2(2)        =     186.09
                                                Prob > chi2       =     0.0000
Log likelihood = -124.34636                     Pseudo R2         =     0.4280

------------------------------------------------------------------------------
--
      osp_no_oa | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf.
Interval]
----------------+-------------------------------------------------------------
--
           time |   .7006611     .02891    -8.62   0.000     .6462292
.7596777
```

```
impactfactor2021 |    1.68399   .1417892     6.19   0.000     1.427808
1.986138
           _cons |   1.932226   .6689538     1.90   0.057     .9803123
3.808478
------------------------------------------------------------------------------
--
Note: _cons estimates baseline odds.

. log close
      name:  <unnamed>
       log:  C:\Users\Fausto Mendes\Downloads\logistic_regression_OSP_no_OA.log
  log type:  text
 closed on:  11 Nov 2024, 10:27:15
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