Package: pedalfast.data (via r-universe)

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Title PEDALFAST Data

Version 1.0.2

Description Data files and documentation for PEDiatric vALidation oF vAriableS in TBI (PEDALFAST). The data was used in ``Functional Status Scale in Children With Traumatic Brain Injury: A Prospective Cohort Study" by Bennett, Dixon, et al (2016) <doi:10.1097/PCC.0000000000000934>.

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Contents

`fss_as_factor` *Functional Status Scale Categories*

Description

Mapping FSS Total scores (integer values) to categorical values.

Usage

```
fss_as_factor(x, long_label = FALSE, ...)
```

Arguments

`x`	an integer vector
`long_label`	logical if the score range should be prepended to the label.
`...`	not currently used.

Details

FSS scores are integer values from 6 to 30.

The a mapping of ranges of integer values to categories is

- FSS 6, 7: Good
- FSS 8, 9: Mildly abnormal
- FSS 10, 11, 12, 13, 14, 15: Moderately abnormal
- FSS 16, 17, 18, 19, 20, 21: Severe abnormal
- FSS 22, 23, 24, 25, 26, 27, 28, 29, 30: Very severely abnormal

Value

A factor of equal length to the input `x` with labels for the categorical ranges of FSS.

Examples

```
x <- seq(5, 32)
data.frame(x           = x,
           short_label = fss_as_factor(x),
           long_label  = fss_as_factor(x, long_label = TRUE))
```

---

gcs *GCS Factor/Integer*

Description

Functions for mapping integer values to GCS labeled factor and visa versa

Usage

```
gcs_as_integer(x, scale, ...)

## S3 method for class 'factor'
gcs_as_integer(x, scale, ...)

## S3 method for class 'character'
gcs_as_integer(x, scale, ...)

gcs_as_factor(x, scale, long_label = FALSE, highest_first = FALSE, ...)

## S3 method for class 'character'
gcs_as_factor(x, scale, long_label = FALSE, highest_first = FALSE, ...)

## S3 method for class 'numeric'
gcs_as_factor(x, scale, long_label = FALSE, highest_first = FALSE, ...)

gcs_ll
```

Arguments

x	a integer, factor, or character vector.
scale	a character string to denote eye, motor, or verbal GCS scale.
...	not currently used.
long_label	logical to prepend the numeric value to the label of a factor.
highest_first	logical if the factor levels should be ordered with the highest GCS score as the reference level, else the lowest GCS score as the reference level.

Format

An object of class `list` of length 3.

Value

gcs_as_factor returns a factor of equal length to x.

gcs_as_integer returns an integer vector of equal length to x.

Examples

```
########################################
# Mapping from numeric values to factor:
nums <- c(0:7, 2.3)

# with short labels
data.frame(nums   = nums,
           eye    = gcs_as_factor(nums, scale = "eye"),
           motor  = gcs_as_factor(nums, scale = "motor"),
           verbal = gcs_as_factor(nums, scale = "verbal"))

# with long labels
data.frame(nums   = nums,
           eye    = gcs_as_factor(nums, scale = "eye", long_label = TRUE),
           motor  = gcs_as_factor(nums, scale = "motor", long_label = TRUE),
           verbal = gcs_as_factor(nums, scale = "verbal", long_label = TRUE))

################################################
# Mapping from factors/characters to numeric values

# A quick way to access the labels and numeric values
pedalfast.data::gcs_ll

all_levels <- do.call(c, lapply(pedalfast.data::gcs_ll, names))

data.frame(lvls   = all_levels,
           eye    = gcs_as_integer(all_levels, scale = "eye"),
           motor  = gcs_as_integer(all_levels, scale = "motor"),
           verbal = gcs_as_integer(all_levels, scale = "verbal")
           )

################################################
# Order of the levels:
# The data values are the same, but the order of the levels differs.
gcs_as_factor(1:4, "eye", highest_first = FALSE)
gcs_as_factor(1:4, "eye", highest_first = TRUE)
```

---

onezero *1/0 Flags*

Description

Turns Yes/No variables into 1/0 integers

Usage

```
onezero(x)
```

Arguments

x	a character vector

Details

The input is forced to lowercase and only the first character, the "y" or "n", is used to map to the 1/0 integer values. The function allows for "1" and "0" to be in the character vector as well.

Value

an integer vector

Examples

```
flag <- c("Y", "No", "NO", "no", "n", "YES", "Yes", "yEs", "1", "0")
onezero(flag)
```

---

pedalfast *PEDALFAST Data*

Description

Single data frame for the PEDALFAST data.

Usage

```
pedalfast
```

Format

An object of class `data.frame` with 388 rows and 103 columns.

Details

`pedalfast` is one data frame with the whole of the exported data.

See Also

```
vignette("datasets", package = "pedalfast.data")
```

pedalfast_factor *PEDALFAST factor*

Description

A flavor of the base function factor but aimed to use specific default values for levels and labels based on the information in the pedalfast_metadata object.

Usage

```
pedalfast_factor(x, variable, label_with_level = FALSE, ...)
```

Arguments

x	a vector of data
variable	character string identifying the variable name in pedalfast_metadata defining the levels and labels for the factor.
label_with_level	(default to FALSE) labels will include the integer value. See examples.
...	not currently used.

Value

An object of class factor

References

Bennett TD, Dixon RR, Kartchner C, DeWitt PE, Sierra Y, Ladell D, Kempe A, Runyan DK, Dean JM, Keenan HT. Functional Status Scale in Children With Traumatic Brain Injury: A Prospective Cohort Study. Pediatr Crit Care Med. 2016 Dec;17(12):1147-1156. doi: 10.1097/PCC.0000000000000934. PMID: 27753754; PMCID: PMC5138132.

Pollack MM, Holubkov R, Funai T, et al. Pediatric intensive care outcomes: development of new morbidities during pediatric critical care. Pediatr Crit Care Med. 2014;15(9):821-827. doi:10.1097/PCC.0000000000000250

Examples

```
data(pedalfast, pedalfast_metadata, package = "pedalfast.data")

# The Motor GCS in the emergency department is reported as an integer value.
str(pedalfast$gcsmotored)

# Each integer value a specific meaning
pedalfast_metadata[grepl("gcsmotored", pedalfast_metadata$variable), ]

# Creating the factor in base R

pedalfast_factor(x = c(1, 3, 2), variable = "gcsmotored")
pedalfast_factor(x = c(1, 3, 2), variable = "gcsmotored", label_with_level = TRUE)
```

pedalfast_metadata *PEDALFAST Metadata*

Description

pedalfast_metadata provides documentation for each of variables in the pedalfast.

Usage

```
pedalfast_metadata
```

Format

An object of class data.frame with 103 rows and 3 columns.

See Also

```
vignette("datasets", package = "pedalfast.data")
```

round_age *Round Age*

Description

Round age per FITBIR guidelines

Usage

```
round_age(x, type = "character")
```

Arguments

x	a numeric vector
type	defaults to character (default), also accepts numeric.

Details

FITBIR Definition for the "AgeYrs" data element: Value for participant's subject age, calculated as elapsed time since the birth of the participant/subject in years. The subjects age is typically recorded to the nearest full year completed, e.g. 11 years and 6 months should be recorded as 11 years.

Guidelines & Instructions: The subject's age is typically recorded to the nearest full year completed, e.g. 11 years and 6 months should be recorded as 11 years. For subject's which are under 1 year old, use decimal points and use the following convention- record 1 month as 0.083 (1/12), 2 months as 0.166 (2/12), 3 months as 0.25 (3/12), 4 months as 0.333 (4/12), 5 months as 0.416 (5/12), 6 months as 0.5 (6/12), 7 months as 0.583 (7/12), 8 months as 0.666 (8/12), 9 months as 0.75 (9/12), 10 months as 0.833 (10/12), 11 months as 0.916 (11/12) and 12 months as 1 year. For the individuals 90 or older, in order to preserve PII, please submit "150" and make a note this in the "general notes" column.

Value

a character or numeric vector depending on the value of `type`.

Examples

```
ages <- c(92, 12.12, 89 + 10/12, 9.12, 9.73, 1.1, 1.75, ( 1:11 + 0.05 ) / 12,
2, 90)

round_age(ages)
round_age(ages, "numeric")
```

`yesno` *Yes No Flags*

Description

Turns 1/0 into "Yes"/"No"

Usage

```
yesno(x)
```

Arguments

`x`	an integer vector

Value

a character vector

Examples

```
flag <- c(0, 1, 1, 0, 0, 0)
yesno(flag)
```

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