Data Visualization

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2024-10-22

```
#clear environment (RUN EACH TIME SCRIPT IS OPENED)
rm(list = ls())
```

#Load Packages

```
#Load in packages that will be used throughout the markdown.
packages <- c("tidyverse",
              "summarytools",
              "psych",
              "reader",
              "tidyr",
              "lme4",
              "lmerTest",
              "jtools",
              "interactions",
              "rio",
              "ggplot2",
              "dplyr",
              "here")
#invisible(lapply(packages, install.packages, character.only = TRUE)) #install packages (only run once)
invisible(lapply(packages, library, character.only = TRUE)) #load the packages
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.5
## v forcats   1.0.0     v stringr   1.5.1
## v ggplot2   3.5.1     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.1
## v purrr     1.0.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
##
## Attaching package: 'summarytools'
##
##
## The following object is masked from 'package:tibble':
##
##     view
##
##
##
## Attaching package: 'psych'
##
```

```
##
## The following objects are masked from 'package:ggplot2':
##
##     %+%, alpha
##
##
## Loading required package: NCmisc
##
##
## Attaching package: 'reader'
##
##
## The following objects are masked from 'package:NCmisc':
##
##     cat.path, get.ext, rmv.ext
##
##
## Loading required package: Matrix
##
##
## Attaching package: 'Matrix'
##
##
## The following objects are masked from 'package:tidyr':
##
##     expand, pack, unpack
##
##
##
## Attaching package: 'lmerTest'
##
##
## The following object is masked from 'package:lme4':
##
##     lmer
##
##
## The following object is masked from 'package:stats':
##
##     step
##
##
##
## Attaching package: 'jtools'
##
##
## The following object is masked from 'package:NCmisc':
##
##     standardize
##
##
##
## Attaching package: 'rio'
##
```

```
##
## The following object is masked from 'package:lme4':
##
##     factorize
##
##
## here() starts at /Users/dannymunozlopez/Library/CloudStorage/OneDrive-UW/Documents - interACT Lab/pr
```

#Load data

```
#load data.
data_dir = here() #Move to the digitalstress_p5_p6 folder (project folder)

data_folder <- "data" #Name of the folder containing the preprocessed data

data_folder_path <- file.path(data_dir, data_folder) #Path to the data within data folder

file_name <- "p5_p6_dss_promis_fully_scored.csv" #Name of the preprocessed data that was created in scr

peru5_6_data <- read.csv(here(data_folder_path,file_name), header = T, sep = ",", na.strings=c("", " ",

nrow(peru5_6_data) #N = 973 -- ok: does match N in script 1
```

```
## [1] 973
```

```
#check data
head(peru5_6_data, 20)
```

```
##    Peru3_4_5_6_ID wave_ID   wave      session exclude  group gender birthmth
## 1    3_4_5_6_1004  5_3835 Peru 5 survey3_6a11      no Group3   Male       12
## 2    3_4_5_6_1004   6_648 Peru 6 survey3_6a11      no Group3   Male       12
## 3    3_4_5_6_1016  5_3841 Peru 5 survey3_6a11      no Group3 Female       12
## 4    3_4_5_6_1016   6_658 Peru 6 survey3_6a11      no Group3 Female       12
## 5    3_4_5_6_1020  5_3844 Peru 5 survey3_6a11      no Group3 Female       12
## 6    3_4_5_6_1020   6_661 Peru 6 survey3_6a11      no Group3 Female       12
## 7    3_4_5_6_1022  5_3845 Peru 5 survey3_6a11      no Group3   Male       12
## 8    3_4_5_6_1035  5_3850 Peru 5 survey3_6a11      no Group3 Female       12
## 9    3_4_5_6_1039  5_3852 Peru 5 survey3_6a11      no Group3 Female       12
## 10   3_4_5_6_1039   6_673 Peru 6 survey3_6a11      no Group3 Female       12
## 11   3_4_5_6_1040  5_6295 Peru 5 survey3_6a11      no Group3 Female       12
## 12   3_4_5_6_1040   6_674 Peru 6 survey3_6a11      no Group3 Female       12
## 13   3_4_5_6_1055  5_3858 Peru 5 survey3_6a11      no Group3   Male       12
## 14   3_4_5_6_1069  5_8033 Peru 5 survey3_6a11      no Group3   Male        8
## 15   3_4_5_6_1069   6_693 Peru 6 survey3_6a11      no Group3   Male        8
## 16   3_4_5_6_1075  5_3863 Peru 5 survey3_6a11      no Group3 Female        3
## 17   3_4_5_6_1075   6_695 Peru 6 survey3_6a11      no Group3 Female        3
## 18   3_4_5_6_1085  5_3869 Peru 5 survey3_6a11      no Group3 Female       12
## 19   3_4_5_6_1085   6_700 Peru 6 survey3_6a11      no Group3   Male       12
## 20    3_4_5_6_110  5_3471 Peru 5 survey3_6a11      no Group3 Female        8
##    birthyr age_selfreport age_official_confirm grade_2021 startdate_formatted
## 1     2007           13.6                   13          8          2021-06-28
## 2     2007           14.0                   13          8          2021-11-15
## 3     2007           13.6                   13          7          2021-06-28
## 4     2007           14.0                   13          7          2021-11-29
## 5     2007           13.6                   13          8          2021-06-28
## 6     2007           14.0                   13          8          2021-11-16
```

```
## 7     2007          13.6                 13         8          2021-07-20
## 8     2007          13.6                 13         8          2021-06-28
## 9     2007          13.6                 13         8          2021-06-28
## 10    2007          14.0                 13         8          2021-11-18
## 11    2007          13.6                 13         8          2021-07-05
## 12    2007          14.0                 13         8          2021-11-18
## 13    2007          13.6                 13         8          2021-06-28
## 14    2007          14.0                 13         8          2021-07-20
## 15    2007          14.3                 14         8          2021-11-15
## 16    2008          13.3                 13         8          2021-06-28
## 17    2008          13.7                 13         8          2021-11-15
## 18    2007          13.6                 13         8          2021-06-28
## 19    2007          13.1                 13         8          2021-11-15
## 20    2008          12.9                 12         7          2021-06-28
##    promis_dep1 promis_dep2 promis_dep3 promis_dep4 promis_dep5 promis_dep6
## 1            3           1           2           2           1           3
## 2            2           1           2           3           1           3
## 3            3           3           3           3           3           3
## 4            3           3           3           3           3           3
## 5            2           1           1           4           1           1
## 6            2           2           1           1           1           2
## 7            1           3           2           1           3           1
## 8            4           4           3           3           4           4
## 9            2           2           1           3           2           1
## 10           1           2           1           1           1           1
## 11           2           1           1           2           2           1
## 12           4           5           5           4           5           5
## 13           2           1           1           2           1           2
## 14           4           3           3           3           3           4
## 15           2           2           2           2           2           1
## 16           2           2           2           3           2           2
## 17           1           1           1           3           1           2
## 18           5           3           5           5           3           5
## 19           2           2           2           3           2           2
## 20           5           5           5           5           5           5
##    promis_dep7 promis_dep8 promis_anx1 promis_anx2 promis_anx3 promis_anx4 dss1
## 1            2           3           2           2           1           1    1
## 2            1           2           1           2           3           2    2
## 3            3           3           2           3           3           3    2
## 4            3           3           3           3           3           2    2
## 5            2           2           2           2           1           1    1
## 6            2           1           2           2           2           2    1
## 7            4           5           2           3           1           3    2
## 8            3           3           2           4           4           4    1
## 9            3           1           5           3           2           5    1
## 10           1           3           2           1           1           1    1
## 11           1           1           2           2           1           2    4
## 12           4           1           3           5           5           5    4
## 13           2           2           2           1           1           2    1
## 14           3           5           4           2           3           3    2
## 15           1           1           1           1           2           2    2
## 16           1           3           2           3           1           4    2
## 17           3           2           2           1           2           3    2
## 18           3           3           3           3           4           3    3
```

```
## 19          2          3          1          3          2          3    3
## 20          5          5          5          5          5          5    2
##    dss2 dss3 dss4 dss5 dss7 dss8 dss9 dss10 dss11 dss12 dss13 dss14 dss15 dss16
## 1     3    2    1    2    2    2    2     2     1     2     2     1     1     2
## 2     2    2    1    1    2    2    2     2     1     2     2     1     1     2
## 3     3    2    2    2    2    2    2     2     2     2     2     2     3     2
## 4     2    2    2    2    2    3    2     2     2     3     2     2     2     1
## 5     2    3    1    1    2    2    1     1     1     1     1     2     2     1
## 6     3    2    1    1    2    1    1     1     1     1     1     1     2     1
## 7     3    1    1    1    1    1    1     1     1     2     1     1     1     2
## 8     2    4    4    4    4    4    4     4     3     3     2     1     3     1
## 9     1    1    1    2    1    1    1     1     1     1     1     1     1     1
## 10    2    1    1    1    1    1    1     1     1     1     1     1     1     1
## 11    3    1    2    2    1    2    1     2     2     2     2     1     2     2
## 12    3    2    2    2    2    3    2     2     2     2     1     1     2     3
## 13    2    1    1    1    1    1    1     1     1     1     1     1     1     2
## 14    3    2    2    1    1    3    1     1     4     3     2     1     1     2
## 15    4    3    1    1    2    2    1     2     3     1     1     1     1     3
## 16    2    1    1    1    1    1    1     1     1     1     1     1     1     2
## 17    2    1    2    2    1    3    1     1     1     2     2     2     1     1
## 18    2    2    2    2    2    3    2     2     2     3     2     2     2     2
## 19    2    1    2    2    2    4    2     3     2     3     2     2     1     2
## 20    4    1    3    2    1    5    1     1     1     5     1     1     1     1
##    dss17 dss19 dss20 careless count_all_na avail_stress approval_anx fomo
## 1      2     2     1    FALSE            0     1.333333         2.00 1.25
## 2      2     1     2    FALSE            0     1.666667         2.00 1.00
## 3      2     2     2    FALSE            0     2.000000         2.00 2.25
## 4      2     1     1    FALSE            0     1.333333         2.00 2.00
## 5      2     1     1    FALSE            0     1.000000         1.75 1.50
## 6      1     1     1    FALSE            0     1.000000         1.50 1.25
## 7      1     1     1    FALSE            0     1.333333         1.00 1.00
## 8      3     1     1    FALSE            0     1.000000         4.00 3.00
## 9      1     1     1    FALSE            0     1.000000         1.00 1.25
## 10     1     1     1    FALSE            0     1.000000         1.00 1.00
## 11     3     3     3    FALSE            0     3.333333         1.25 1.75
## 12     4     3     4    FALSE            0     3.666667         2.00 1.75
## 13     1     1     1    FALSE            0     1.000000         1.00 1.00
## 14     2     1     1    FALSE            0     1.333333         1.25 1.25
## 15     1     2     2    FALSE            0     2.000000         2.00 1.00
## 16     3     1     1    FALSE            0     1.333333         1.00 1.00
## 17     1     2     2    FALSE            0     2.000000         1.00 1.75
## 18     3     2     3    FALSE            0     2.666667         2.00 2.00
## 19     3     3     3    FALSE            0     3.000000         2.00 1.75
## 20     3     3     1    FALSE            0     2.000000         1.00 1.75
##    connect_overload online_vigil dss_total_avg promis_anx_sum promis_dep_sum
## 1          1.666667         2.25      1.722222              6             17
## 2          1.666667         2.00      1.666667              8             15
## 3          2.000000         2.25      2.111111             11             24
## 4          1.666667         2.50      1.944444             11             24
## 5          1.000000         1.75      1.444444              6             14
## 6          1.000000         1.50      1.277778              8             12
## 7          1.333333         1.75      1.277778              9             20
## 8          2.000000         3.00      2.722222             14             28
## 9          1.000000         1.00      1.055556             15             15
```

```
## 10         1.000000         1.25      1.055556             5             11
## 11         2.000000         2.50      2.111111             7             11
## 12         2.000000         3.00      2.444444            18             33
## 13         1.333333         1.25      1.111111             6             13
## 14         2.666667         2.75      1.833333            12             28
## 15         2.333333         2.00      1.833333             6             13
## 16         1.333333         1.75      1.277778            10             17
## 17         1.333333         2.00      1.611111             8             14
## 18         2.000000         2.75      2.277778            13             32
## 19         2.000000         3.00      2.333333             9             18
## 20         1.000000         4.25      2.055556            20             40
```

```
tail(peru5_6_data, 20)
```

```
##     Peru3_4_5_6_ID wave_ID   wave      session exclude  group gender birthmth
## 954    3_4_5_6_886  5_3801 Peru 5 survey3_6a11      no Group3 Female        9
## 955    3_4_5_6_886   6_573 Peru 6 survey3_6a11      no Group3 Female        9
## 956    3_4_5_6_901  5_6255 Peru 5 survey3_6a11      no Group3   Male        9
## 957    3_4_5_6_901   6_585 Peru 6 survey3_6a11      no Group3   Male        9
## 958    3_4_5_6_919  5_3811 Peru 5 survey3_6a11      no Group3 Female        9
## 959    3_4_5_6_923  5_3812 Peru 5 survey3_6a11      no Group3 Female        9
## 960    3_4_5_6_923   6_598 Peru 6 survey3_6a11      no Group3 Female        9
## 961    3_4_5_6_942  5_3819 Peru 5 survey3_6a11      no Group3 Female        9
## 962    3_4_5_6_942   6_612 Peru 6 survey3_6a11      no Group3 Female        9
## 963    3_4_5_6_952  5_3824 Peru 5 survey3_6a11      no Group3   Male       12
## 964    3_4_5_6_952   6_615 Peru 6 survey3_6a11      no Group3   Male       12
## 965     3_4_5_6_96  5_3465 Peru 5 survey3_6a11      no Group3   Male        9
## 966     3_4_5_6_96    6_84 Peru 6 survey3_6a11      no Group3 Female        9
## 967    3_4_5_6_962  5_3826 Peru 5 survey3_6a11      no Group3 Female       12
## 968    3_4_5_6_963   6_623 Peru 6 survey3_6a11      no Group3 Female        9
## 969     3_4_5_6_98  5_3466 Peru 5 survey3_6a11      no Group3 Female       12
## 970     3_4_5_6_98    6_85 Peru 6 survey3_6a11      no Group3 Female       12
## 971    3_4_5_6_985  5_3832 Peru 5 survey3_6a11      no Group3 Female       12
## 972    3_4_5_6_985   6_638 Peru 6 survey3_6a11      no Group3 Female       12
## 973    3_4_5_6_989   6_641 Peru 6 survey3_6a11      no Group3 Female       12
##     birthyr age_selfreport age_official_confirm grade_2021 startdate_formatted
## 954    2007           17.6                    13          8          2021-06-28
## 955    2007           12.7                    14          8          2021-11-16
## 956    2007           12.7                    13          8          2021-06-28
## 957    2007           13.9                    14          8          2021-11-15
## 958    2007           15.7                    13          8          2021-06-30
## 959    2007           13.7                    13          8          2021-06-28
## 960    2007           14.0                    14          8          2021-11-15
## 961    2007           13.8                    13          8          2021-07-20
## 962    2007           14.1                    14          8          2021-11-15
## 963    2007           13.6                    13          8          2021-06-28
## 964    2007           14.0                    13          8          2021-11-15
## 965    2008           16.9                    12          7          2021-06-28
## 966    2008           15.6                    13          7          2021-11-15
## 967    2007           13.6                    13          8          2021-06-28
## 968    2007           14.5                    14          8          2021-11-15
## 969    2007           15.0                    13          8          2021-06-28
## 970    2007           15.9                    13          8          2021-11-15
## 971    2007           12.9                    13          8          2021-06-28
## 972    2007           12.9                    13          8          2021-11-15
```

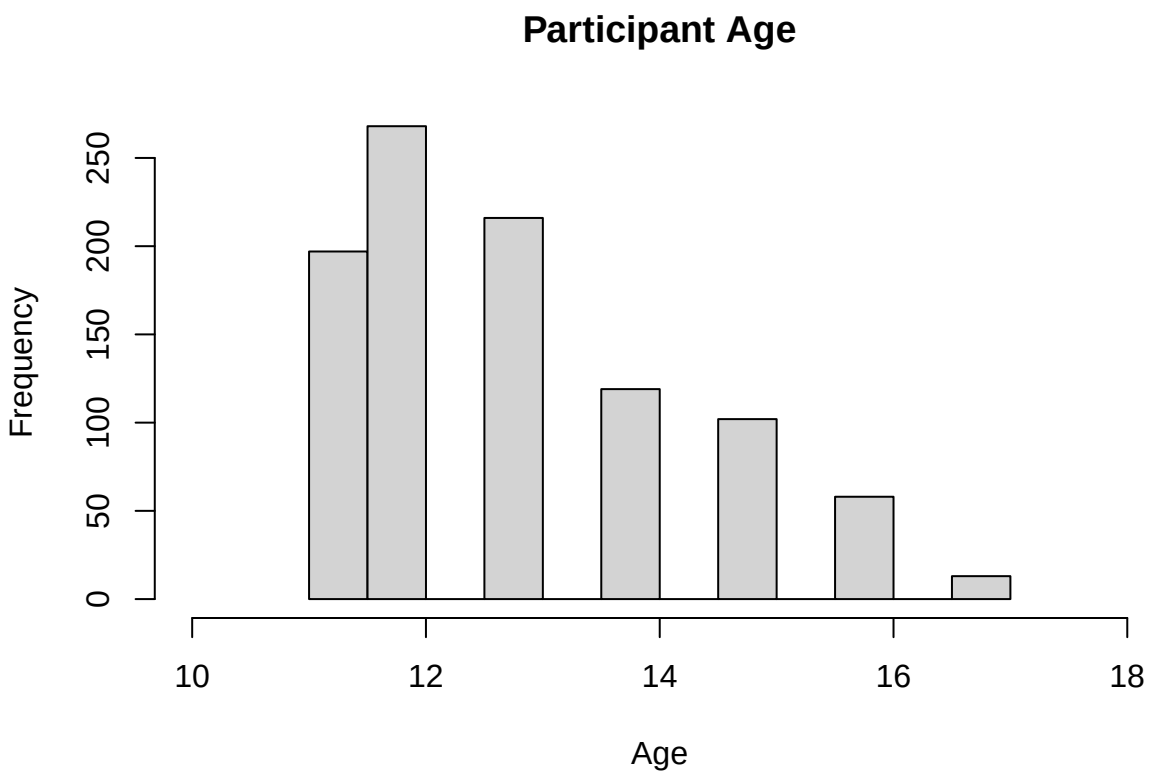
```
## 973    2007          14.1                  13         8          2021-11-15
##     promis_dep1 promis_dep2 promis_dep3 promis_dep4 promis_dep5 promis_dep6
## 954           3           3           3           4           3           3
## 955           3           3           4           4           3           4
## 956           1           1           3           3           1           1
## 957           2           1           2           2           1           2
## 958           2           1           1           1           1           1
## 959           4           2           2           3           3           4
## 960           5           5           5           5           5           5
## 961           5           5           4           4           5           5
## 962           3           5           3           3           5           4
## 963           1           1           1           1           1           1
## 964           2           1           1           2           1           2
## 965           5           5           3           5           5           5
## 966           4           5           3           5           5           5
## 967           3           2           5           5           2           3
## 968           3           4           5           5           5           3
## 969           2           4           2           3           3           2
## 970           3           3           4           4           3           3
## 971           4           5           5           5           5           4
## 972           4           5           4           5           4           4
## 973           2           3           1           1           3           1
##     promis_dep7 promis_dep8 promis_anx1 promis_anx2 promis_anx3 promis_anx4
## 954           4           2           2           4           3           3
## 955           4           3           4           4           3           4
## 956           2           2           3           2           3           3
## 957           3           2           2           3           2           2
## 958           1           2           2           1           3           2
## 959           4           4           3           5           3           3
## 960           5           5           5           5           5           5
## 961           5           5           5           5           5           5
## 962           5           5           3           5           5           3
## 963           1           1           1           3           2           1
## 964           1           1           2           3           3           2
## 965           4           5           5           3           3           4
## 966           4           4           5           4           3           4
## 967           3           3           2           4           4           4
## 968           3           4           5           3           5           3
## 969           4           1           2           1           3           5
## 970           4           3           3           2           1           4
## 971           4           3           3           4           4           5
## 972           4           4           3           5           5           5
## 973           3           1           2           1           1           1
##     dss1 dss2 dss3 dss4 dss5 dss7 dss8 dss9 dss10 dss11 dss12 dss13 dss14 dss15
## 954    1    2    4    3    2    4    4    4     4     5     3     2     1     2
## 955    3    4    5    2    2    5    4    5     5     4     3     2     2     2
## 956    3    3    2    2    2    2    3    2     2     3     3     2     1     1
## 957    2    2    2    2    2    2    2    2     2     2     2     2     2     3
## 958    3    4    2    1    1    2    2    1     1     1     2     1     1     1
## 959    3    2    2    3    2    3    2    1     2     2     2     3     1     2
## 960    1    3    2    2    2    1    2    2     1     2     3     2     2     2
## 961    2    1    1    3    3    1    3    2     3     3     3     4     1     1
## 962    2    5    2    4    5    1    3    1     2     3     5     5     2     4
## 963    3    4    1    2    2    1    3    1     1     3     1     3     2     1
```

```
## 964    1    2    1    1    1    1    1    1    1    1    1    1    1    2
## 965    3    2    4    2    2    1    1    2    3    1    1    1    1    1
## 966    3    3    4    2    2    4    3    3    3    2    3    1    2    1
## 967    4    5    4    3    3    3    5    3    3    2    5    3    2    4
## 968    3    3    4    3    5    3    2    4    4    5    5    5    2    5
## 969    2    3    1    1    1    1    5    1    1    2    3    4    2    2
## 970    3    5    5    1    1    1    5    2    3    4    3    2    2    2
## 971    3    4    1    4    4    1    5    3    2    2    3    1    1    2
## 972    4    4    3    3    3    3    4    3    3    2    3    3    2    4
## 973    1    1    1    1    1    1    1    1    1    3    1    1    1    1
##     dss16 dss17 dss19 dss20 careless count_all_na avail_stress approval_anx
## 954     1     2     1     1    FALSE            0     1.000000         4.00
## 955     3     4     3     3    FALSE            0     3.000000         5.00
## 956     2     2     3     3    FALSE            0     3.000000         2.00
## 957     1     2     2     2    FALSE            0     2.000000         2.00
## 958     2     3     1     1    FALSE            0     1.666667         1.50
## 959     2     2     2     3    FALSE            0     2.666667         2.00
## 960     1     3     3     1    FALSE            0     1.666667         1.50
## 961     4     4     2     2    FALSE            0     2.000000         1.75
## 962     5     4     1     1    FALSE            0     1.333333         1.50
## 963     4     2     1     2    FALSE            0     2.000000         1.00
## 964     2     3     1     1    FALSE            0     1.000000         1.00
## 965     1     3     3     2    FALSE            0     2.666667         2.50
## 966     1     4     3     4    FALSE            0     3.333333         3.50
## 967     2     5     5     5    FALSE            0     4.666667         3.25
## 968     5     3     3     2    FALSE            0     2.666667         3.75
## 969     2     3     2     2    FALSE            0     2.000000         1.00
## 970     3     2     2     2    FALSE            0     2.333333         2.75
## 971     3     2     2     2    FALSE            0     2.333333         1.75
## 972     3     4     4     3    FALSE            0     3.666667         3.00
## 973     4     1     1     1    FALSE            0     1.000000         1.00
##     fomo connect_overload online_vigil dss_total_avg promis_anx_sum
## 954 2.00         2.666667         2.75      2.555556             12
## 955 2.00         3.000000         3.75      3.388889             15
## 956 1.50         2.333333         2.75      2.277778             11
## 957 2.25         1.666667         2.00      2.000000              9
## 958 1.00         1.333333         2.75      1.666667              8
## 959 2.00         2.333333         2.00      2.166667             14
## 960 2.00         1.666667         2.75      1.944444             20
## 961 2.00         3.666667         2.75      2.388889             20
## 962 3.75         4.333333         4.25      3.055556             16
## 963 1.75         3.333333         2.50      2.055556              7
## 964 1.25         1.333333         1.75      1.277778             10
## 965 1.50         1.000000         1.75      1.888889             15
## 966 1.75         1.333333         3.25      2.666667             16
## 967 3.00         2.333333         5.00      3.666667             14
## 968 3.75         5.000000         3.25      3.666667             16
## 969 1.50         2.666667         3.50      2.111111             11
## 970 1.50         3.000000         3.75      2.666667             10
## 971 2.75         2.000000         3.50      2.500000             16
## 972 3.00         2.666667         3.75      3.222222             18
## 973 1.00         2.666667         1.00      1.277778              5
##     promis_dep_sum
## 954             25
```

```
## 955              28
## 956              14
## 957              15
## 958              10
## 959              26
## 960              40
## 961              38
## 962              33
## 963               8
## 964              11
## 965              37
## 966              35
## 967              26
## 968              32
## 969              21
## 970              27
## 971              35
## 972              34
## 973              15
```

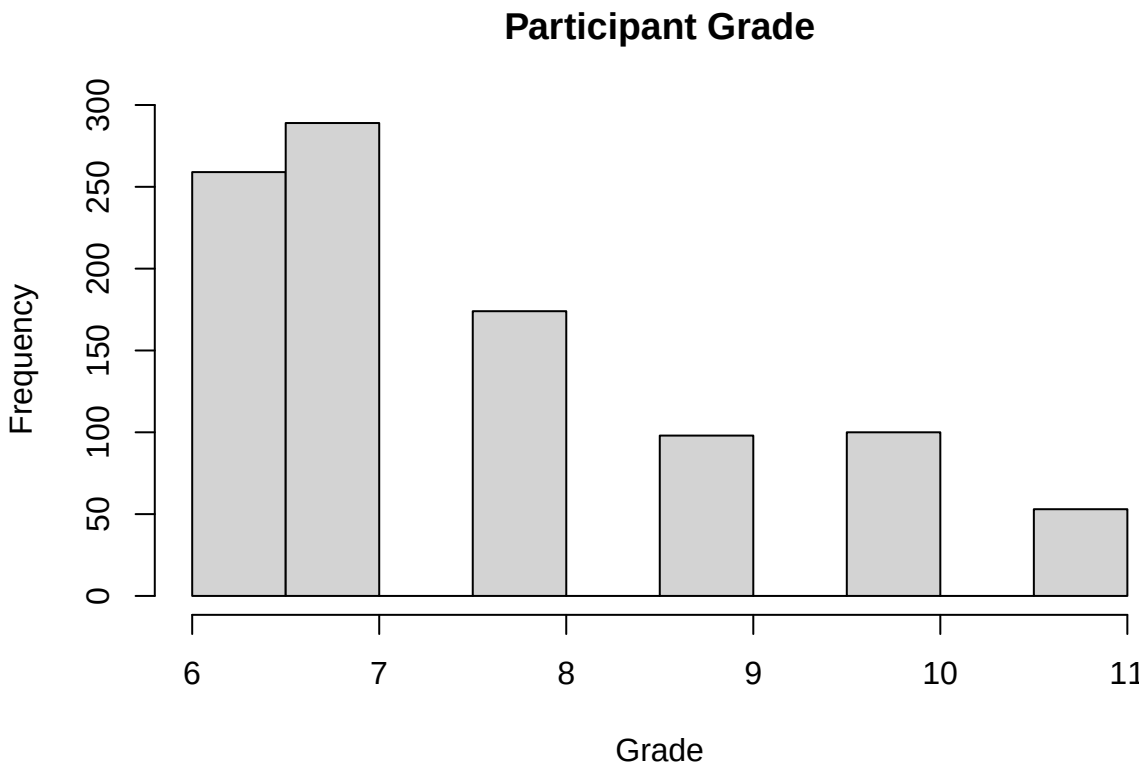
#All Data ##Histogram of variables ###Age & Grade

```
#Age
hist(peru5_6_data$age_official_confirm,
     main="Participant Age",
     xlab="Age",
     xlim=c(10, 18))
```




```
#Grade
hist(peru5_6_data$grade_2021,
     main="Participant Grade",
```

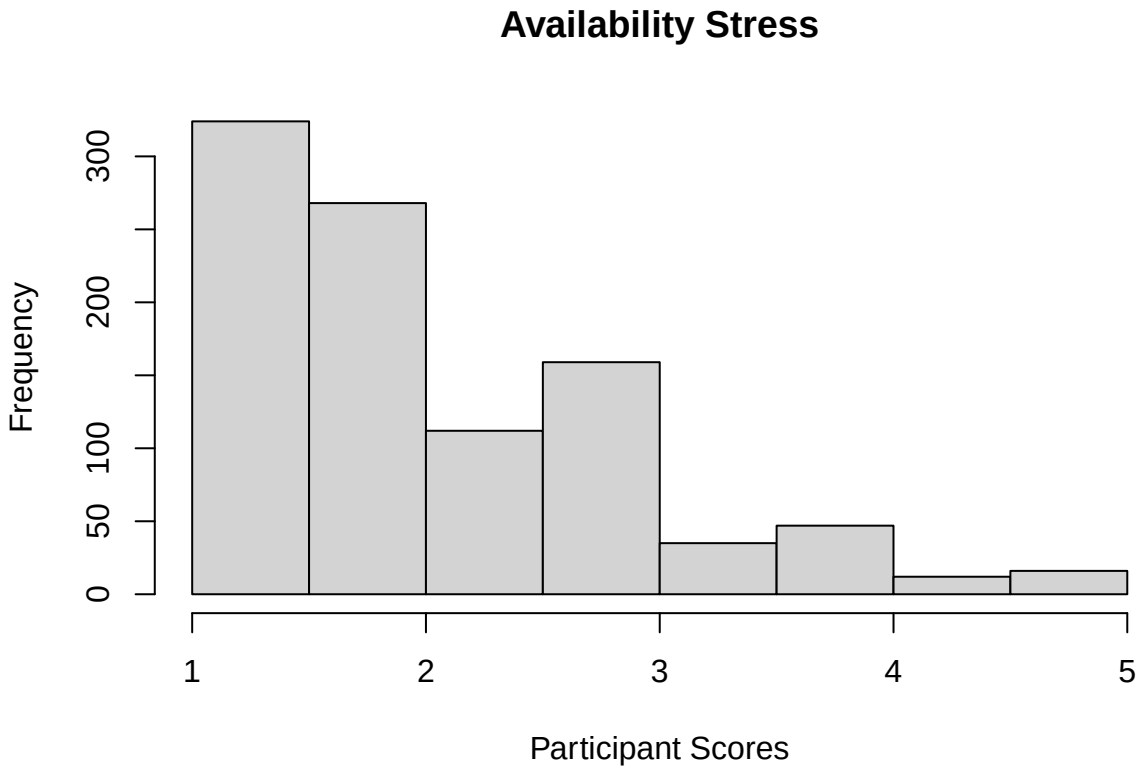
```
     xlab="Grade",
     xlim=c(6, 11))
```



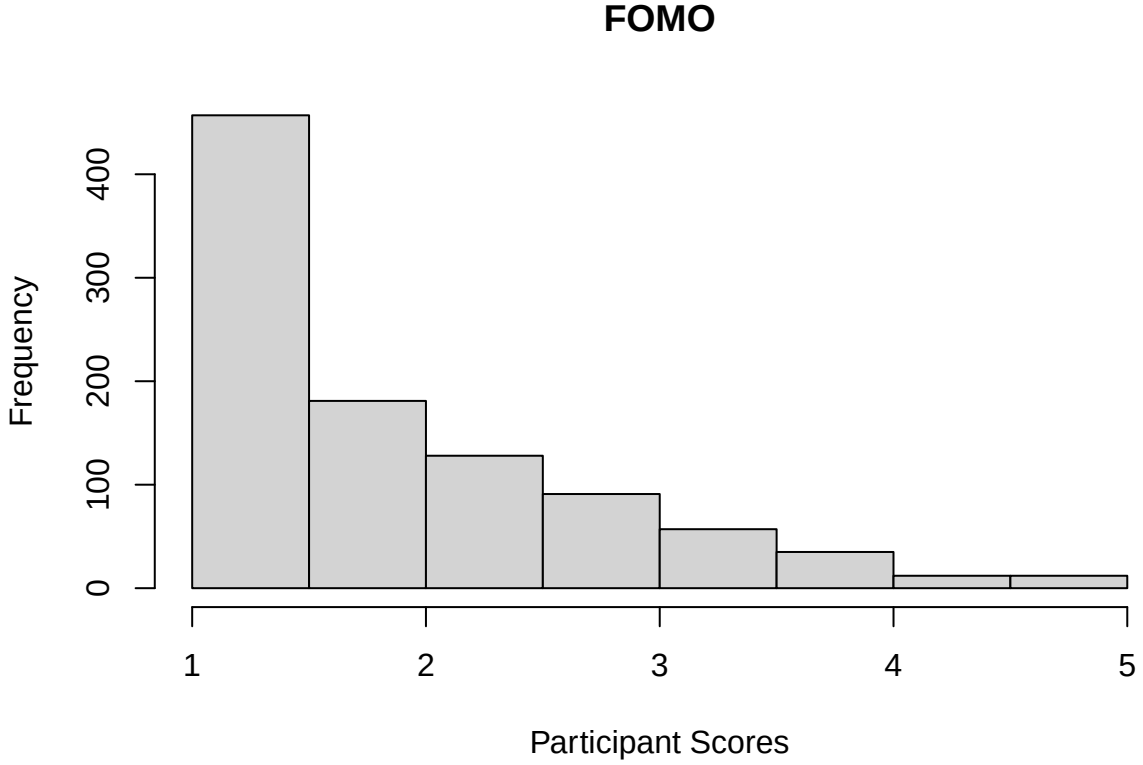

```
#All have a positive skew
```

###Digital Stress

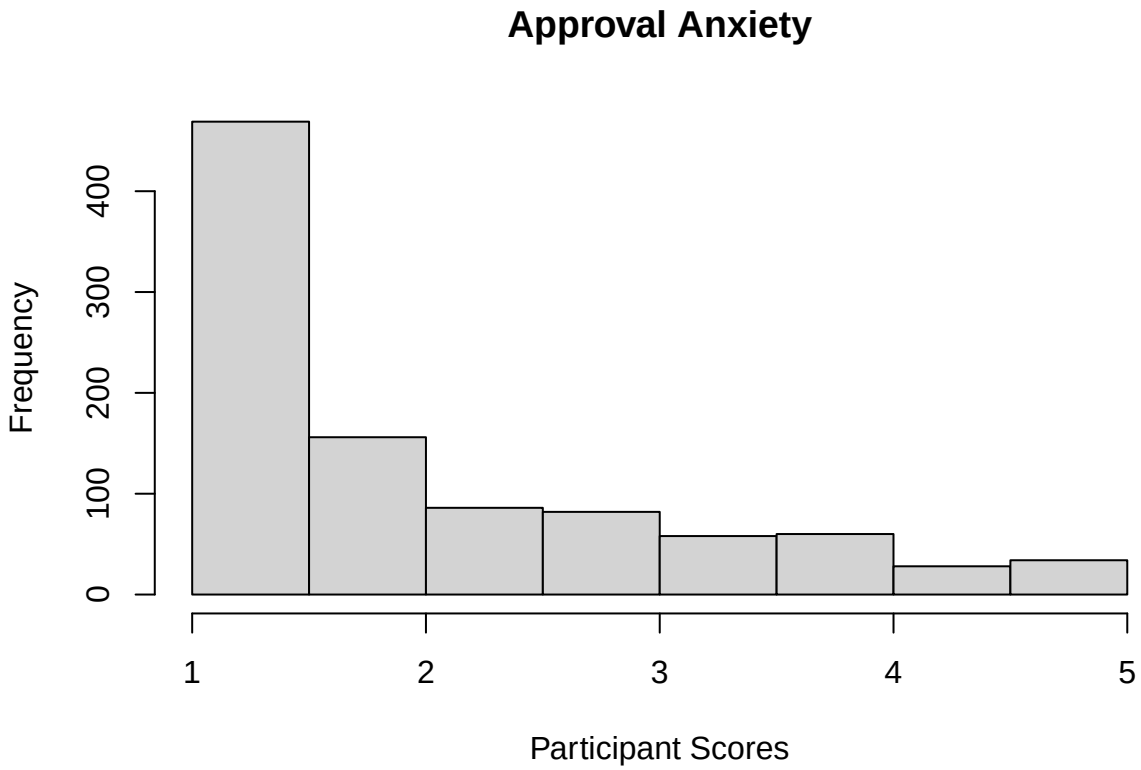
```
#Availability Stress
hist(peru5_6_data$avail_stress,
     main="Availability Stress",
     xlab="Participant Scores",
     xlim=c(1, 5))
```



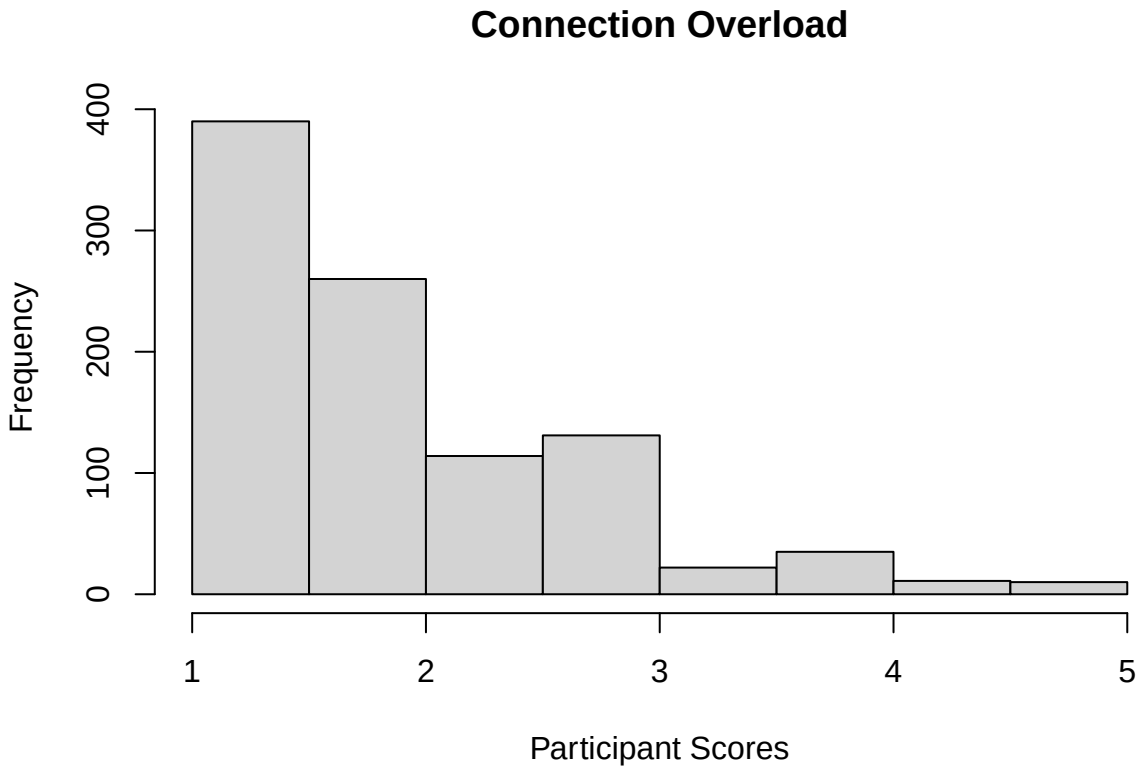

```r
#FOMO
hist(peru5_6_data$fomo,
     main="FOMO",
     xlab="Participant Scores",
     xlim=c(1, 5))
```



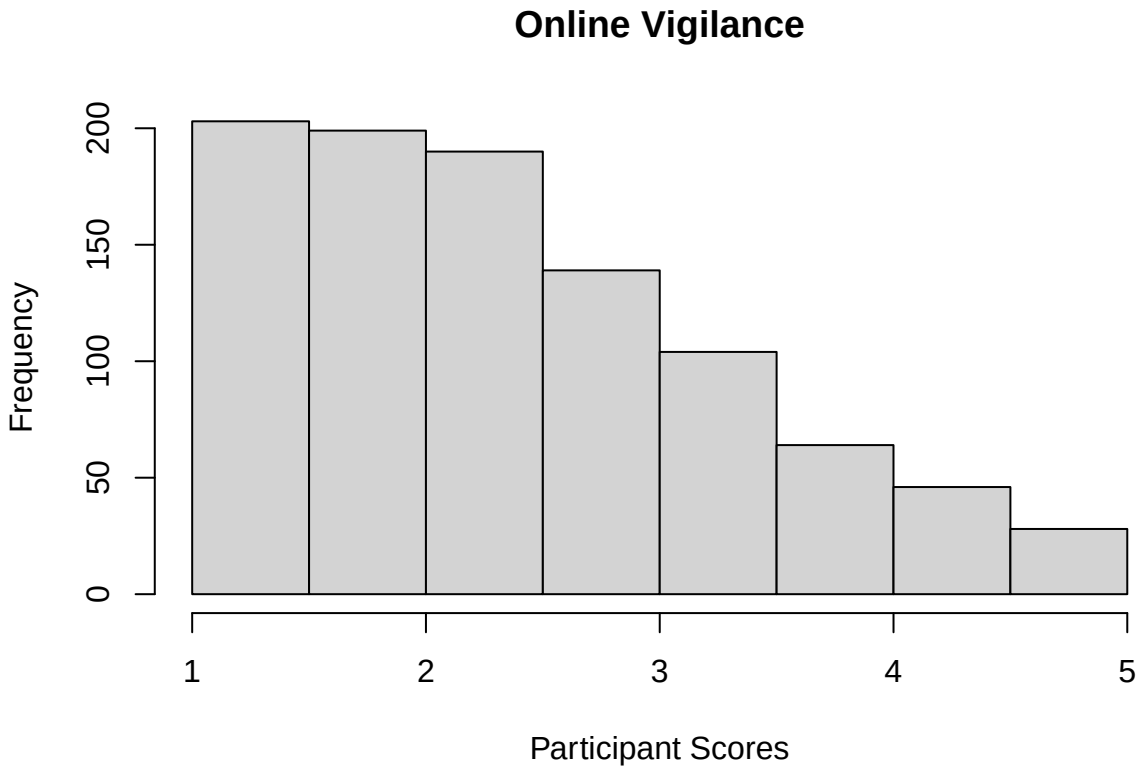
```r
#Approval Anxiety
hist(peru5_6_data$approval_anx,
     main="Approval Anxiety",
     xlab="Participant Scores",
     xlim=c(1, 5))
```



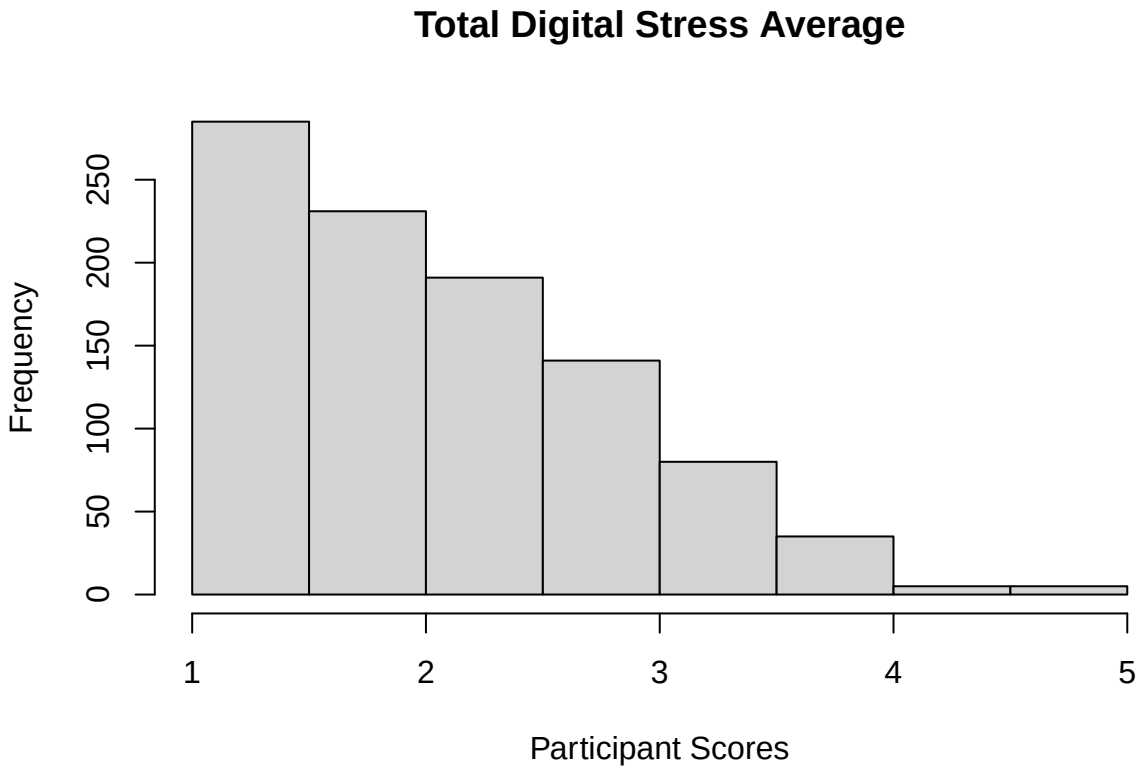

```r
#Connection Overload
hist(peru5_6_data$connect_overload,
     main="Connection Overload",
     xlab="Participant Scores",
     xlim=c(1, 5),)
```




```r
#Online Vigilance
hist(peru5_6_data$online_vigil,
     main="Online Vigilance",
     xlab="Participant Scores",
     xlim=c(1, 5))
```



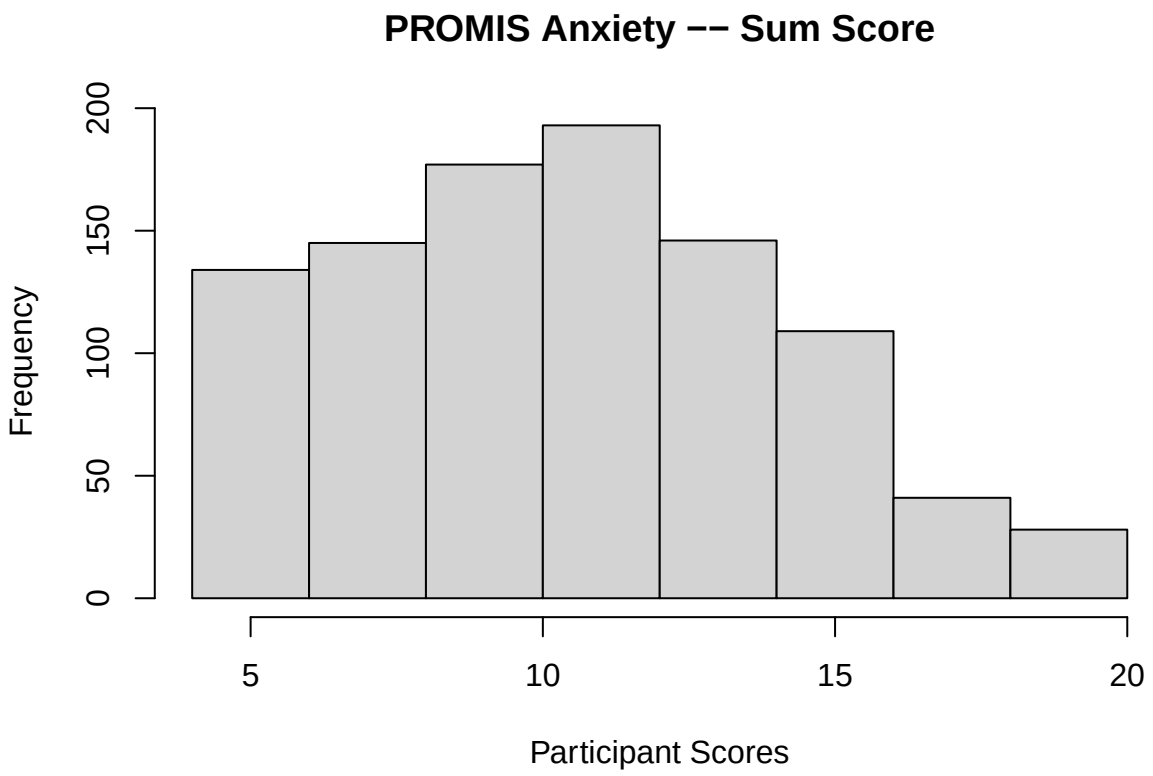
```r
#Total DSS
hist(peru5_6_data$dss_total_avg,
     main="Total Digital Stress Average",
     xlab="Participant Scores",
     xlim=c(1, 5))
```




```r
#All have a positive skew
```

###PROMIS Anxiety

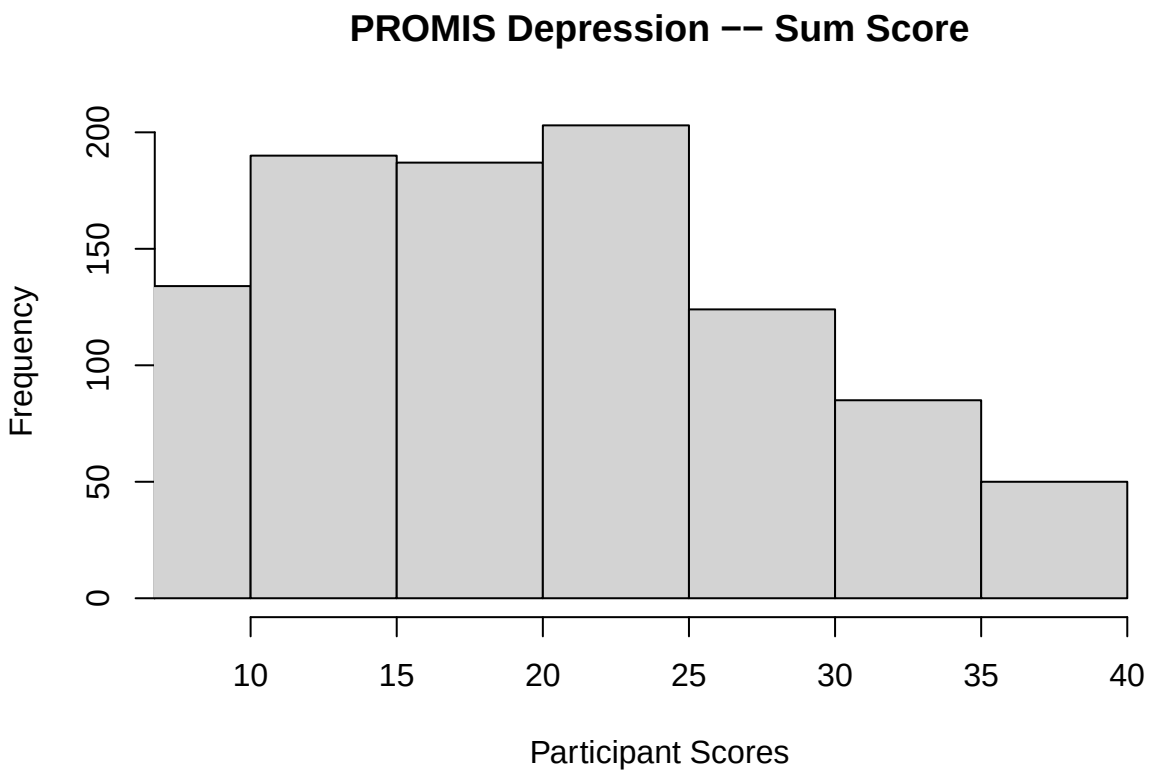
```r
hist(peru5_6_data$promis_anx_sum,
     main="PROMIS Anxiety -- Sum Score",
     xlab="Participant Scores",
     xlim=c(4, 20))
```




```
#Normal distribution -- maybe slight positive skew?
```

###PROMIS Depression

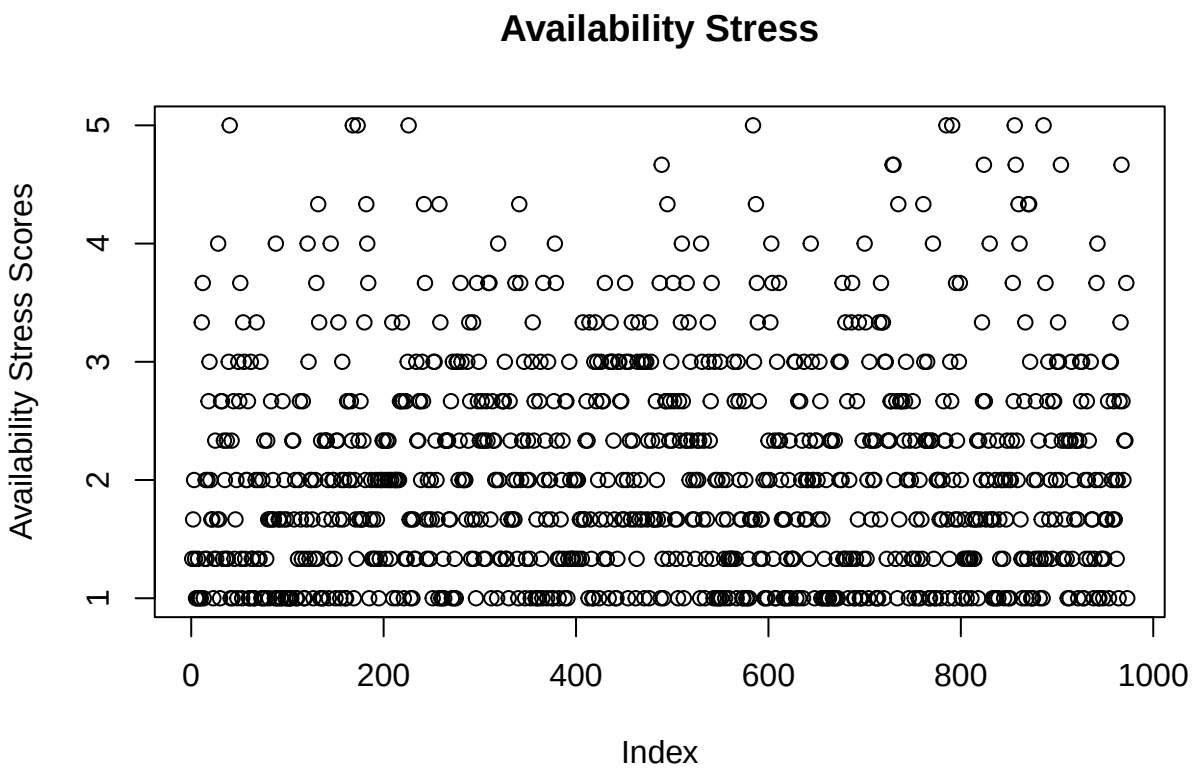
```
hist(peru5_6_data$promis_dep_sum,
     main="PROMIS Depression -- Sum Score",
     xlab="Participant Scores",
     xlim=c(8, 40))
```



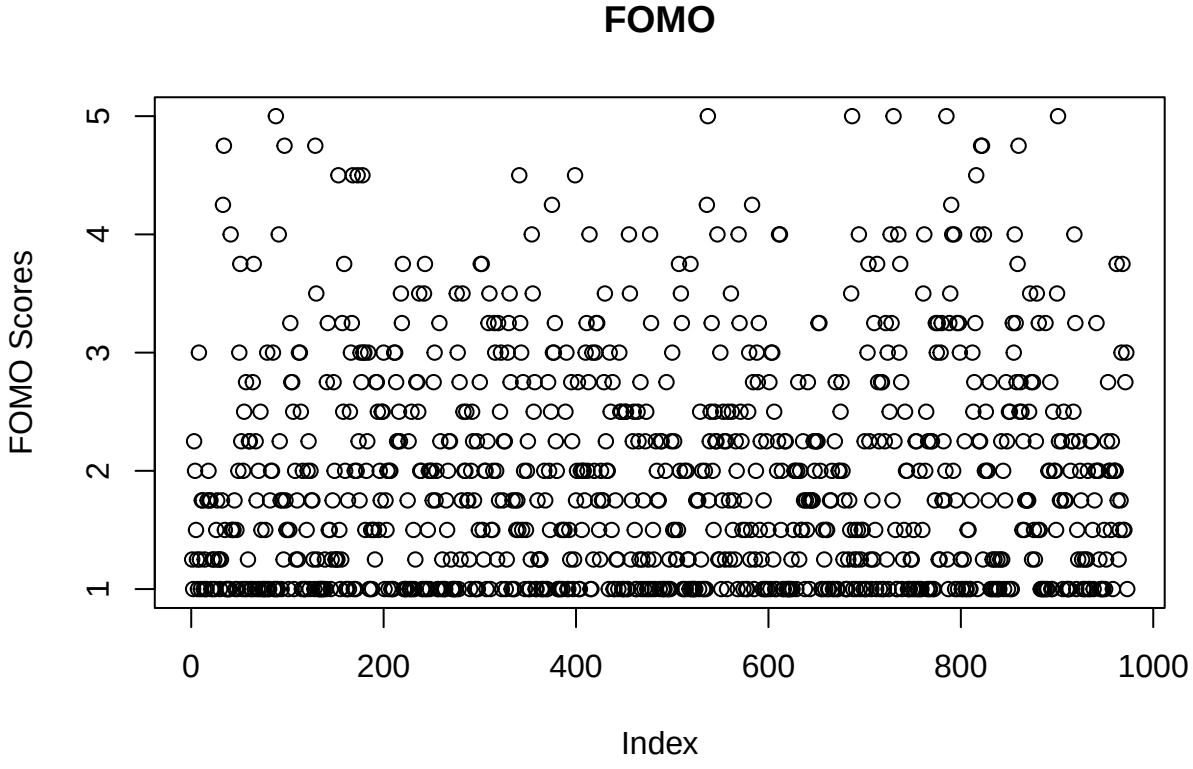

```
#Normal distribution -- maybe slight positive skew?
```

##Scatterplot of variables ###Digital Stress

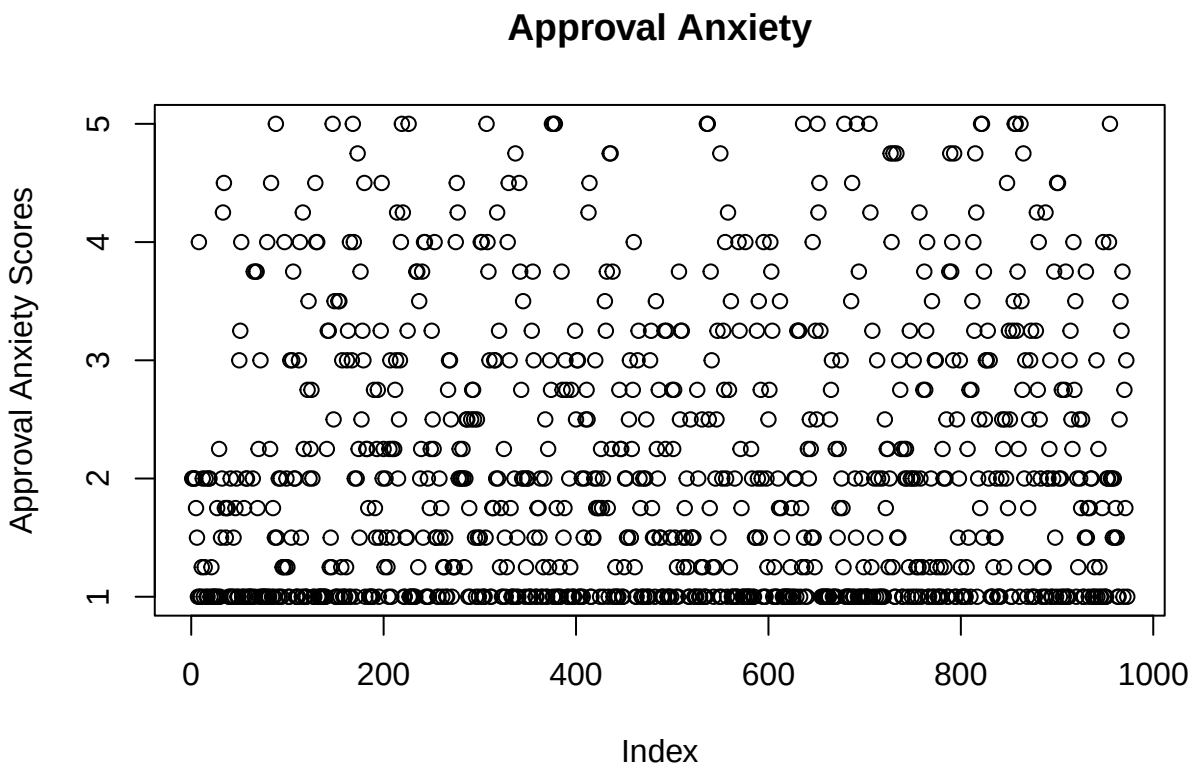
```
#Availability Stress
plot(peru5_6_data$avail_stress,
     main="Availability Stress",
     ylab="Availability Stress Scores",
     ylim=c(1, 5))
```



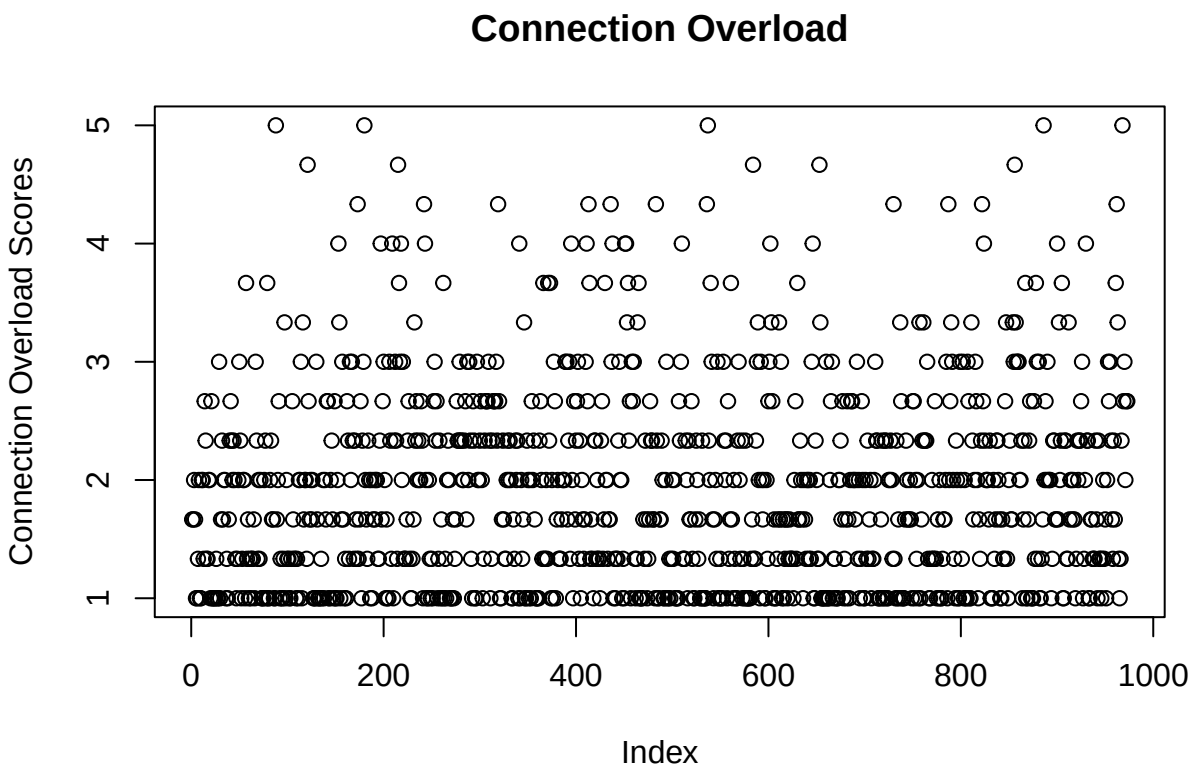

```r
#FOMO
plot(peru5_6_data$fomo,
     main="FOMO",
     ylab="FOMO Scores",
     ylim=c(1, 5))
```



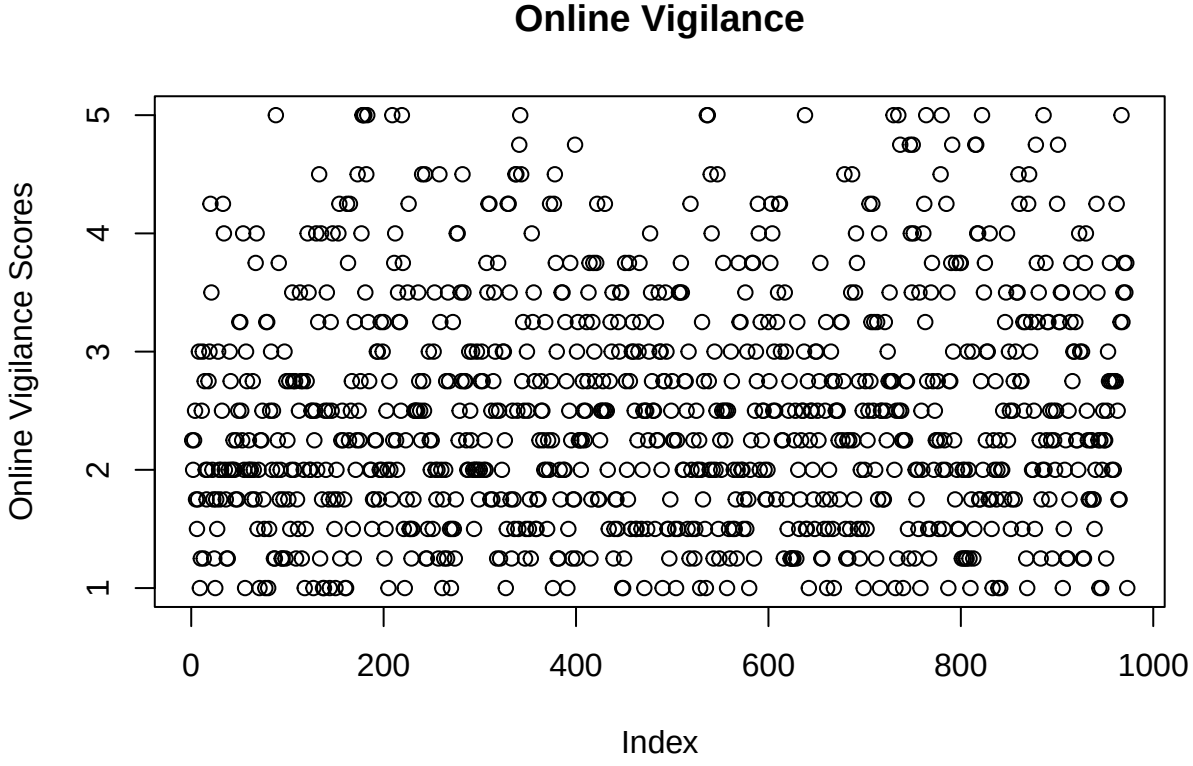
```r
#Approval Anxiety
plot(peru5_6_data$approval_anx,
     main="Approval Anxiety",
     ylab="Approval Anxiety Scores",
     ylim=c(1, 5))
```



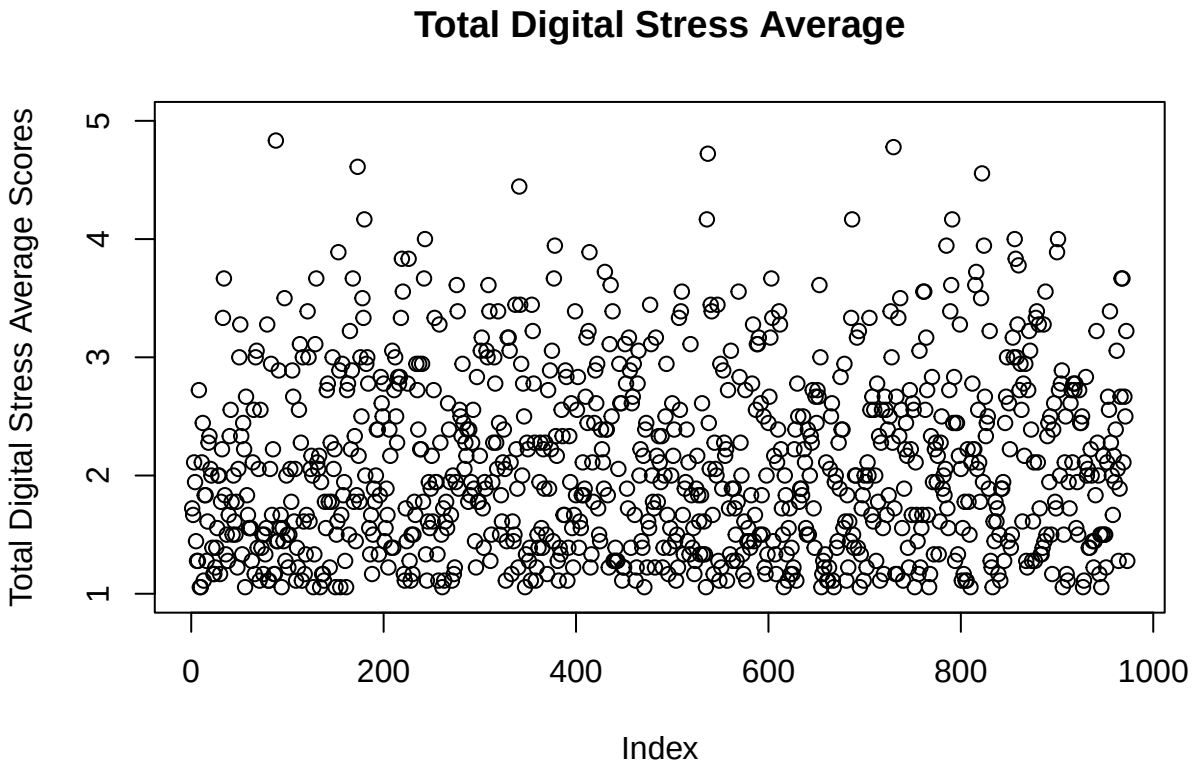

```r
#Connection Overload
plot(peru5_6_data$connect_overload,
     main="Connection Overload",
     ylab="Connection Overload Scores",
     ylim=c(1, 5))
```




```r
#Online Vigilance
plot(peru5_6_data$online_vigil,
     main="Online Vigilance",
     ylab="Online Vigilance Scores",
     ylim=c(1, 5))
```

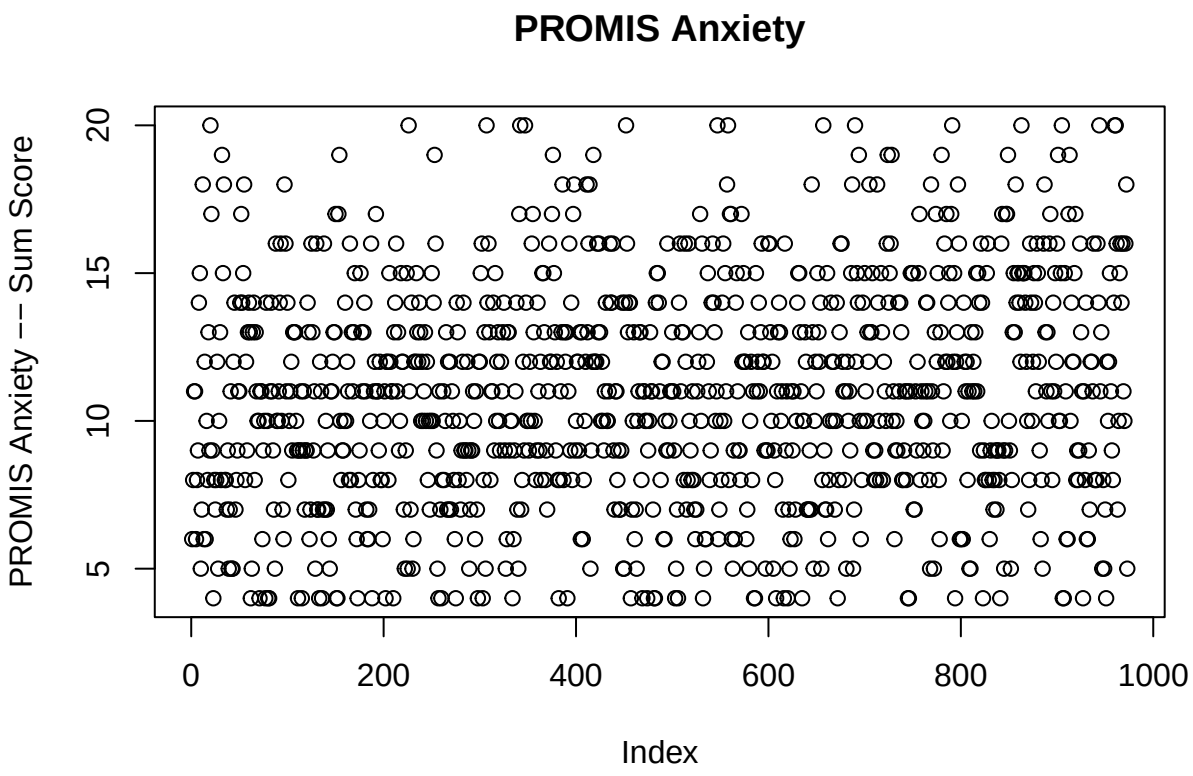


```r
#Total DSS
plot(peru5_6_data$dss_total_avg,
     main="Total Digital Stress Average",
     ylab="Total Digital Stress Average Scores",
     ylim=c(1, 5))
```



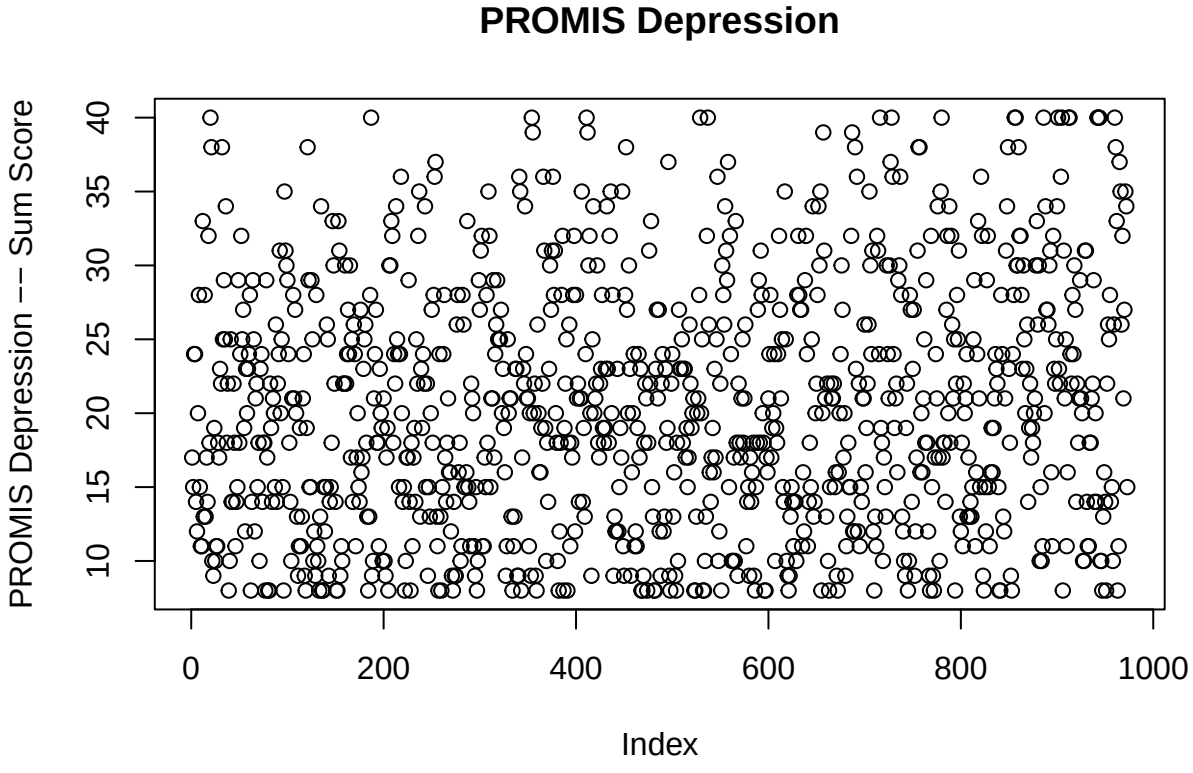
###PROMIS Anxiety

```r
plot(peru5_6_data$promis_anx_sum,
     main="PROMIS Anxiety",
     ylab="PROMIS Anxiety -- Sum Score",
     ylim=c(4, 20))
```



###PROMIS Depression

```
plot(peru5_6_data$promis_dep_sum,
     main="PROMIS Depression",
     ylab="PROMIS Depression -- Sum Score",
     ylim=c(8, 40))
```

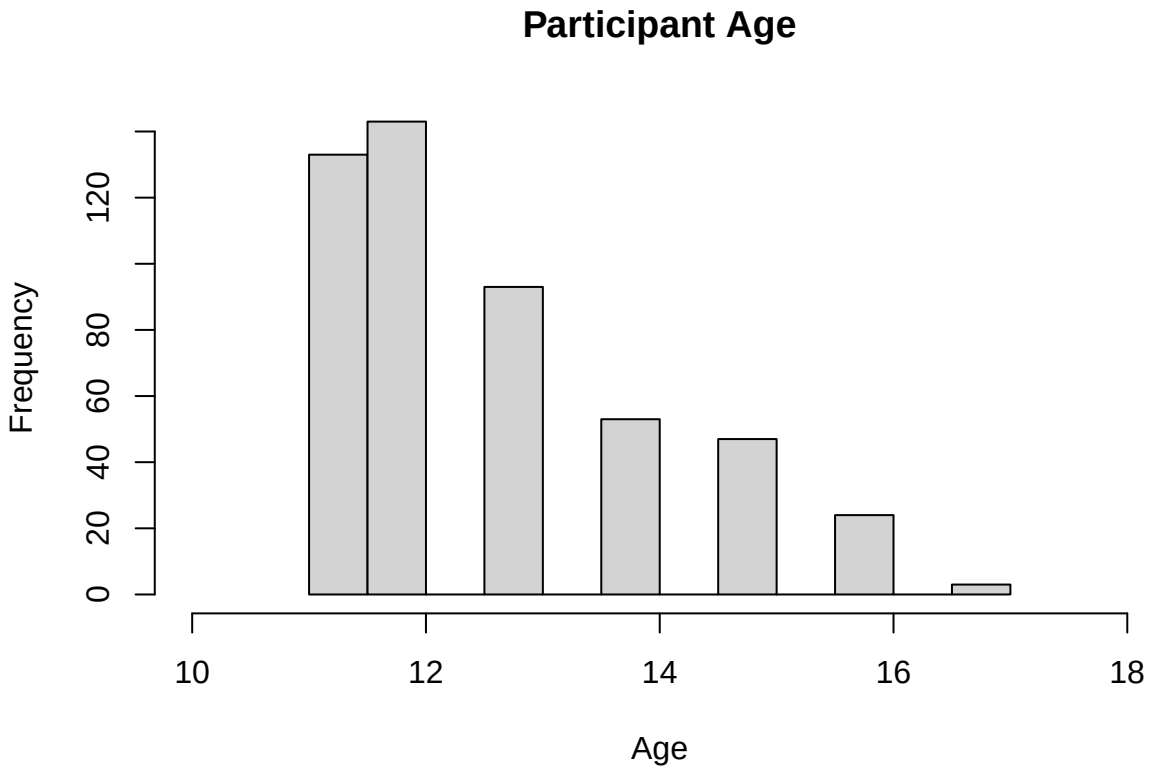


#Peru 5 Data ##Get data

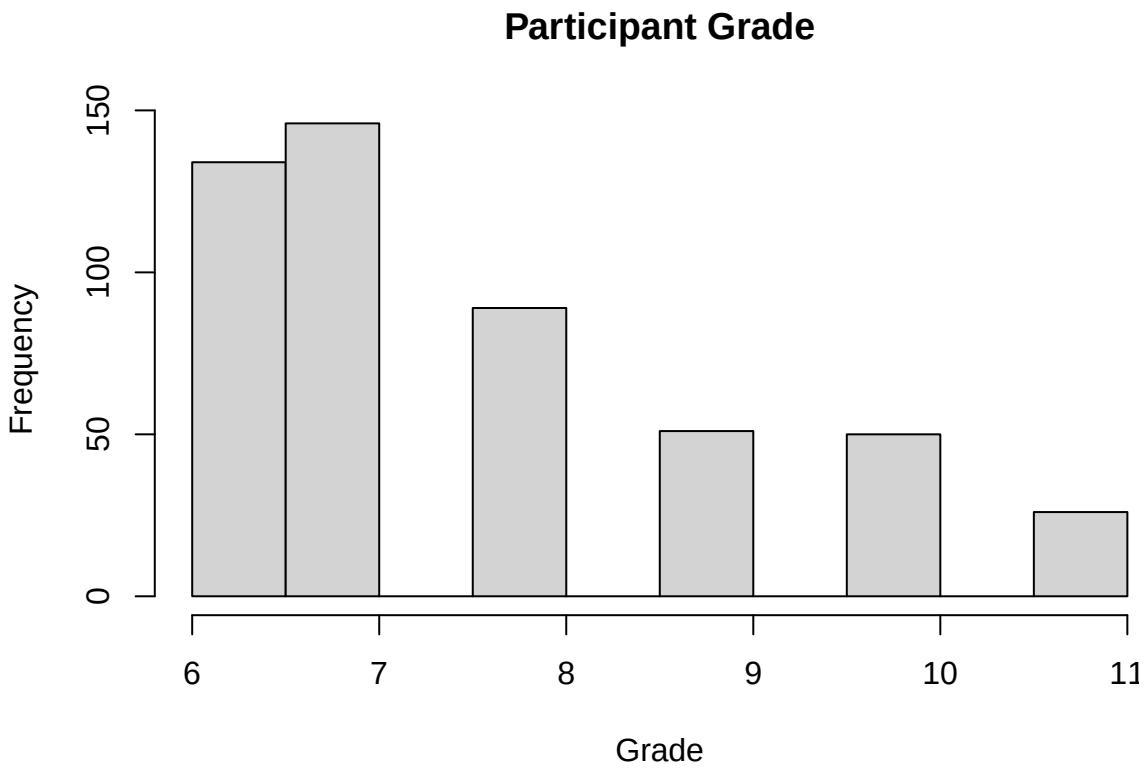
```
p5 <- peru5_6_data[peru5_6_data$wave == 'Peru 5', ]
```

##Histogram of variables ###Age & Grade

```
#Age
hist(p5$age_official_confirm,
     main="Participant Age",
     xlab="Age",
     xlim=c(10, 18))
```



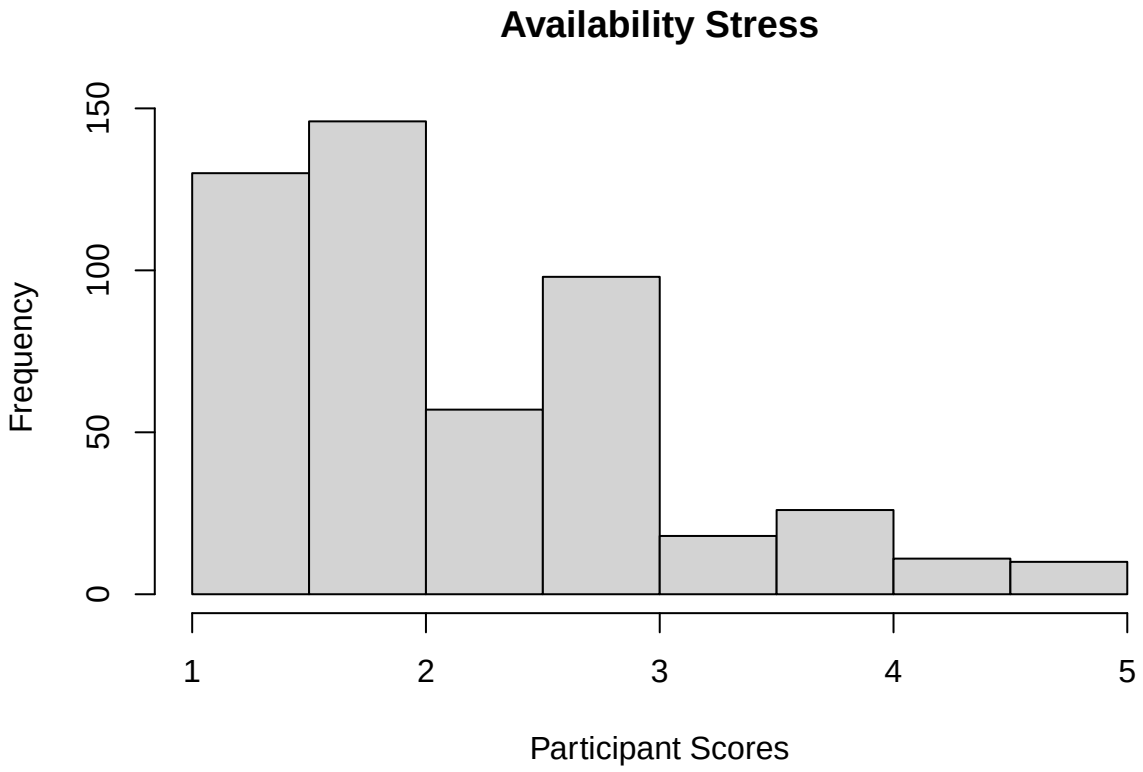

```
#Grade
hist(p5$grade_2021,
     main="Participant Grade",
     xlab="Grade",
     xlim=c(6, 11))
```



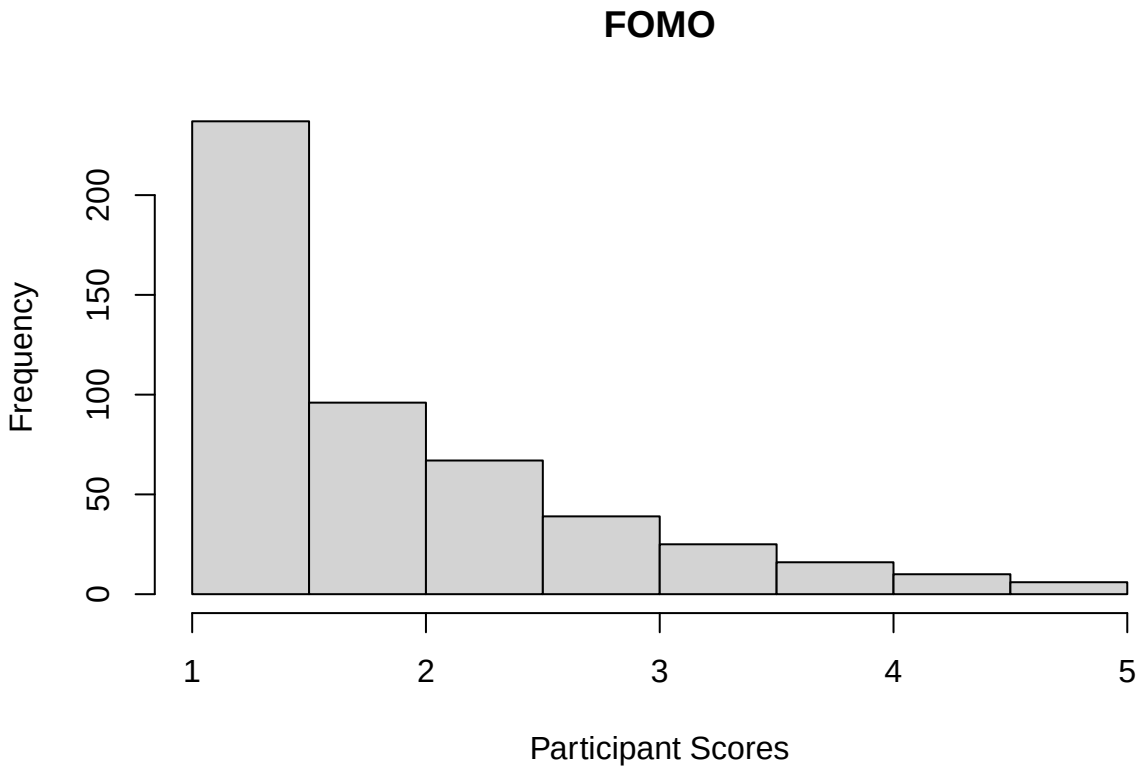

```
#All have a positive skew
```

###Digital Stress

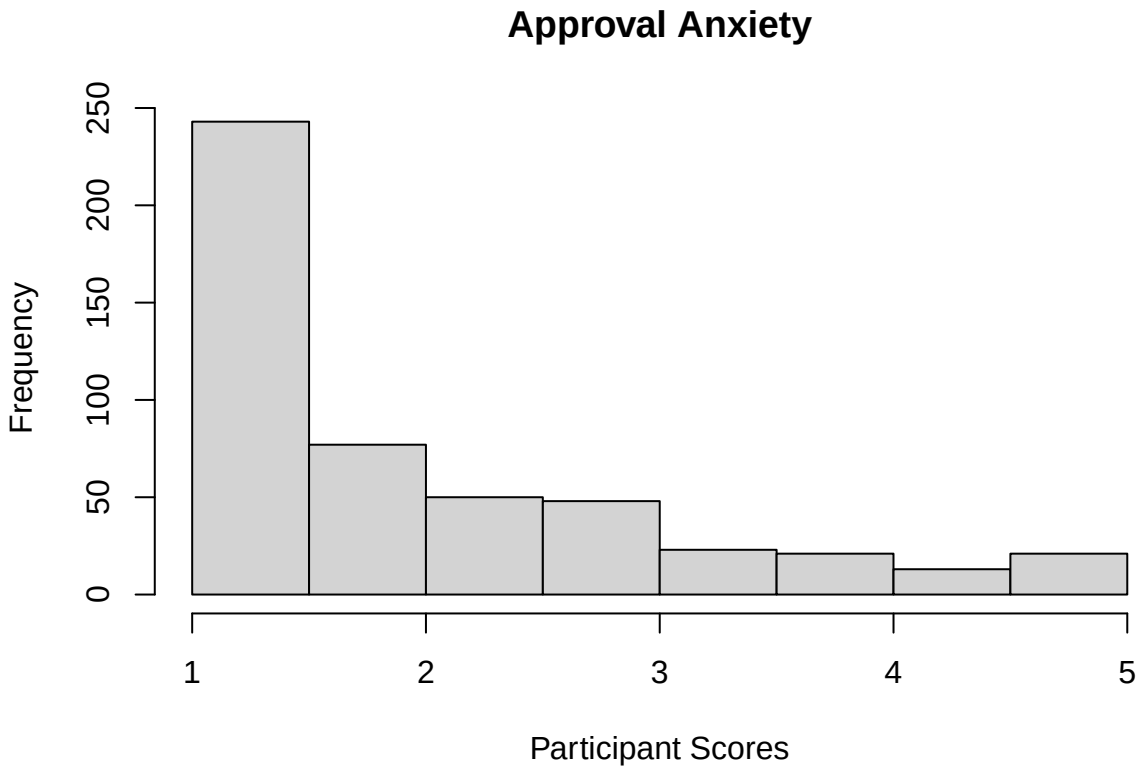
```
#Availability Stress
hist(p5$avail_stress,
     main="Availability Stress",
     xlab="Participant Scores",
     xlim=c(1, 5))
```



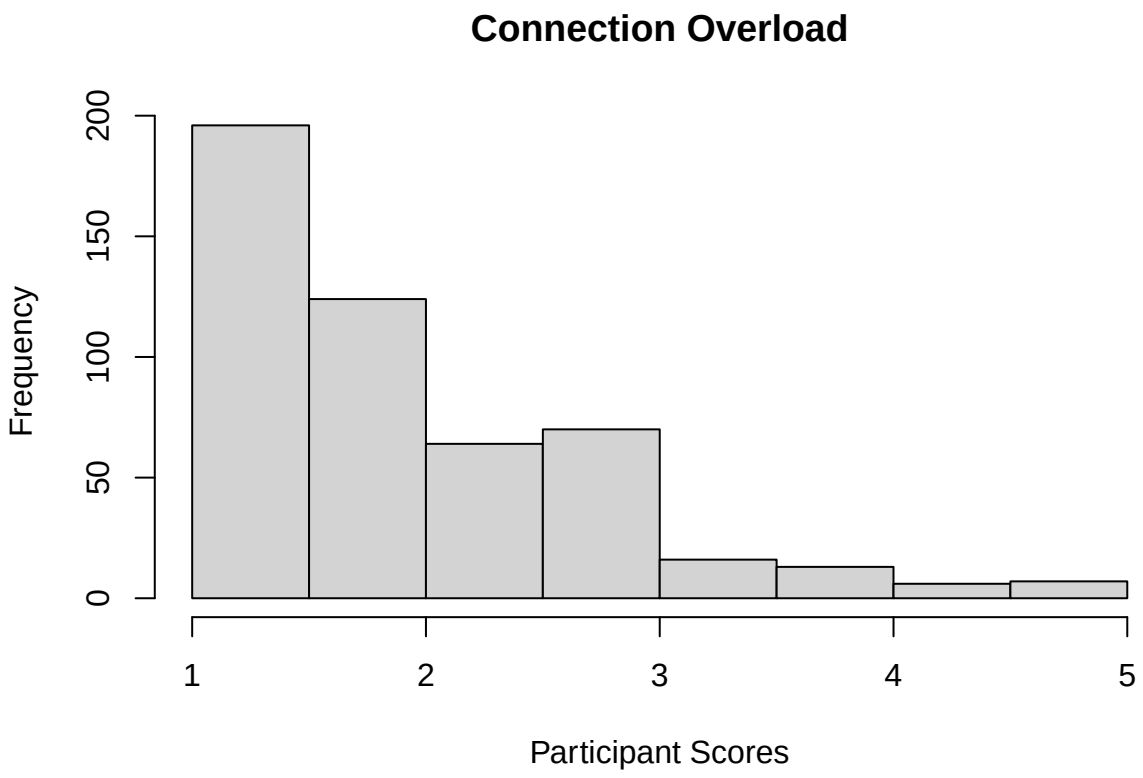

```r
#FOMO
hist(p5$fomo,
     main="FOMO",
     xlab="Participant Scores",
     xlim=c(1, 5))
```



```r
#Approval Anxiety
hist(p5$approval_anx,
     main="Approval Anxiety",
     xlab="Participant Scores",
     xlim=c(1, 5))
```

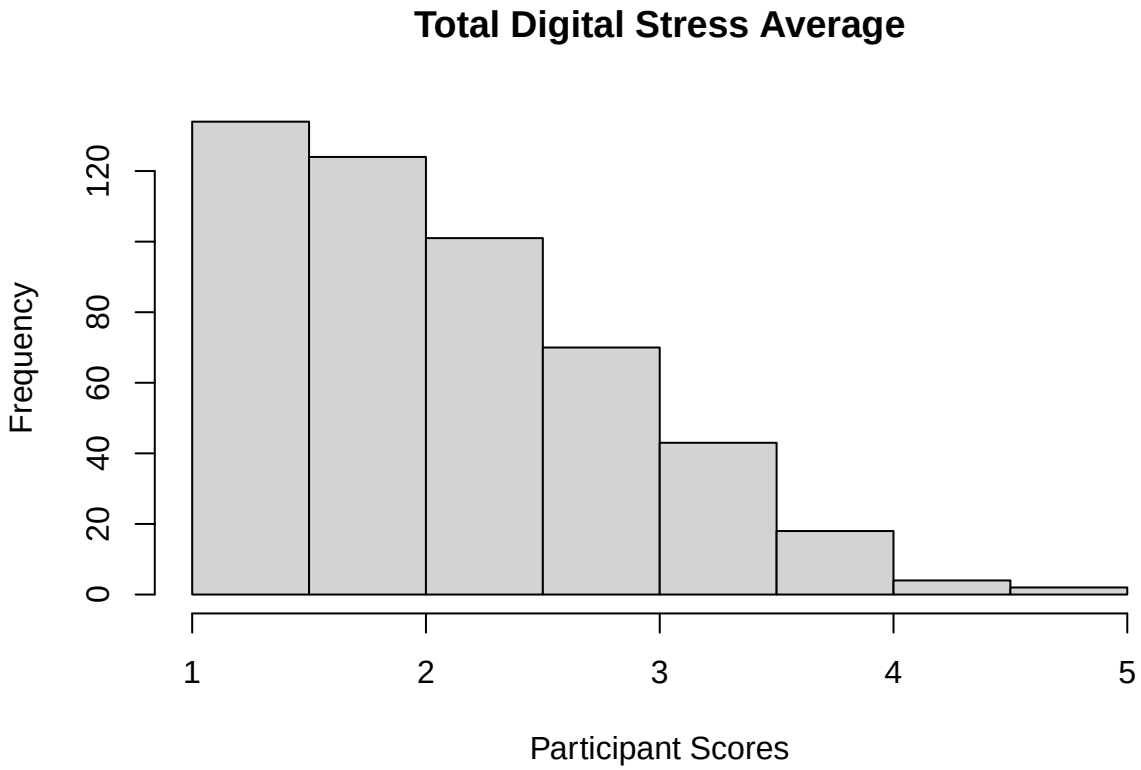



```r
#Connection Overload
hist(p5$connect_overload,
     main="Connection Overload",
     xlab="Participant Scores",
     xlim=c(1, 5),)
```




```r
#Online Vigilance
hist(p5$online_vigil,
     main="Online Vigilance",
     xlab="Participant Scores",
     xlim=c(1, 5))
```

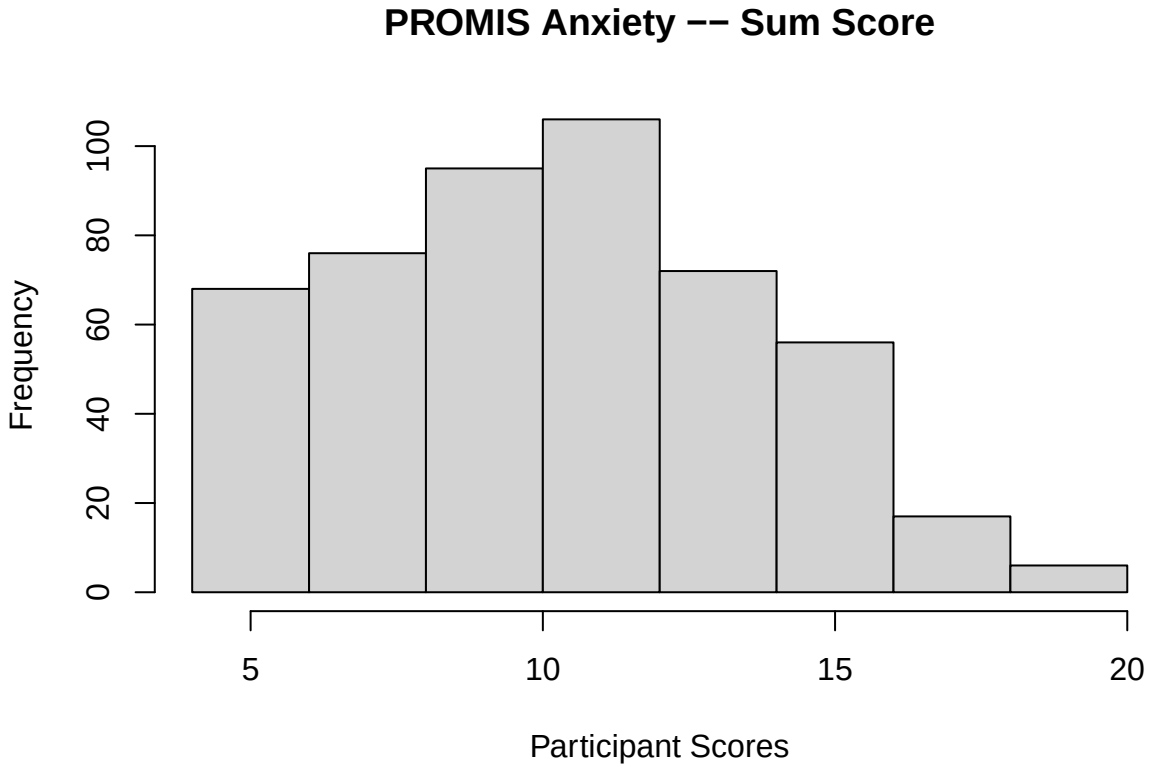
```r
#Total DSS
hist(p5$dss_total_avg,
     main="Total Digital Stress Average",
     xlab="Participant Scores",
     xlim=c(1, 5))
```




```r
#All have a positive skew
```

###PROMIS Anxiety

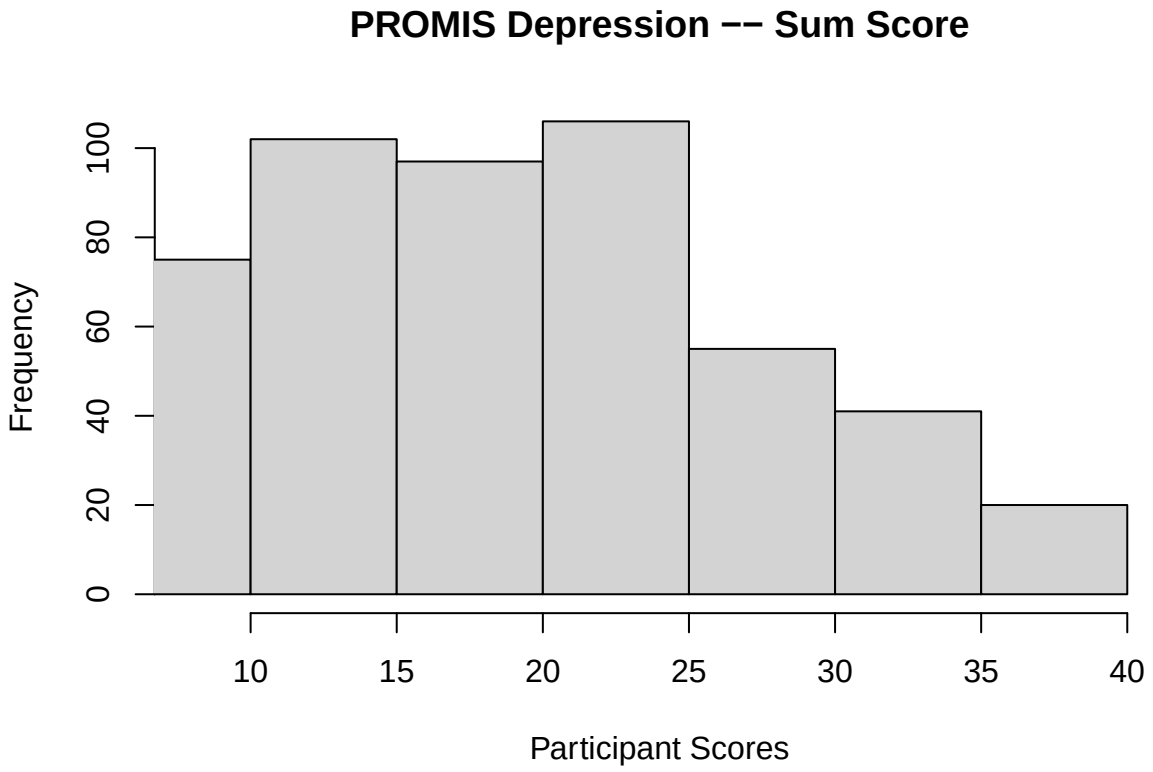
```r
hist(p5$promis_anx_sum,
     main="PROMIS Anxiety -- Sum Score",
     xlab="Participant Scores",
     xlim=c(4, 20))
```




```
#Normal distribution -- maybe slight positive skew?
```

###PROMIS Depression

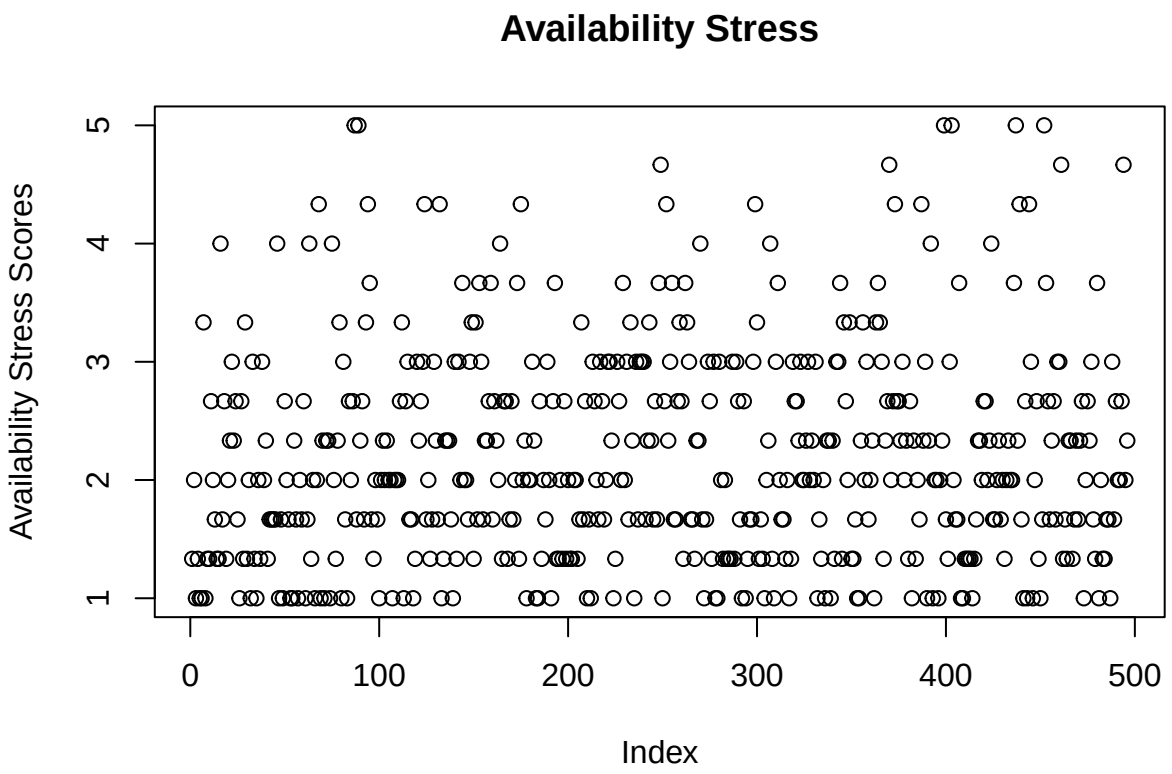
```
hist(p5$promis_dep_sum,
     main="PROMIS Depression -- Sum Score",
     xlab="Participant Scores",
     xlim=c(8, 40))
```



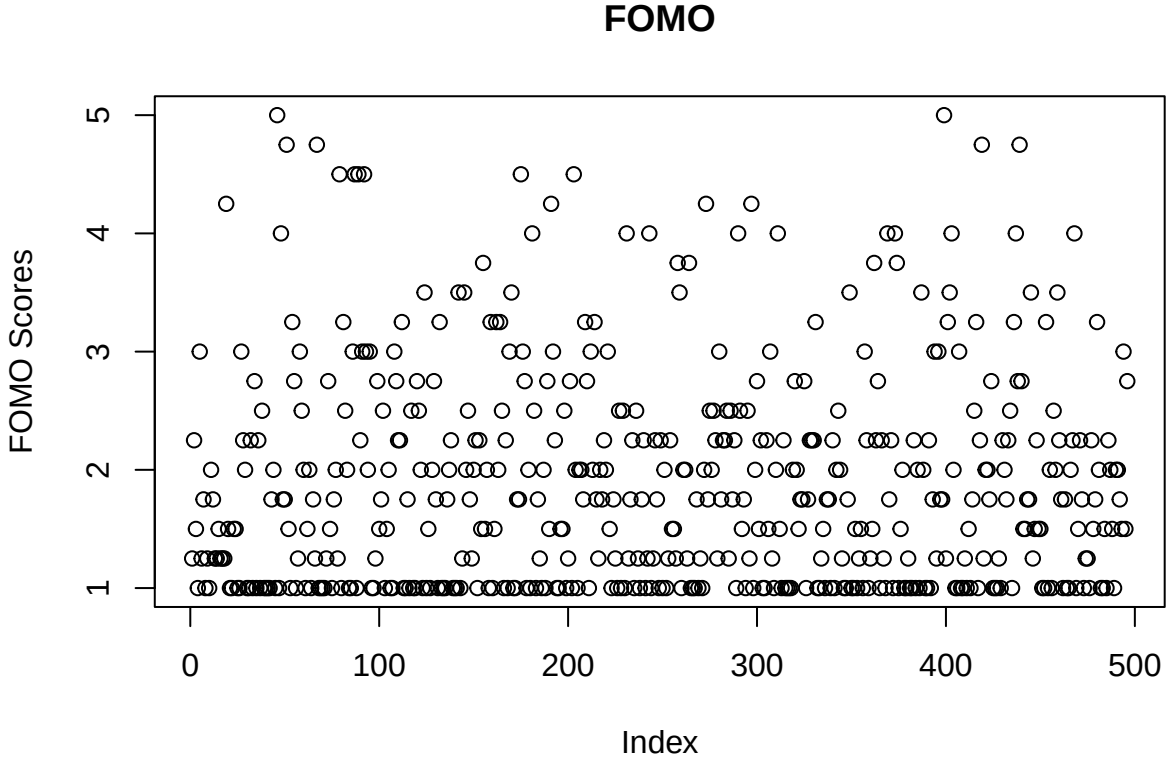

```
#Normal distribution -- maybe slight positive skew?
```

##Scatterplot of variables ###Digital Stress

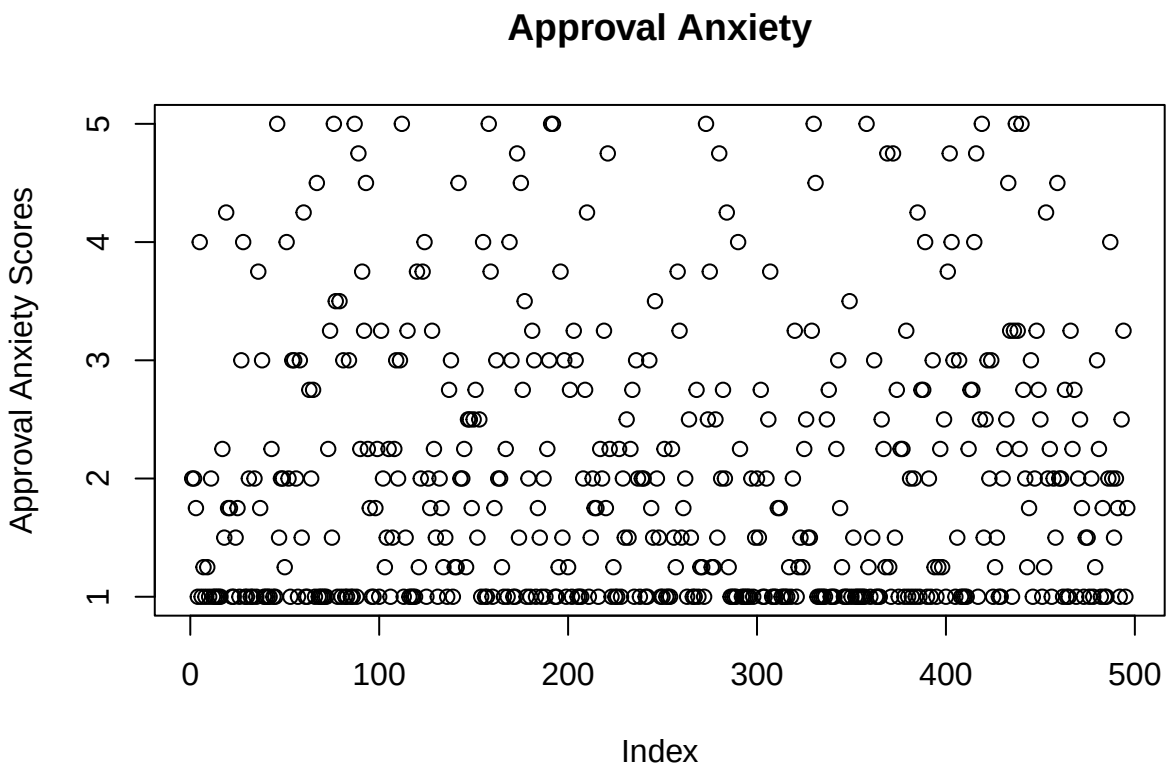
```
#Availability Stress
plot(p5$avail_stress,
     main="Availability Stress",
     ylab="Availability Stress Scores",
     ylim=c(1, 5))
```



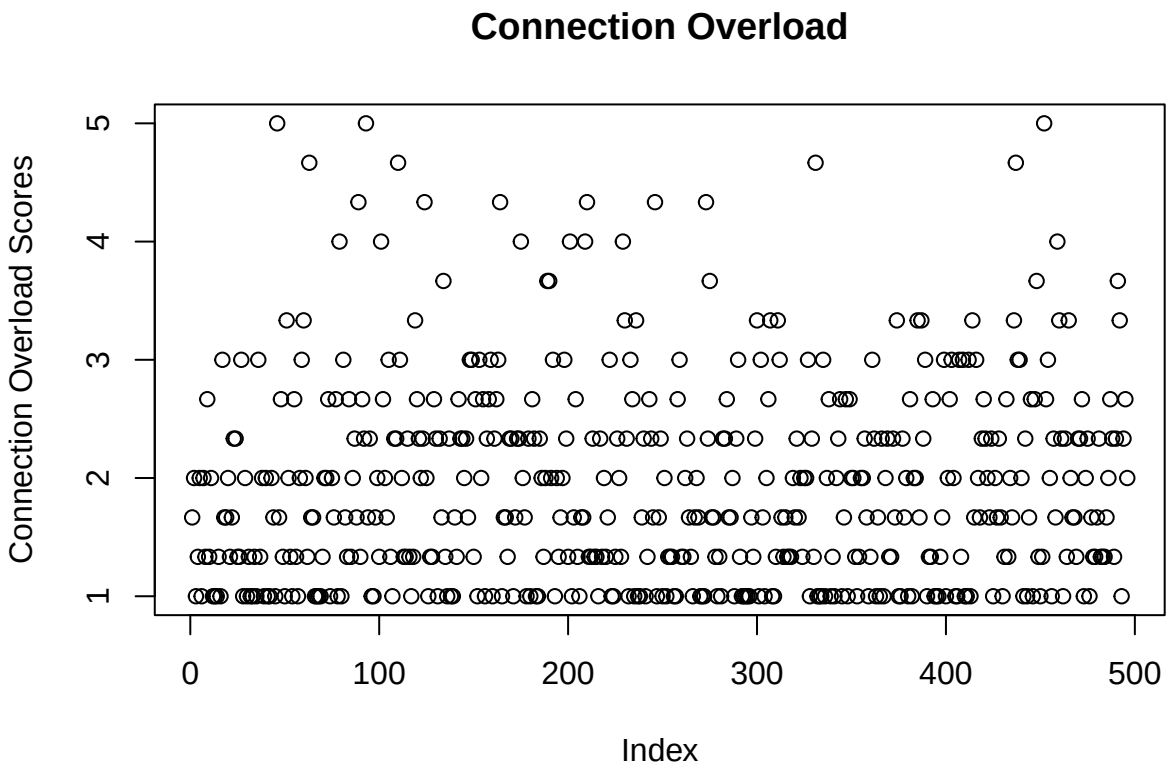

```r
#FOMO
plot(p5$fomo,
     main="FOMO",
     ylab="FOMO Scores",
     ylim=c(1, 5))
```



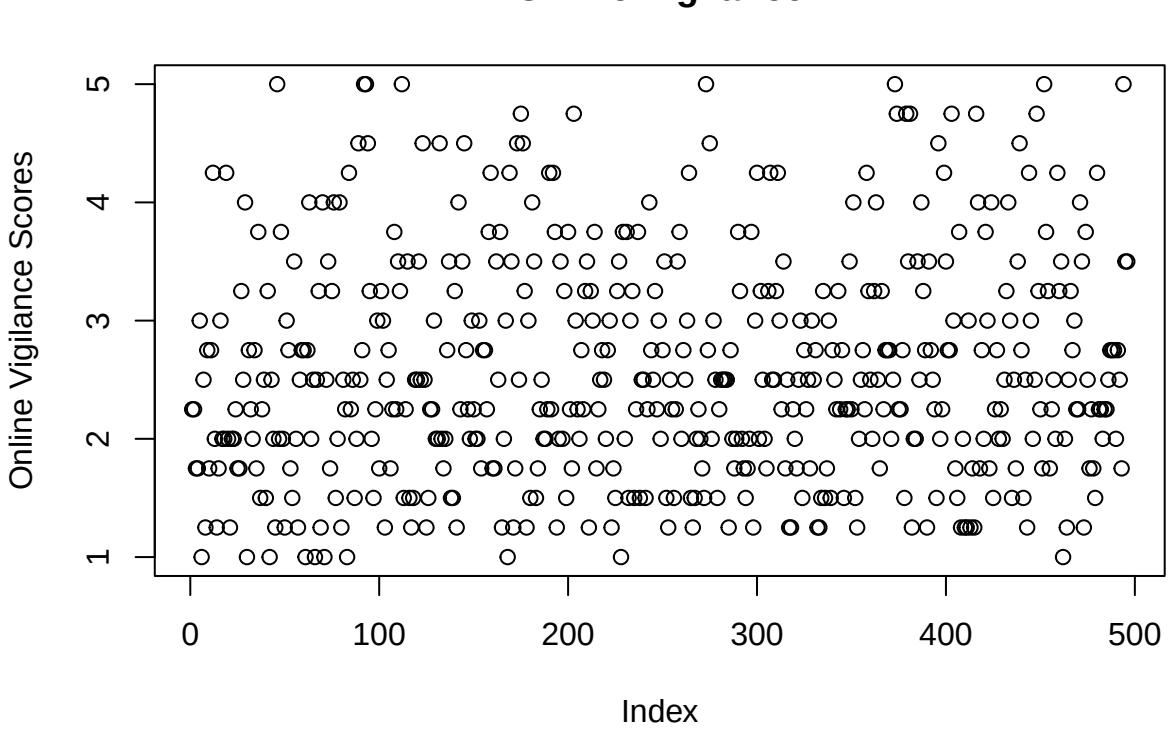
```r
#Approval Anxiety
plot(p5$approval_anx,
     main="Approval Anxiety",
     ylab="Approval Anxiety Scores",
     ylim=c(1, 5))
```



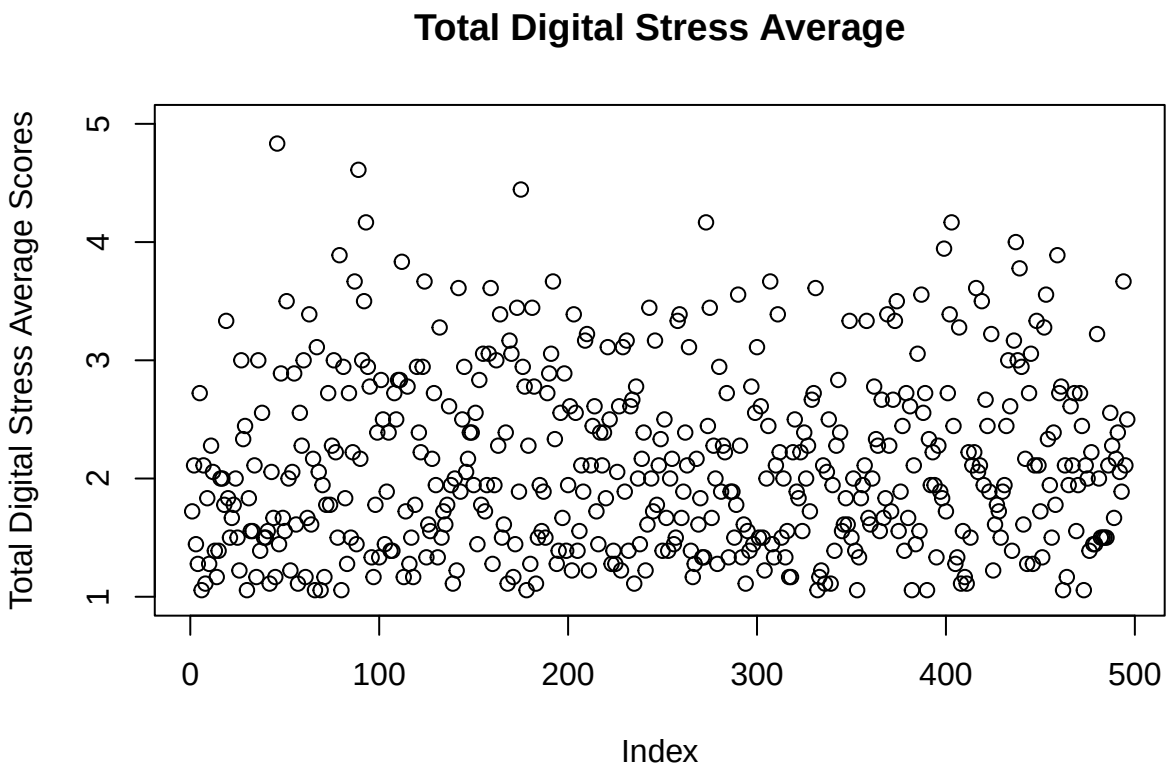

```r
#Connection Overload
plot(p5$connect_overload,
     main="Connection Overload",
     ylab="Connection Overload Scores",
     ylim=c(1, 5))
```




```
#Online Vigilance
plot(p5$online_vigil,
     main="Online Vigilance",
     ylab="Online Vigilance Scores",
     ylim=c(1, 5))
```

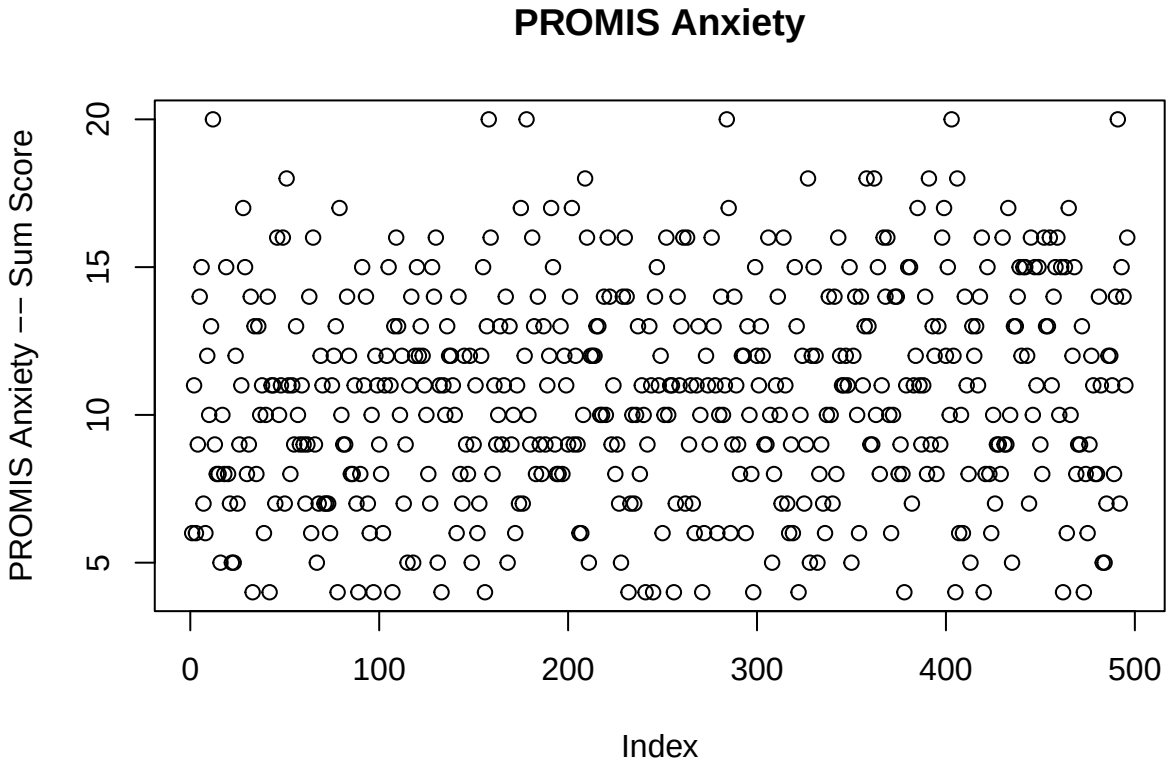


```r
#Total DSS
plot(p5$dss_total_avg,
     main="Total Digital Stress Average",
     ylab="Total Digital Stress Average Scores",
     ylim=c(1, 5))
```



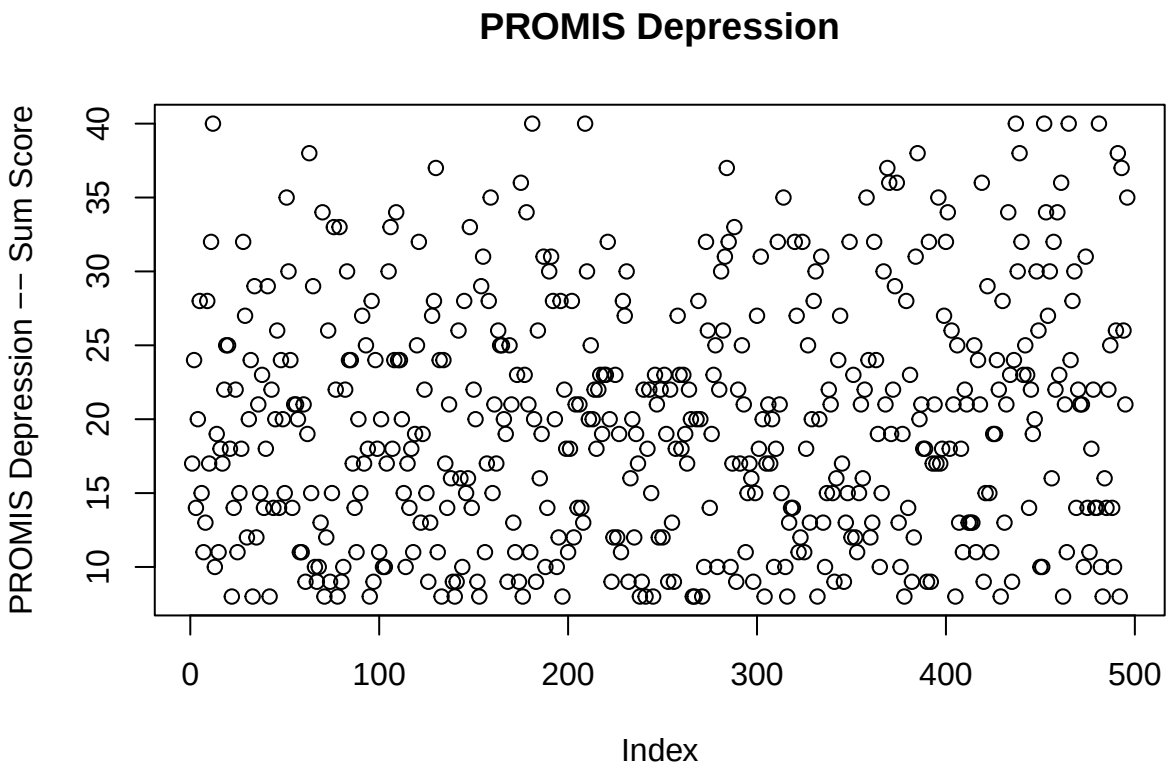
###PROMIS Anxiety

```r
plot(p5$promis_anx_sum,
     main="PROMIS Anxiety",
     ylab="PROMIS Anxiety -- Sum Score",
     ylim=c(4, 20))
```



###PROMIS Depression

```
plot(p5$promis_dep_sum,
     main="PROMIS Depression",
     ylab="PROMIS Depression -- Sum Score",
     ylim=c(8, 40))
```

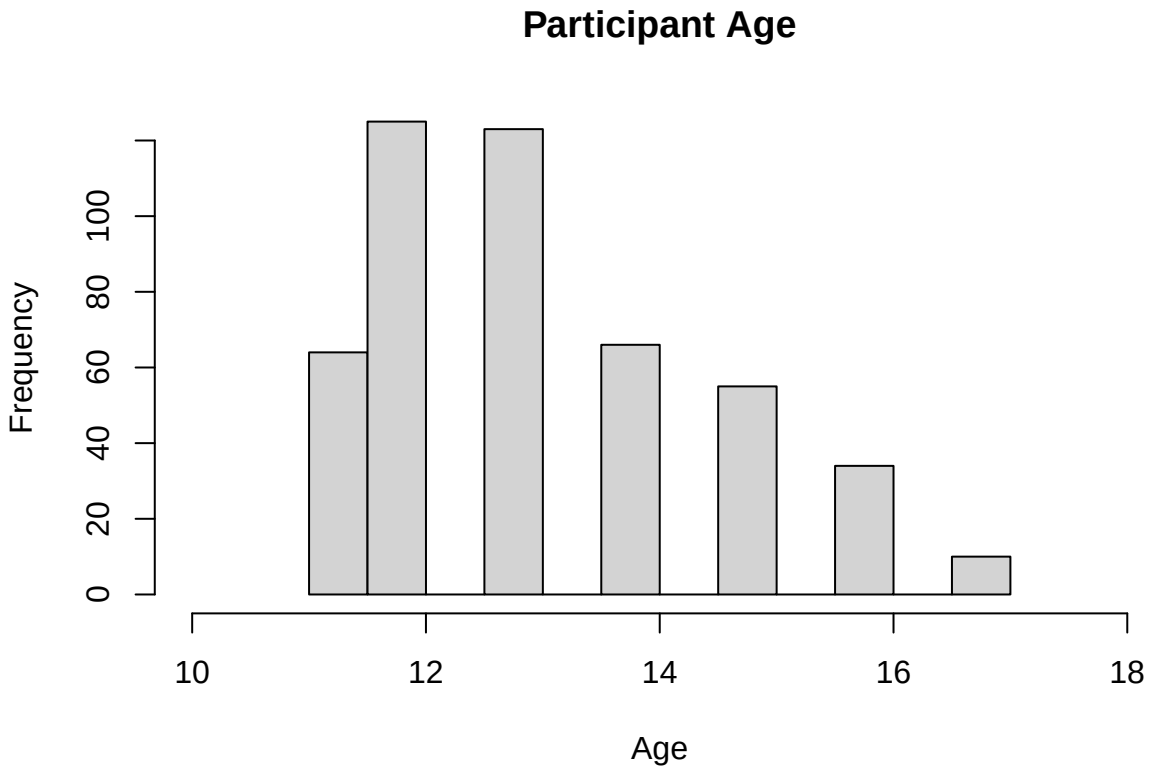


#Peru 6 Data ##Get data

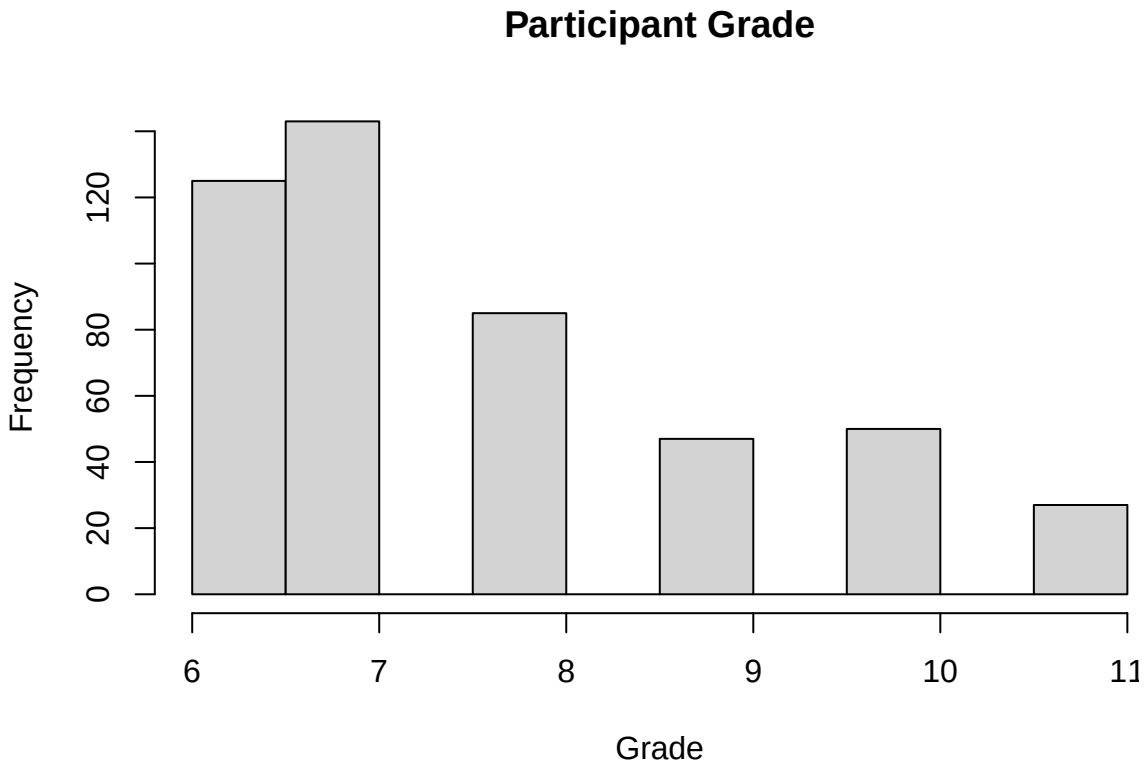
```
p6 <- peru5_6_data[peru5_6_data$wave == 'Peru 6', ]
```

##Histogram of variables ###Age & Grade

```
#Age
hist(p6$age_official_confirm,
     main="Participant Age",
     xlab="Age",
     xlim=c(10, 18))
```



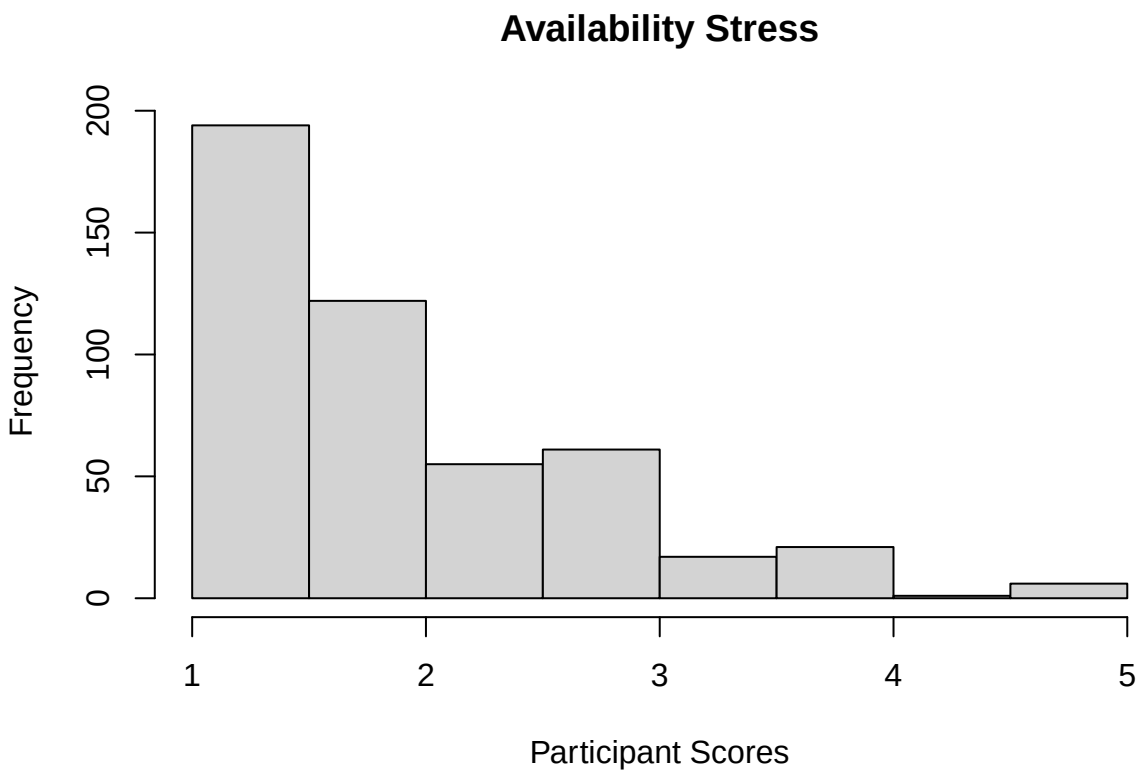

```
#Grade
hist(p6$grade_2021,
     main="Participant Grade",
     xlab="Grade",
     xlim=c(6, 11))
```



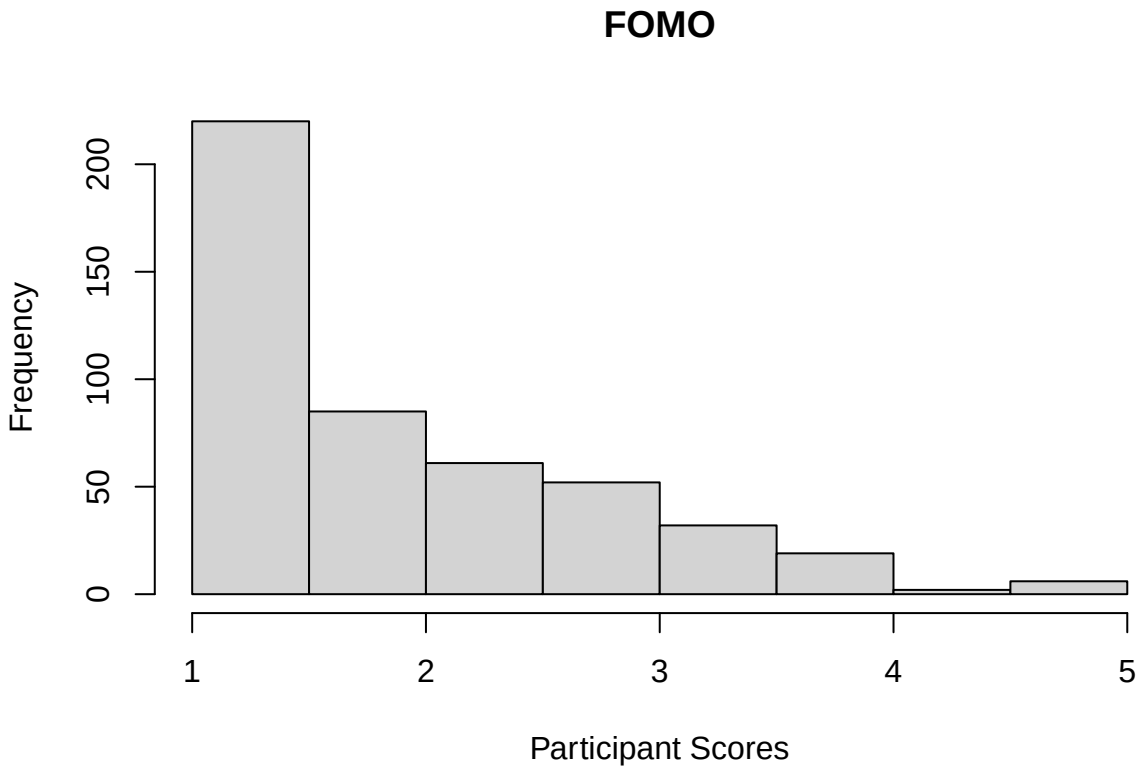

```
#All have a positive skew
```

###Digital Stress

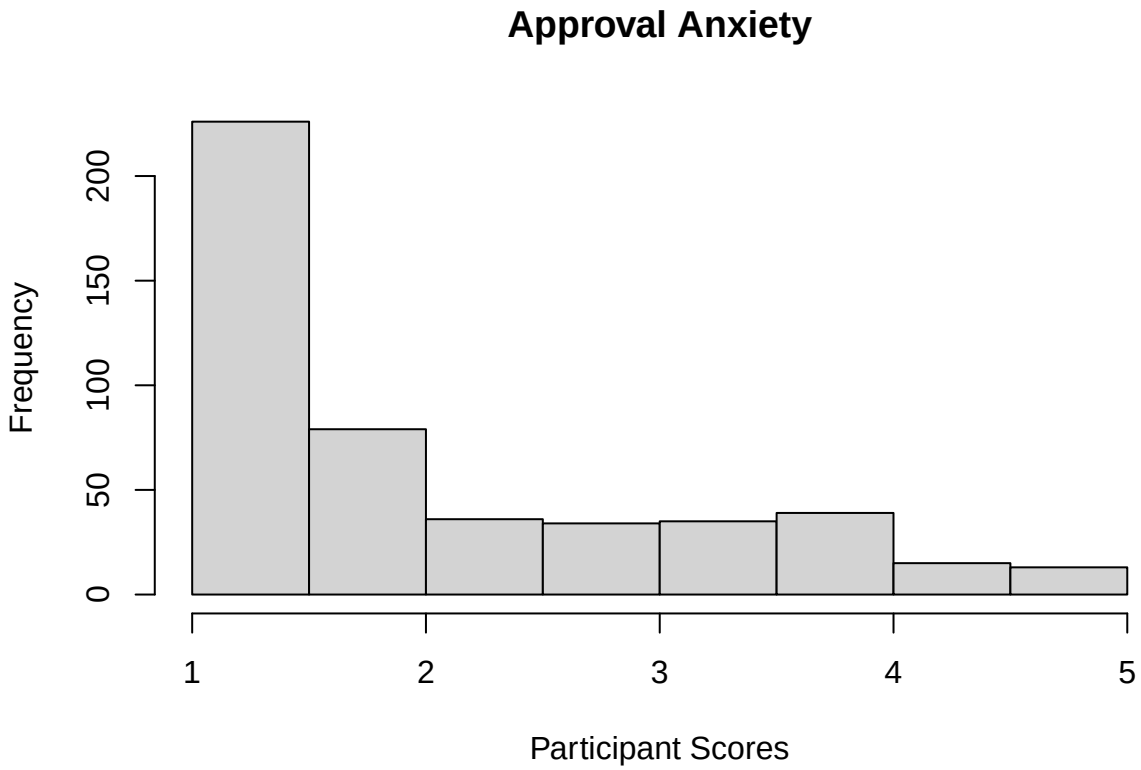
```
#Availability Stress
hist(p6$avail_stress,
     main="Availability Stress",
     xlab="Participant Scores",
     xlim=c(1, 5))
```



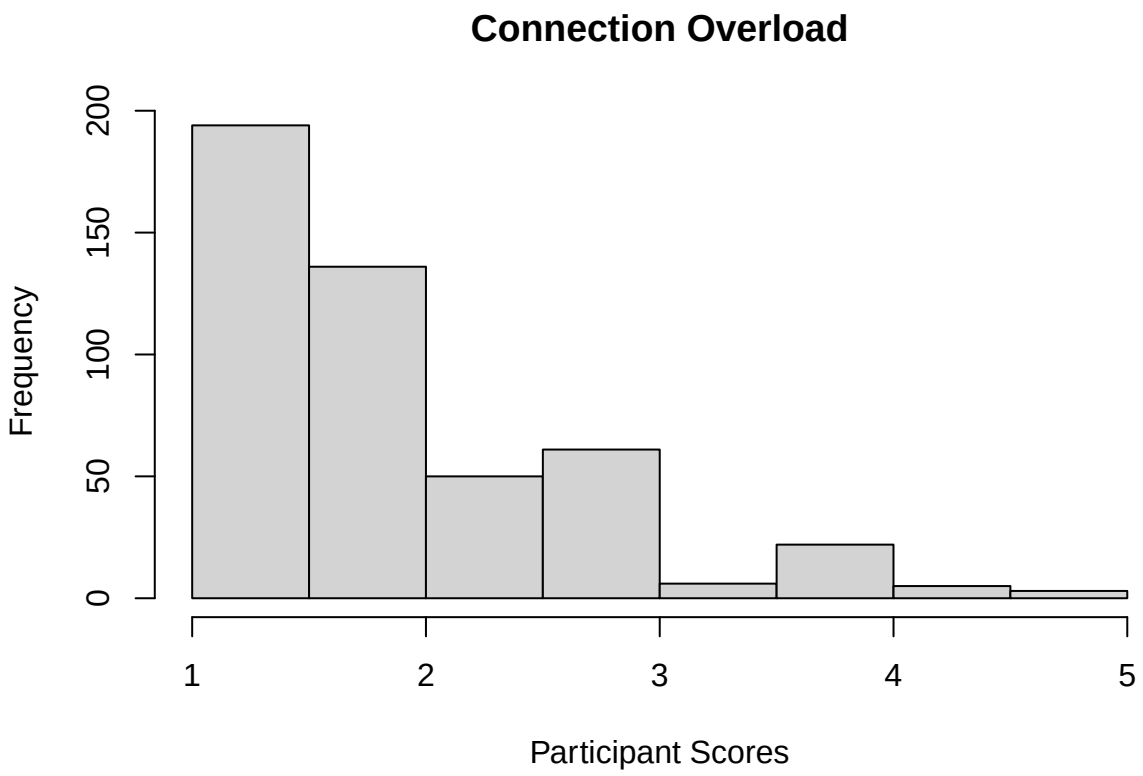

```r
#FOMO
hist(p6$fomo,
     main="FOMO",
     xlab="Participant Scores",
     xlim=c(1, 5))
```



```r
#Approval Anxiety
hist(p6$approval_anx,
     main="Approval Anxiety",
     xlab="Participant Scores",
     xlim=c(1, 5))
```

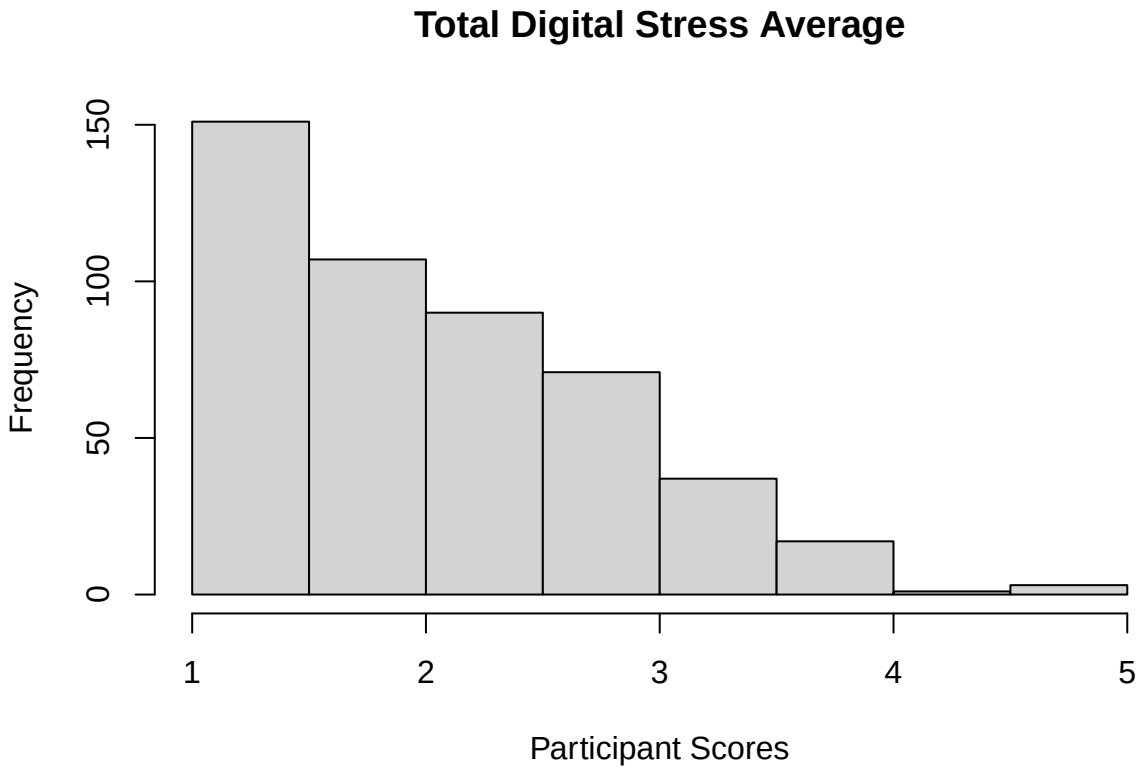



```r
#Connection Overload
hist(p6$connect_overload,
     main="Connection Overload",
     xlab="Participant Scores",
     xlim=c(1, 5),)
```




```r
#Online Vigilance
hist(p6$online_vigil,
     main="Online Vigilance",
     xlab="Participant Scores",
     xlim=c(1, 5))
```

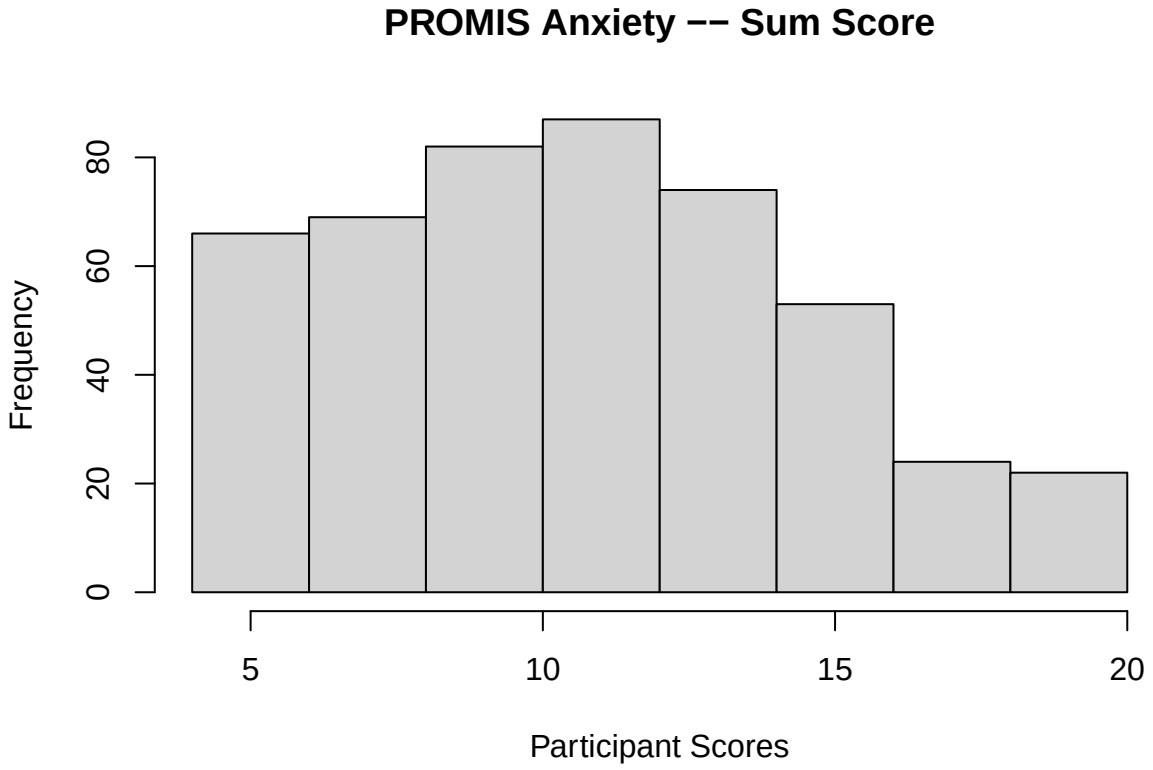
```r
#Total DSS
hist(p6$dss_total_avg,
     main="Total Digital Stress Average",
     xlab="Participant Scores",
     xlim=c(1, 5))
```




```r
#All have a positive skew
```

###PROMIS Anxiety

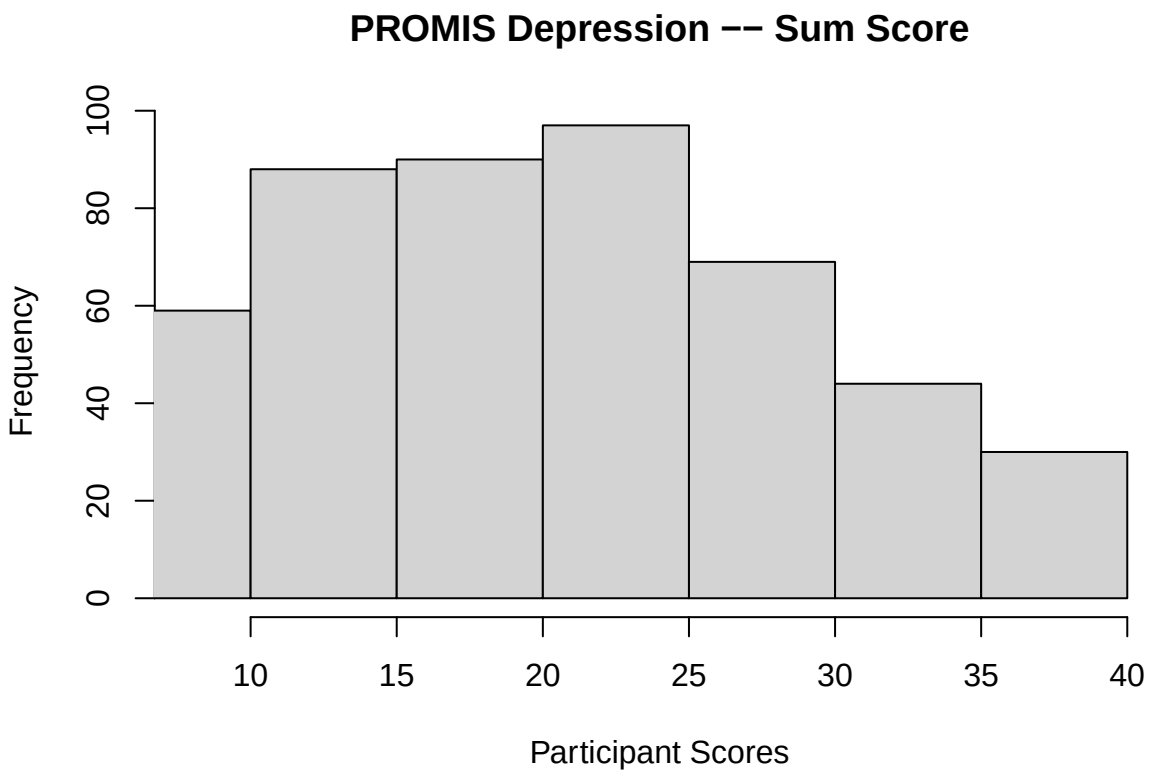
```r
hist(p6$promis_anx_sum,
     main="PROMIS Anxiety -- Sum Score",
     xlab="Participant Scores",
     xlim=c(4, 20))
```




```
#Normal distribution -- maybe slight positive skew?
```

###PROMIS Depression

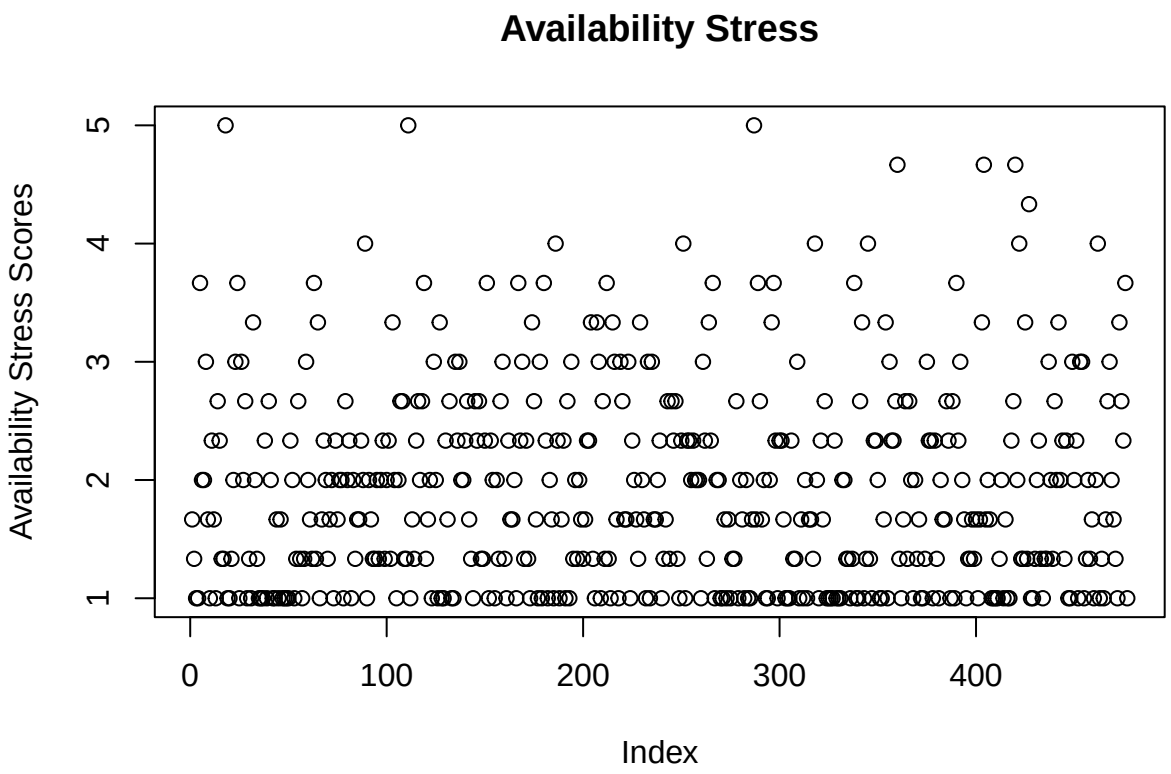
```
hist(p6$promis_dep_sum,
     main="PROMIS Depression -- Sum Score",
     xlab="Participant Scores",
     xlim=c(8, 40))
```



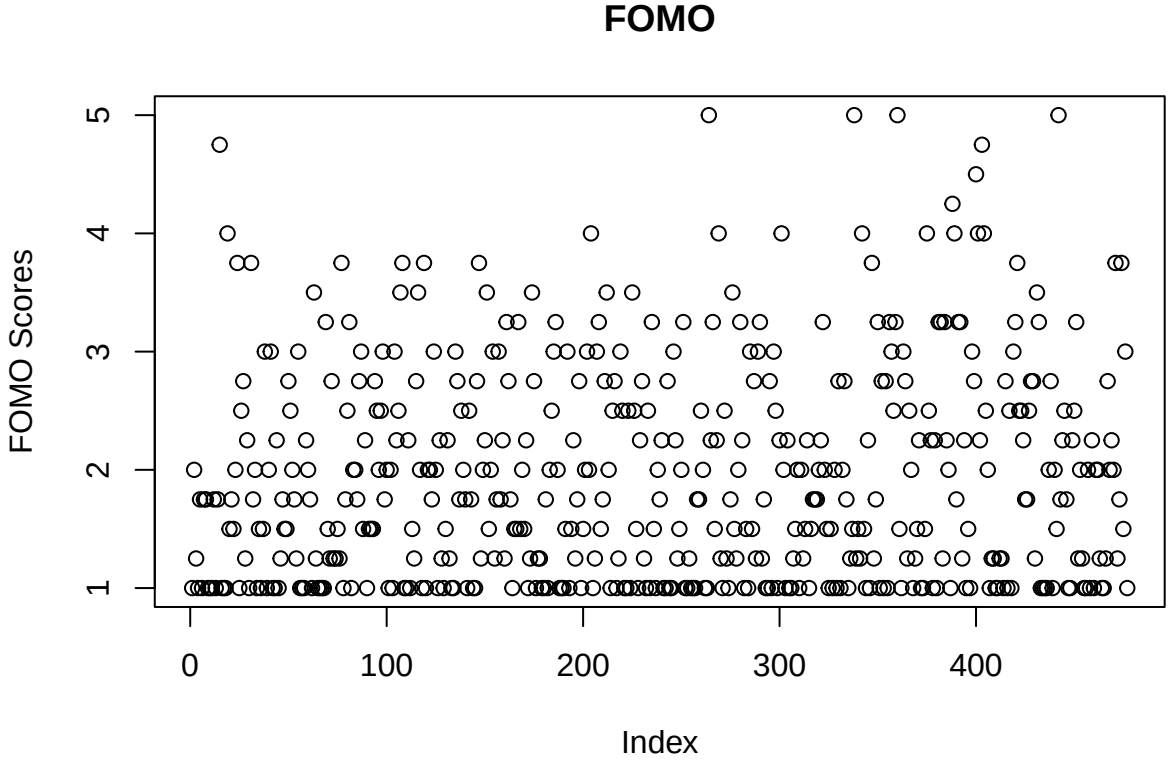

```
#Normal distribution -- maybe slight positive skew?
```

##Scatterplot of variables ###Digital Stress

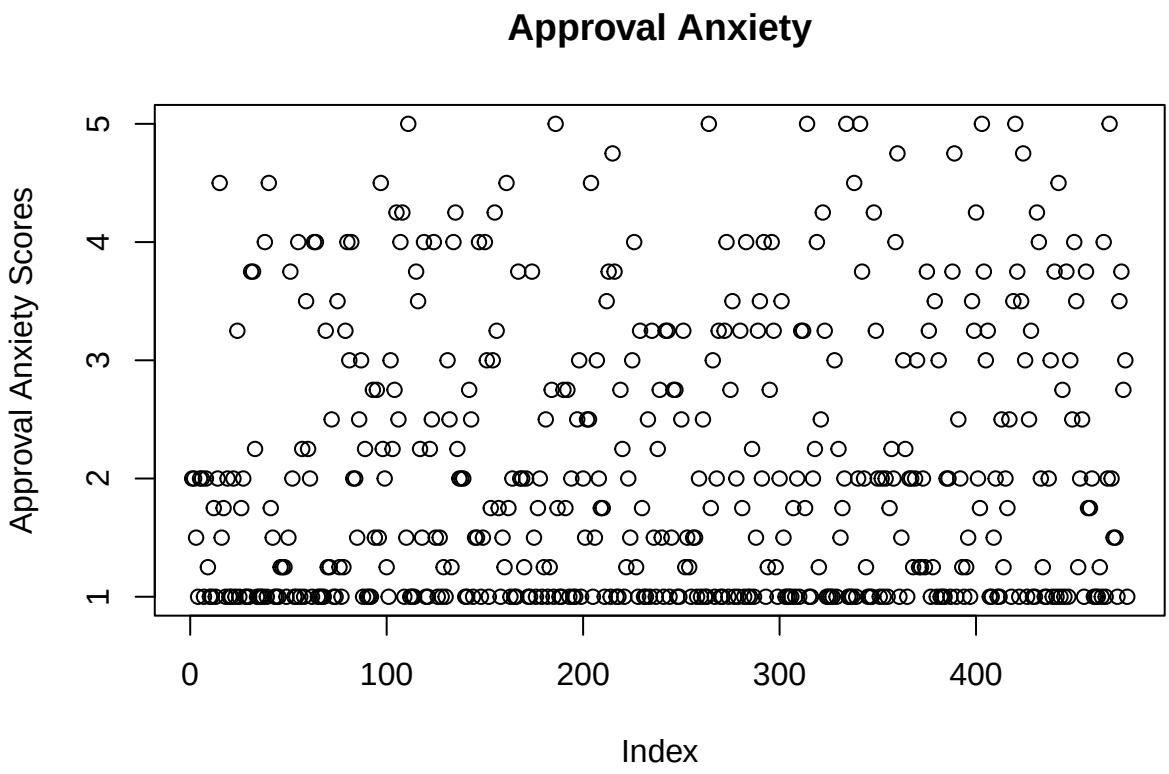
```
#Availability Stress
plot(p6$avail_stress,
     main="Availability Stress",
     ylab="Availability Stress Scores",
     ylim=c(1, 5))
```



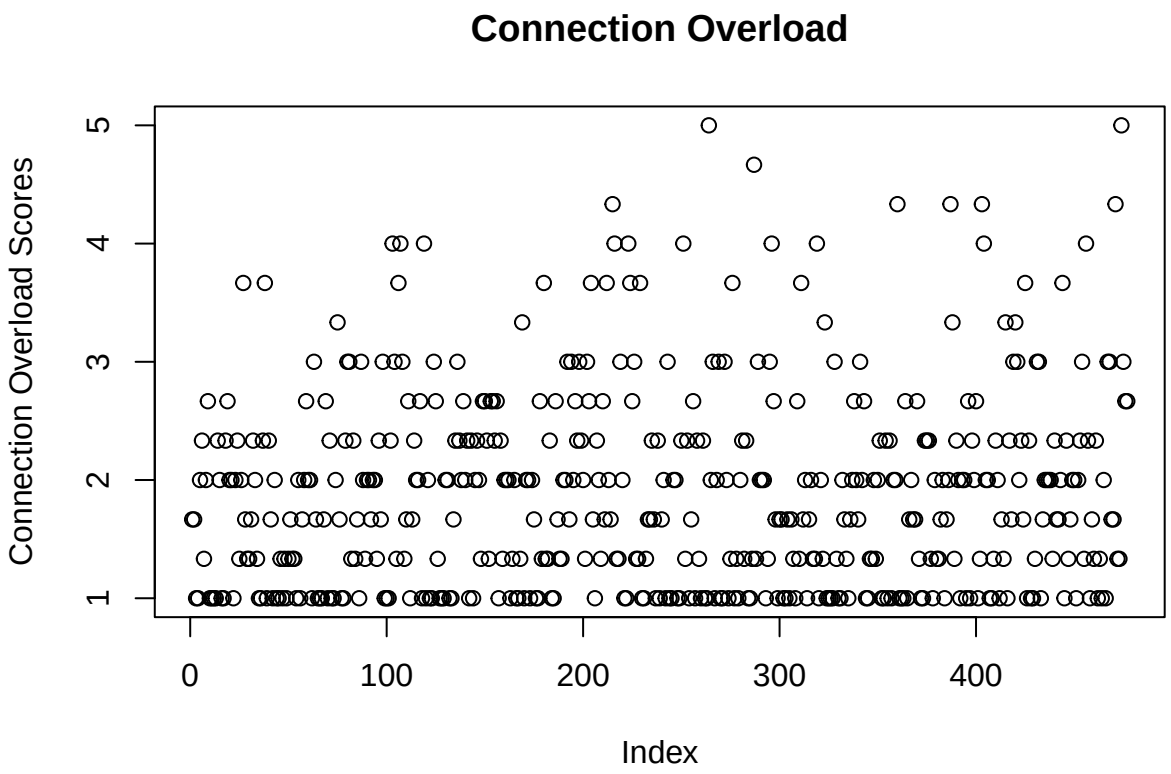

```r
#FOMO
plot(p6$fomo,
     main="FOMO",
     ylab="FOMO Scores",
     ylim=c(1, 5))
```



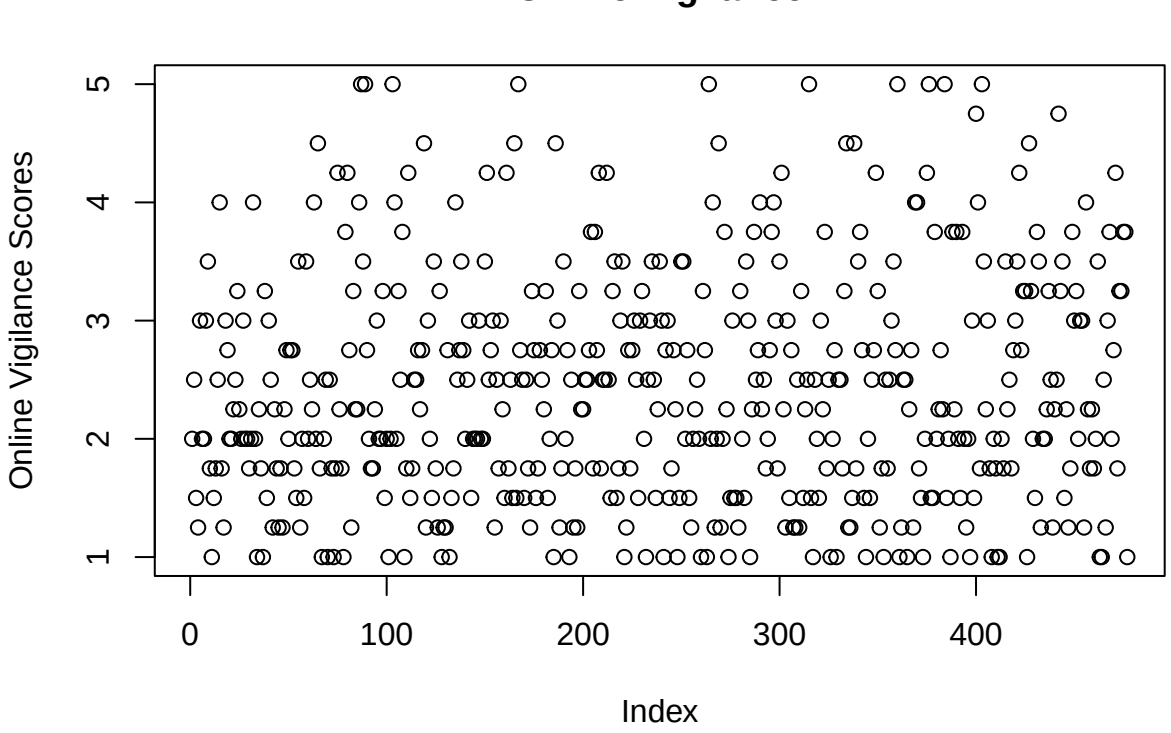
```r
#Approval Anxiety
plot(p6$approval_anx,
     main="Approval Anxiety",
     ylab="Approval Anxiety Scores",
     ylim=c(1, 5))
```



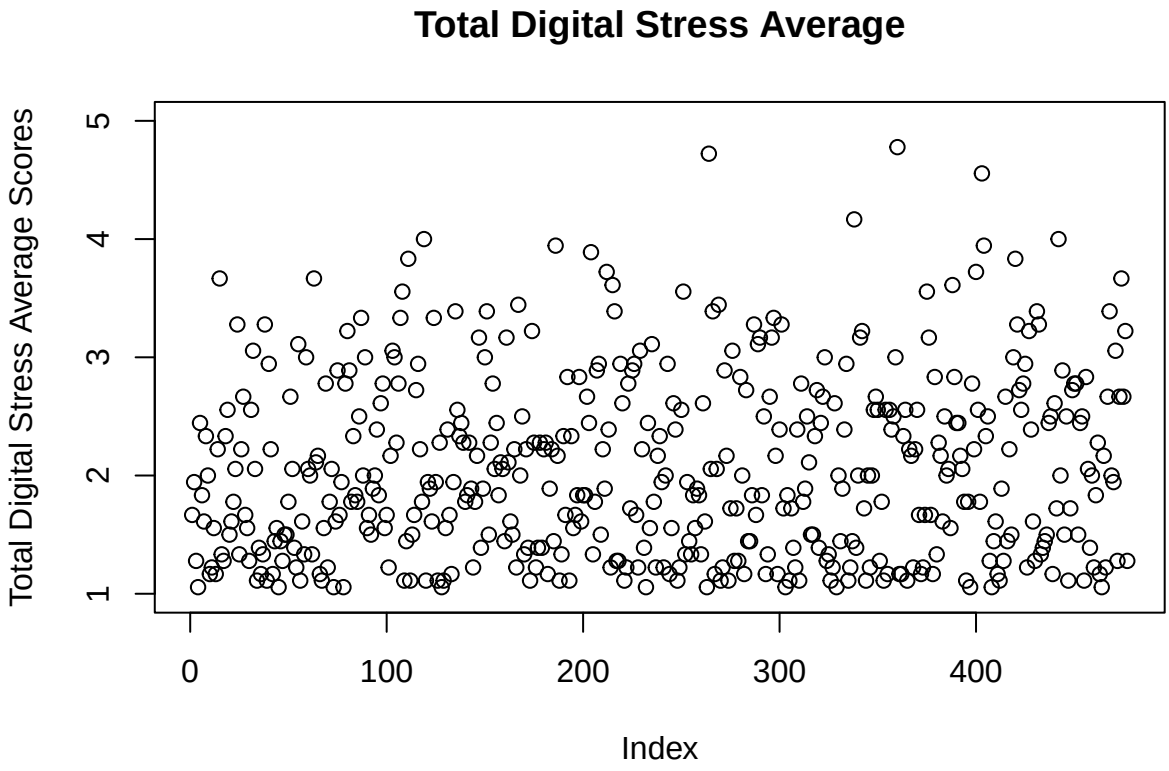

```r
#Connection Overload
plot(p6$connect_overload,
     main="Connection Overload",
     ylab="Connection Overload Scores",
     ylim=c(1, 5))
```




```r
#Online Vigilance
plot(p6$online_vigil,
     main="Online Vigilance",
     ylab="Online Vigilance Scores",
     ylim=c(1, 5))
```

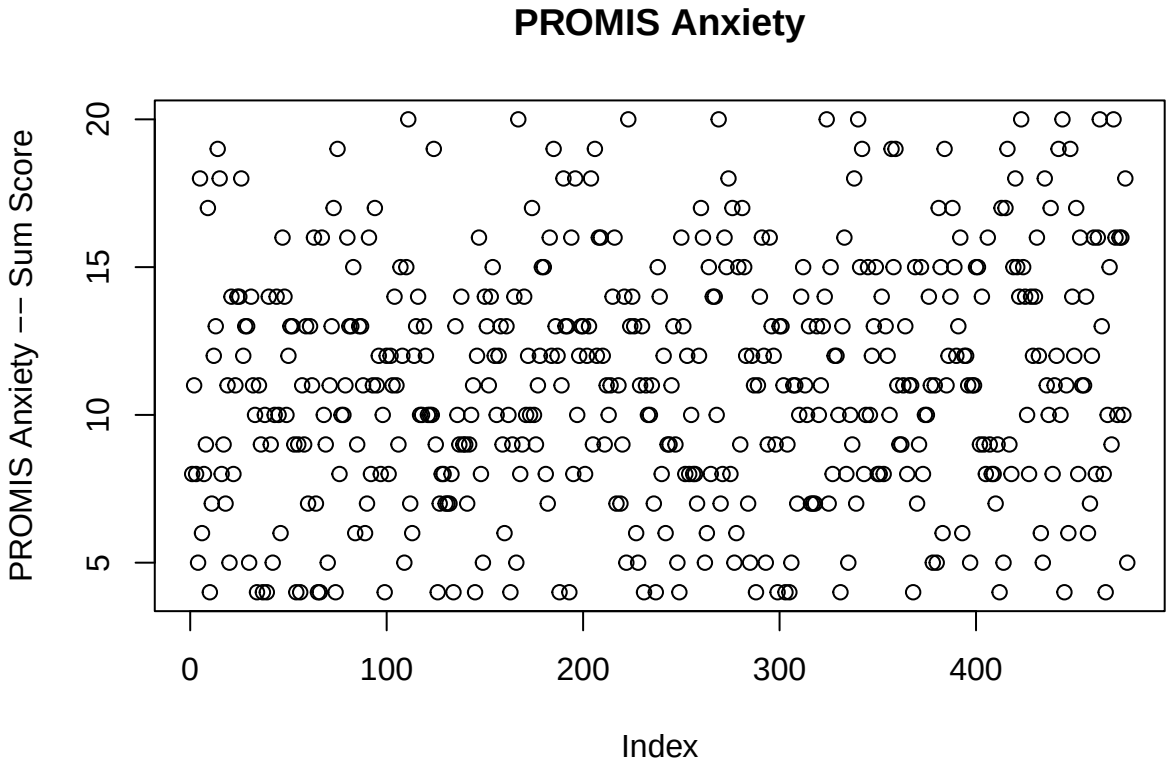


```r
#Total DSS
plot(p6$dss_total_avg,
     main="Total Digital Stress Average",
     ylab="Total Digital Stress Average Scores",
     ylim=c(1, 5))
```



###PROMIS Anxiety

```r
plot(p6$promis_anx_sum,
     main="PROMIS Anxiety",
     ylab="PROMIS Anxiety -- Sum Score",
     ylim=c(4, 20))
```



###PROMIS Depression

```
plot(p6$promis_dep_sum,
     main="PROMIS Depression",
     ylab="PROMIS Depression -- Sum Score",
     ylim=c(8, 40))
```