Select soft-thresholding power

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SELECT DIAGNOSIS HERE

```
dx <- "schizo"
```

Read in count data

Gene expression data have been filtered, cleaned, explored, and regressed based on covariate exploration. Selecting soft-thresholding power (SFT) is the first step in WGCNA analysis.

Data should be in the format of a gene x sample matrix, saved as a csv called "gene_expression_data.csv" in the data/ directory.

```
## pickSoftThreshold: will use block size 3160.
    pickSoftThreshold: calculating connectivity for given powers...
      ..working on genes 1 through 3160 of 14155
##
      ..working on genes 3161 through 6320 of 14155
##
      ..working on genes 6321 through 9480 of 14155
##
      ..working on genes 9481 through 12640 of 14155
##
      ..working on genes 12641 through 14155 of 14155
##
      Power SFT.R.sq slope truncated.R.sq mean.k. median.k. max.k.
## 1
          1
               0.105 - 0.859
                                       0.913 2630.00
                                                      2.53e+03 4430.0
## 2
          2
               0.647 -1.570
                                       0.955
                                             775.00
                                                      6.82e+02 2070.0
## 3
          3
               0.832 -1.790
                                       0.970
                                              292.00
                                                      2.27e+02 1180.0
## 4
          4
               0.896 - 1.870
                                       0.972
                                              130.00
                                                      8.70e+01
                                                                754.0
## 5
          5
               0.926 -1.850
                                       0.975
                                               65.30
                                                      3.66e+01
                                                                 524.0
## 6
          6
               0.937 - 1.810
                                       0.971
                                               36.00
                                                      1.67e+01
                                                                 385.0
## 7
          7
               0.954 - 1.740
                                       0.976
                                               21.40
                                                      8.03e+00
                                                                 296.0
## 8
          8
               0.966 - 1.670
                                       0.978
                                               13.50
                                                      4.05e+00
                                                                 235.0
## 9
          9
               0.975 -1.610
                                       0.981
                                                8.99
                                                      2.13e+00
                                                                 192.0
## 10
         10
               0.968 - 1.570
                                       0.972
                                                6.24
                                                      1.17e+00
                                                                 162.0
## 11
               0.971 -1.530
                                                4.50
                                                      6.60e-01
                                                                139.0
         11
                                       0.972
## 12
         12
               0.971 - 1.490
                                       0.972
                                                3.34
                                                      3.80e-01
                                                                 121.0
## 13
                                                2.55
                                                      2.25e-01
                                                                 106.0
         13
               0.975 - 1.450
                                       0.975
## 14
         14
               0.976 - 1.420
                                       0.975
                                                1.99
                                                      1.36e-01
                                                                  93.9
               0.977 -1.390
## 15
         15
                                       0.976
                                                1.58
                                                      8.33e-02
                                                                  83.6
               0.981 -1.370
                                                1.28
                                                      5.16e-02
## 16
         16
                                       0.981
                                                                  74.9
```

