

An example paper

If you are wholly stuck in finding a paper, this is one example:

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0218243>

The pdf is here

To find this, I searched on the PlosOne website for the terms: (multiple regression OR Ancova) AND RCT.

I then looked for a title that seemed interesting and looked through the main paper. Specifically, I:

- Read the “Statistical analyses” section to make sure the methods were suitable
- Clicked the “Supporting information” menu to make sure data were available (they are)

I then checked the data looked ok by downloading them, using the RStudio GUI to look at the data, and also this code to check the contents of the files:

```
library(tidyverse)
```

```
## -- Attaching packages -----
## v ggplot2 3.2.1      v purrr   0.3.3
## v tibble  2.1.3      v dplyr  0.8.4
## v tidyr   1.0.2      v stringr 1.4.0
## v readr   1.3.1      v forcats 0.4.0

## -- Conflicts -----
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()

s005 <- haven::read_spss('../data/journal.pone.0218243.s005.sav')
s006 <- haven::read_spss('../data/journal.pone.0218243.s006.sav')

s005 %>% skimr::skim()

## Warning: Couldn't find skimmers for class: haven_labelled; No user-defined `sfl`
## provided. Falling back to `character`.

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## provided. Falling back to `character`.
```

Table 1: Data summary

Name	Piped data
Number of rows	27
Number of columns	5
Column type frequency:	
character	4
numeric	1

Table 1: Data summary

Group variables	None
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Variable type: character

skim_variable	n_missing	complete_rate	min	max	empty	n_unique	whitespace
School	0	1.00	1	1	0	4	0
group	0	1.00	1	1	0	2	0
Pre.THW	0	1.00	1	1	0	5	0
Post.THW	7	0.74	1	1	0	5	0

Variable type: numeric

skim_variable	n_missing	complete_rate	mean	sd	p0	p25	p50	p75	p100	hist
teacher	0	1	14	7.94	1	7.5	14	20.5	27	

```
s006 %>% skimr::skim()
```

```
## Warning: Couldn't find skimmers for class: haven_labelled; No user-defined `sfl`  
## provided. Falling back to `character`.
```

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```

```
## Warning: Couldn't find skimmers for class: haven_labelled; No user-defined `sfl`  
## provided. Falling back to `character`.
```

Table 4: Data summary

Name	Piped data
Number of rows	266
Number of columns	89
Column type frequency:	
character	6
numeric	83
Group variables	None

Variable type: character

skim_variable	n_missing	complete_rate	min	max	empty	n_unique	whitespace
GROUP	0	1	1	1	0	2	0
SCHOOL	0	1	1	1	0	4	0
Class	0	1	1	2	0	31	0
Exclude_fidelity	0	1	1	1	0	2	0
GENDER	0	1	1	1	0	2	0
filter_\$	0	1	1	1	0	2	0

Variable type: numeric

skim_variable	n_missing	complete_rate	mean	sd	p0	p25	p50	p75	p100	hist
PUPIL	0	1.00	133.50	76.93	1.00	67.25	133.50	199.75	266.00	
AGE	0	1.00	7.70	1.81	5.00	6.00	8.00	9.00	11.00	
PRE.D1	9	0.97	1.15	1.11	0.00	0.00	1.00	1.50	5.00	
PRE.D2	9	0.97	0.85	0.65	0.00	0.00	1.00	1.00	4.00	
PRE.D3	9	0.97	0.95	0.56	0.00	1.00	1.00	1.00	3.00	
PRE.D4	9	0.97	0.89	0.85	0.00	0.00	1.00	1.00	3.00	
PRE.D5	9	0.97	2.60	1.17	-6.00	3.00	3.00	3.00	4.00	
PRE.D6	9	0.97	3.33	1.07	-3.00	3.00	4.00	4.00	4.00	
PRE.D7	9	0.97	0.47	0.56	0.00	0.00	0.00	1.00	2.00	
PRE.D8	9	0.97	1.78	0.49	-1.00	2.00	2.00	2.00	2.00	
PRE.D9	9	0.97	0.59	0.80	-1.00	1.00	1.00	1.00	1.00	
PRE.D.TOTAL	9	0.97	12.60	4.23	-3.00	10.50	13.00	15.00	23.00	
POST.D.1	26	0.90	1.42	1.14	0.00	0.50	1.00	2.00	5.00	
POST.D.2	26	0.90	0.94	0.68	0.00	1.00	1.00	1.00	3.00	
POST.D.3	26	0.90	1.06	0.62	0.00	1.00	1.00	1.00	3.00	
POST.D.4	26	0.90	1.14	0.88	0.00	1.00	1.00	2.00	4.50	
POST.D.5	26	0.90	2.71	1.00	-7.00	3.00	3.00	3.00	4.00	
POST.D.6	26	0.90	3.52	0.86	-2.00	3.00	4.00	4.00	4.00	
POST.D.7	26	0.90	0.66	0.67	0.00	0.00	1.00	1.00	2.00	
POST.D.8	26	0.90	1.89	0.32	0.00	2.00	2.00	2.00	2.00	
POST.D.9	27	0.90	0.80	0.60	-1.00	1.00	1.00	1.00	1.00	
POST.D.TOTAL	27	0.90	14.16	3.89	-4.00	12.50	14.00	16.50	24.00	
PREHEIGHTCM	6	0.98	129.10	12.00	103.30	120.00	128.30	137.05	161.10	
PREWEIGHTKG	6	0.98	29.25	9.13	16.30	22.67	26.65	33.52	66.20	
PRE.WCcm	6	0.98	60.26	7.81	47.50	55.00	58.55	63.20	95.50	
PRE.BMI	6	0.98	17.20	2.98	12.10	15.33	16.38	17.99	28.51	
PRE.WHtR	6	0.98	0.47	0.05	0.38	0.43	0.46	0.50	0.69	
PRE.SBP	9	0.97	108.46	10.85	69.00	101.00	108.00	116.00	138.00	
PRE.DBP	9	0.97	67.16	10.48	44.00	60.00	65.00	73.00	106.00	
PRE.MAP	9	0.97	80.93	9.79	55.33	74.00	79.33	86.67	112.00	
PRE.TC	95	0.64	3.91	0.59	2.70	3.48	3.89	4.29	5.34	
PRE.HDL	95	0.64	1.45	0.34	0.39	1.22	1.47	1.68	2.31	
inv.PRE.HDL	95	0.64	-1.45	0.34	-2.31	-1.68	-1.47	-1.22	-0.39	
PRE.LDL	166	0.38	2.17	0.62	0.99	1.68	2.19	2.58	3.75	
POSTHEIGHTCM	16	0.94	130.95	12.43	104.40	122.50	130.00	139.05	161.50	
POSTWEIGHTKG	16	0.94	30.45	9.57	16.30	23.50	27.70	35.45	65.20	
POST.WCcm	16	0.94	58.02	8.69	42.20	52.40	55.95	60.18	97.80	
POST.BMI	16	0.94	17.38	3.04	13.10	15.40	16.45	18.23	29.76	
POST.WHtR	16	0.94	0.44	0.05	0.36	0.40	0.43	0.46	0.64	

skim_variable	n_missing	complete_rate	mean	sd	p0	p25	p50	p75	p100	hist
POST.SBP	24	0.91	109.37	12.18	76.00	101.25	108.00	116.00	146.00	
POST.DBP	24	0.91	68.09	12.46	44.00	60.00	65.00	75.00	111.00	
POST.MAP	24	0.91	81.85	11.47	57.67	73.67	79.67	88.00	120.33	
POST.TC	133	0.50	3.92	0.66	2.59	3.44	3.89	4.28	6.46	
POST.HDL	133	0.50	1.44	0.34	0.66	1.19	1.43	1.67	2.25	
inv.POST.HDL	133	0.50	-1.44	0.34	-2.25	-1.67	-1.43	-1.19	-0.66	
POST.LDL	203	0.24	2.21	0.59	1.01	1.82	2.12	2.56	4.02	
PRE.TRG	95	0.64	0.78	0.35	0.45	0.52	0.65	0.87	2.19	
POST.TRG	133	0.50	0.74	0.42	0.51	0.51	0.56	0.78	3.25	
PRE.GLU	95	0.64	4.82	0.57	2.78	4.43	4.81	5.11	6.84	
POST.GLU	133	0.50	5.10	0.59	3.17	4.73	5.05	5.36	7.99	
ZPRE.D.TOTAL	9	0.97	0.00	1.00	-3.24	-0.66	0.11	0.63	2.70	
ZPOST.D.TOTAL	26	0.90	0.00	1.00	-3.07	-0.61	-0.06	0.76	2.68	
ZPREHEIGHTCM	6	0.98	0.00	1.00	-2.15	-0.76	-0.07	0.66	2.67	
ZPOSTHEIGHTCM	16	0.94	0.00	1.00	-2.14	-0.68	-0.08	0.65	2.46	
ZPREWEIGHTKG	6	0.98	0.00	1.00	-1.42	-0.72	-0.29	0.47	4.05	
ZPOSTWEIGHTKG	16	0.94	0.00	1.00	-1.48	-0.73	-0.29	0.52	3.63	
ZPRE.WHtR	6	0.98	0.00	1.00	-1.68	-0.73	-0.16	0.60	4.22	
ZPOST.WHtR	16	0.94	0.00	1.00	-1.55	-0.81	-0.25	0.31	3.65	
ZPRE.BMI	6	0.98	0.43	1.17	-3.50	-0.32	0.26	1.11	3.72	
ZPOST.BMI	16	0.94	0.52	1.14	-2.03	-0.28	0.34	1.10	4.02	
ZPRE.WC	6	0.98	1.10	1.17	-2.21	0.26	1.16	1.78	4.58	
ZPOST.WC	16	0.94	0.57	1.30	-3.56	-0.40	0.42	1.26	4.28	
ZPRE.SBP	9	0.97	0.00	1.00	-3.64	-0.69	-0.04	0.70	2.72	
ZPOST.SBP	24	0.91	0.00	1.00	-2.74	-0.67	-0.11	0.54	3.01	
ZPRE.DBP	9	0.97	0.00	1.00	-2.21	-0.68	-0.21	0.56	3.71	
ZPOST.DBP	24	0.91	0.00	1.00	-1.93	-0.65	-0.25	0.55	3.44	
ZPRE.TC	95	0.64	0.00	1.00	-2.04	-0.73	-0.03	0.63	2.42	
ZPOST.TC	133	0.50	0.00	1.00	-2.02	-0.73	-0.05	0.54	3.84	
ZPRE.HDL	95	0.64	0.00	1.00	-3.11	-0.68	0.05	0.67	2.51	
ZPOST.HDL	133	0.50	0.00	1.00	-2.28	-0.73	-0.03	0.67	2.36	
ZPRE.LDL	166	0.38	0.00	1.00	-1.91	-0.80	0.02	0.66	2.55	
ZPOST.LDL	203	0.24	0.00	1.00	-2.03	-0.67	-0.15	0.60	3.07	
ZPRE.TRG	95	0.64	0.00	1.00	-0.95	-0.75	-0.37	0.26	4.04	
ZPOST.TRG	133	0.50	0.00	1.00	-0.54	-0.54	-0.42	0.11	6.01	
ZPRE.GLU	95	0.64	0.00	1.00	-3.58	-0.68	-0.01	0.52	3.56	
ZPOST.GLU	133	0.50	0.00	1.00	-3.24	-0.62	-0.08	0.44	4.86	
PRE.CMR.SCORE	99	0.63	0.07	2.21	-5.81	-1.46	-0.17	1.35	6.53	
POST.CMR.SCORE	136	0.49	0.03	2.34	-5.72	-1.35	-0.13	1.22	7.82	
ZPRE.MAP	9	0.97	0.00	1.00	-2.61	-0.71	-0.16	0.59	3.17	
ZPOST.MAP	24	0.91	0.00	1.00	-2.11	-0.71	-0.19	0.54	3.35	
Zinv.PRE.HDL	95	0.64	0.00	1.00	-2.51	-0.67	-0.05	0.68	3.11	
Zinv.POST.HDL	133	0.50	0.00	1.00	-2.36	-0.67	0.03	0.73	2.28	
ZAGE	0	1.00	0.00	1.00	-1.49	-0.94	0.17	0.72	1.82	