Package 'QoLMiss'

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Title Scales Score Calculation from Quality of Life Data

Type Package

Version 0.1.0

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Description There are three functions: qol, miss_qol and miss_patient takes input of the data set containing the answers of QOL questionnaire. It will compute the three types of domain based scale scores: Global, Functional, and Symptoms. In case of missing data, the miss_qol and miss_patient functions will make the required changes and then calculate the domain-wise scale scores. Finally, provide an output replacing the question columns with the domain-based scale scores in the original data set.

LazyDataCompression xz

ByteCompile Yes

License GPL-3

Encoding UTF-8

LazyData true

Depends R (>= 3.5.0)

Imports survival,utils,dplyr,missMethods

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RoxygenNote 7.1.2

NeedsCompilation no

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`brc_df` *Breast cancer Quality of Life.*

Description

A simulated data for Breast cancer Quality of Life.

Usage

```
brc_df
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

BR_Q31 Breast Cancer Quality of Q31 Question

BR_Q32 Breast Cancer Quality of Q32 Question

BR_Q33 Breast Cancer Quality of Q33 Question

BR_Q34 Breast Cancer Quality of Q34 Question

BR_Q35 Breast Cancer Quality of Q35 Question

BR_Q36 Breast Cancer Quality of Q36 Question

BR_Q37 Breast Cancer Quality of Q37 Question

BR_Q38 Breast Cancer Quality of Q38 Question

BR_Q39 Breast Cancer Quality of Q39 Question

BR_Q40 Breast Cancer Quality of Q40 Question

BR_Q41 Breast Cancer Quality of Q41 Question

BR_Q42 Breast Cancer Quality of Q42 Question

BR_Q43 Breast Cancer Quality of Q43 Question

BR_Q44 Breast Cancer Quality of Q44 Question

BR_Q45 Breast Cancer Quality of Q45 Question

BR_Q46 Breast Cancer Quality of Q46 Question

BR_Q47 Breast Cancer Quality of Q47 Question

BR_Q48 Breast Cancer Quality of Q48 Question

BR_Q49 Breast Cancer Quality of Q49 Question

BR_Q50 Breast Cancer Quality of Q50 Question

BR_Q51 Breast Cancer Quality of Q51 Question

BR_Q52 Cancer Quality of Q52 Question

BR_Q53 Breast Cancer Quality of Q53 Question

#' @source <https://github.com/apstat/QoLMiss-Package>

`brc_df_miss` *Breast cancer Quality of Life with missing values.*

Description

A simulated data for Breast cancer Quality of Life.

Usage

```
brc_df_miss
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

BR_Q31 Breast Cancer Quality of Q31 Question

BR_Q32 Breast Cancer Quality of Q32 Question

BR_Q33 Breast Cancer Quality of Q33 Question

BR_Q34 Breast Cancer Quality of Q34 Question

BR_Q35 Breast Cancer Quality of Q35 Question

BR_Q36 Breast Cancer Quality of Q36 Question

BR_Q37 Breast Cancer Quality of Q37 Question

BR_Q38 Breast Cancer Quality of Q38 Question

BR_Q39 Breast Cancer Quality of Q39 Question

BR_Q40 Breast Cancer Quality of Q40 Question

BR_Q41 Breast Cancer Quality of Q41 Question

BR_Q42 Breast Cancer Quality of Q42 Question

BR_Q43 Breast Cancer Quality of Q43 Question

BR_Q44 Breast Cancer Quality of Q44 Question

BR_Q45 Breast Cancer Quality of Q45 Question

BR_Q46 Breast Cancer Quality of Q46 Question

BR_Q47 Breast Cancer Quality of Q47 Question

BR_Q48 Breast Cancer Quality of Q48 Question

BR_Q49 Breast Cancer Quality of Q49 Question

BR_Q50 Breast Cancer Quality of Q50 Question

BR_Q51 Breast Cancer Quality of Q51 Question

BR_Q52 Breast Cancer Quality of Q52 Question

BR_Q53 Breast Cancer Quality of Q53 Question

#' @source <https://github.com/apstat/QoLMiss-Package>

`brc_qol` *Calculates the domain-based scale scores using the data of QLQ-BR23*

Description

Creates a dataset containing the domain-based scale scores using the data from QLQ-BR23

Usage

```
brc_qol(x)
```

Arguments

`x`	A data frame with ID, BR_Q31,BR_Q32,...,BR_Q53 columns along with other columns if data is available.

Details

brc_miss function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It extracts only the columns named 'BR_Q31','BR_Q32',...,'BR_Q53' and replaces the missing data with the minimum value of the particular question.

Using each of the 30 columns, the Raw Score is computed, and one column is obtained containing the Raw Score for each patient.

Further, using each of the Raw Scores, three domain-based Scale Scores are computed, they are, Global Scales Score, Functional Scales Score and Symptoms Scales Score.

Thus, the columns 'BR_Q31','BR_Q32',...,'BR_Q53' are replaced by the domain-based scale scores, which is obtained as the output.

brc_qol(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'BR_Q31' for data from question 31, 'BR_Q32' for data from question 32, and so on until 'BR_Q53' for data from question 53

3) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, BR_Q31,BR_Q32,...,BR_Q53 columns along with other columns if data is available.

rs - A matrix containing the Raw Score computed using all BR_Q31 to BR_Q53 data for each patient. The RS(a) function is used in this case.

fs - A matrix containing the Functional Scale Scores computed using all BR_Q31 to BR_Q53 data for each patient. The FS(a,b) function is used in this case.

ss - A matrix containing the Global Scale Scores computed using all BR_Q31 to BR_Q53 data for each patient. The SS(a,b) function is used in this case.

final_data - A data frame formed by replacing the columns 'BR_Q31','BR_Q32',...,'BR_Q53' by the domain-based scale scores.

Value

A data frame by replacing the columns 'BR_Q31','BR_Q32',...,'BR_Q53' by the domain-based scale scores.

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(brc_df)
brc_qol(brc_df)
data(brc_df_miss)
brc_qol(brc_df_miss)
##
```

---

c30_df *Simulated data for cancer Quality of Life.*

Description

A simulated data for cancer Quality of Life.

Usage

```
c30_df
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

Q1 Cancer Quality of Q1 Question

Q2 Cancer Quality of Q2 Question

Q3 Cancer Quality of Q3 Question

Q4 Cancer Quality of Q4 Question

Q5 Cancer Quality of Q5 Question

Q6 Cancer Quality of Q6 Question

Q7 Cancer Quality of Q7 Question

Q8 Cancer Quality of Q8 Question

Q9 Cancer Quality of Q9 Question

Q10 Cancer Quality of Q10 Question

Q11 Cancer Quality of Q11 Question

Q12 Cancer Quality of Q12 Question

Q13 Cancer Quality of Q13 Question

Q14 Cancer Quality of Q14 Question

Q15 Cancer Quality of Q15 Question

Q16 Cancer Quality of Q16 Question

Q17 Cancer Quality of Q17 Question

Q18 Cancer Quality of Q18 Question

Q19 Cancer Quality of Q19 Question

Q20 Cancer Quality of Q20 Question

Q21 Cancer Quality of Q21 Question

Q22 Cancer Quality of Q22 Question

Q23 Cancer Quality of Q23 Question

Q24 Cancer Quality of Q24 Question

Q25 Cancer Quality of Q25 Question

Q26 Cancer Quality of Q26 Question

Q27 Cancer Quality of Q27 Question

Q28 Cancer Quality of Q28 Question

Q29 Cancer Quality of Q29 Question

Q30 Cancer Quality of Q30 Question

@source <https://github.com/apstat/QoLMiss-Package>

`c30_df_miss` *Data for cancer Quality of Life with missing values.*

Description

A simulated data for cancer Quality of Life.

Usage

```
c30_df_miss
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

Q1 Cancer Quality of Q1 Question

Q2 Cancer Quality of Q2 Question

Q3 Cancer Quality of Q3 Question

Q4 Cancer Quality of Q4 Question

Q5 Cancer Quality of Q5 Question

Q6 Cancer Quality of Q6 Question

Q7 Cancer Quality of Q7 Question

Q8 Cancer Quality of Q8 Question

Q9 Cancer Quality of Q9 Question

Q10 Cancer Quality of Q10 Question

Q11 Cancer Quality of Q11 Question

Q12 Cancer Quality of Q12 Question

Q13 Cancer Quality of Q13 Question

Q14 Cancer Quality of Q14 Question

Q15 Cancer Quality of Q15 Question

Q16 Cancer Quality of Q16 Question

Q17 Cancer Quality of Q17 Question

Q18 Cancer Quality of Q18 Question

Q19 Cancer Quality of Q19 Question

Q20 Cancer Quality of Q20 Question

Q21 Cancer Quality of Q21 Question

Q22 Cancer Quality of Q22 Question

Q23 Cancer Quality of Q23 Question

Q24 Cancer Quality of Q24 Question

Q25 Cancer Quality of Q25 Question

Q26 Cancer Quality of Q26 Question

Q27 Cancer Quality of Q27 Question

Q28 Cancer Quality of Q28 Question

Q29 Cancer Quality of Q29 Question

Q30 Cancer Quality of Q30 Question

@source <https://github.com/apstat/QoLMiss-Package>

`hnc_df` *Head and Neck cancer Quality of Life data.*

Description

A simulated data for Head and Neck cancer Quality of Life.

Usage

```
hnc_df
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

HN_Q31 HNC Cancer Quality of Q31 Question

HN_Q32 HNC Cancer Quality of Q32 Question

HN_Q33 HNC Cancer Quality of Q33 Question

HN_Q34 HNC Cancer Quality of Q34 Question

HN_Q35 HNC Cancer Quality of Q35 Question

HN_Q36 HNC Cancer Quality of Q36 Question

HN_Q37 HNC Cancer Quality of Q37 Question

HN_Q38 HNC Cancer Quality of Q38 Question

HN_Q39 HNC Cancer Quality of Q39 Question

HN_Q40 HNC Cancer Quality of Q40 Question

HN_Q41 HNC Cancer Quality of Q41 Question

HN_Q42 HNC Cancer Quality of Q42 Question

HN_Q43 HNC Cancer Quality of Q43 Question

HN_Q44 HNC Cancer Quality of Q44 Question

HN_Q45 HNC Cancer Quality of Q45 Question

HN_Q46 HNC Cancer Quality of Q46 Question

HN_Q47 HNC Cancer Quality of Q47 Question

HN_Q48 HNC Cancer Quality of Q48 Question

HN_Q49 HNC Cancer Quality of Q49 Question

HN_Q50 HNC Cancer Quality of Q50 Question

HN_Q51 HNC Cancer Quality of Q51 Question

HN_Q52 HNC Cancer Quality of Q52 Question

HN_Q53 HNC Cancer Quality of Q53 Question

HN_Q54 HNC Cancer Quality of Q54 Question

HN_Q55 HNC Cancer Quality of Q55 Question

HN_Q56 HNC Cancer Quality of Q56 Question

HN_Q57 HNC Cancer Quality of Q57 Question

HN_Q58 HNC Cancer Quality of Q58 Question

HN_Q59 HNC Cancer Quality of Q59 Question

HN_Q60 HNC Cancer Quality of Q60 Question

HN_Q61 HNC Cancer Quality of Q61 Question

HN_Q62 HNC Cancer Quality of Q62 Question

HN_Q63 HNC Cancer Quality of Q63 Question

HN_Q64 HNC Cancer Quality of Q64 Question

HN_Q65 HNC Cancer Quality of Q65 Question

#' @source <https://github.com/apstat/QoLMiss-Package>

`hnc_df_miss` *Head and Neck cancer data for cancer Quality of Life with missing values.*

Description

A simulated data for Head and Neck cancer Quality of Life.

Usage

```
hnc_df_miss
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

HN_Q31 HNC Cancer Quality of Q31 Question

HN_Q32 HNC Cancer Quality of Q32 Question

HN_Q33 HNC Cancer Quality of Q33 Question

HN_Q34 HNC Cancer Quality of Q34 Question

HN_Q35 HNC Cancer Quality of Q35 Question

HN_Q36 HNC Cancer Quality of Q36 Question

HN_Q37 HNC Cancer Quality of Q37 Question

HN_Q38 HNC Cancer Quality of Q38 Question

HN_Q39 HNC Cancer Quality of Q39 Question

HN_Q40 HNC Cancer Quality of Q40 Question

HN_Q41 HNC Cancer Quality of Q41 Question

HN_Q42 HNC Cancer Quality of Q42 Question

HN_Q43 HNC Cancer Quality of Q43 Question

HN_Q44 HNC Cancer Quality of Q44 Question

HN_Q45 HNC Cancer Quality of Q45 Question

HN_Q46 HNC Cancer Quality of Q46 Question

HN_Q47 HNC Cancer Quality of Q47 Question

HN_Q48 HNC Cancer Quality of Q48 Question

HN_Q49 HNC Cancer Quality of Q49 Question

HN_Q50 HNC Cancer Quality of Q50 Question

HN_Q51 HNC Cancer Quality of Q51 Question

HN_Q52 HNC Cancer Quality of Q52 Question

HN_Q53 HNC Cancer Quality of Q53 Question

HN_Q54 HNC Cancer Quality of Q54 Question

HN_Q55 HNC Cancer Quality of Q55 Question

HN_Q56 HNC Cancer Quality of Q56 Question

HN_Q57 HNC Cancer Quality of Q57 Question

HN_Q58 HNC Cancer Quality of Q58 Question

HN_Q59 HNC Cancer Quality of Q59 Question

HN_Q60 HNC Cancer Quality of Q60 Question

HN_Q61 HNC Cancer Quality of Q61 Question

HN_Q62 HNC Cancer Quality of Q62 Question

HN_Q63 HNC Cancer Quality of Q63 Question

HN_Q64 HNC Cancer Quality of Q64 Question

HN_Q65 HNC Cancer Quality of Q65 Question

#' @source <https://github.com/apstat/QoLMiss-Package>

`hnc_qol` *Calculates the domain-based scale scores using the data of QLQ-HN35*

Description

Creates a dataset containing the domain-based scale scores using the data from QLQ-HN35

Usage

```
hnc_qol(x)
```

Arguments

x	A data frame with ID, HN_Q31,HN_Q32,...,HN_Q65 columns along with other columns if data is available.

Details

Calculates the domain-based scale scores using the data of QLQ-HN35

hn_miss function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It extracts only the columns named 'HN_Q31','HN_Q32',...,'HN_Q65' and replaces the missing data with the minimum value of the particular question.

Using each of the 30 columns, the Raw Score is computed, and one column is obtained containing the Raw Score for each patient.

Further, using each of the Raw Scores, three domain-based Scale Scores are computed, they are, Global Scales Score, Functional Scales Score and Symptoms Scales Score.

Thus, the columns 'HN_Q31','HN_Q32',...,'HN_Q65' are replaced by the domain-based scale scores, which is obtained as the output.

hnc_qol(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'HN_Q31' for data from question 31, 'HN_Q32' for data from question 32, and so on until 'HN_Q65' for data from question 65.

3) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, HN_Q31,HN_Q32,...,HN_Q65 columns along with other columns if data is available.

rs - A matrix containing the Raw Score computed using all HN_Q31 to HN_Q65 data for each patient. The RS(a) function is used in this case.

ss - A matrix containing the Global Scale Scores computed using all HN_Q31 to HN_Q65 data for each patient. The SS(a,b) function is used in this case.

final_data - A data frame formed by replacing the columns 'HN_Q31','HN_Q32',...,'HN_Q65' by the domain-based scale scores.

Value

A data frame by replacing the columns 'HN_Q31','HN_Q32',...,'HN_Q65' by the domain-based scale scores.

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(hnc_df)
hnc_qol(hnc_df)
data(hnc_df_miss)
hnc_qol(hnc_df_miss)
##
```

---

lc_df *Simulated data for Lung cancer Quality of Life.*

Description

A simulated data for Lung cancer Quality of Life.

Usage

```
lc_df
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

LC_Q31 Lung Cancer Quality of Q31 Question

LC_Q32 Lung Cancer Quality of Q32 Question

LC_Q33 Lung Cancer Quality of Q33 Question

LC_Q34 Lung Cancer Quality of Q34 Question

LC_Q35 Lung Cancer Quality of Q35 Question

LC_Q36 Lung Cancer Quality of Q36 Question

LC_Q37 Lung Cancer Quality of Q37 Question

LC_Q38 Lung Cancer Quality of Q38 Question

LC_Q39 Lung Cancer Quality of Q39 Question

LC_Q40 Lung Cancer Quality of Q40 Question

LC_Q41 Lung Cancer Quality of Q41 Question

LC_Q42 Lung Cancer Quality of Q42 Question

@source <https://github.com/apstat/QoLMiss-Package>

`lc_df_miss` *Lung cancer data for cancer Quality of Life with missing values.*

Description

A simulated data for Lung cancer Quality of Life.

Usage

```
lc_df_miss
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

LC_Q31 Lung Cancer Quality of Q31 Question

LC_Q32 Lung Cancer Quality of Q32 Question

LC_Q33 Lung Cancer Quality of Q33 Question

LC_Q34 Lung Cancer Quality of Q34 Question

LC_Q35 Lung Cancer Quality of Q35 Question

LC_Q36 Lung Cancer Quality of Q36 Question

LC_Q37 Lung Cancer Quality of Q37 Question

LC_Q38 Lung Cancer Quality of Q38 Question

LC_Q39 Lung Cancer Quality of Q39 Question

LC_Q40 Lung Cancer Quality of Q40 Question

LC_Q41 Lung Cancer Quality of Q41 Question

LC_Q42 Lung Cancer Quality of Q42 Question

@source <https://github.com/apstat/QoLMiss-Package>

`lc_qol` *Calculates the domain-based scale scores using the data of QLQ-LC13.*

Description

Creates a dataset containing the domain-based scale scores using the data from QLQ-LC13

Usage

```
lc_qol(x)
```

Arguments

`x`	A data frame with ID, LC_Q31,LC_Q32,...,LC_Q42 columns along with other columns if data is available.

Details

Calculates the domain-based scale scores using the data of QLQ-LC13

lc_miss function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It extracts only the columns named 'LC_Q31','LC_Q32',...,'LC_Q42' and replaces the missing data with the minimum value of the particular question.

Using each of the 30 columns, the Raw Score is computed, and one column is obtained containing the Raw Score for each patient.

Further, using each of the Raw Scores, three domain-based Scale Scores are computed, they are, Global Scales Score, Functional Scales Score and Symptoms Scales Score.

Thus, the columns 'LC_Q31','LC_Q32',...,'LC_Q42' are replaced by the domain-based scale scores, which is obtained as the output.

lc_qol(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'LC_Q31' for data from question 31, 'LC_Q32' for data from question 32, and so on until 'LC_Q42' for data from question 42.

3) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, LC_Q31,LC_Q32,...,LC_Q42 columns along with other columns if data is available.

rs - A matrix containing the Raw Score computed using all LC_Q31 to LC_Q42 data for each patient. The RS(a) function is used in this case.

ss - A matrix containing the Global Scale Scores computed using all LC_Q31 to LC_Q42 data for each patient. The SS(a,b) function is used in this case.

final_data - A data frame formed by replacing the columns 'LC_Q31','LC_Q32',...,'LC_Q42' by the domain-based scale scores.

Value

A data frame by replacing the columns 'LC_Q31','LC_Q32',...,'LC_Q42' by the domain-based scale scores.

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(lc_df)
lc_qol(lc_df)
data(lc_df_miss)
lc_qol(lc_df_miss)
##
```

ovc_df *Simulated data for Ovarian Cancer Quality of Life.*

Description

A simulated data for Breast cancer Quality of Life.

Usage

```
ovc_df
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

OV_Q31 Breast Cancer Quality of Q31 Question

OV_Q32 Breast Cancer Quality of Q32 Question

OV_Q33 Breast Cancer Quality of Q33 Question

OV_Q34 Breast Cancer Quality of Q34 Question

OV_Q35 Breast Cancer Quality of Q35 Question

OV_Q36 Breast Cancer Quality of Q36 Question

OV_Q37 Breast Cancer Quality of Q37 Question

OV_Q38 Breast Cancer Quality of Q38 Question

OV_Q39 Breast Cancer Quality of Q39 Question

OV_Q40 Breast Cancer Quality of Q40 Question

OV_Q41 Breast Cancer Quality of Q41 Question

OV_Q42 Breast Cancer Quality of Q42 Question

OV_Q43 Breast Cancer Quality of Q43 Question

OV_Q44 Breast Cancer Quality of Q44 Question

OV_Q45 Breast Cancer Quality of Q45 Question

OV_Q46 Breast Cancer Quality of Q46 Question

OV_Q47 Breast Cancer Quality of Q47 Question

OV_Q48 Breast Cancer Quality of Q48 Question

OV_Q49 Breast Cancer Quality of Q49 Question

OV_Q50 Breast Cancer Quality of Q50 Question

OV_Q51 Breast Cancer Quality of Q51 Question

OV_Q52 Breast Cancer Quality of Q52 Question

OV_Q53 Breast Cancer Quality of Q53 Question

OV_Q54 Breast Cancer Quality of Q54 Question

OV_Q55 Breast Cancer Quality of Q55 Question

OV_Q56 Breast Cancer Quality of Q56 Question

OV_Q57 Breast Cancer Quality of Q57 Question

OV_Q58 Breast Cancer Quality of Q58 Question

@source <https://github.com/apstat/QoLMiss-Package>

`ovc_df_miss` *Ovarian cancer Quality of Life data with missing values.*

Description

A simulated data for ovarian cancer Quality of Life.

Usage

```
ovc_df_miss
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

OV_Q31 Ovarian Cancer Quality of Q31 Question

OV_Q32 Ovarian Cancer Quality of Q32 Question

OV_Q33 Ovarian Cancer Quality of Q33 Question

OV_Q34 Ovarian Cancer Quality of Q34 Question

OV_Q35 Ovarian Cancer Quality of Q35 Question

OV_Q36 Ovarian Cancer Quality of Q36 Question

OV_Q37 Ovarian Cancer Quality of Q37 Question

OV_Q38 Ovarian Cancer Quality of Q38 Question

OV_Q39 Ovarian Cancer Quality of Q39 Question

OV_Q40 Ovarian Cancer Quality of Q40 Question

OV_Q41 Ovarian Cancer Quality of Q41 Question

OV_Q42 Ovarian Cancer Quality of Q42 Question

OV_Q43 Ovarian Cancer Quality of Q43 Question

OV_Q44 Ovarian Cancer Quality of Q44 Question

OV_Q45 Ovarian Cancer Quality of Q45 Question

OV_Q46 Ovarian Cancer Quality of Q46 Question

OV_Q47 Ovarian Cancer Quality of Q47 Question

OV_Q48 Ovarian Cancer Quality of Q48 Question

OV_Q49 Ovarian Cancer Quality of Q49 Question

OV_Q50 Ovarian Cancer Quality of Q50 Question

OV_Q51 Ovarian Cancer Quality of Q51 Question

OV_Q52 Ovarian Cancer Quality of Q52 Question

OV_Q53 Ovarian Cancer Quality of Q53 Question

OV_Q54 Ovarian Cancer Quality of Q54 Question

OV_Q55 Ovarian Cancer Quality of Q55 Question

OV_Q56 Ovarian Cancer Quality of Q56 Question

OV_Q57 Ovarian Cancer Quality of Q57 Question

OV_Q58 Ovarian Cancer Quality of Q58 Question

@source <https://github.com/apstat/QoLMiss-Package>

`ovc_qol` *Calculates the domain-based scale scores using the data of QLQ-OV28.*

Description

Creates a dataset containing the domain-based scale scores using the data from QLQ-OV28

Usage

```
ovc_qol(x)
```

Arguments

`x`	A data frame with ID, OV_Q31,OV_Q32,...,OV_Q58 columns along with other columns if data is available.

Details

Calculates the domain-based scale scores using the data of QLQ-OV28

brc_miss function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It extracts only the columns named 'OV_Q31','OV_Q32',...,'OV_Q58' and replaces the missing data with the minimum value of the particular question.

Using each of the 30 columns, the Raw Score is computed, and one column is obtained containing the Raw Score for each patient.

Further, using each of the Raw Scores, three domain-based Scale Scores are computed, they are, Global Scales Score, Functional Scales Score and Symptoms Scales Score.

Thus, the columns 'OV_Q31','OV_Q32',...,'OV_Q58' are replaced by the domain-based scale scores, which is obtained as the output.

ovc_qol(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'OV_Q31' for data from question 31, 'OV_Q32' for data from question 32, and so on until 'OV_Q58' for data from question 58

3) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, OV_Q31,OV_Q32,...,OV_Q58 columns along with other columns if data is available.

rs - A matrix containing the Raw Score computed using all OV_Q31 to OV_Q58 data for each patient. The RS(a) function is used in this case.

ss - A matrix containing the Global Scale Scores computed using all OV_Q31 to OV_Q58 data for each patient. The SS(a,b) function is used in this case.

final_data - A data frame formed by replacing the columns 'OV_Q31','OV_Q32',...,'OV_Q58' by the domain-based scale scores.

Value

A data frame by replacing the columns 'OV_Q31','OV_Q32',...,'OV_Q58' by the domain-based scale scores.

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(ovc_df)
ovc_qol(ovc_df)
data(ovc_df_miss)
ovc_qol(ovc_df_miss)
##
```

`patient_miss` *Cancer Quality of Life data with missing values.*

Description

A simulated data for cancer Quality of Life.

Usage

```
patient_miss
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

Q1 Cancer Quality of Q1 Question

Q2 Cancer Quality of Q2 Question

Q3 Cancer Quality of Q3 Question

Q4 Cancer Quality of Q4 Question

Q5 Cancer Quality of Q5 Question

Q6 Cancer Quality of Q6 Question

Q7 Cancer Quality of Q7 Question

Q8 Cancer Quality of Q8 Question

Q9 Cancer Quality of Q9 Question

Q10 Cancer Quality of Q10 Question

Q11 Cancer Quality of Q11 Question

Q12 Cancer Quality of Q12 Question

Q13 Cancer Quality of Q13 Question

Q14 Cancer Quality of Q14 Question

Q15 Cancer Quality of Q15 Question

Q16 Cancer Quality of Q16 Question

Q17 Cancer Quality of Q17 Question

Q18 Cancer Quality of Q19 Question

Q19 Cancer Quality of Q19 Question

Q20 Cancer Quality of Q20 Question

Q21 Cancer Quality of Q21 Question

Q22 Cancer Quality of Q22 Question

Q23 Cancer Quality of Q23 Question

Q24 Cancer Quality of Q24 Question

Q25 Cancer Quality of Q25 Question

Q26 Cancer Quality of Q26 Question

Q27 Cancer Quality of Q27 Question

Q28 Cancer Quality of Q28 Question

Q29 Cancer Quality of Q29 Question

Q30 Cancer Quality of Q30 Question

#' @source <https://github.com/apstat/QoLMiss-Package>

`qol` *Calculates the domain-based scale scores using the data from Quality of Life questionnaire*

Description

Creates a dataset containing the domain-based scale scores using the data from Quality of Life questionnaire

Usage

```
qol(x)
```

Arguments

`x`	A data frame with ID, Q1, Q2,..., Q30 columns along with other columns if data is available.

Details

Calculates the domain-based scale scores using the data from Quality of Life questionnaire

qol function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It extracts only the columns named 'Q1','Q2',...,'Q30' and replaces the missing data with the minimum value of the particular question.

Using each of the 30 columns, the Raw Score is computed, and one column is obtained containing the Raw Score for each patient.

Further, using each of the Raw Scores, three domain-based Scale Scores are computed, they are, Global Scales Score, Functional Scales Score and Symptoms Scales Score.

Thus, the columns 'Q1','Q2',...,'Q30' are replaced by the domain-based scale scores, which is obtained as the output.

qol(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'Q1' for data from question 1, 'Q2' for data from question 2, and so on until 'Q30' for data from question 30.

3) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, Q1, Q2,..., Q30 columns along with other columns if data is available.

rs - A matrix containing the Raw Score computed using all Q1 to Q30 data for each patient. The RS(a) function is used in this case.

fs - A matrix containing the Functional Scale Scores computed using all Q1 to Q30 data for each patient. The FS(a,b) function is used in this case.

ss_gs - A matrix containing the Global Scale Scores computed using all Q1 to Q30 data for each patient. The SS_GS(a,b) function is used in this case.

final_data - A data frame formed by replacing the columns 'Q1','Q2',...,'Q30' by the domain-based scale scores.

Value

A data frame by replacing the columns 'Q1','Q2',...,'Q30' by the domain-based scale scores.

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(c30_df)
qol(c30_df)
data(c30_df_miss)
qol(c30_df_miss)
##
```

---

qol_miss *Cancer Quality of Life data analysis with missing values.*

Description

Creates a dataset containing the domain-based scale scores using the data from Quality of Life questionnaire

Usage

```
qol_miss(x)
```

Arguments

x	A data frame with ID, Q1, Q2,..., Q30 columns along with other columns if data is available.

Details

Calculates the domain-based scale scores using the data from Quality of Life questionnaire

miss_patient function inputs a dataset in which the information of some patients are completely missing. The information of these patients are omitted from the data and only the columns named 'Q1','Q2',...,'Q30' are extracted.

Using each of the 30 columns, the Raw Score is computed, and one column is obtained containing the Raw Score for each patient.

Further, using each of the Raw Scores, three domain-based Scale Scores are computed, they are, Global Scales Score, Functional Scales Score and Symptoms Scales Score.

Thus, the columns 'Q1','Q2',...,'Q30' are replaced by the domain-based scale scores, which is obtained as the output.

qol_miss(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'Q1' for data from question 1, 'Q2' for data from question 2, and so on until 'Q30' for data from question 30.

3) Only those data can be used which contains no information for some patients, that is, some rows contain only NA.

4) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, Q1, Q2,..., Q30 columns along with other columns if data is available.

rs - A matrix containing the Raw Score computed using all Q1 to Q30 data for each patient. The RS(a) function is used in this case.

fs - A matrix containing the Functional Scale Scores computed using all Q1 to Q30 data for each patient. The FS(a,b) function is used in this case.

ss_gs - A matrix containing the Global Scale Scores computed using all Q1 to Q30 data for each patient. The SS_GS(a,b) function is used in this case.

final_data - A data frame formed by replacing the columns 'Q1','Q2',...,'Q30' by the domain-based scale scores.

Value

A data frame by replacing the columns 'Q1','Q2',...,'Q30' by the domain-based scale scores.

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(patient_miss)
qol_miss(patient_miss)
##
```

`surv_br23` *Dataset contains survival outcomes and quality of life for breast cancer patients*

Description

Creates a dataset containing the domain-based relative hazard ratio (95 the arm-wise data from QLQ-BR23

Usage

```
surv_br23(x)
```

Arguments

x	A data frame with ID, time, event, arm, BR_Q31,BR_Q32,...,BR_Q53 columns along with other columns if data is available.

Details

Calculates the domain-wise relative hazard ratio (95

surv_br23 function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It passes the data to the brc_qol() function, which in turn gives the domain-wise scale scores. These domain-wise scale scores are used for calculating the relative hazard ratio (95 the data arm-wise.

The surv_br23 function includes the brc_qol() function which will consider the arm-wise data and calculate the domain-wise scale scores. Hence, two set of domain-wise scale scores will be obtained, one for each arm.

Each of the domain-wise scales, 'BRBI','BRSEF','BRSEE','BRFU','BRST','BRBS','BRAS','BRHL', are considered as the covariates. Using these columns, Cox-Proportional model will be used for univariate analysis for each of the covariates. The hazard ratio (95

Thus, the output will contain three columns, Hazard Ratio(HR), Lower 95

surv_br23(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'BR_Q31' for data from question 31,'BR_Q32' for data from question 32, and so on until 'BR_Q53' for data from question 53.

3) Data must contain columns for 'time', 'event' and 'arm'.

4) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, time, event, arm, BR_Q31,BR_Q32,...,BR_Q53 columns along with other columns if data is available.

Value

A data frame containing the Hazard Ratio(HR), Lower 95

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(brc_df)
surv_br23(brc_df)
##
```

`surv_c30` *Dataset contains survival outcomes and quality of life for cancer patients*

Description

Creates a dataset containing the domain-based relative hazard ratio (95 the arm-wise data from QLQ-C30

Usage

```
surv_c30(x)
```

Arguments

`x`	A data frame with ID, time, event, arm, Q1,Q2,...,Q30 columns along with other columns if data is available.

Details

Calculates the domain-wise relative hazard ratio (95

surv_c30 function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It passes the data to the qol() function, which in turn gives the domain-wise scale scores. These domain-wise scale scores are used for calculating the relative hazard ratio (95 the data arm-wise.

The surv_c30 function includes the qol() function which will consider the arm-wise data and calculate the domain-wise scale scores. Hence, two set of domain-wise scale scores will be obtained, one for each arm.

Each of the domain-wise scales, 'QL','PF','RF','EF','CF','SF','FA','NV','PA','DY','SL','AP','CO','DI','FI', are considered as the covariates. Using these columns, Cox-Proportional model will be used for univariate analysis for each of the covariates. The hazard ratio (95

Thus, the output will contain three columns, Hazard Ratio(HR), Lower 95

surv_c30(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'Q1' for data from question 1,'Q2' for data from question 2, and so on until 'Q30' for data from question 30.

3) Data must contain columns for 'time', 'event' and 'arm'.

4) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, time, event, arm, Q1,Q2,...,Q30 columns along with other columns if data is available.

Value

A data frame containing the Hazard Ratio(HR), Lower 95

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(c30_df)
surv_c30(c30_df)
##
```

---

surv_c30_miss *Dataset contains survival outcomes and quality of life for cancer patients with missing observation*

Description

Creates a dataset containing the domain-based relative hazard ratio (95 the arm-wise data from QLQ-C30

Usage

```
surv_c30_miss(x)
```

Arguments

x	A data frame with ID, time, event, arm, Q1,Q2,...,Q30 columns along with other columns if data is available.

Details

Calculates the domain-wise relative hazard ratio (95

surv_c30_miss function inputs a dataset where information of some patients are completely missing, that is, some rows contain only NA. It passes the data to the qol_miss() function, which in turn gives the domain-wise scale scores. These domain-wise scale scores are used for calculating the relative hazard ratio (95 the data arm-wise.

The surv_c30_miss function includes the qol_miss() function which will consider the arm-wise data and calculate the domain-wise scale scores. Hence, two set of domain-wise scale scores will be obtained, one for each arm.

Each of the domain-wise scales, 'QL','PF','RF','EF','CF','SF','FA','NV','PA','DY','SL','AP','CO','DI','FI', are considered as the covariates. Using these columns, Cox-Proportional model will be used for univariate analysis for each of the covariates. The hazard ratio (95

Thus, the output will contain three columns, Hazard Ratio(HR), Lower 95

surv_c30_miss(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'Q1' for data from question 1,'Q2' for data from question 2, and so on until 'Q30' for data from question 30.

3) Only those data can be used which contains no information for some patients, that is, some rows contain only NA.

4) Data must contain columns for 'time', 'event' and 'arm'.

5) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, time, event, arm, Q1,Q2,...,Q30 columns along with other columns if data is available.

Value

A data frame containing the Hazard Ratio(HR), Lower 95

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(patient_miss)
surv_c30_miss(patient_miss)
##
```

surv_hn35 *Dataset contains survival outcomes and quality of life for head and neck cancer patients*

Description

Creates a dataset containing the domain-based relative hazard ratio (95 the arm-wise data from QLQ-HN35

Usage

```
surv_hn35(x)
```

Arguments

x	A data frame with ID, time, event, arm, HN_Q31,HN_Q32,...,HN_Q65 columns along with other columns if data is available.

Details

Calculates the domain-wise relative hazard ratio (95

surv_hn35 function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It passes the data to the hnc_qol() function, which in turn gives the domain-wise scale scores. These domain-wise scale scores are used for calculating the relative hazard ratio (95 the data arm-wise.

The surv_hn35 function includes the hnc_qol() function which will consider the arm-wise data and calculate the domain-wise scale scores. Hence, two set of domain-wise scale scores will be obtained, one for each arm.

Each of the domain-wise scales are considered as the covariates. Using these columns, Cox-Proportional model will be used for univariate analysis for each of the covariates. The hazard ratio (95

Thus, the output will contain three columns, Hazard Ratio(HR), Lower 95

surv_hn35(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'HN_Q31' for data from question 31, HN_Q32' for data from question 32, and so on until 'HN_Q65' for data from question 65.

3) Data must contain columns for 'time', 'event' and 'arm'.

4) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, time, event, arm, HN_Q31,HN_Q32,...,HN_Q65 columns along with other columns if data is available.

Value

A data frame containing the Hazard Ratio(HR), Lower 95

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(hnc_df)
surv_hn35(hnc_df)
##
```

`surv_lc13` *Dataset contains survival outcomes and quality of life for lung cancer patients*

Description

Creates a dataset containing the domain-based relative hazard ratio (95 the arm-wise data from QLQ-LC13

Usage

```
surv_lc13(x)
```

Arguments

`x`	A data frame with ID, time, event, arm, LC_Q31,LC_Q32,...,LC_Q42 columns along with other columns if data is available.

Details

Calculates the domain-wise relative hazard ratio (95

surv_lc13 function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It passes the data to the lc_qol() function, which in turn gives the domain-wise scale scores. These domain-wise scale scores are used for calculating the relative hazard ratio (95 the data arm-wise.

The surv_lc13 function includes the lc_qol() function which will consider the arm-wise data and calculate the domain-wise scale scores. Hence, two set of domain-wise scale scores will be obtained, one for each arm.

Each of the domain-wise scales, 'LCDY','LCCO','LCHA','LCSM','LCDS','LCPN','LCHR','LCPC','LCPA','LCPO', are considered as the covariates. Using these columns, Cox-Proportional model will be used for univariate analysis for each of the covariates. The hazard ratio (95

Thus, the output will contain three columns, Hazard Ratio(HR), Lower 95

surv_lc13(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'LC_Q31' for data from question 31,'LC_Q32' for data from question 32, and so on until 'LC_Q42' for data from question 42.

3) Data must contain columns for 'time', 'event' and 'arm'.

4) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, time, event, arm, LC_Q31,LC_Q32,...,LC_Q42 columns along with other columns if data is available.

Value

A data frame containing the Hazard Ratio(HR), Lower 95

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(lc_df)
surv_lc13(lc_df)
##
```

`surv_ov28` *Dataset contains survival outcomes and quality of life for ovarian cancer patients*

Description

Creates a dataset containing the domain-based relative hazard ratio (95 the arm-wise data from QLQ-OV28

Usage

```
surv_ov28(x)
```

Arguments

x	A data frame with ID, time, event, arm, OV_Q31,OV_Q32,...,OV_Q58 columns along with other columns if data is available.

Details

Calculates the domain-wise relative hazard ratio (95

surv_ov28 function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It passes the data to the ovc_qol() function, which in turn gives the domain-wise scale scores. These domain-wise scale scores are used for calculating the relative hazard ratio (95 the data arm-wise.

The surv_ov28 function includes the ovc_qol() function which will consider the arm-wise data and calculate the domain-wise scale scores. Hence, two set of domain-wise scale scores will be obtained, one for each arm.

Each of the domain-wise scales, 'Abdominal_GI','Peripheral_Neuropathy','Hormonal','Body_Image', 'Attitude_to_Disease','Chemotherapy_side_effects','Other_Single_Items','Sexuality', are considered as the covariates. Using these columns, Cox-Proportional model will be used for univariate analysis for each of the covariates. The hazard ratio (95

Thus, the output will contain three columns, Hazard Ratio(HR), Lower 95

surv_ov28(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'OV_Q31' for data from question 31,'OV_Q32' for data from question 32, and so on until 'OV_Q58' for data from question 58.

3) Data must contain columns for 'time', 'event' and 'arm'.

4) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, time, event, arm, OV_Q31,OV_Q32,...,OV_Q58 columns along with other columns if data is available.

Value

A data frame containing the Hazard Ratio(HR), Lower 95

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(ovc_df)
surv_ov28(ovc_df)
##
```

`surv_thy34` *Dataset contains survival outcomes and quality of life for thyroid cancer patients*

Description

Creates a dataset containing the domain-based relative hazard ratio (95 the arm-wise data from QLQ-THY34

Usage

```
surv_thy34(x)
```

Arguments

`x`	A data frame with ID, time, event, arm, THY_Q31,THY_Q32,...,THY_Q64 columns along with other columns if data is available.

Details

Calculates the domain-wise relative hazard ratio (95

surv_thy34 function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It passes the data to the thyc_qol() function, which in turn gives the domain-wise scale scores. These domain-wise scale scores are used for calculating the relative hazard ratio (95 the data arm-wise.

The surv_thy34 function includes the thyc_qol() function which will consider the arm-wise data and calculate the domain-wise scale scores. Hence, two set of domain-wise scale scores will be obtained, one for each arm.

Each of the domain-wise scales are considered as the covariates. Using these columns, Cox-Proportional model will be used for univariate analysis for each of the covariates. The hazard ratio (95

Thus, the output will contain three columns, Hazard Ratio(HR), Lower 95

surv_thy34(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'THY_Q31' for data from question 31,'THY_Q32' for data from question 32, and so on until 'THY_Q64' for data from question 64.

3) Data must contain columns for 'time', 'event' and 'arm'.

4) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, time, event, arm, THY_Q31,THY_Q32,...,THY_Q64 columns along with other columns if data is available.

Value

A data frame containing the Hazard Ratio(HR), Lower 95

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(thyc_df)
surv_thy34(thyc_df)
##
```

---

thyc_df *Thyroid cancer Quality of Life.*

Description

A simulated data for Thyroid cancer Quality of Life.

Usage

```
thyc_df
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

THY_Q31 Thyroid Cancer Quality of Q31 Question

THY_Q32 Thyroid Cancer Quality of Q32 Question

THY_Q33 Thyroid Cancer Quality of Q33 Question

THY_Q34 Thyroid Cancer Quality of Q34 Question

THY_Q35 Thyroid Cancer Quality of Q35 Question

THY_Q36 Thyroid Cancer Quality of Q36 Question

THY_Q37 Thyroid Cancer Quality of Q37 Question

THY_Q38 Thyroid Cancer Quality of Q38 Question

THY_Q39 Thyroid Cancer Quality of Q39 Question

THY_Q40 Thyroid Cancer Quality of Q40 Question

THY_Q41 Thyroid Cancer Quality of Q41 Question

THY_Q42 Thyroid Cancer Quality of Q42 Question

THY_Q43 Thyroid Cancer Quality of Q43 Question

THY_Q44 Thyroid Cancer Quality of Q44 Question

THY_Q45 Thyroid Cancer Quality of Q45 Question

THY_Q46 Thyroid Cancer Quality of Q46 Question

THY_Q47 Thyroid Cancer Quality of Q47 Question

THY_Q48 Thyroid Cancer Quality of Q48 Question

THY_Q49 Thyroid Cancer Quality of Q49 Question

THY_Q50 Thyroid Cancer Quality of Q50 Question

THY_Q51 Thyroid Cancer Quality of Q51 Question

THY_Q52 Thyroid Cancer Quality of Q52 Question

THY_Q53 Thyroid Cancer Quality of Q53 Question

THY_Q54 Thyroid Cancer Quality of Q54 Question

THY_Q55 Thyroid Cancer Quality of Q55 Question

THY_Q56 Thyroid Cancer Quality of Q56 Question

THY_Q57 Thyroid Cancer Quality of Q57 Question

THY_Q58 Thyroid Cancer Quality of Q58 Question

THY_Q59 Thyroid Cancer Quality of Q59 Question

THY_Q60 Thyroid Cancer Quality of Q60 Question

THY_Q61 Thyroid Cancer Quality of Q61 Question

THY_Q62 Thyroid Cancer Quality of Q62 Question

THY_Q63 Thyroid Cancer Quality of Q63 Question

THY_Q64 Thyroid Cancer Quality of Q64 Question

@source <https://github.com/apstat/QoLMiss-Package>

thyc_df_miss *Thyroid cancer Quality of Life data with missing values.*

Description

A simulated data for Thyroid cancer Quality of Life.

Usage

```
thyc_df_miss
```

Format

A data frame with 60 rows and 2 variables:

ID Participant's identification

time Time Variable

event status as Variable

arm Therapeutic Arm

THY_Q31 Thyroid Cancer Quality of Q31 Question

THY_Q32 Thyroid Cancer Quality of Q32 Question

THY_Q33 Thyroid Cancer Quality of Q33 Question

THY_Q34 Thyroid Cancer Quality of Q34 Question

THY_Q35 Thyroid Cancer Quality of Q35 Question

THY_Q36 Thyroid Cancer Quality of Q36 Question

THY_Q37 Thyroid Cancer Quality of Q37 Question

THY_Q38 Thyroid Cancer Quality of Q38 Question

THY_Q39 Thyroid Cancer Quality of Q39 Question

THY_Q40 Thyroid Cancer Quality of Q40 Question

THY_Q41 Thyroid Cancer Quality of Q41 Question

THY_Q42 Thyroid Cancer Quality of Q42 Question

THY_Q43 Thyroid Cancer Quality of Q43 Question

THY_Q44 Thyroid Cancer Quality of Q44 Question

THY_Q45 Thyroid Cancer Quality of Q45 Question

THY_Q46 Thyroid Cancer Quality of Q46 Question

THY_Q47 Thyroid Cancer Quality of Q47 Question

THY_Q48 Thyroid Cancer Quality of Q48 Question

THY_Q49 Thyroid Cancer Quality of Q49 Question

THY_Q50 Thyroid Cancer Quality of Q50 Question

THY_Q51 Thyroid Cancer Quality of Q51 Question

THY_Q52 Thyroid Cancer Quality of Q52 Question

THY_Q53 Thyroid Cancer Quality of Q53 Question

THY_Q54 Thyroid Cancer Quality of Q54 Question

THY_Q55 Thyroid Cancer Quality of Q55 Question

THY_Q56 Thyroid Cancer Quality of Q56 Question

THY_Q57 Thyroid Cancer Quality of Q57 Question

THY_Q58 Thyroid Cancer Quality of Q58 Question

THY_Q59 Thyroid Cancer Quality of Q59 Question

THY_Q60 Thyroid Cancer Quality of Q60 Question

THY_Q61 Thyroid Cancer Quality of Q61 Question

THY_Q62 Thyroid Cancer Quality of Q62 Question

THY_Q63 Thyroid Cancer Quality of Q63 Question

THY_Q64 Thyroid Cancer Quality of Q64 Question

@source <https://github.com/apstat/QoLMiss-Package>

`thyc_qol` *Calculates the domain-based scale scores of Thyroid cancer using the data of QLQ-THY34*

Description

Creates a dataset containing the domain-based scale scores using the data from QLQ-THY34

Usage

```
thyc_qol(x)
```

Arguments

`x`	A data frame with ID, THY_Q31,THY_Q32,...,THY_Q64 columns along with other columns if data is available.

Details

brc_miss function inputs either a dataset containing missing information, represented as, 9 or 99 or NA or a data not containing any missing information. It extracts only the columns named 'THY_Q31','THY_Q32',...,'THY_Q64' and replaces the missing data with the minimum value of the particular question.

Using each of the 30 columns, the Raw Score is computed, and one column is obtained containing the Raw Score for each patient.

Further, using each of the Raw Scores, three domain-based Scale Scores are computed, they are, Functional Scales Score and Symptoms Scales Score.

Thus, the columns 'THY_Q31','THY_Q32',...,'THY_Q64' are replaced by the domain-based scale scores, which is obtained as the output.

thyc_qol(x)

1) Subject ID column should be named as 'ID'.

2) Each question column should be named as 'THY_Q31' for data from question 31, 'THY_Q32' for data from question 32, and so on until 'THY_Q64' for data from question 64

3) Data may contain more variables, such as, Age, Gender, etc.

x - A data frame with ID, THY_Q31,THY_Q32,...,THY_Q64 columns along with other columns if data is available.

rs - A matrix containing the Raw Score computed using all THY_Q31 to THY_Q64 data for each patient. The RS(a) function is used in this case.

ss - A matrix containing the Global Scale Scores computed using all THY_Q31 to THY_Q64 data for each patient. The SS(a,b) function is used in this case.

final_data - A data frame formed by replacing the columns 'THY_Q31','THY_Q32',...,'THY_Q64' by the domain-based scale scores.

Value

A data frame by replacing the columns 'THY_Q31','THY_Q32',...,'THY_Q64' by the domain-based scale scores.

Author(s)

Atanu Bhattacharjee and Ankita Pal

References

QoLMiss: Package for Repeatedly measured Quality of Life of Cancer Patients Data

See Also

https://github.com/apstat/QoLMiss-Package

Examples

```
##
data(thyc_df)
thyc_qol(thyc_df)
data(thyc_df_miss)
thyc_qol(thyc_df_miss)
##
```

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