Package 'CHOIRBM'

October 12, 2022

Title Plots the CHOIR Body Map

Version 0.0.2

Description Collection of utility functions for visualizing
body map data collected with the Collaborative Health Outcomes
Information Registry.

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URL <https://github.com/emcramer/CHOIRBM>

BugReports <https://github.com/emcramer/CHOIRBM/issues>

Depends R (>= 3.5.0)

Imports ggplot2, rlang, stringr

Suggests knitr, rmarkdown, testthat (>= 2.0.0)

VignetteBuilder knitr

Config/testthat/edition 2

Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

NeedsCompilation no

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Repository CRAN

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R topics documented:

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gen_example_data   *Generate Simple Example Data*

Description

Creates a data frame with CHOIR Body Map segment IDs and a randomly associated value. Also adds grouping information for facetting while plotting.

Usage

```
gen_example_data(seed = 123)
```

Arguments

seed   integer to seed the random number generator

Value

values data.frame

Examples

```
cbm_df <- gen_example_data()
head(cbm_df)
```

---

plot_female_choirbm   *Plot the male CHOIR Body Map*

Description

Creates a new plot of the front and back of the female CHOIR body map.

Usage

```
plot_female_choirbm(df, value)
```

Arguments

df   data.frame
value   string

Value

ggrob

Examples

```
cbm_df <- gen_example_data()
plot_female_choirbm(cbm_df, "value")
```

---

plot_male_choirbm   *Plot the male CHOIR Body Map*

Description

Creates a new plot of the male CHOIR body map.

Usage

```
plot_male_choirbm(df, value)
```

Arguments

df	data.frame
value	string

Value

ggrob

Examples

```
cbm_df <- gen_example_data()
plot_male_choirbm(cbm_df, "value")
```

---

string_to_map   *Converts a comma-separated string to a CHOIR BM*

Description

Takes a string of IDs that are separated by a comma and converts the information into a data frame with a binary indication of whether or not an ID appeared. Useful for plotting an individual's CHOIR BM or for isolating particular sections to highlight.

Usage

```
string_to_map(map_str = "", delim = ",")
```

Arguments

`map_str`	The delimited CBM string.
`delim`	The delimiter for the CBM string.

Value

ret_df data.frame with all of the CHOIR BM segment IDs with a 1 if the segment was present and 0 otherwise.

Examples

```
cbm_str <- "101,102,103,104,201,202"
cbm_df <- string_to_map(cbm_str)
#plot in a male or female bodymap...
plot_male_choirbm(cbm_df, "value")
```

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validation	*CHOIR Body Map data for approximately 7,000 patients*

Description

A non-identifiable, simulated data set generated by randomly permuting data from the CHOIR Body Map validation study.

Usage

```
data(validation)
```

Format

An object of class `"data.frame"`

id A randomly generated numeric code for each patient.

gender The patient's gender.

race The patient's race.

age The patient's age.

bodymap_regions_csv The patient's CHOIR Body Map in a comma separated string.

score A simulated pain score for demonstration purposes.

References

This data set was derived from the data collected during the study validating the CHOIR Body Map as an instrument for recording a patient's anatomical pain location. doi: 10.1097/pr9.0000000000000880

Examples

```
data(validation)
head(validation)
```

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