

Testing Mediation with Regression Analysis: SPSS Example

Below I use an SPSS macro developed by Kris Preacher and Andrew Hayes to test an indirect effect using the Yale social support data. In this example, age (AGE) is the predictor, social support (ISLSUM) is the mediator, and depression (HRS) is the final outcome. The "indirect" macro can be downloaded from: <http://www.afhayes.com/spss-sas-and-mplus-macros-and-code.html>

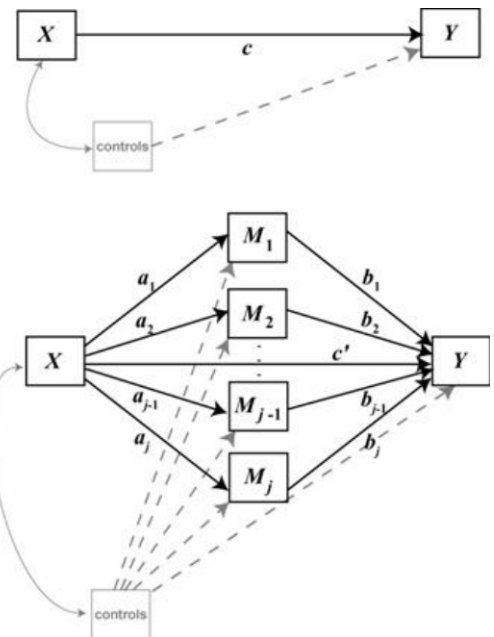
After downloading the macro, open it in a syntax window. Scroll down to the bottom of the macro syntax, and add the following lines:

```
INDIRECT y = hrs /x = age /m = islsum.
execute.
```

You will need to replace hrs, age, and islsum with your own variables. Y is the final outcome, X is the predictor, and M is the mediator. Open your data set in the data window. Then, highlight the entire syntax in the syntax window, and run.

Run MATRIX procedure:

```
Dependent, Independent, and Proposed Mediator Variables:
DV = hrs
IV = age
MEDS = islsum
IV to Mediators (a paths)
      Coeff      se      t      p
islsum  -.0046   .0096  -.4800  .6316
Direct Effects of Mediators on DV (b paths)
      Coeff      se      t      p
islsum  -.7825   .1394 -5.6133  .0000
Total Effect of IV on DV (c path)
      Coeff      se      t      p
age     -.0552   .0244 -2.2629  .0244
Direct Effect of IV on DV (c' path)
      Coeff      se      t      p
age     -.0588   .0232 -2.5304  .0119
Fit Statistics for DV Model
      R-sq  Adj R-sq      F      df1      df2      p
.1109   .1049  18.5762   2.0000  298.0000  .0000
*****
          BOOTSTRAP RESULTS FOR INDIRECT EFFECTS
Total and Specific Indirect Effect(s) of IV on DV via MEDS
      Data      Boot      Bias      SE
Total   .0036   .0036   .0000   .0080
islsum  .0036   .0036   .0000   .0080
Bias Corrected and Accelerated Confidence Intervals
      Lower      Upper
Total   -.0122   .0197
islsum  -.0122   .0197
Level of Confidence for Confidence Intervals:
95
Number of Bootstrap Resamples:
1000
----- END MATRIX -----
```



Reference

Preacher, K.J., & Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models *Behavior Research Methods, Instruments, & Computers*, 36, 717-731.