Package ‘CHOIRBM’

February 15, 2021

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

Date/Publication 2021-02-15 16:50:11 UTC

R topics documented:

  gen_example_data .............................................. 2
  plot_female_choirbm ........................................... 2
  plot_male_choirbm ............................................. 3
  string_to_map ................................................. 3
  validation .................................................... 4
**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

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

Arguments

- **seed** integer to seed the random number generator

Value

values data.frame

Examples

```r
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

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

Arguments

- **df** data.frame
- **value** string

Value

ggrob
**plot_male_choirbm**

Examples

```r
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**

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

**Arguments**

- **df**  
  data.frame

- **value**  
  string

**Value**

- **ggrob**

**Examples**

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

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**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**

```r
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")

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
validation

Examples

data(validation)
head(validation)
Index

* datasets
  validation, 4

gen_example_data, 2
plot_female_choirbm, 2
plot_male_choirbm, 3
string_to_map, 3
validation, 4