Comprehensive examples for the use of pt_sum

Version 1.1.0
Date: 22 Mar 2019

Contents

1 Default options

Ther are four statistics available with pts_sum. Statistics can be arranged in any order. Options `gap()` and `gap_end()` can be used to add gaps between rows.

```
. post `postname' ("") ("N") ("Mean (sd)") ("Median (IQR)") ("Range")
. pt_sum age qol bmi  , postname(`postname') stats(N mean_sd median_iqr range) gap_end(1)
. post `postname' ("") ("N")   ("Range") ("Median (IQR)") ("Mean (sd)")
. pt_sum age qol bmi  , postname(`postname') stats(N range  median_iqr mean_sd)
```

	N	Mean (sd)	Median (IQR)	Range
Age	1000	44.8 (10.1)	44.6 (37.7-51.5)	18.7 - 80.0
Quality of life	905	50.0 (15.2)	50.1 (39.8-60.4)	6.1 - 99.6
BMI	897	25.0 (2.1)	24.9 (23.6-26.3)	17.4 - 31.7
	N	Range	Median (IQR)	Mean (sd)
Age	1000	18.7 - 80.0	44.6 (37.7-51.5)	44.8 (10.1)
Quality of life	905	6.1 - 99.6	50.1 (39.8-60.4)	50.0 (15.2)
BMI	897	17.4 - 31.7	24.9 (23.6-26.3)	25.0 (2.1)

2 over()

The option over() can be used to present statsitics over another variable, for example treatment group. over_grps can be used to set the order in which the groups appear in. order(group_sum) groups the columns by treatment group then by summary statistic.

```
      . post `postname' ("") ("Group 0") ("") ("Group 1") ("")
      . post `postname' ("")  ("Mean (sd)")  ("Median (IQR)")  ("Mean (sd)")  ("Median (IQR)")
      . pt_sum age qol bmi  , postname(`postname') stats(mean_sd  median_iqr) gap_end(1) over(treat)
```

Statistics can be arranged in any order

```
      . post `postname' ("") ("Group 1") ("") ("Group 0") ("")
      . post `postname' ("") ("N")  ("Range")  ("N")  ("Range")
      . pt_sum age qol bmi  , postname(`postname') stats(N range ) over(treat) over_grps(1 0) gap_end(1)
```

Summaries can be grouped by over group or by `statistic type.

```
      . post `postname' ("") ("Mean (sd)") ("") ("Median (IQR)") ("")
      . post `postname' ("") ("Group 1")  ("Group 0")  ("Group 1")  ("Group 0")
      . pt_sum age qol bmi  , postname(`postname') stats(mean_sd median_iqr) over(treat) over_grps(1 0)
order(group_sum)
```

	Group 0		**Group 1**	
	Mean (sd)	Median (IQR)	Mean (sd)	Median (IQR)
Age	44.6 (10.1)	44.1 (38.0-51.4)	44.9 (10.1)	45.0 (37.5-51.5)
Quality of life	49.5 (15.1)	49.6 (39.0-59.2)	50.4 (15.3)	50.8 (40.6-60.7)
BMI	24.9 (2.1)	24.9 (23.6-26.3)	25.0 (2.0)	24.9 (23.7-26.4)
	Group 1		Group 0	
	N	Range	N	Range
Age	506	19.6 - 77.7	494	18.7 - 80.0
Quality of life	461	6.1 - 99.6	444	7.7 - 87.7
BMI	456	18.9 - 30.4	441	17.4 - 31.7
	Mean (sd)		Median (IQR)	
	Group 1	Group 0	Group 1	Group 0
Age	44.9 (10.1)	44.6 (10.1)	45.0 (37.5-51.5)	44.1 (38.0-51.4)
Quality of life	50.4 (15.3)	49.5 (15.1)	50.8 (40.6-60.7)	49.6 (39.0-59.2)
BMI	25.0 (2.0)	24.9 (2.1)	24.9 (23.7-26.4)	24.9 (23.6-26.3)

3 `overall()`

When `over()` is specified, `overall()` can be used to a column summarising the wholde dataset. `overall(first)` positions the overall column first, `overall(last)` positions the column last.

```
      . post `postname' ("") ("Group 0") ("") ("Group 1") ("")  ("Overall") ("")
      . post `postname' ("")  ("Mean (sd)")  ("Median (IQR)")  ("Mean (sd)")  ("Median (IQR)") ("Mean
(sd)")  ("Median (IQR)")
      . pt_sum age qol bmi  , postname(`postname') stats(mean_sd  median_iqr) gap_end(1) over(treat)
overall(first)
```

Summaries can be grouped by `over` group or by `statistic type.

```
      . post `postname' ("") ("N") ("") ("")  ("Range") ("")    ("")
      . post `postname' ("") ("Group 1")  ("Group 0")  ("Overall")  ("Group 1")  ("Group 0")
("Overall")
      . pt_sum age bmi qol , postname(`postname') stats(N range ) over(treat) over_grps(1 0) gap_end(1)
overall(last) order(group_sum)
```

	Group 0		**Group 1**		**Overall**	
	Mean (sd)	Median (IQR)	Mean (sd)	Median (IQR)	Mean (sd)	Median (IQR)
Age	44.8 (10.1)	44.6 (37.7-51.5)	44.6 (10.1)	44.1 (38.0-51.4)	44.9 (10.1)	45.0 (37.5-51.5)
Quality of life	50.0 (15.2)	50.1 (39.8-60.4)	49.5 (15.1)	49.6 (39.0-59.2)	50.4 (15.3)	50.8 (40.6-60.7)
BMI	25.0 (2.1)	24.9 (23.6-26.3)	24.9 (2.1)	24.9 (23.6-26.3)	25.0 (2.0)	24.9 (23.7-26.4)
	N			Range		
	Group 1	Group 0	Overall	Group 1	Group 0	Overall
Age	506	494	1000	19.6 - 77.7	18.7 - 80.0	18.7 - 80.0
BMI	456	441	897	18.9 - 30.4	17.4 - 31.7	17.4 - 31.7
Quality of life	461	444	905	6.1 - 99.6	7.7 - 87.7	6.1 - 99.6

4 Decimals, variable names and comments.

`decimal(#)`, `range_decimal(#)` and `med_iqr_decimal(#)` set the number of decimal places to be used (default is 1). `comment()` can be used to add a comment. `var_lab` and `append_label` can be used to append text to variable labels.

```
      . post `postname' ("") ("N") ("Mean (sd)") ("Median (IQR)") ("Range") ("Comment")
      . pt_sum age  , postname(`postname') stats(N mean_sd median_iqr range)  var_lab("Custom variable
name") comment("The decimal option sets the decimal places") decimal(0)
      . pt_sum  bmi  , postname(`postname') stats(N mean_sd median_iqr range) append_label("- you can add
extra text") comment("no comment")
      . pt_sum  qol , postname(`postname') stats(N mean_sd median_iqr range)  comment("You can have
different numbers of d.p. for different summaries") decimal(2) range_decimal(0) med_iqr_decimal(1)
```

	N	Mean (sd)	Median (IQR)	Range	Comment
Custom variable name	1000	45 (10)	45 (38-52)	19 - 80	The decimal option sets the decimal places
BMI - you can add extra text	897	25.0 (2.1)	24.9 (23.6-26.3)	17.4 - 31.7	
Quality of life	905	49.95 (15.21)	50.07 (39.81-60.42)	6 - 100	You can have different numbers of d.p. for different summaries

5 `if` and `in`

`if` and `in` can be used in the normal way

```
. post `postname' ("") ("N") ("Mean (sd)") ("Median (IQR)") ("Range")
. pt_sum age if age > 40 , postname(`postname') stats(N mean_sd median_iqr range)
. pt_sum  bmi if bmi in 1/10  , postname(`postname') stats(N mean_sd median_iqr range)
. pt_sum  qol in 1/10 if qol > 50 , postname(`postname') stats(N mean_sd median_iqr range)
```

	N	Mean (sd)	Median (IQR)	Range
Age	673	50.2 (7.0)	49.1 (44.5-54.4)	40.1 - 80.0
BMI	10	25.6 (1.3)	25.7 (24.4-26.4)	23.6 - 28.0
Quality of life	4	55.5 (3.3)	55.5 (53.0-58.0)	51.7 - 59.4