```r
In [1]:  # Load necessary library
         library(ggplot2)

         # Read the data
         data <- read.csv("Pilot_modified_data_1.csv")

         # Get column names except the first one (assuming it's an index or ID column)
         column_names <- names(data)[-1]

         # Loop through each column and create histograms
         for (col in column_names) {
           # Create a histogram plot using ggplot2
           ggplot(data, aes_string(x = col)) +
             geom_histogram(binwidth = 1, fill = "blue", color = "black") +
             labs(title = paste("Histogram of", col), x = col, y = "Frequency") +
             theme_minimal()

           # Save the plot as a PNG file
           ggsave(paste(col, "_histogram.png", sep = ""), width = 4, height = 4)
         }
```

```
Warning message:
"`aes_string()` was deprecated in ggplot2 3.0.0.
ℹ Please use tidy evaluation idioms with `aes()`.
ℹ See also `vignette("ggplot2-in-packages")` for more information."
```
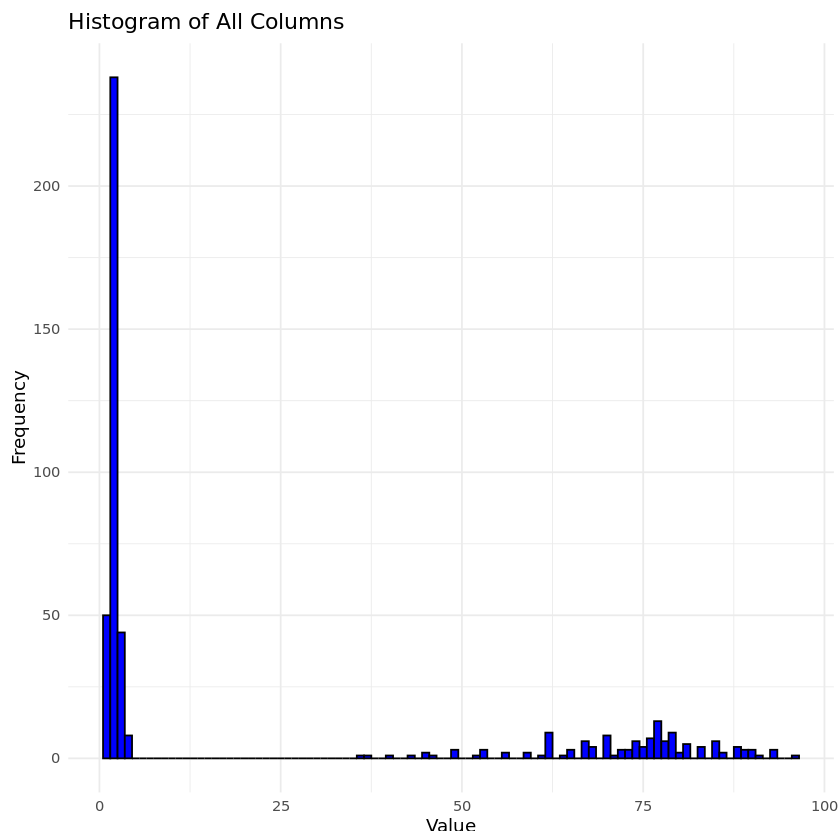
```r
In [2]:  # Load necessary library
         library(ggplot2)

         # Read the data
         data <- read.csv("Pilot_modified_data_1.csv")

         # Combine all column data into a single vector
         all_data <- unlist(data)

         # Create a histogram plot using ggplot2
         ggplot() +
           geom_histogram(aes(x = all_data), binwidth = 1, fill = "blue", color = "black") +
           labs(title = "Histogram of All Columns", x = "Value", y = "Frequency") +
           theme_minimal()

         # Save the plot as "super.png"
         ggsave("super.png", width = 8, height = 6)
```
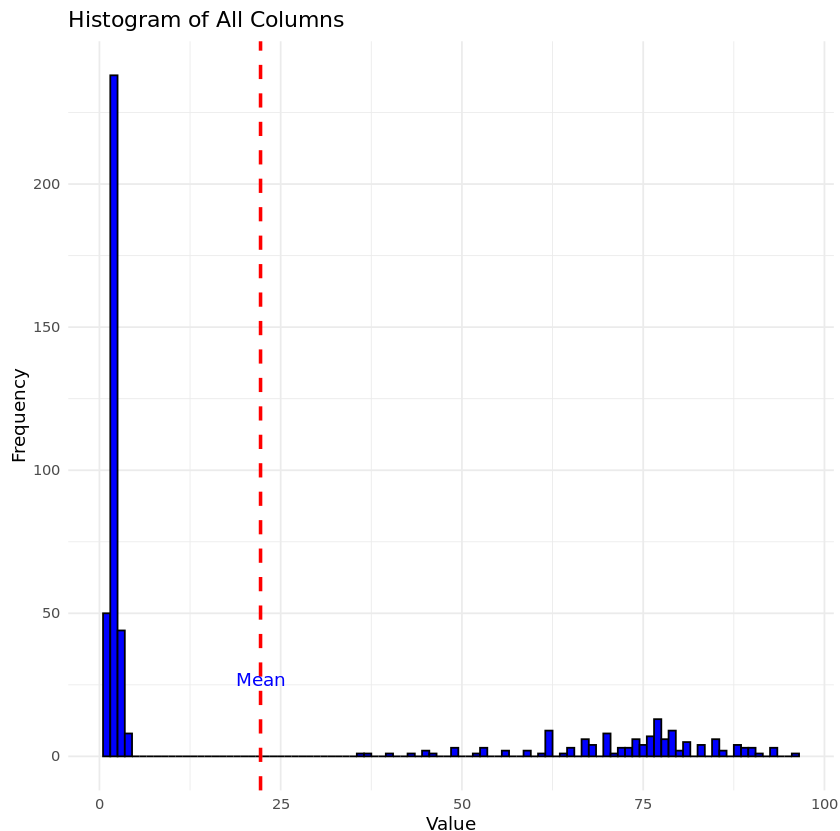
Histogram of All Columns


```r
# Load necessary library
library(ggplot2)

# Read the data
data <- read.csv("Pilot_modified_data_1.csv")

# Combine all column data into a single vector
all_data <- unlist(data)

# Create a histogram plot using ggplot2
ggplot() +
  geom_histogram(aes(x = all_data, fill = "All Columns"), binwidth = 1, color = "bl
  geom_vline(aes(xintercept = mean(all_data), color = "Mean"), linetype = "dashed",
  geom_text(aes(x = mean(all_data), y = 20, label = "Mean"), color = "blue", vjust
  labs(title = "Histogram of All Columns", x = "Value", y = "Frequency") +
  scale_fill_manual(values = c("All Columns" = "blue")) +
  scale_color_manual(values = c("Mean" = "red")) +
  theme_minimal() +
  theme(legend.position = "none")

# Save the plot as "super.png"
ggsave("super2.png", width = 8, height = 6)
```

Histogram of All Columns


```r
# Load necessary library
library(ggplot2)

# Read the data
data <- read.csv("Pilot_modified_data_1.csv")

# Combine all column data into a single vector
all_data <- unlist(data)

# Create a histogram plot using ggplot2
hist_plot <- ggplot() +
  geom_histogram(aes(x = all_data, fill = "All Columns"), binwidth = 1, color = "bl
  geom_vline(aes(xintercept = mean(all_data), color = "Mean"), linetype = "dashed",
  geom_text(aes(x = mean(all_data), y = 20, label = "Mean"), color = "blue", vjust
  labs(title = "Histogram of All Columns", x = "Value", y = "Frequency") +
  scale_fill_manual(values = c("All Columns" = "blue")) +
  scale_color_manual(values = c("Mean" = "red")) +
  theme_minimal() +
  theme(legend.position = "none")

# Create a new plot with labels on bars
hist_plot_with_labels <- hist_plot +
  geom_text(
    data = data.frame(x = mean(all_data), label = "Mean"),
    aes(x = x, y = 20, label = label),
    color = "blue", vjust = -1
  ) +
  geom_text(
    data = data.frame(x = unique(all_data), label = as.character(unique(all_data)))
    aes(x = x, y = 5, label = label),
```

```
      position = position_stack(vjust = 0.5),
      show.legend = FALSE
    )

    # Save the plot as "super_with_labels.png"
    ggsave("super_with_labels.png", hist_plot_with_labels, width = 8, height = 6)
```

In [8]:
```
# Load necessary library
library(ggplot2)

# Read the data
data <- read.csv("Pilot_modified_data_1.csv")

# Get column names except the first one (assuming it's an index or ID column)
column_names <- names(data)[-1]

# Loop through each column and create histograms
for (col in column_names) {
  # Create a histogram plot using ggplot2
  histogram <- ggplot(data, aes_string(x = col)) +
    geom_histogram(binwidth = 1, fill = "blue", color = "black") +
    labs(title = paste("Histogram of", col), x = col, y = "Frequency") +
    theme_minimal()

  # Display the histogram
  print(histogram)

  # Save the plot as a PNG file
  ggsave(paste(col, "_histogram.png", sep = ""), histogram, width = 4, height = 4)
}
```
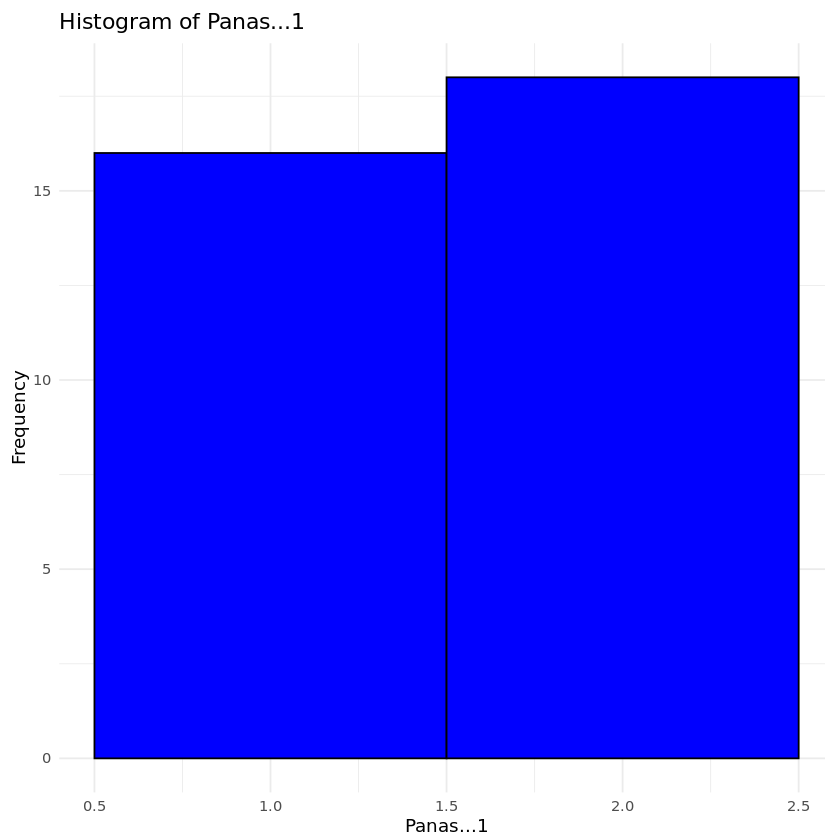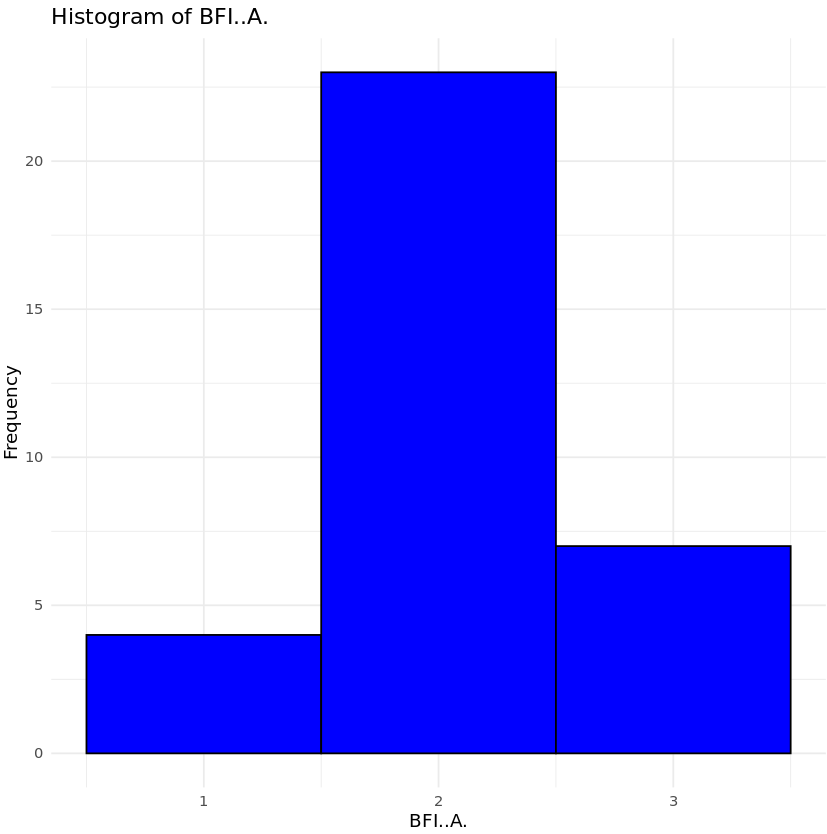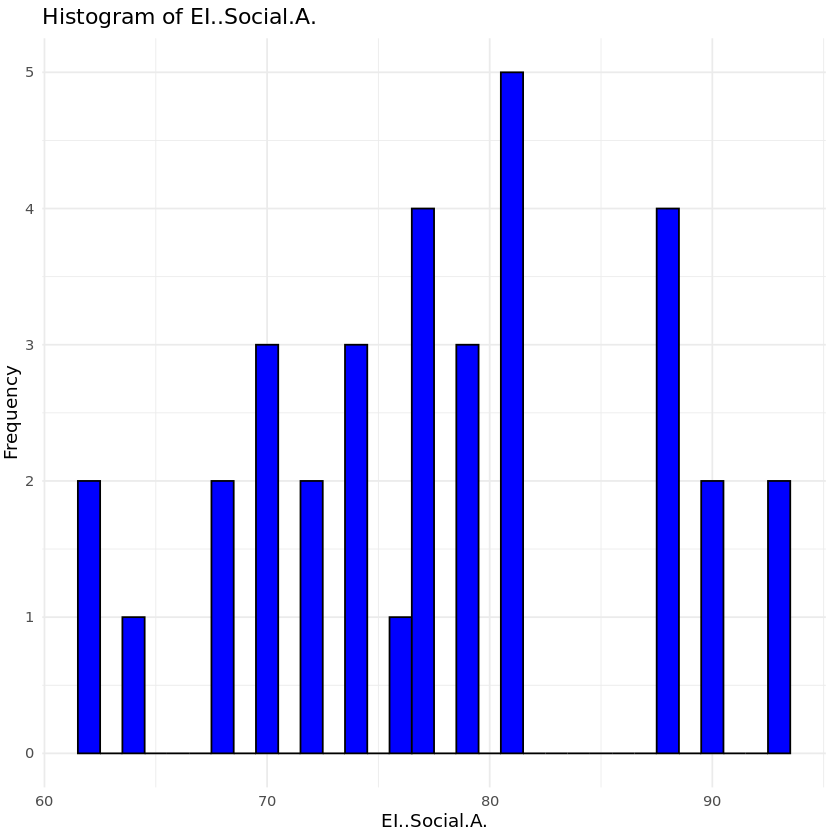
Histogram of Panas...1

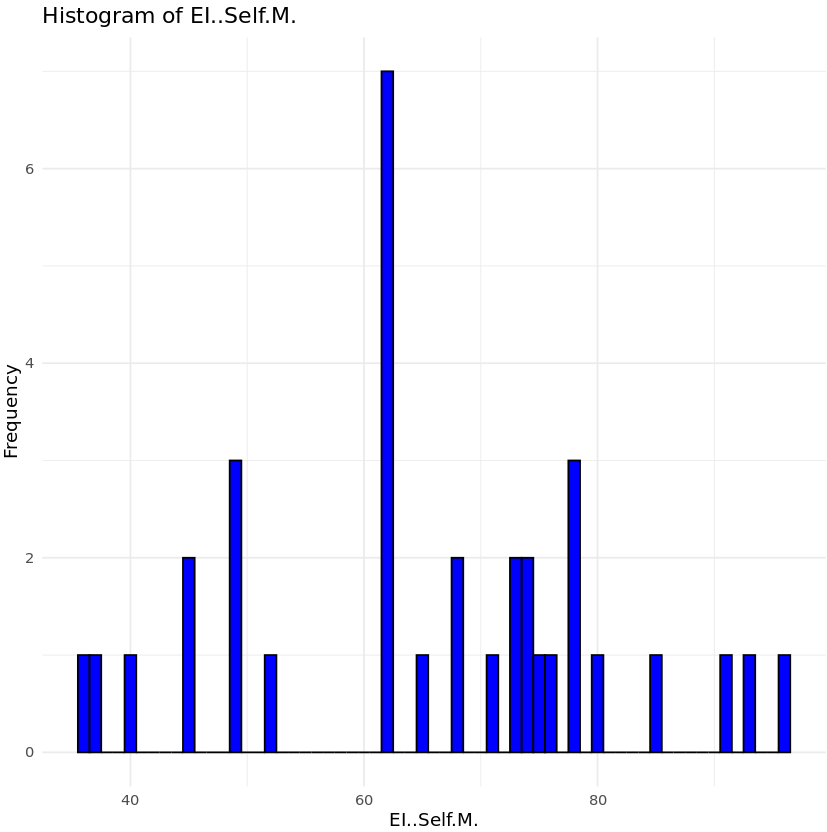## Histogram of BFI..E.

Histogram of BFI..A.

Histogram of BFI..C.

Histogram of BFI..N.

Histogram of BFI..O.

Histogram of EI..Self.A.

Histogram of EI..Self.M.

Histogram of EI..Social.A.

Histogram of EI..RM.

Histogram of Total
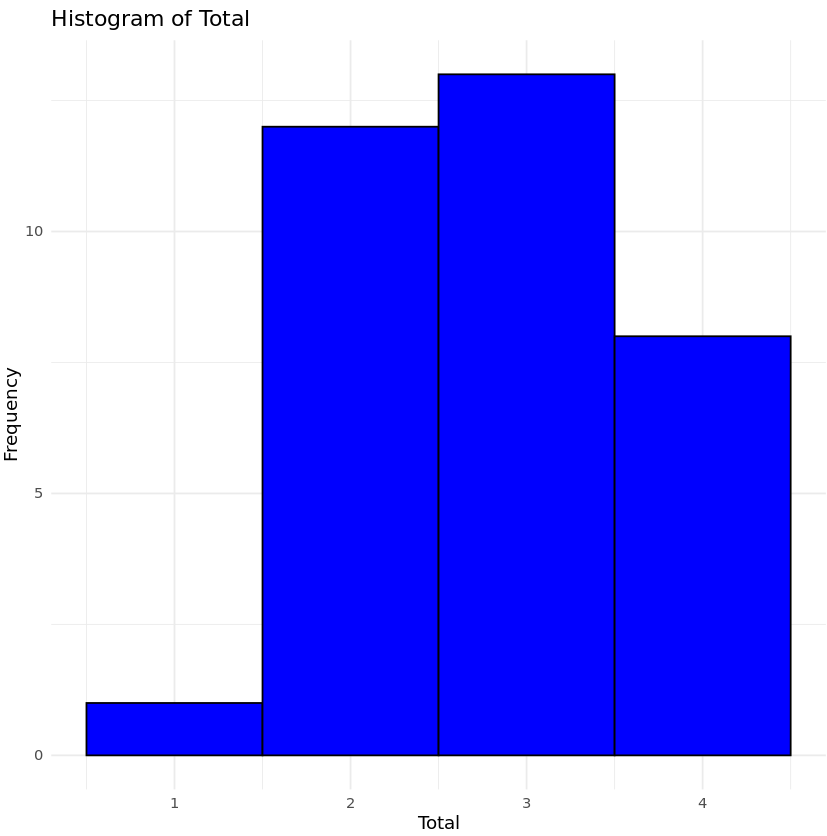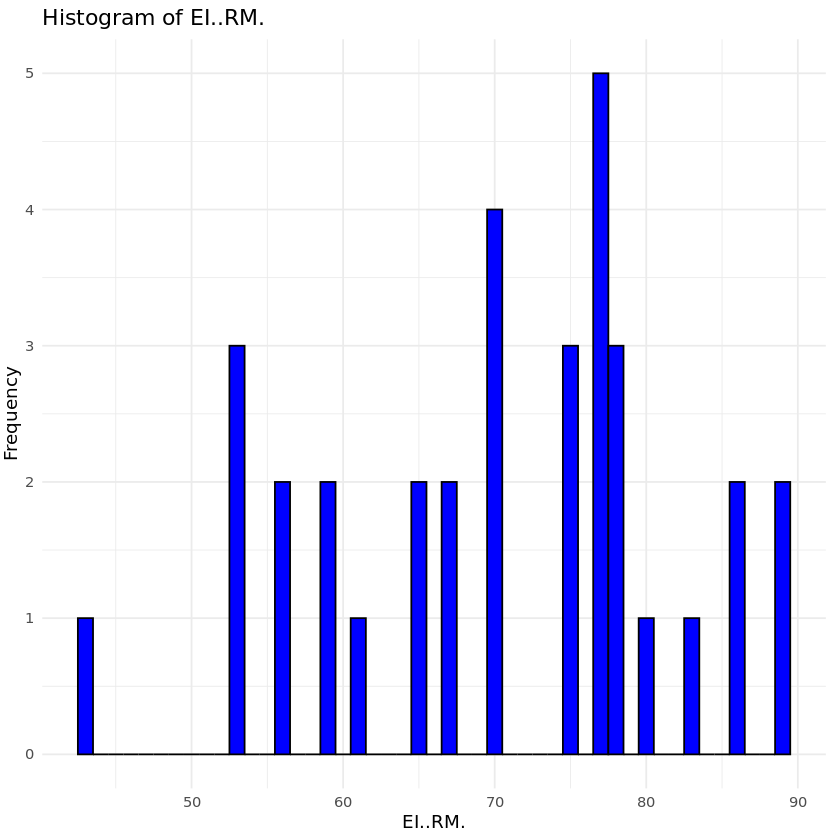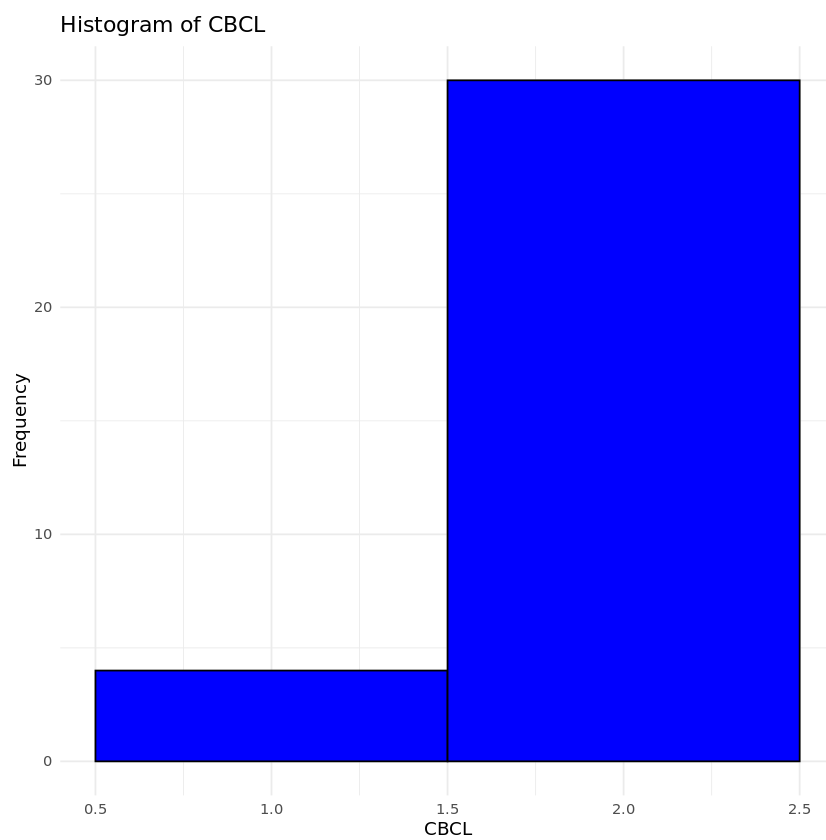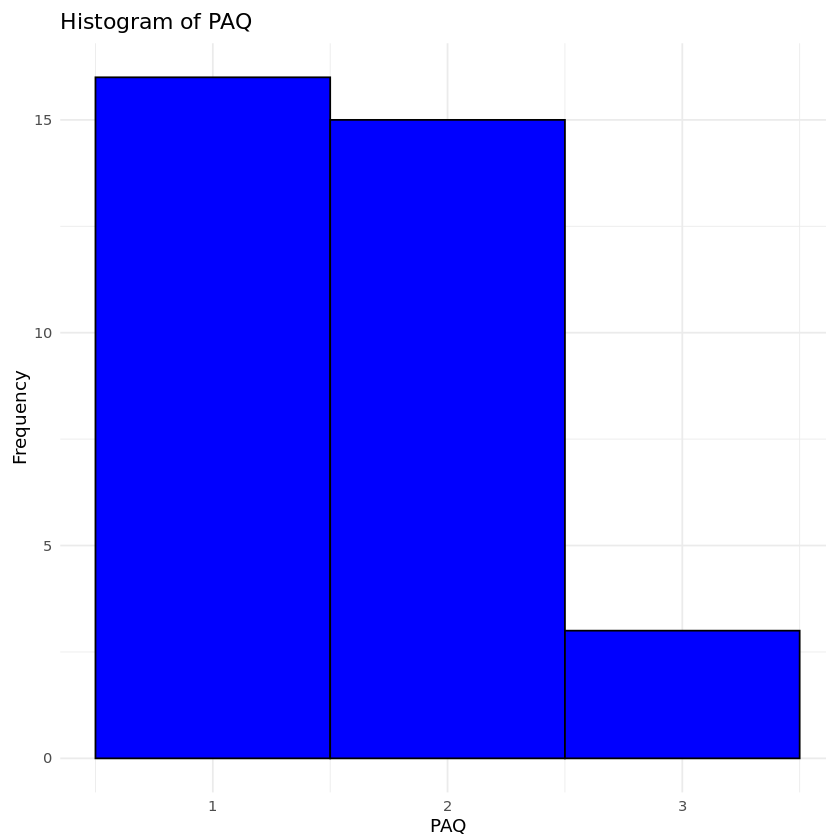
Histogram of PAQ

Histogram of CBCL

In [9]:
```
# Load necessary library
library(ggplot2)
library(dplyr)

# Read the data
```

```r
data <- read.csv("Pilot_modified_data_1.csv")

# Get column names except the first one (assuming it's an index or ID column)
column_names <- names(data)[-1]

# Loop through each column and create histograms
for (col in column_names) {
  # Calculate summary statistics
  col_mean <- mean(data[[col]])
  col_median <- median(data[[col]])
  col_mode <- as.numeric(names(sort(table(data[[col]]), decreasing = TRUE)[1]))
  col_sd <- sd(data[[col]])

  # Create a histogram plot using ggplot2
  histogram <- ggplot(data, aes_string(x = col)) +
    geom_histogram(binwidth = 1, fill = "blue", color = "black") +
    labs(title = paste("Histogram of", col), x = col, y = "Frequency") +
    theme_minimal() +
    geom_vline(aes(xintercept = col_mean), color = "red", linetype = "dashed", size
    geom_vline(aes(xintercept = col_median), color = "green", linetype = "dashed",
    geom_vline(aes(xintercept = col_mode), color = "purple", linetype = "dashed", s
    geom_text(aes(label = paste("Mean =", sprintf("%.2f", col_mean))), x = col_mean
    geom_text(aes(label = paste("Median =", sprintf("%.2f", col_median))), x = col_
    geom_text(aes(label = paste("Mode =", sprintf("%.2f", col_mode))), x = col_mode
    geom_text(aes(label = paste("SD =", sprintf("%.2f", col_sd))), x = col_mean + 2

  # Display the histogram
  print(histogram)

  # Save the plot as a PNG file
  ggsave(paste(col, "_histogram.png", sep = ""), histogram, width = 6, height = 6)
}
```
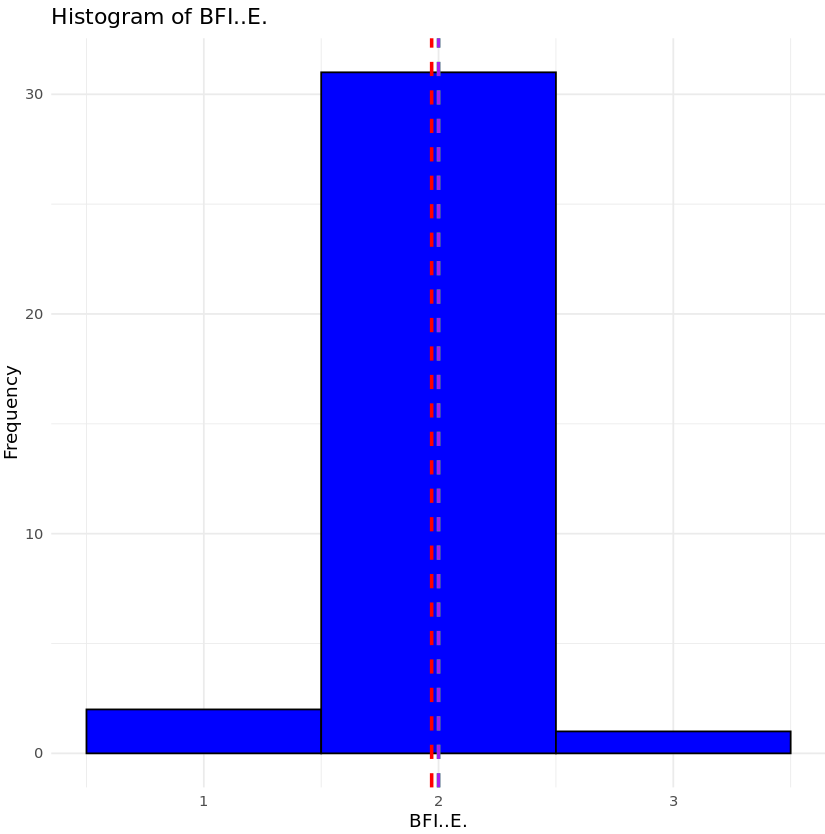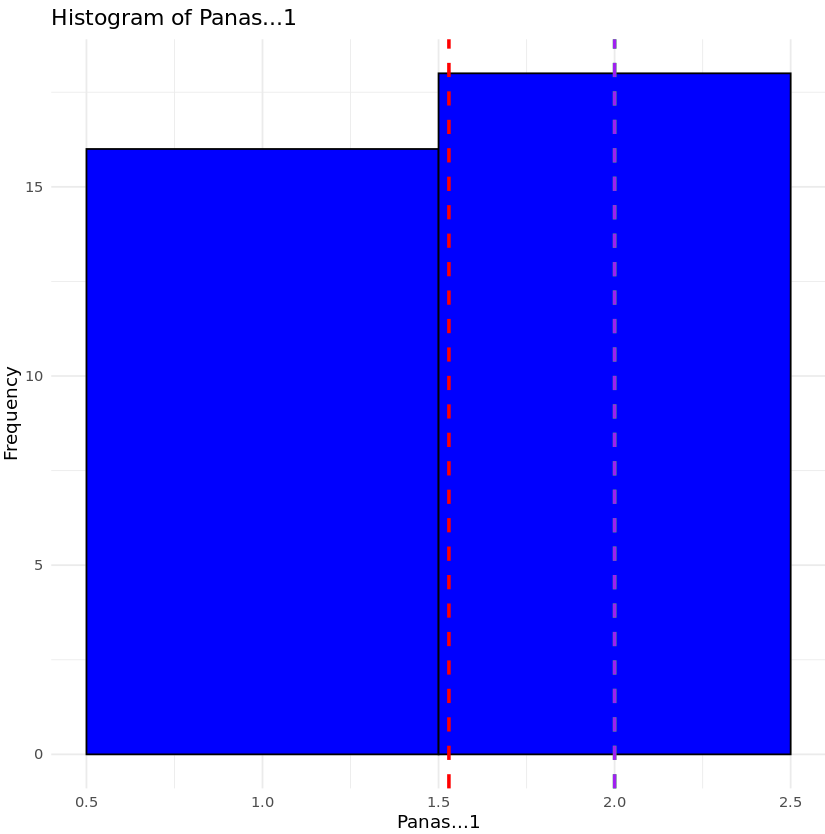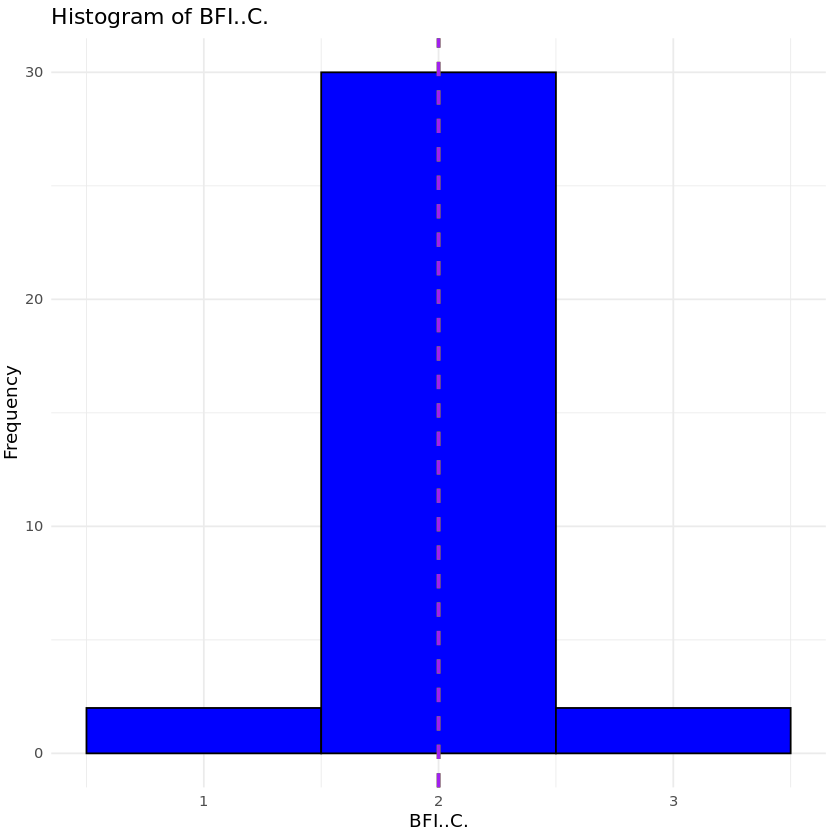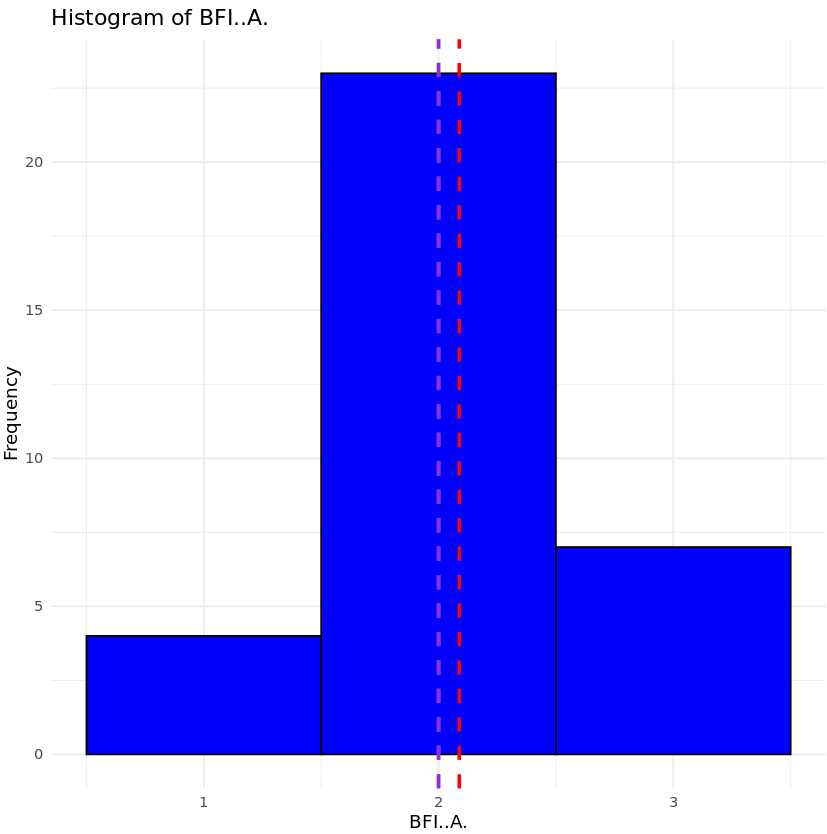
```
Attaching package: 'dplyr'


The following objects are masked from 'package:stats':

    filter, lag


The following objects are masked from 'package:base':

    intersect, setdiff, setequal, union
```
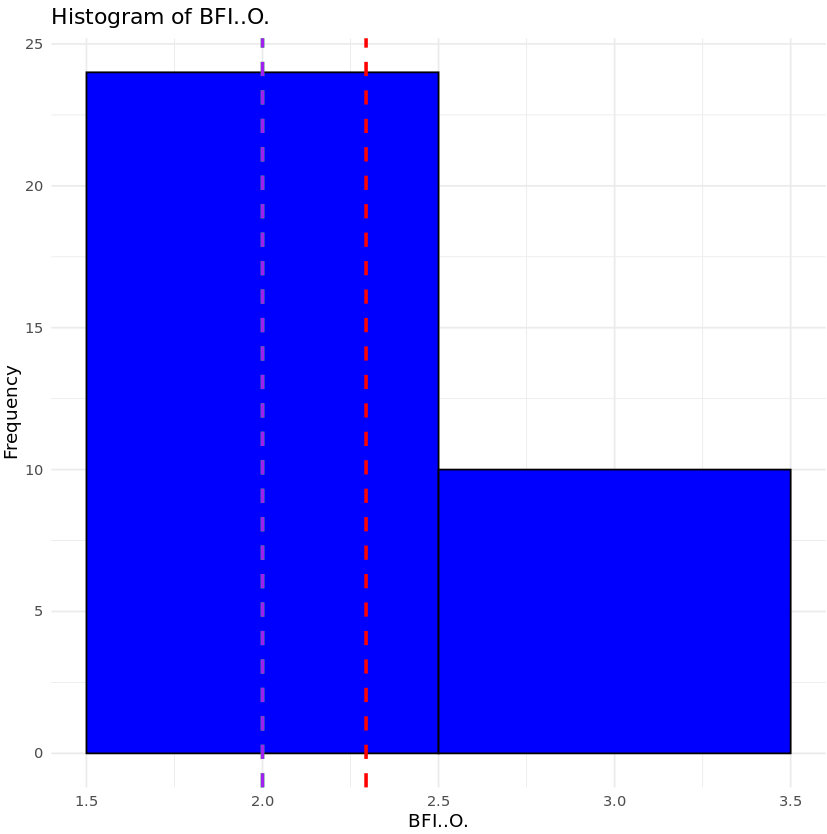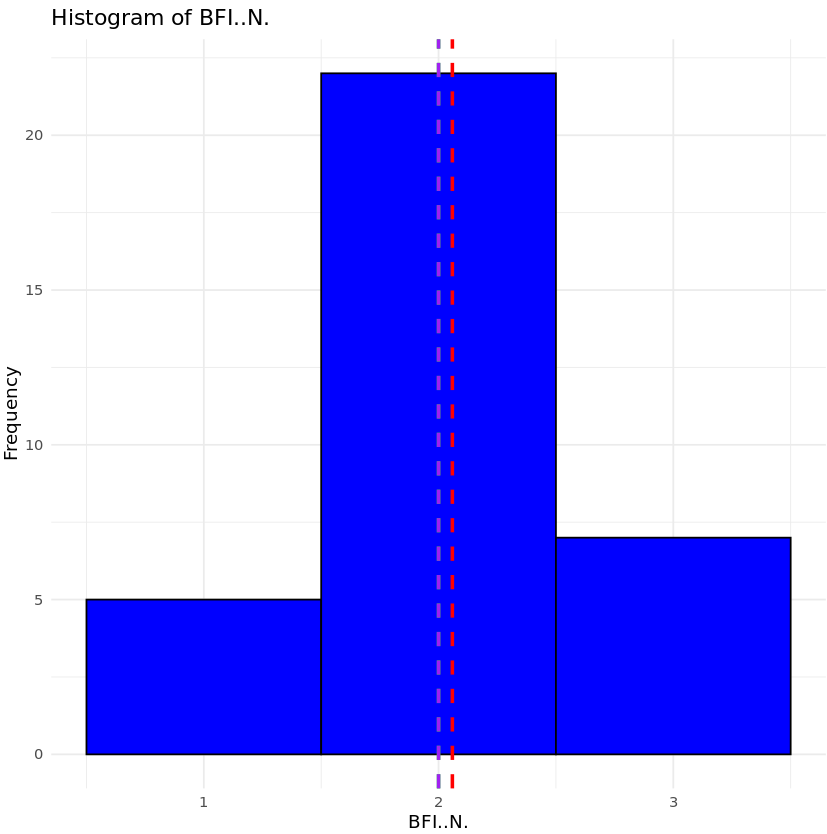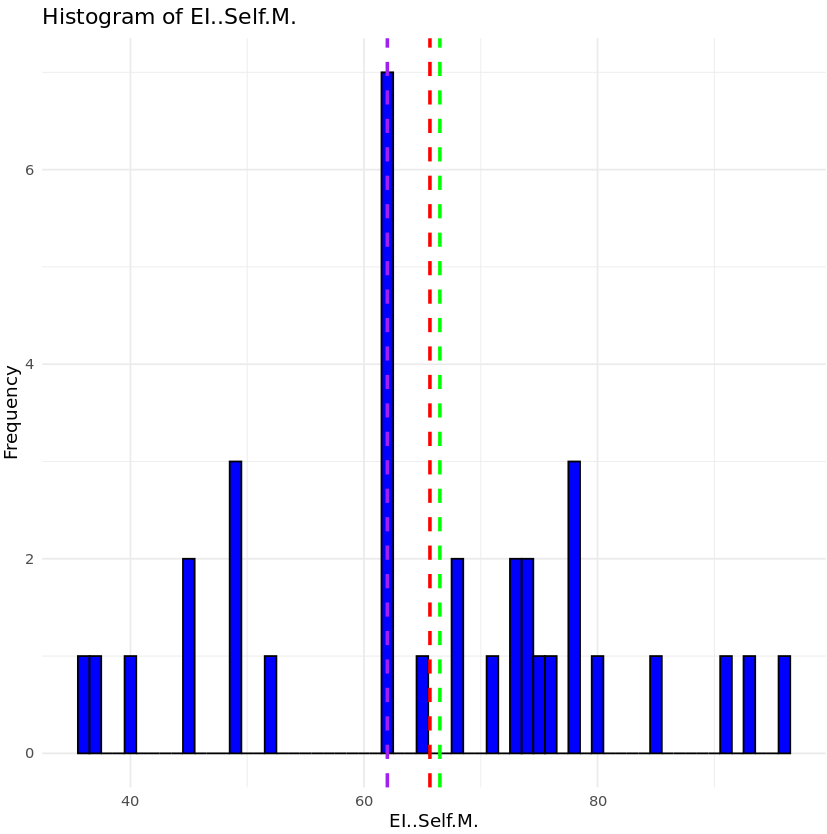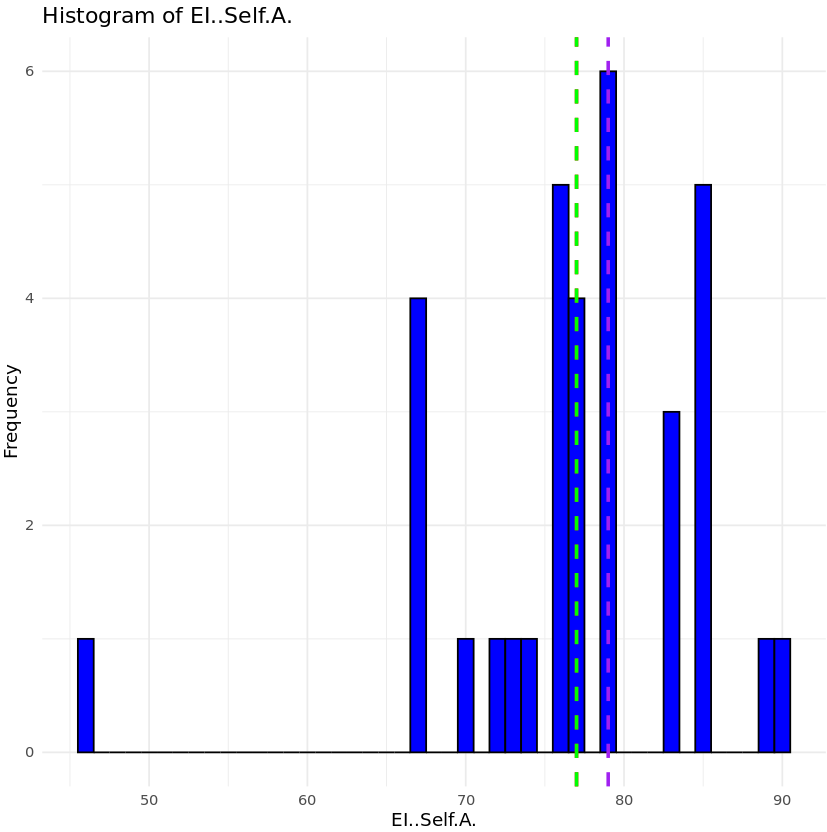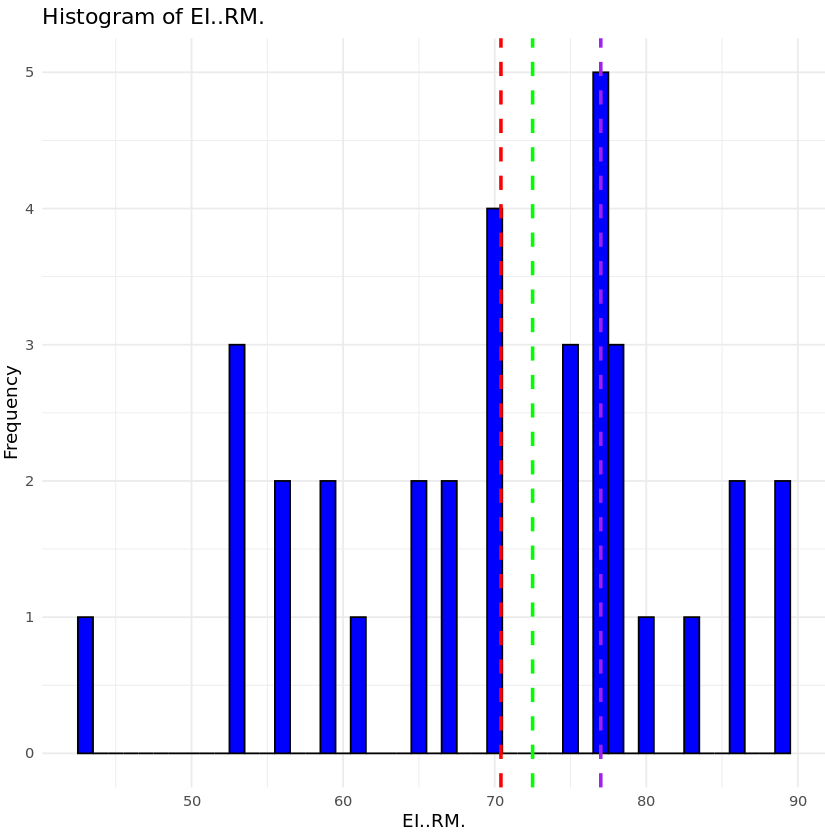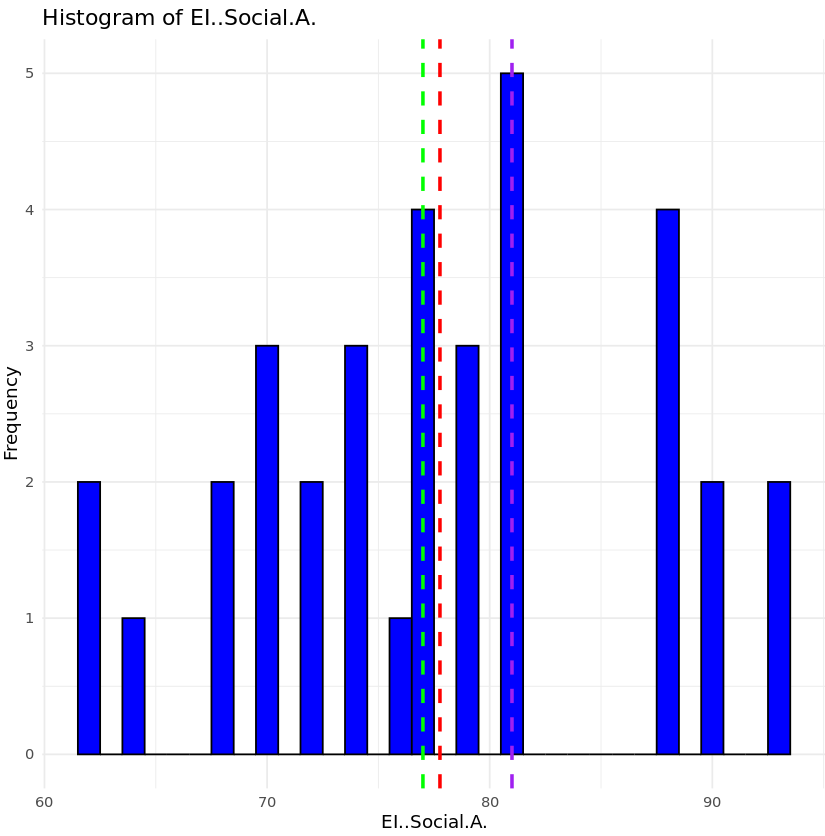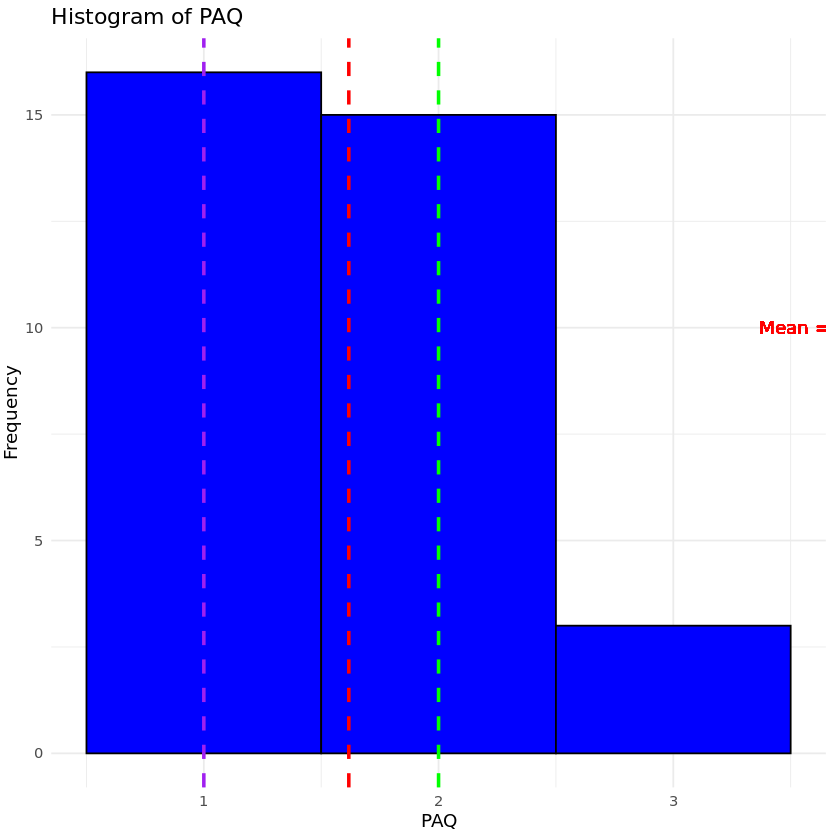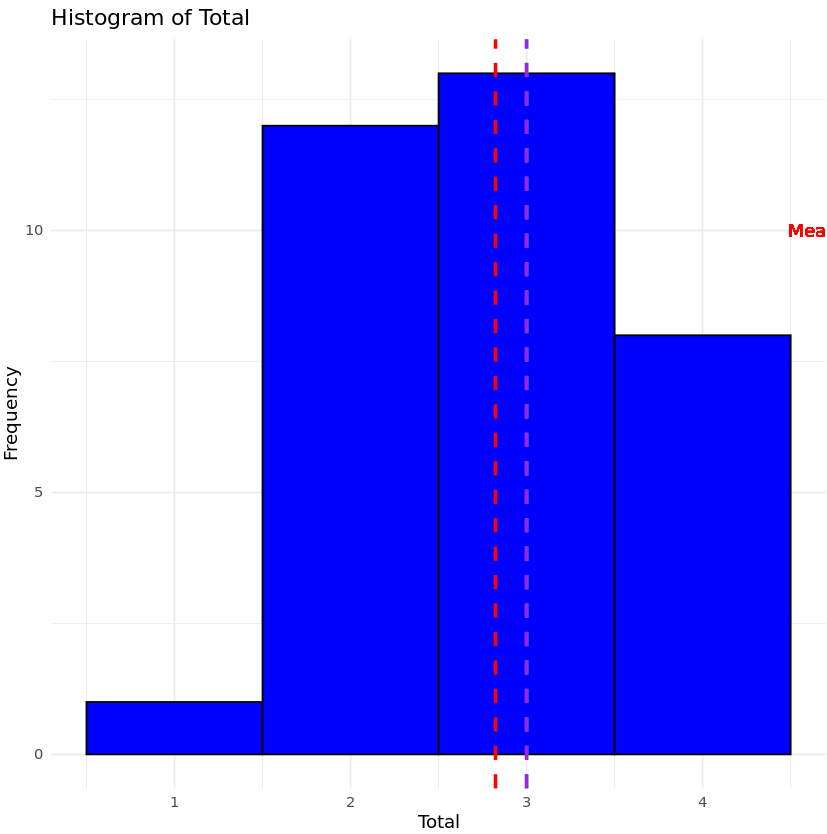
Histogram of Panas...1

Frequency

Panas...1

Histogram of BFI..E.

Frequency

BFI..E.

Histogram of BFI..A.

Histogram of BFI..C.

Histogram of BFI..N.

Histogram of BFI..O.

Histogram of EI..Self.A.

Histogram of EI..Self.M.

Histogram of EI..Social.A.

Histogram of EI..RM.

Histogram of Total

Histogram of PAQ

Histogram of CBCL
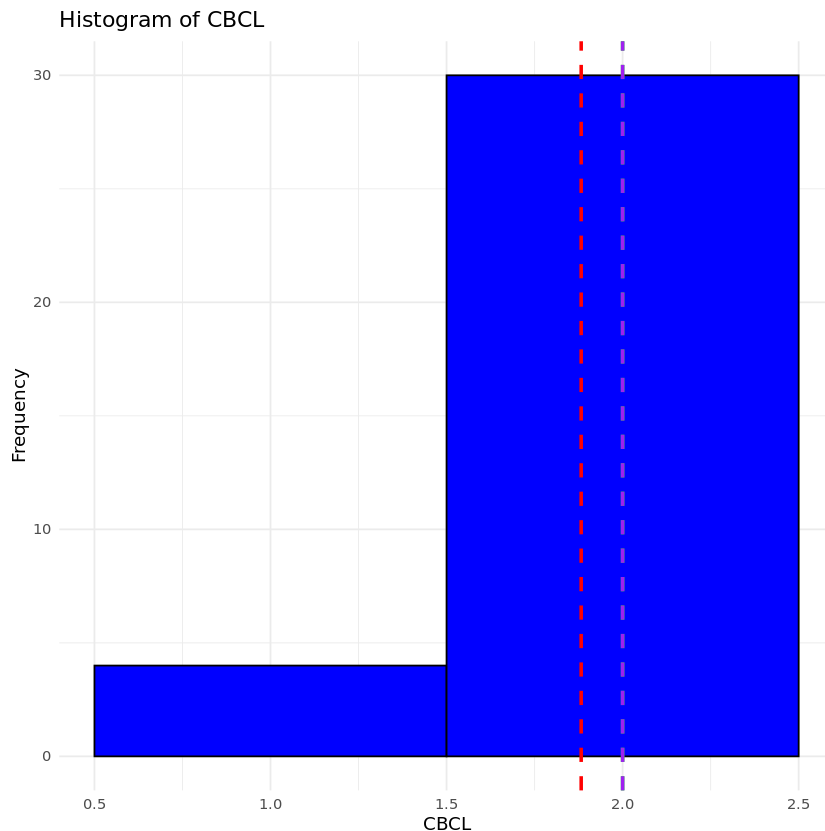


```
In [10]:  # Load necessary library
          library(ggplot2)
          library(dplyr)

          # Read the data
          data <- read.csv("Pilot_modified_data_1.csv")

          # Get column names except the first one (assuming it's an index or ID column)
          column_names <- names(data)[-1]

          # Loop through each column and create histograms
          for (col in column_names) {
            # Calculate summary statistics
            col_mean <- mean(data[[col]])
            col_median <- median(data[[col]])
            col_mode <- as.numeric(names(sort(table(data[[col]]), decreasing = TRUE)[1]))
            col_sd <- sd(data[[col]])

            # Create a histogram plot using ggplot2
            histogram <- ggplot(data, aes_string(x = col)) +
              geom_histogram(binwidth = 1, fill = "blue", color = "black") +
              labs(title = paste("Histogram of", col), x = col, y = "Frequency") +
              theme_minimal() +
              geom_vline(aes(xintercept = col_mean), color = "red", linetype = "dashed", size
              geom_text(aes(label = "Mean"), x = col_mean + 2, y = 10, color = "red") +
              geom_vline(aes(xintercept = col_median), color = "green", linetype = "dashed",
              geom_text(aes(label = "Median"), x = col_median + 2, y = 15, color = "green") +
              geom_vline(aes(xintercept = col_mode), color = "purple", linetype = "dashed", s
              geom_text(aes(label = "Mode"), x = col_mode + 2, y = 20, color = "purple") +
              geom_vline(aes(xintercept = col_mean + col_sd), color = "blue", linetype = "das
```
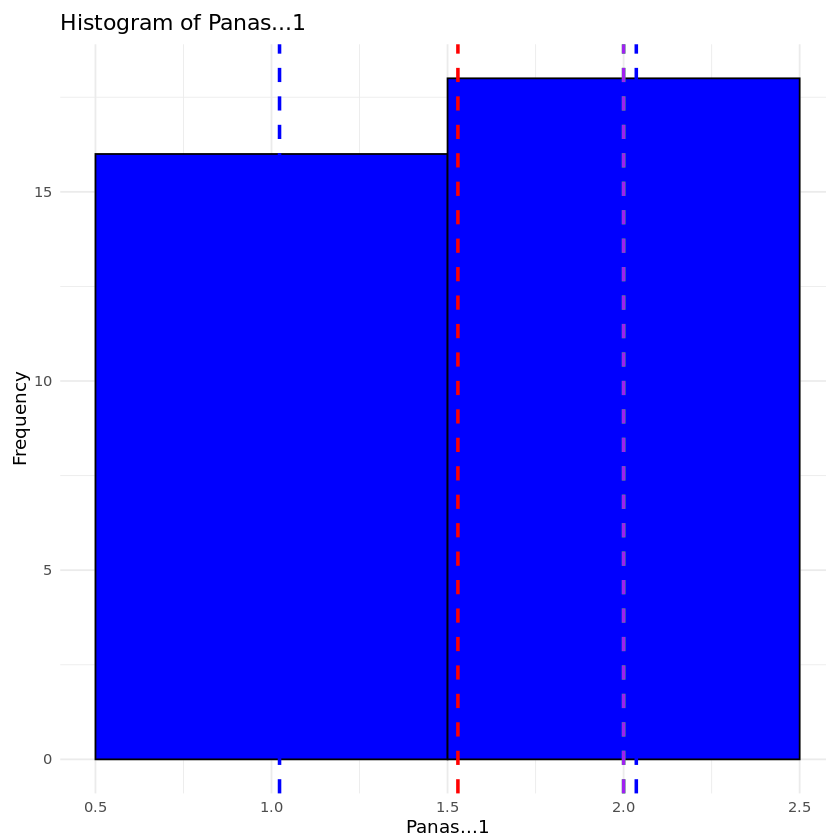
```
    geom_vline(aes(xintercept = col_mean - col_sd), color = "blue", linetype = "das
    geom_text(aes(label = "SD"), x = col_mean + 2, y = 25, color = "blue") +
    geom_text(aes(label = "SD"), x = col_mean + col_sd + 2, y = 25, color = "blue")
    geom_text(aes(label = "SD"), x = col_mean - col_sd + 2, y = 25, color = "blue")

  # Display the histogram
  print(histogram)

  # Save the plot as a PNG file
  ggsave(paste(col, "_histogram.png", sep = ""), histogram, width = 6, height = 6)
}
```
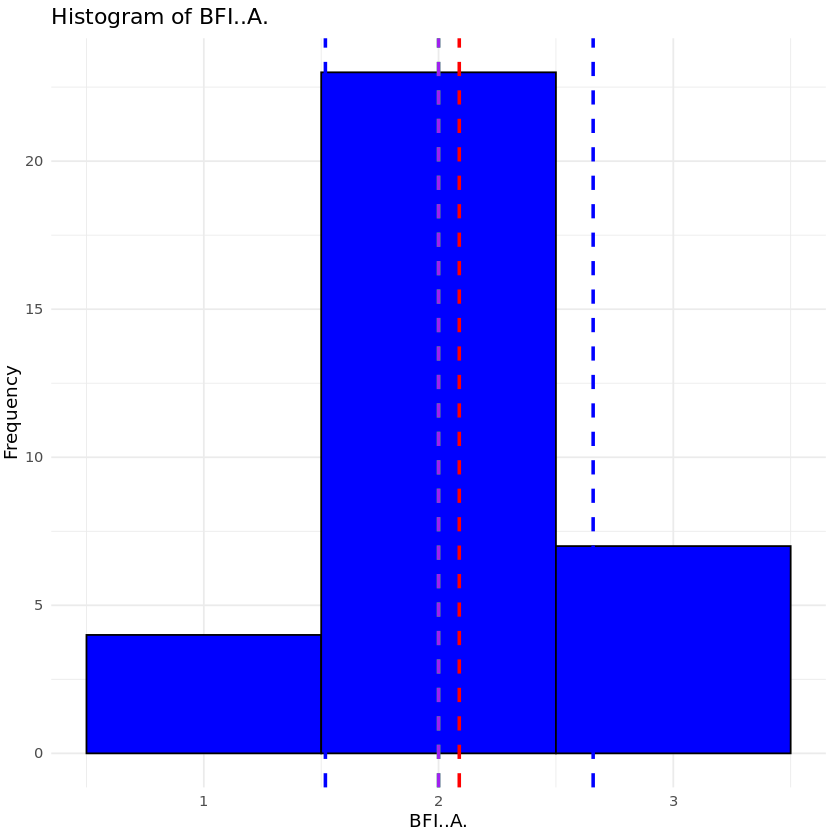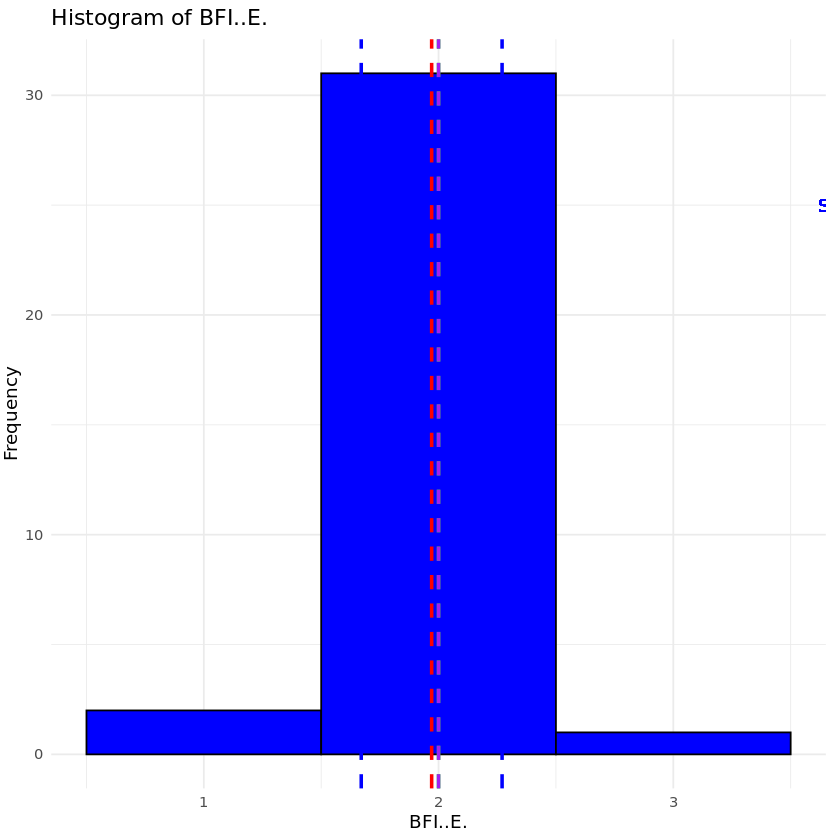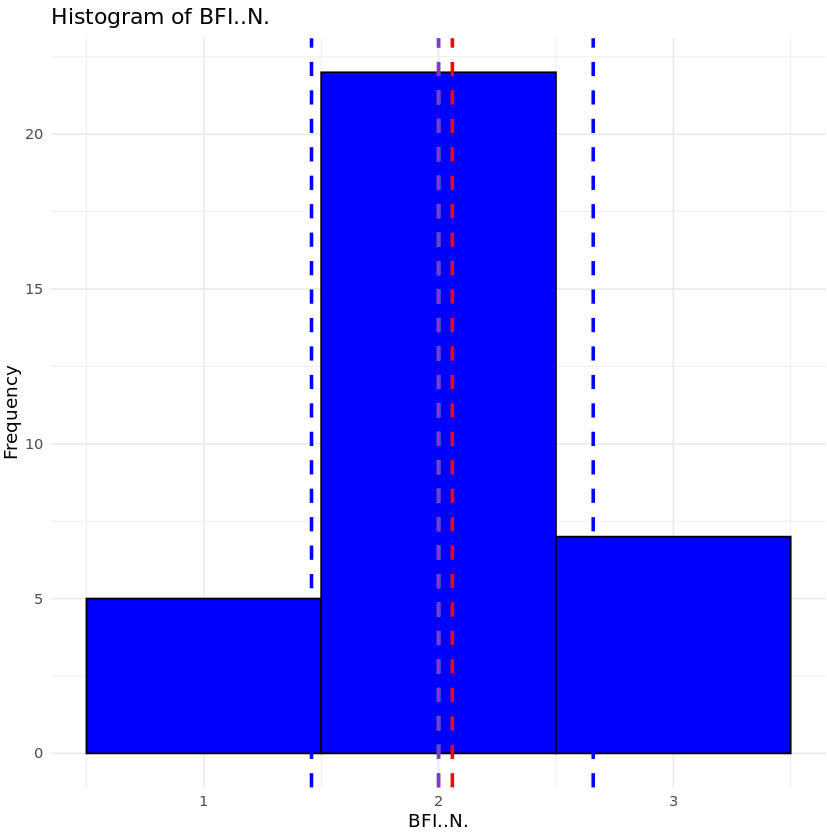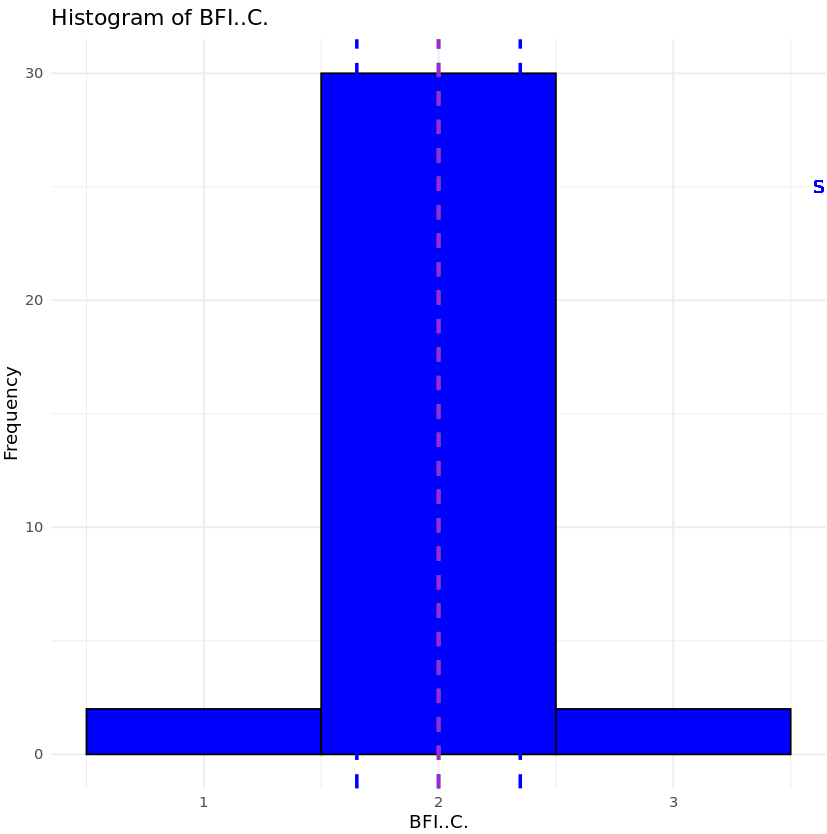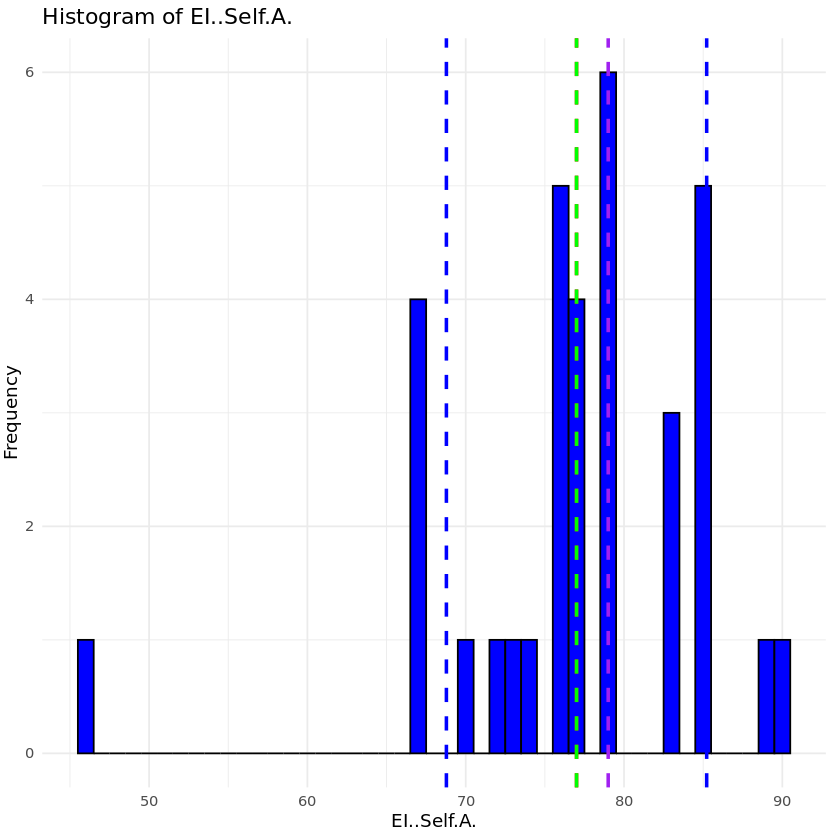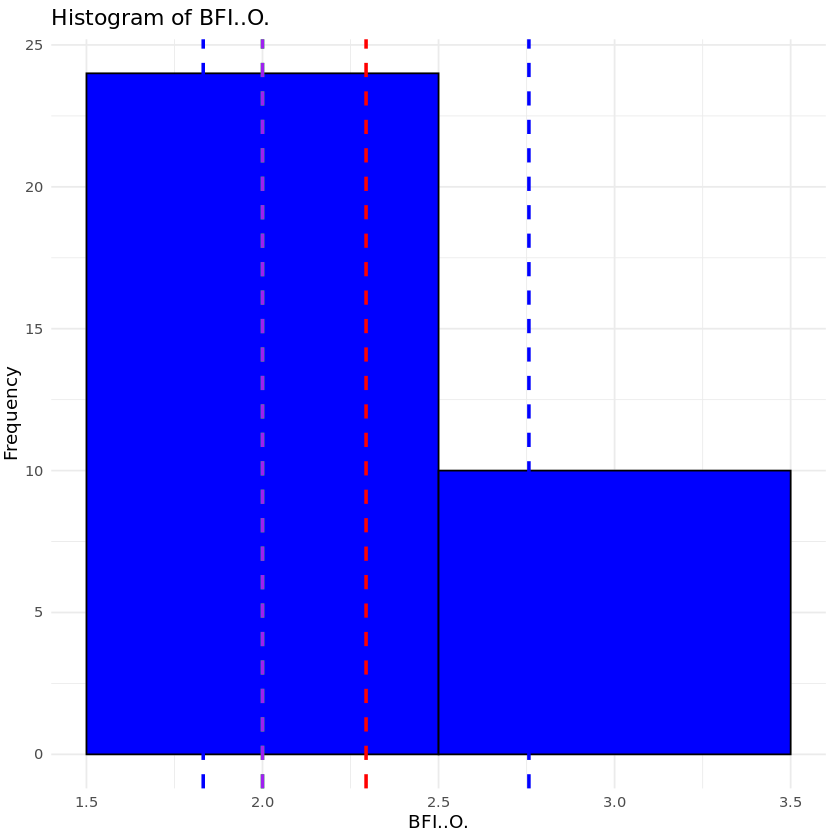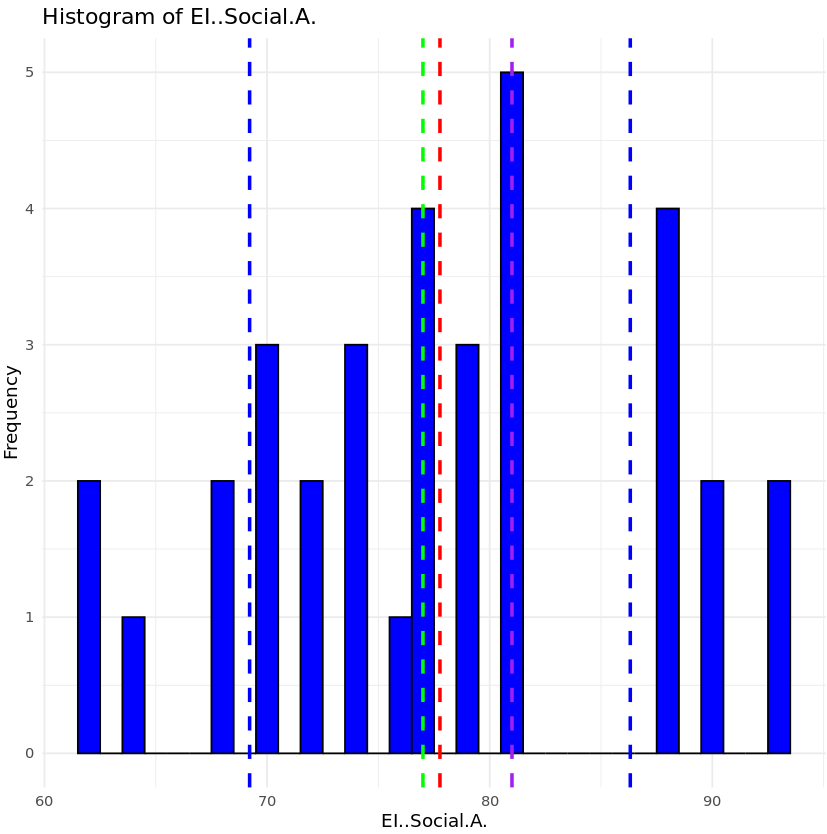
Histogram of Panas...1

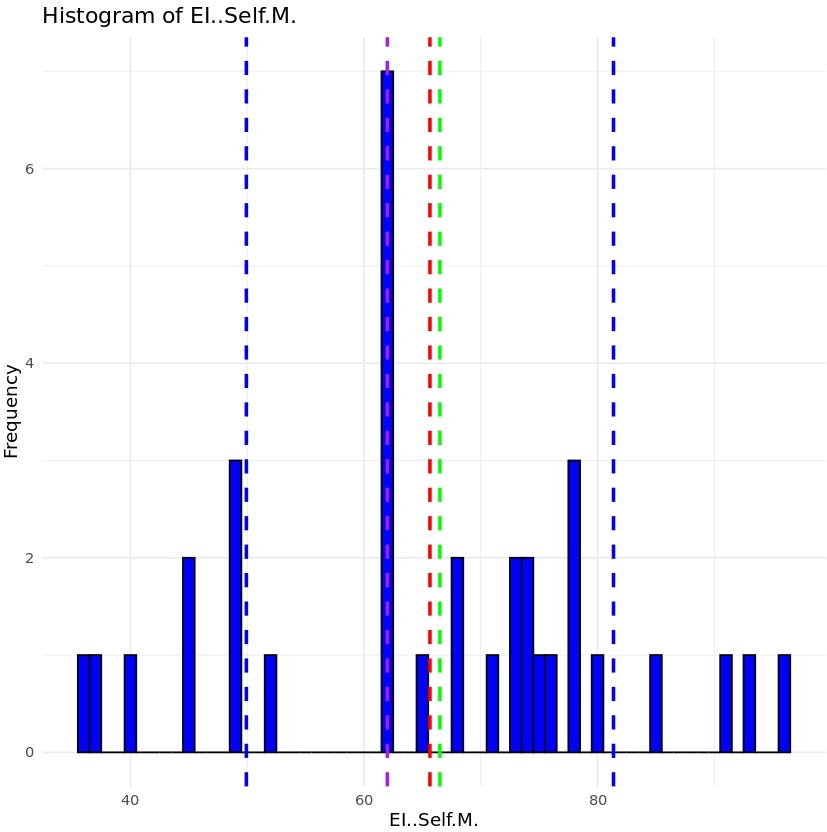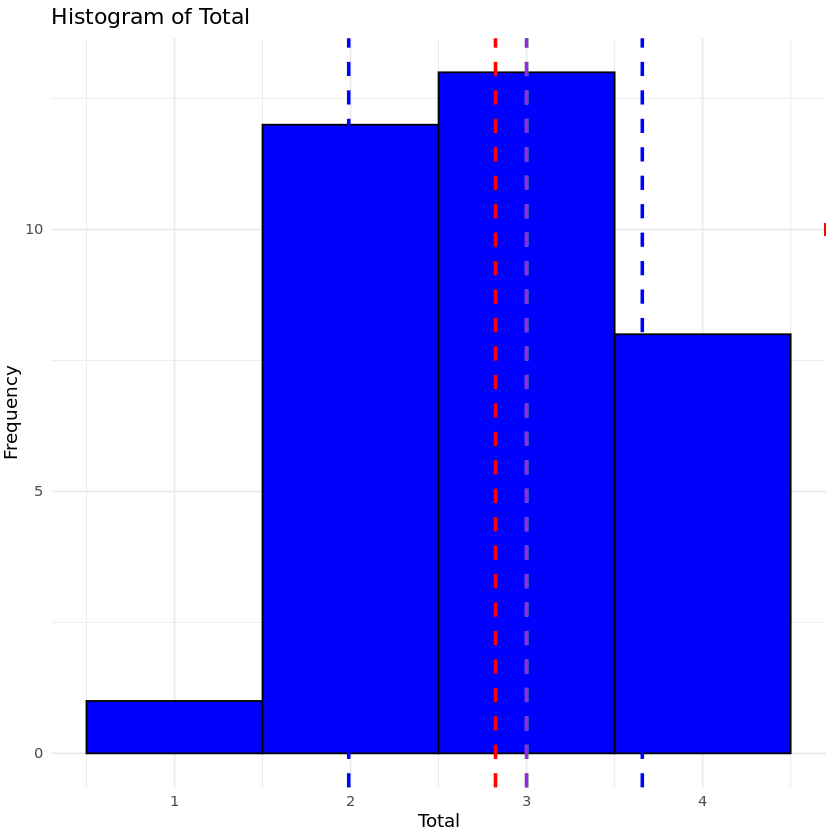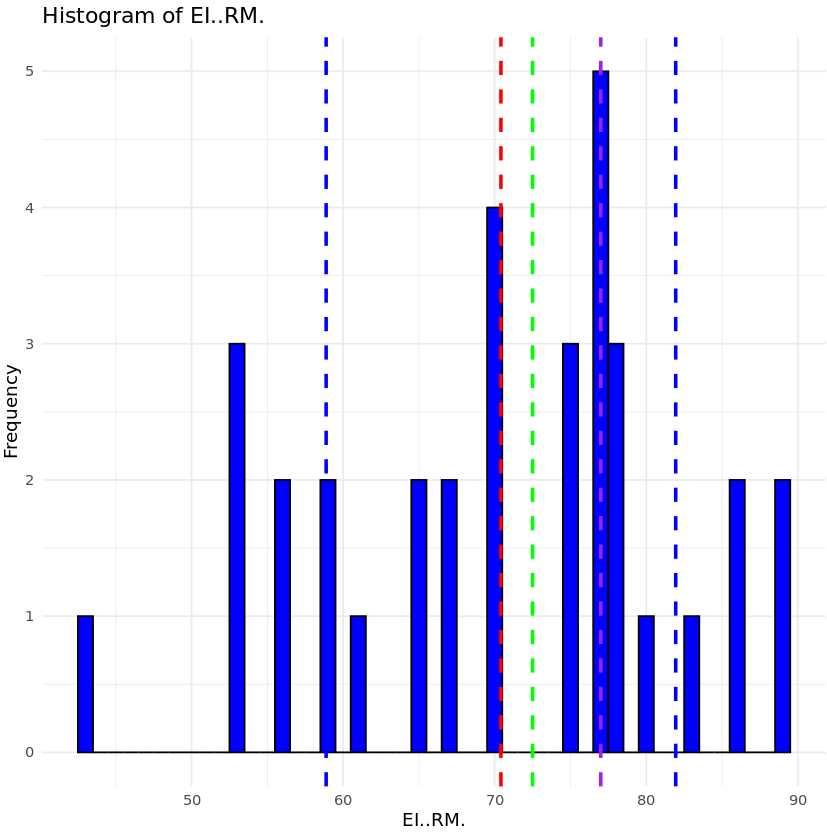### Histogram of BFI..E.

Histogram of BFI..A.

Histogram of BFI..C.

Histogram of BFI..N.

Histogram of BFI..O.

Histogram of EI..Self.A.

Histogram of EI..Self.M.

Histogram of EI..Social.A.

Histogram of EI..RM.

Histogram of Total

Histogram of PAQ

Histogram of CBCL

In [ ]: