```r
In [1]: # Sources Used ::
        # 1. https://cran.r-project.org/web/packages/bda/index.html
        # 2. https://www.rdocumentation.org/packages/bda/versions/16.1.3/topics/mediation.t
        # 3. https://www.r-bloggers.com/2022/01/how-to-perform-the-sobel-test-in-r/
        # 4. https://www.statology.org/sobel-test-in-r/
        # 5. https://datasciencetut.com/how-to-test-the-significance-of-a-mediation-effect/
        # 6. https://clayford.github.io/BDA/ [Not Used ]

        #install bda package if not already installed
        install.packages('bda')

        #load bda package
        library(bda)

        # Sample data frame 'data' with columns 'Panas..', 'Panas...1', 'BFI..E.', 'BFI..A.
        data <- read.csv("Pilot_modified_data_1.csv")

        # Independent variables
        independent_vars <- c('BFI..E.', 'BFI..A.', 'BFI..C.', 'BFI..N.', 'BFI..O.', 'EI..S

        # Dependent variables
        dependent_vars <- c('Panas..', 'Panas...1', 'CBCL')

        # Mediator variable
        mediator_var <- 'PAQ'

        # Function to perform Sobel test for a given combination of variables
        perform_sobel_test <- function(independent_var, dependent_var, mediator_var) {
          print(paste("Independent Variable:", independent_var))
          print(paste("Dependent Variable:", dependent_var))
          print(paste("Mediator Variable:", mediator_var))

          result <- mediation.test(data[[mediator_var]], data[[independent_var]], data[[dep
          print(result)
          cat("\n")
          print(paste("=================================================================
          cat("\n")
        }

        # Loop through all combinations of independent, dependent, and mediator variables
        for (ind_var in independent_vars) {
          for (dep_var in dependent_vars) {
            perform_sobel_test(ind_var, dep_var, mediator_var)
          }
        }
```

```
Updating HTML index of packages in '.Library'

Making 'packages.html' ...
 done

Loading required package: boot

bda v15 (Bin Wang, 2021)
```

```
[1] "Independent Variable: BFI..E."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
             Sobel     Aroian Goodman
z.value 0.3945421 0.2446141      NA
p.value 0.6931809 0.8067552      NA


[1] "================================================================
===="


[1] "Independent Variable: BFI..E."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
             Sobel     Aroian   Goodman
z.value 0.4816523 0.3663888 0.9237912
p.value 0.6300529 0.7140750 0.3555950


[1] "================================================================
===="


[1] "Independent Variable: BFI..E."
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
             Sobel     Aroian Goodman
z.value 0.3194426 0.1781558      NA
p.value 0.7493909 0.8586006      NA


[1] "================================================================
===="


[1] "Independent Variable: BFI..A."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
              Sobel      Aroian    Goodman
z.value -0.2534252 -0.2424319 -0.2660639
p.value  0.7999396  0.8084455  0.7901900


[1] "================================================================
===="


[1] "Independent Variable: BFI..A."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
             Sobel    Aroian   Goodman
z.value 1.2481059 1.2011323 1.3010599
p.value 0.2119923 0.2296999 0.1932379


[1] "================================================================
===="


[1] "Independent Variable: BFI..A."
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
             Sobel    Aroian   Goodman
z.value 0.7594706 0.7280137 0.7953926
p.value 0.4475711 0.4666052 0.4263852
```

```
[1] "=============================================================================
===="

[1] "Independent Variable: BFI..C."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
              Sobel     Aroian Goodman
z.value -0.4641779 -0.3216017      NA
p.value  0.6425203  0.7477545      NA


[1] "=============================================================================
===="

[1] "Independent Variable: BFI..C."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
              Sobel     Aroian    Goodman
z.value -0.6027165 -0.4699693 -1.0111532
p.value  0.5466973  0.6383770  0.3119431


[1] "=============================================================================
===="

[1] "Independent Variable: BFI..C."
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
              Sobel     Aroian Goodman
z.value -0.3375925 -0.2186308      NA
p.value  0.7356703  0.8269376      NA


[1] "=============================================================================
===="

[1] "Independent Variable: BFI..N."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
             Sobel    Aroian Goodman
z.value 0.2800827 0.1457015      NA
p.value 0.7794140 0.8841570      NA


[1] "=============================================================================
===="

[1] "Independent Variable: BFI..N."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
             Sobel    Aroian     Goodman
z.value 0.3164522 0.2245794 2.630658452
p.value 0.7516593 0.8223065 0.008521963


[1] "=============================================================================
===="

[1] "Independent Variable: BFI..N."
[1] "Dependent Variable: CBCL"
```

```
[1] "Mediator Variable: PAQ"
              Sobel     Aroian Goodman
z.value 0.2461225 0.1089475      NA
p.value 0.8055874 0.9132442      NA


[1] "================================================================================
===="


[1] "Independent Variable: BFI..O."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
              Sobel     Aroian Goodman
z.value 0.3334398 0.1850038      NA
p.value 0.7388023 0.8532260      NA


[1] "================================================================================
===="


[1] "Independent Variable: BFI..O."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
              Sobel     Aroian   Goodman
z.value 0.4425398 0.3601703 0.6320025
p.value 0.6580986 0.7187198 0.5273852


[1] "================================================================================
===="


[1] "Independent Variable: BFI..O."
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
              Sobel     Aroian Goodman
z.value 0.3278195 0.1797856      NA
p.value 0.7430481 0.8573209      NA


[1] "================================================================================
===="


[1] "Independent Variable: EI..Self.A."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
               Sobel      Aroian    Goodman
z.value -0.5254774 -0.4148469 -0.8355368
p.value  0.5992514  0.6782540  0.4034155


[1] "================================================================================
===="


[1] "Independent Variable: EI..Self.A."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
               Sobel      Aroian    Goodman
z.value -0.7902689 -0.6679963 -1.0198866
p.value  0.4293708  0.5041360  0.3077823


[1] "================================================================================
```

```
====="

[1] "Independent Variable: EI..Self.A."
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
             Sobel      Aroian    Goodman
z.value -0.2256049 -0.1711821 -0.4398507
p.value  0.8215087  0.8640805  0.6600453


[1] "===============================================================================
====="

[1] "Independent Variable: EI..Self.M."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
             Sobel      Aroian Goodman
z.value -0.3322050 -0.2090846      NA
p.value  0.7397345  0.8343822      NA


[1] "===============================================================================
====="

[1] "Independent Variable: EI..Self.M."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
             Sobel      Aroian    Goodman
z.value -0.6286926 -0.5216337 -0.8497383
p.value  0.5295503  0.6019254  0.3954706


[1] "===============================================================================
====="

[1] "Independent Variable: EI..Self.M."
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
             Sobel      Aroian Goodman
z.value -0.2806177 -0.1725972      NA
p.value  0.7790037  0.8629681      NA


[1] "===============================================================================
====="

[1] "Independent Variable: EI..Social.A."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
             Sobel      Aroian Goodman
z.value -0.4111492 -0.2611913      NA
p.value  0.6809631  0.7939450      NA


[1] "===============================================================================
====="

[1] "Independent Variable: EI..Social.A."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
             Sobel      Aroian     Goodman
```

```
z.value -0.5195756 -0.4056224 -0.8669145
p.value  0.6033594  0.6850201  0.3859889


[1] "==========================================================================
===="


[1] "Independent Variable: EI..Social.A."
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
             Sobel     Aroian Goodman
z.value -0.3569060 -0.2124037      NA
p.value  0.7211621  0.8317921      NA


[1] "==========================================================================
===="


[1] "Independent Variable: EI..RM."
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
             Sobel     Aroian    Goodman
z.value -0.6027492 -0.5629899 -0.6523287
p.value  0.5466755  0.5734418  0.5141892


[1] "==========================================================================
===="


[1] "Independent Variable: EI..RM."
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
             Sobel     Aroian    Goodman
z.value -0.7983138 -0.7478035 -0.8606699
p.value  0.4246884  0.4545787  0.3894199


[1] "==========================================================================
===="


[1] "Independent Variable: EI..RM."
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
             Sobel     Aroian    Goodman
z.value -0.2598158 -0.2419291 -0.2823640
p.value  0.7950059  0.8088351  0.7776644


[1] "==========================================================================
===="


[1] "Independent Variable: Total"
[1] "Dependent Variable: Panas.."
[1] "Mediator Variable: PAQ"
              Sobel      Aroian Goodman
z.value -0.09156017 -0.04595328      NA
p.value  0.92704750  0.96334749      NA


[1] "==========================================================================
===="
```

```
[1] "Independent Variable: Total"
[1] "Dependent Variable: Panas...1"
[1] "Mediator Variable: PAQ"
              Sobel      Aroian    Goodman
z.value -0.09239632 -0.0671788 -0.2807217
p.value  0.92638316  0.9464394  0.7789239


[1] "===========================================================================
===="


[1] "Independent Variable: Total"
[1] "Dependent Variable: CBCL"
[1] "Mediator Variable: PAQ"
              Sobel        Aroian Goodman
z.value -0.08992769 -0.03184817      NA
p.value  0.92834468  0.97459313      NA


[1] "===========================================================================
===="
```

In [3]:
```r
# Install the required package if not already installed
if (!requireNamespace("bda", quietly = TRUE)) {
  install.packages("bda")
}

# Load the bda package
library(bda)

# Sample data frame 'data' with columns as provided
data <- read.csv("Pilot_modified_data_1.csv")

# Independent variables
independent_vars <- c('BFI..E.', 'BFI..A.', 'BFI..C.', 'BFI..N.', 'BFI..O.', 'EI..S

# Dependent variables
dependent_vars <- c('Panas..', 'Panas...1', 'CBCL')

# Mediator variable
mediator_var <- 'PAQ'

# Create an AsciiDoc output file
output_file <- "sobel_results.doc"
file_conn <- file(output_file, open = "wt")

# Function to perform Sobel test for a given combination of variables and save the
perform_sobel_test <- function(independent_var, dependent_var, mediator_var, file_c
  cat("= Sobel Test Results for", independent_var, "as Independent Variable and", d

  result <- mediation.test(data[[mediator_var]], data[[independent_var]], data[[dep
  cat("== Independent Variable:", independent_var, "\n\n", file = file_conn)
  cat("== Dependent Variable:", dependent_var, "\n\n", file = file_conn)
  cat("== Mediator Variable:", mediator_var, "\n\n", file = file_conn)
  cat("== Sobel Test Result:\n\n", file = file_conn)
  cat(capture.output(result), file = file_conn)
  cat("\n\n=============================================================
```

```
    }

    # Loop through all combinations of independent, dependent, and mediator variables
    for (ind_var in independent_vars) {
      for (dep_var in dependent_vars) {
        perform_sobel_test(ind_var, dep_var, mediator_var, file_conn)
      }
    }

    # Close the AsciiDoc output file
    close(file_conn)
```

In [1]:
```
#install bda package if not already installed
install.packages('bda')

#load bda package
library(bda)

# Sample data frame 'data' with columns 'Panas..', 'Panas...1', 'BFI..E.', 'BFI..A.
data <- read.csv("Pilot_modified_data_1.csv")

result <- mediation.test(data$PAQ,data$BFI..E.,data$Panas..)
print("mediation.test(Mediator Variable:PAQ ,Independent Variable:BFI..E. ,Dependen
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..E.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ, Independent Variable:BFI..E., Dependen
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..E.,data$CBCL)
print("mediation.test(Mediator Variable:PAQ , Independent Variable:BFI..E., Depende
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..A.,data$Panas..)
print("mediation.test(Mediator Variable:PAQ, Independent Variable:BFI..A., Dependen
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..A.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..A.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..A.,data$CBCL)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..A.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..C.,data$Panas..)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..C.,Dependent
print(result)
cat("\n")
```

```r
result <- mediation.test(data$PAQ,data$BFI..C.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..C.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..C.,data$CBCL)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..C.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..N.,data$Panas..)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..N.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..N.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..N.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..N.,data$CBCL)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..N.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..O.,data$Panas..)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..O.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..O.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..O.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$BFI..O.,data$CBCL)
print(" mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..O.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Self.A.,data$Panas..)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.A.,Depend
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Self.A.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.A.,Depend
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Self.A.,data$CBCL)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.A.,Depend
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Self.M.,data$Panas..)
```

```r
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.M.,Depend
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Self.M.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.M.,Depend
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Self.M.,data$CBCL)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.M.,Depend
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Social.A.,data$Panas..)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Social.A.,Depe
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Social.A.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Social.A.,Depe
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..Social.A.,data$CBCL)
print("mediation.test(Mediator Variable:AQ,Independent Variable:EI..Social.A.,Depen
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..RM.,data$Panas..)
print(" mediation.test(Mediator Variable:PAQ,Independent Variable:EI..RM.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..RM.,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..RM.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$EI..RM.,data$CBCL)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:EI..RM.,Dependent
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$Total,data$Panas..)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:Total,Dependent Va
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$Total,data$Panas...1)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:Total,Dependent Va
print(result)
cat("\n")

result <- mediation.test(data$PAQ,data$Total,data$CBCL)
print("mediation.test(Mediator Variable:PAQ,Independent Variable:Total,Dependent Va
```

```
print(result)
cat("\n")
```

```
Updating HTML index of packages in '.Library'

Making 'packages.html' ...
 done

Loading required package: boot

bda v15 (Bin Wang, 2021)
```

```
[1] "mediation.test(Mediator Variable:PAQ ,Independent Variable:BFI..E. ,Dependent
Variable:Panas.. )"
            Sobel    Aroian Goodman
z.value 0.3945421 0.2446141      NA
p.value 0.6931809 0.8067552      NA


[1] "mediation.test(Mediator Variable:PAQ, Independent Variable:BFI..E., Dependent
Variable:Panas...1)"
            Sobel    Aroian   Goodman
z.value 0.4816523 0.3663888 0.9237912
p.value 0.6300529 0.7140750 0.3555950


[1] "mediation.test(Mediator Variable:PAQ , Independent Variable:BFI..E., Dependen
t Variable:CBCL)"
            Sobel    Aroian Goodman
z.value 0.3194426 0.1781558      NA
p.value 0.7493909 0.8586006      NA


[1] "mediation.test(Mediator Variable:PAQ, Independent Variable:BFI..A., Dependent
Variable:Panas..)"
             Sobel     Aroian    Goodman
z.value -0.2534252 -0.2424319 -0.2660639
p.value  0.7999396  0.8084455  0.7901900


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..A.,Dependent V
ariable:Panas...1)"
            Sobel    Aroian   Goodman
z.value 1.2481059 1.2011323 1.3010599
p.value 0.2119923 0.2296999 0.1932379


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..A.,Dependent V
ariable:CBCL)"
            Sobel    Aroian   Goodman
z.value 0.7594706 0.7280137 0.7953926
p.value 0.4475711 0.4666052 0.4263852


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..C.,Dependent V
ariable:Panas..)"
             Sobel     Aroian Goodman
z.value -0.4641779 -0.3216017      NA
p.value  0.6425203  0.7477545      NA


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..C.,Dependent V
ariable:Panas...1)"
             Sobel     Aroian   Goodman
z.value -0.6027165 -0.4699693 -1.0111532
p.value  0.5466973  0.6383770  0.3119431


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..C.,Dependent V
ariable:CBCL)"
             Sobel     Aroian Goodman
z.value -0.3375925 -0.2186308      NA
p.value  0.7356703  0.8269376      NA


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..N.,Dependent V
ariable:Panas..)"
```

```
                Sobel    Aroian Goodman
z.value 0.2800827 0.1457015      NA
p.value 0.7794140 0.8841570      NA


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..N.,Dependent V
ariable:Panas...1)"
                Sobel     Aroian     Goodman
z.value 0.3164522 0.2245794 2.630658452
p.value 0.7516593 0.8223065 0.008521963


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..N.,Dependent V
ariable:CBCL)"
                Sobel     Aroian Goodman
z.value 0.2461225 0.1089475      NA
p.value 0.8055874 0.9132442      NA


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..O.,Dependent V
ariable:Panas..)"
                Sobel     Aroian Goodman
z.value 0.3334398 0.1850038      NA
p.value 0.7388023 0.8532260      NA


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..O.,Dependent V
ariable:Panas...1)"
                Sobel     Aroian   Goodman
z.value 0.4425398 0.3601703 0.6320025
p.value 0.6580986 0.7187198 0.5273852


[1] " mediation.test(Mediator Variable:PAQ,Independent Variable:BFI..O.,Dependent
Variable:CBCL)"
                Sobel     Aroian Goodman
z.value 0.3278195 0.1797856      NA
p.value 0.7430481 0.8573209      NA


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.A.,Depende
nt Variable:Panas..)"
                 Sobel      Aroian    Goodman
z.value -0.5254774 -0.4148469 -0.8355368
p.value  0.5992514  0.6782540  0.4034155


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.A.,Depende
nt Variable:Panas...1)"
                 Sobel      Aroian    Goodman
z.value -0.7902689 -0.6679963 -1.0198866
p.value  0.4293708  0.5041360  0.3077823


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.A.,Depende
nt Variable:CBCL)"
                 Sobel      Aroian    Goodman
z.value -0.2256049 -0.1711821 -0.4398507
p.value  0.8215087  0.8640805  0.6600453


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.M.,Depende
nt Variable:Panas..)"
                 Sobel      Aroian Goodman
z.value -0.3322050 -0.2090846      NA
```

```
p.value   0.7397345   0.8343822        NA
```

```
[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.M.,Depende
nt Variable:Panas...1)"
               Sobel      Aroian    Goodman
z.value -0.6286926 -0.5216337 -0.8497383
p.value   0.5295503   0.6019254   0.3954706
```

```
[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Self.M.,Depende
nt Variable:CBCL)"
               Sobel      Aroian Goodman
z.value -0.2806177 -0.1725972      NA
p.value   0.7790037   0.8629681      NA
```

```
[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Social.A.,Depen
dent Variable:Panas..)"
               Sobel      Aroian Goodman
z.value -0.4111492 -0.2611913      NA
p.value   0.6809631   0.7939450      NA
```

```
[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..Social.A.,Depen
dent Variable:Panas...1)"
               Sobel      Aroian    Goodman
z.value -0.5195756 -0.4056224 -0.8669145
p.value   0.6033594   0.6850201   0.3859889
```

```
[1] "mediation.test(Mediator Variable:AQ,Independent Variable:EI..Social.A.,Depend
ent Variable:CBCL)"
               Sobel      Aroian Goodman
z.value -0.3569060 -0.2124037      NA
p.value   0.7211621   0.8317921      NA
```

```
[1] " mediation.test(Mediator Variable:PAQ,Independent Variable:EI..RM.,Dependent
Variable:Panas..)"
               Sobel      Aroian    Goodman
z.value -0.6027492 -0.5629899 -0.6523287
p.value   0.5466755   0.5734418   0.5141892
```

```
[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..RM.,Dependent V
ariable:Panas...1)"
               Sobel      Aroian    Goodman
z.value -0.7983138 -0.7478035 -0.8606699
p.value   0.4246884   0.4545787   0.3894199
```

```
[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:EI..RM.,Dependent V
ariable:CBCL)"
               Sobel      Aroian    Goodman
z.value -0.2598158 -0.2419291 -0.2823640
p.value   0.7950059   0.8088351   0.7776644
```

```
[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:Total,Dependent Var
iable:Panas..)"
                Sobel       Aroian Goodman
z.value -0.09156017 -0.04595328      NA
p.value  0.92704750   0.96334749      NA
```

```
[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:Total,Dependent Var
iable:Panas...1)"
                 Sobel      Aroian      Goodman
z.value -0.09239632 -0.0671788 -0.2807217
p.value  0.92638316  0.9464394  0.7789239


[1] "mediation.test(Mediator Variable:PAQ,Independent Variable:Total,Dependent Var
iable:CBCL)"
                 Sobel      Aroian Goodman
z.value -0.08992769 -0.03184817      NA
p.value  0.92834468  0.97459313      NA
```

In [ ]: