

# Package ‘youthvars’

August 4, 2021

**Title** Youth Mental Health Variables Modelling Toolkit

**Version** 0.0.0.9061

**Description** Classes that describe the structural properties of variables commonly present in youth mental health datasets and some (where freely available) related scoring algorithms. The main motivation for this package is to enable data integrity tools that ensure that methods are applied to the appropriate data structures. This development version of the youthvars package has been made available as part of the process of testing and documenting the package. The documentation for this package has been automatically generated by the ready4fun package and is therefore quite rudimentary. Human authored documentation will follow in 2021. If you have any questions, please contact the authors ([matthew.hamilton@orygen.org.au](mailto:matthew.hamilton@orygen.org.au)).

**License** GPL-3 + file LICENSE

**URL** <https://ready4-dev.github.io/youthvars/>,  
<https://github.com/ready4-dev/youthvars>,  
<https://ready4-dev.github.io/ready4/>

**Encoding** UTF-8

**LazyData** true

**Roxygen** list(markdown = TRUE)

**RoxygenNote** 7.1.1

**Imports** arsenal,  
assertthat,  
cowplot,  
dplyr,  
ggplot2,  
ggpubr,  
gridExtra,  
here,  
Hmisc,  
hutils,  
kableExtra,  
knitr,  
knitrBootstrap,  
lifecycle,  
lubridate,

magrittr,  
 Matrix,  
 matrixcalc,  
 methods,  
 mice,  
 psych,  
 purrr,  
 ready4fun ( $\geq 0.0.0.9298$ ),  
 ready4show ( $\geq 0.0.0.9037$ ),  
 ready4use ( $\geq 0.0.0.9133$ ),  
 rlang,  
 scales,  
 simstudy,  
 stats,  
 stringi,  
 stringr,  
 Surrogate,  
 testthat,  
 tibble,  
 tidyselect,  
 utils

**VignetteBuilder** knitr

**Depends** R ( $\geq 2.10$ )

**Remotes** ready4-dev/ready4show,  
 ready4-dev/ready4use,  
 ready4-dev/ready4fun

**Suggests** rmarkdown

## R topics documented:

youthvars-package	4
abbreviations_lup	5
add_adol6d_scores	5
add_interval_var	6
add_participation_var	7
adol_dim_scalc_eqs_lup	8
aqol6d_adult_disv_lup_tb	8
aqol6d_adult_itm_wrst_wghts_lup_tb	9
aqol6d_adult_vldn_pop_with_STATA_scores_tb	10
aqol6d_dim_sclg_con_lup_tb	12
aqol6d_domain_qs_lup_tb	13
aqol6d_from_8d_coefs_lup_tb	14
aqol_scrge_dict_r3	14
assert_ds_is_valid	15
fns_dmt_tb	15
fn_type_lup_tb	16
is_youthvars_aqol6d_adol	17
is_youthvars_bads	17
is_youthvars_gad7	18
is_youthvars_k6	18

is_youthvars_oasis	19
is_youthvars_phq9	19
is_youthvars_scared	20
is_youthvars_sofas	20
make_corstars_tbl_xx	21
make_descv_stats_tbl	21
make_final_rpln_ds_dict	22
make_formula	23
make_itm_resp_plts	24
make_new_youthvars_aqol6d_adol	24
make_new_youthvars_bads	25
make_new_youthvars_gad7	26
make_new_youthvars_k6	26
make_new_youthvars_oasis	27
make_new_youthvars_phq9	27
make_new_youthvars_scared	28
make_new_youthvars_sofas	28
make_pt_youthvars_aqol6d_adol	29
make_pt_youthvars_bads	29
make_pt_youthvars_gad7	30
make_pt_youthvars_k6	30
make_pt_youthvars_oasis	31
make_pt_youthvars_phq9	31
make_pt_youthvars_scared	32
make_pt_youthvars_sofas	32
make_sub_tot_plts	33
make_tfd_repln_ds_dict_r3	33
make_var_by_round_plt	34
predictors_lup	35
print_descv_stats_tbl	35
prototype_lup	36
replication_popl_tb	37
repln_ds_dict_r3	38
transform_ds_for_tstng	39
transform_raw_ds_for_analysis	40
validate_youthvars_aqol6d_adol	40
validate_youthvars_bads	41
validate_youthvars_gad7	42
validate_youthvars_k6	42
validate_youthvars_oasis	43
validate_youthvars_phq9	43
validate_youthvars_scared	44
validate_youthvars_sofas	44
write_all_outp_dirs	45
write_descv_tbls	45
youthvars_aqol6d_adol	46
youthvars_bads	47
youthvars_gad7	47
youthvars_k6	48
youthvars_oasis	48
youthvars_phq9	49
youthvars_scared	49

youthvars_sofas . . . . .	50
---------------------------	----

<b>Index</b>	<b>51</b>
--------------	-----------

youthvars-package	<i>youthvars: Youth Mental Health Variables Modelling Toolkit</i>
-------------------	---

## Description

Classes that describe the structural properties of variables commonly present in youth mental health datasets and some (where freely available) related scoring algorithms. The main motivation for this package is to enable data integrity tools that ensure that methods are applied to the appropriate data structures. This development version of the youthvars package has been made available as part of the process of testing and documenting the package. The documentation for this package has been automatically generated by the ready4fun package and is therefore quite rudimentary. Human authored documentation will follow in 2021. If you have any questions, please contact the authors (matthew.hamilton@orygen.org.au).

## Details

To learn more about youthvars, start with the vignettes: `browseVignettes(package = "youthvars")`

## Author(s)

**Maintainer:** Matthew Hamilton <matthew.hamilton@orygen.org.au> ([ORCID](#))

Authors:

- Caroline Gao <caroline.gao@orygen.org.au> ([ORCID](#))

Other contributors:

- Orygen [copyright holder, funder]
- Headspace [funder]
- National Health and Medical Research Council [funder]

## See Also

Useful links:

- <https://ready4-dev.github.io/youthvars/>
- <https://github.com/ready4-dev/youthvars>
- <https://ready4-dev.github.io/ready4/>

---

abbreviations_lup	<i>Common abbreviations lookup table</i>
-------------------	--

---

**Description**

A lookup table for abbreviations commonly used in object names in the youthvarspackage.

**Usage**

```
abbreviations_lup
```

**Format**

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 503 rows and 3 columns.

**Details**

A tibble

**short\_name\_chr** Short name (a character vector)

**long\_name\_chr** Long name (a character vector)

**plural\_lgl** Plural (a logical vector)

**Source**

<https://doi.org/10.7910/DVN/2Y9VF9>

---

add_adol6d_scores	<i>Add Assessment of Quality of Life Six Dimension (Adolescent version) scores</i>
-------------------	--

---

**Description**

`add_adol6d_scores()` is an Add function that updates an object by adding data to that object. Specifically, this function implements an algorithm to add assessment of quality of life six dimension (adolescent version) scores. Function argument `unscored_aqol_tb` specifies the object to be updated. The function returns Transformed Assessment of Quality of Life (a tibble).

**Usage**

```
add_adol6d_scores(
  unscored_aqol_tb,
  prefix_1L_chr = "aqol6d_q",
  id_var_nm_1L_chr = "fkClientID",
  wtd_aqol_var_nm_1L_chr = "aqol6d_total_w",
  total_aqol_var_nm_1L_chr = "aqol6d_total_c"
)
```

**Arguments**

unscored\_aqol\_tb  
     Unscored Assessment of Quality of Life (a tibble)  
 prefix\_1L\_chr   Prefix (a character vector of length one), Default: 'aqol6d\_q'  
 id\_var\_nm\_1L\_chr  
     Identity variable name (a character vector of length one), Default: 'fkClientID'  
 wtd\_aqol\_var\_nm\_1L\_chr  
     Weighted Assessment of Quality of Life variable name (a character vector of length one), Default: 'aqol6d\_total\_w'  
 total\_aqol\_var\_nm\_1L\_chr  
     Total Assessment of Quality of Life variable name (a character vector of length one), Default: 'aqol6d\_total\_c'

**Value**

Transformed Assessment of Quality of Life (a tibble)

---

add_interval_var	<i>Add interval variable</i>
------------------	------------------------------

---

**Description**

add\_interval\_var() is an Add function that updates an object by adding data to that object. Specifically, this function implements an algorithm to add interval variable. Function argument data\_tb specifies the object to be updated. The function returns Updated data (a tibble).

**Usage**

```

add_interval_var(
  data_tb,
  id_var_nm_1L_chr = "fkClientID",
  msrmnt_date_var_nm_1L_chr = "d_interview_date",
  time_unit_1L_chr = "days",
  bl_date_var_nm_1L_chr = "bl_date_dtm",
  interval_var_nm_1L_chr = "interval_dbl",
  temp_row_nbr_var_nm_1L_chr = "temp_row_nbr_int",
  drop_bl_date_var_1L_lgl = F
)
  
```

**Arguments**

data\_tb           Data (a tibble)  
 id\_var\_nm\_1L\_chr  
     Identity variable name (a character vector of length one), Default: 'fkClientID'  
 msrmnt\_date\_var\_nm\_1L\_chr  
     Measurement date variable name (a character vector of length one), Default: 'd\_interview\_date'  
 time\_unit\_1L\_chr  
     Time unit (a character vector of length one), Default: 'days'

bl\_date\_var\_nm\_1L\_chr  
Baseline date variable name (a character vector of length one), Default: 'bl\_date\_dtm'

interval\_var\_nm\_1L\_chr  
Interval variable name (a character vector of length one), Default: 'interval\_dbl'

temp\_row\_nbr\_var\_nm\_1L\_chr  
Temporary row number variable name (a character vector of length one), Default: 'temp\_row\_nbr\_int'

drop\_bl\_date\_var\_1L\_lgl  
Drop baseline date variable (a logical vector of length one), Default: F

**Value**

Updated data (a tibble)

---

add\_participation\_var *Add participation variable*

---

**Description**

add\_participation\_var() is an Add function that updates an object by adding data to that object. Specifically, this function implements an algorithm to add participation variable. Function argument data\_tb specifies the object to be updated. The function returns Data (a tibble).

**Usage**

```
add_participation_var(
  data_tb,
  id_var_nm_1L_chr = "fkClientID",
  fup_round_nmbr_1L_int = 2L
)
```

**Arguments**

data\_tb           Data (a tibble)

id\_var\_nm\_1L\_chr  
Identity variable name (a character vector of length one), Default: 'fkClientID'

fup\_round\_nmbr\_1L\_int  
Follow-up round nmbr (an integer vector of length one), Default: 2

**Value**

Data (a tibble)

---

adol\_dim\_scalg\_eqs\_lup

*AQoL6D (adolescent) item worst weightings equations lookup table*

---

**Description**

Dimension scaling equations for adolescent version of AQoL6D scoring algorithm.

**Usage**

adol\_dim\_scalg\_eqs\_lup

**Format**

An object of class `data.frame` with 19 rows and 3 columns.

**Details**

A tibble

**Dim\_scal** NO MATCH

**Label** NO MATCH

**Equ** NO MATCH

**Source**

<https://www.aqol.com.au/index.php/scoring-algorithms>

---

aqol6d\_adult\_disv\_lup\_tb

*AQoL6D (adult version) item disvalues lookup table*

---

**Description**

Disutility weights for individual AQoL6D (adult version) items.

**Usage**

aqol6d\_adult\_disv\_lup\_tb

**Format**

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 20 rows and 7 columns.

**Details**

A tibble

**Question\_chr** Question (a character vector)

**Answer\_1\_dbl** Answer 1 (a double vector)

**Answer\_2\_dbl** Answer 2 (a double vector)

**Answer\_3\_dbl** Answer 3 (a double vector)

**Answer\_4\_dbl** Answer 4 (a double vector)

**Answer\_5\_dbl** Answer 5 (a double vector)

**Answer\_6\_dbl** Answer 6 (a double vector)

**Source**

<https://www.aqol.com.au/index.php/scoring-algorithms>

---

aqol6d\_adult\_itm\_wrst\_wghts\_lup\_tb

*AQoL6D (adult) item worst weightings lookup table*

---

**Description**

Worst weightings for individual items in AQoL6D (adult version).

**Usage**

```
aqol6d_adult_itm_wrst_wghts_lup_tb
```

**Format**

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 20 rows and 2 columns.

**Details**

A tibble

**Question\_chr** Question (a character vector)

**Worst\_Weight\_dbl** Worst Weight (a double vector)

**Source**

<https://www.aqol.com.au/index.php/scoring-algorithms>

---

aqol6d\_adult\_vldn\_pop\_with\_STATA\_scores\_tb

*STATA comparison validation synthetic population*

---

### Description

Synthetic population following application of STATA adult scoring algorithm.

### Usage

aqol6d\_adult\_vldn\_pop\_with\_STATA\_scores\_tb

### Format

An object of class `data.frame` with 1711 rows and 87 columns.

### Details

A tibble

**v1** NO MATCH

**aqol1** NO MATCH

**aqol2** NO MATCH

**aqol3** NO MATCH

**aqol4** NO MATCH

**aqol5** NO MATCH

**aqol6** NO MATCH

**aqol7** NO MATCH

**aqol8** NO MATCH

**aqol9** NO MATCH

**aqol10** NO MATCH

**aqol11** NO MATCH

**aqol12** NO MATCH

**aqol13** NO MATCH

**aqol14** NO MATCH

**aqol15** NO MATCH

**aqol16** NO MATCH

**aqol17** NO MATCH

**aqol18** NO MATCH

**aqol19** NO MATCH

**aqol20** NO MATCH

**Q1** NO MATCH

**Q2** NO MATCH

**Q3** NO MATCH

**Q4** NO MATCH  
**Q5** NO MATCH  
**Q6** NO MATCH  
**Q7** NO MATCH  
**Q8** NO MATCH  
**Q9** NO MATCH  
**Q10** NO MATCH  
**Q11** NO MATCH  
**Q12** NO MATCH  
**Q13** NO MATCH  
**Q14** NO MATCH  
**Q15** NO MATCH  
**Q16** NO MATCH  
**Q17** NO MATCH  
**Q18** NO MATCH  
**Q19** NO MATCH  
**Q20** NO MATCH  
**DILmiss** NO MATCH  
**DILmissno** NO MATCH  
**DRLmiss** NO MATCH  
**DRLmissno** NO MATCH  
**DMHmiss** NO MATCH  
**DMHmissno** NO MATCH  
**DCOPmiss** NO MATCH  
**DCOPmissno** NO MATCH  
**DPmiss** NO MATCH  
**DPmissno** NO MATCH  
**DSENmiss** NO MATCH  
**DSENmissno** NO MATCH  
**dvQ1** NO MATCH  
**dvQ2** NO MATCH  
**dvQ3** NO MATCH  
**dvQ4** NO MATCH  
**dvQ5** NO MATCH  
**dvQ6** NO MATCH  
**dvQ7** NO MATCH  
**dvQ8** NO MATCH  
**dvQ9** NO MATCH  
**dvQ10** NO MATCH  
**dvQ11** NO MATCH

**dvQ12** NO MATCH  
**dvQ13** NO MATCH  
**dvQ14** NO MATCH  
**dvQ15** NO MATCH  
**dvQ16** NO MATCH  
**dvQ17** NO MATCH  
**dvQ18** NO MATCH  
**dvQ19** NO MATCH  
**dvQ20** NO MATCH  
**dvD1** NO MATCH  
**dvD2** NO MATCH  
**dvD3** NO MATCH  
**dvD4** NO MATCH  
**dvD5** NO MATCH  
**dvD6** NO MATCH  
**vD1** NO MATCH  
**vD2** NO MATCH  
**vD3** NO MATCH  
**vD4** NO MATCH  
**vD5** NO MATCH  
**vD6** NO MATCH  
**uaqol6Dusing8D** NO MATCH  
**uaqol6Dusing8Da** NO MATCH

**Source**

<https://www.aqol.com.au/index.php/scoring-algorithms>

---

aqol6d\_dim\_sclg\_con\_lup\_tb

*AQoL6D dimension scaling constants lookup table*

---

**Description**

Scaling constants for each dimension of AQoL6D.

**Usage**

aqol6d\_dim\_sclg\_con\_lup\_tb

**Format**

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 6 rows and 2 columns.

**Details**

A tibble

**Dimension\_chr** Dimension (a character vector)

**Constant\_dbl** Constant (a double vector)

**Source**

<https://www.aqol.com.au/index.php/scoring-algorithms>

---

aqol6d\_domain\_qs\_lup\_tb

*AQoL6D dimension questions lookup table*

---

**Description**

Breakdown of which questions relate to which dimension of the AQoL6D.

**Usage**

aqol6d\_domain\_qs\_lup\_tb

**Format**

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 20 rows and 2 columns.

**Details**

A tibble

**Question\_dbl** Question (a double vector)

**Domain\_chr** Domain (a character vector)

**Source**

<https://www.aqol.com.au/index.php/scoring-algorithms>

---

aqol6d\_from\_8d\_coefs\_lup\_tb

*Model 2A Coefficients To Weight AQoL6D*

---

### Description

Coefficients for model to predict AQoL-6D utility score from AQoL-8D. The optimal model is Model 2A (see Richardson et al (2011, 18-19)\*/

### Usage

aqol6d\_from\_8d\_coefs\_lup\_tb

### Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 7 rows and 2 columns.

### Details

A tibble

**var\_name\_chr** Variable name (a character vector)

**coef\_dbl** Coefficient (a double vector)

### Source

<https://www.aqol.com.au/index.php/scoring-algorithms>

---

aqol\_scrg\_dict\_r3

*Data dictionary for AQoL scoring*

---

### Description

A data dictionary of the variables used in scoring AQoL 6D utility questionnaire responses.

### Usage

aqol\_scrg\_dict\_r3

### Format

An object of class `ready4_dictionary` (inherits from `tbl_df`, `tbl`, `data.frame`) with 60 rows and 4 columns.

### Details

A tibble

**var\_nm\_chr** Variable name (a character vector)

**var\_ctg\_chr** Variable category categories (a character vector)

**var\_desc\_chr** Variable description (a character vector)

**var\_type\_chr** Variable type (a character vector)

---

assert_ds_is_valid	<i>Assert dataset is valid</i>
--------------------	--------------------------------

---

### Description

assert\_ds\_is\_valid() is an Assert function that validates that an object conforms to required condition(s). If the object does not meet all required conditions, program execution will be stopped and an error message provided. Specifically, this function implements an algorithm to assert dataset is valid. Function argument data\_tb specifies the object on which assert validation checks are to be performed. Argument id\_var\_nm\_1L\_chr provides the object containing values used for validation tests. The function is called for its side effects and does not return a value.

### Usage

```
assert_ds_is_valid(
  data_tb,
  id_var_nm_1L_chr,
  round_var_nm_1L_chr,
  round_bl_val_1L_chr,
  msrmt_date_var_nm_1L_chr = NULL
)
```

### Arguments

data_tb	Data (a tibble)
id_var_nm_1L_chr	Identity variable name (a character vector of length one)
round_var_nm_1L_chr	Round variable name (a character vector of length one)
round_bl_val_1L_chr	Round baseline value (a character vector of length one)
msrmt_date_var_nm_1L_chr	Measurement date variable name (a character vector of length one), Default: NULL

---

fns_dmt_tb	<i>youthvars function documentation table</i>
------------	---

---

### Description

Meta-data on each youthvars function used to create package documentation

### Usage

```
fns_dmt_tb
```

### Format

An object of class tbl\_df (inherits from tbl, data.frame) with 65 rows and 10 columns.

**Details**

A tibble

**fns\_chr** Functions (a character vector)

**title\_chr** Title (a character vector)

**desc\_chr** Description (a character vector)

**details\_chr** Details (a character vector)

**inc\_for\_main\_user\_lgl** Include for main user (a logical vector)

**output\_chr** Output (a character vector)

**example\_lgl** Example (a logical vector)

**args\_ls** Arguments (a list)

**file\_nm\_chr** File name (a character vector)

**file\_pfx\_chr** File prefix (a character vector)

**Source**

<https://ready4-dev.github.io/youthvars/>

---

fn_type_lup_tb	<i>Function type lookup table</i>
----------------	-----------------------------------

---

**Description**

A lookup table to find descriptions for different types of functions used within the youthvars package suite.

**Usage**

```
fn_type_lup_tb
```

**Format**

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 46 rows and 6 columns.

**Details**

A tibble

**fn\_type\_nm\_chr** Function type name (a character vector)

**fn\_type\_desc\_chr** Function type description (a character vector)

**first\_arg\_desc\_chr** First argument description (a character vector)

**second\_arg\_desc\_chr** Second argument description (a character vector)

**is\_generic\_lgl** Is generic (a logical vector)

**is\_method\_lgl** Is method (a logical vector)

**Source**

<https://doi.org/10.7910/DVN/2Y9VF9>

---

is\_youthvars\_aqol6d\_adol

*Is youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)*

---

### Description

Check whether an object is a valid instance of the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

### Usage

is\_youthvars\_aqol6d\_adol(x)

### Arguments

x                      An object of any type

### Details

youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

### Value

A logical value, TRUE if a valid instance of the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

---

is\_youthvars\_bads

*Is youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores*

---

### Description

Check whether an object is a valid instance of the youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

### Usage

is\_youthvars\_bads(x)

### Arguments

x                      An object of any type

### Details

youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

**Value**

A logical value, TRUE if a valid instance of the youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

---

is_youthvars_gad7	<i>Is youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores</i>
-------------------	--

---

**Description**

Check whether an object is a valid instance of the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

**Usage**

is\_youthvars\_gad7(x)

**Arguments**

x	An object of any type
---	-----------------------

**Details**

youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

**Value**

A logical value, TRUE if a valid instance of the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

---

is_youthvars_k6	<i>Is youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores</i>
-----------------	---

---

**Description**

Check whether an object is a valid instance of the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

**Usage**

is\_youthvars\_k6(x)

**Arguments**

x	An object of any type
---	-----------------------

**Details**

youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

**Value**

A logical value, TRUE if a valid instance of the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

---

is_youthvars_oasis	<i>Is youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores</i>
--------------------	---

---

**Description**

Check whether an object is a valid instance of the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Usage**

```
is_youthvars_oasis(x)
```

**Arguments**

x	An object of any type
---	-----------------------

**Details**

youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Value**

A logical value, TRUE if a valid instance of the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

---

is_youthvars_phq9	<i>Is youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores</i>
-------------------	--

---

**Description**

Check whether an object is a valid instance of the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Usage**

```
is_youthvars_phq9(x)
```

**Arguments**

x	An object of any type
---	-----------------------

**Details**

youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Value**

A logical value, TRUE if a valid instance of the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

---

is_youthvars_scared	<i>Is youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores</i>
---------------------	---

---

**Description**

Check whether an object is a valid instance of the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Usage**

is\_youthvars\_scared(x)

**Arguments**

x	An object of any type
---	-----------------------

**Details**

youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Value**

A logical value, TRUE if a valid instance of the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

---

is_youthvars_sofas	<i>Is youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)</i>
--------------------	---

---

**Description**

Check whether an object is a valid instance of the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Usage**

is\_youthvars\_sofas(x)

**Arguments**

x	An object of any type
---	-----------------------

**Details**

youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Value**

A logical value, TRUE if a valid instance of the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

---

make\_corstars\_tbl\_xx *Make corstars table*

---

**Description**

make\_corstars\_tbl\_xx() is a Make function that creates a new R object. Specifically, this function implements an algorithm to make corstars table output object of multiple potential types. The function is called for its side effects and does not return a value.

**Usage**

```
make_corstars_tbl_xx(  
  x,  
  caption_1L_chr = NULL,  
  mkdn_tbl_ref_1L_chr = NULL,  
  method_chr = c("pearson", "spearman"),  
  removeTriangle_chr = c("upper", "lower"),  
  result_chr = "none"  
)
```

**Arguments**

x                    An object

caption\_1L\_chr    Caption (a character vector of length one), Default: NULL

mkdn\_tbl\_ref\_1L\_chr    Markdown table reference (a character vector of length one), Default: NULL

method\_chr        Method (a character vector), Default: c("pearson", "spearman")

removeTriangle\_chr    RemoveTriangle (a character vector), Default: c("upper", "lower")

result\_chr        Result (a character vector), Default: 'none'

---

make\_descv\_stats\_tbl *Make descriptive statistics table*

---

**Description**

make\_descv\_stats\_tbl() is a Make function that creates a new R object. Specifically, this function implements an algorithm to make descriptive statistics table. The function returns Descriptive statistics table (a tibble).

**Usage**

```
make_descv_stats_tbl(
  data_tb,
  key_var_nm_1L_chr = "round",
  key_var_vals_chr = NULL,
  variable_nms_chr,
  dictionary_tb = NULL,
  test_1L_lgl = F,
  sections_as_row_1L_lgl = F,
  nbr_of_digits_1L_int = NA_integer_
)
```

**Arguments**

data\_tb            Data (a tibble)

key\_var\_nm\_1L\_chr  
                  Key variable name (a character vector of length one), Default: 'round'

key\_var\_vals\_chr  
                  Key variable values (a character vector), Default: NULL

variable\_nms\_chr  
                  Variable names (a character vector)

dictionary\_tb    Dictionary (a tibble), Default: NULL

test\_1L\_lgl      Test (a logical vector of length one), Default: F

sections\_as\_row\_1L\_lgl  
                  Sections as row (a logical vector of length one), Default: F

nbr\_of\_digits\_1L\_int  
                  Number of digits (an integer vector of length one), Default: NA

**Value**

Descriptive statistics table (a tibble)

---

make\_final\_rpln\_ds\_dict

*Make final rpln dataset dictionary*

---

**Description**

make\_final\_rpln\_ds\_dict() is a Make function that creates a new R object. Specifically, this function implements an algorithm to make final rpln dataset dictionary. The function returns Dictionary (a tibble).

**Usage**

```
make_final_rpln_ds_dict(
  seed_dictionary_tb = NULL,
  additions_tb = NULL,
  utl_unwtd_var_nm_1L_chr = "aqol6d_total_c"
)
```

**Arguments**

seed\_dictionary\_tb  
Seed dictionary (a tibble), Default: NULL

additions\_tb Additions (a tibble), Default: NULL

utl\_unwtd\_var\_nm\_1L\_chr  
Utility unwtd variable name (a character vector of length one), Default: 'aqol6d\_total\_c'

**Value**

Dictionary (a tibble)

---

make_formula	<i>Make formula</i>
--------------	---------------------

---

**Description**

make\_formula() is a Make function that creates a new R object. Specifically, this function implements an algorithm to make formula. The function is called for its side effects and does not return a value.

**Usage**

```
make_formula(
  depnt_var_nm_1L_chr,
  predictors_chr,
  environment_env = parent.frame()
)
```

**Arguments**

depnt\_var\_nm\_1L\_chr  
Dependent variable name (a character vector of length one)

predictors\_chr Predictors (a character vector)

environment\_env  
Environment (an environment), Default: parent.frame()

**Value**

NA ()

---

make\_itm\_resp\_plts      *Make item resp plots*

---

### Description

make\_itm\_resp\_plts() is a Make function that creates a new R object. Specifically, this function implements an algorithm to make item resp plots. The function returns Composite (a plot).

### Usage

```
make_itm_resp_plts(
  data_tb,
  col_nms_chr,
  lbl_nms_chr,
  plot_rows_cols_pair_int,
  heights_int,
  round_var_nm_1L_chr = "round",
  y_label_1L_chr = "Percentage"
)
```

### Arguments

data\_tb                  Data (a tibble)  
col\_nms\_chr              Column names (a character vector)  
lbl\_nms\_chr              Label names (a character vector)  
plot\_rows\_cols\_pair\_int  
                            Plot rows columns pair (an integer vector)  
heights\_int              Heights (an integer vector)  
round\_var\_nm\_1L\_chr  
                            Round variable name (a character vector of length one), Default: 'round'  
y\_label\_1L\_chr          Y label (a character vector of length one), Default: 'Percentage'

### Value

Composite (a plot)

---

make\_new\_youthvars\_aqol6d\_adol

*Make new youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)*

---

### Description

Create a new unvalidated instance of the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

### Usage

```
make_new_youthvars_aqol6d_adol(x)
```

**Arguments**

- x A prototype for the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent))

**Details**

youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent))

**Value**

An unvalidated instance of the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent))

---

make\_new\_youthvars\_bads

*Make new youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores*

---

**Description**

Create a new unvalidated instance of the youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

**Usage**

make\_new\_youthvars\_bads(x)

**Arguments**

- x A prototype for the youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

**Details**

youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

**Value**

An unvalidated instance of the youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

---

make\_new\_youthvars\_gad7

*Make new youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores*

---

### Description

Create a new unvalidated instance of the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

### Usage

make\_new\_youthvars\_gad7(x)

### Arguments

x                    A prototype for the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

### Details

youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

### Value

An unvalidated instance of the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

---

make\_new\_youthvars\_k6    *Make new youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores*

---

### Description

Create a new unvalidated instance of the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

### Usage

make\_new\_youthvars\_k6(x)

### Arguments

x                    A prototype for the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

### Details

youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

**Value**

An unvalidated instance of the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

---

make\_new\_youthvars\_oasis

*Make new youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores*

---

**Description**

Create a new unvalidated instance of the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Usage**

make\_new\_youthvars\_oasis(x)

**Arguments**

x                    A prototype for the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Details**

youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Value**

An unvalidated instance of the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

---

make\_new\_youthvars\_phq9

*Make new youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores*

---

**Description**

Create a new unvalidated instance of the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Usage**

make\_new\_youthvars\_phq9(x)

**Arguments**

x                    A prototype for the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Details**

youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Value**

An unvalidated instance of the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

---

make\_new\_youthvars\_scared

*Make new youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores*

---

**Description**

Create a new unvalidated instance of the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Usage**

make\_new\_youthvars\_scared(x)

**Arguments**

x                    A prototype for the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Details**

youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Value**

An unvalidated instance of the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

---

make\_new\_youthvars\_sofas

*Make new youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)*

---

**Description**

Create a new unvalidated instance of the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Usage**

make\_new\_youthvars\_sofas(x)

**Arguments**

x                    A prototype for the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Details**

youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Value**

An unvalidated instance of the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

---

make\_pt\_youthvars\_aqol6d\_adol

*Make prototype youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)*

---

**Description**

Create a new prototype for the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

**Usage**

make\_pt\_youthvars\_aqol6d\_adol()

**Details**

youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

**Value**

A prototype for youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

---

make\_pt\_youthvars\_bads

*Make prototype youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores*

---

**Description**

Create a new prototype for the youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

**Usage**

```
make_pt_youthvars_bads()
```

**Details**

youthvars S3 class for Behavioural Activation for Depression Scale (BADS) scores

**Value**

A prototype for youthvars S3 class for Behavioural Activation for Depression Scale (BADS) scores

---

```
make_pt_youthvars_gad7
```

*Make prototype youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores*

---

**Description**

Create a new prototype for the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

**Usage**

```
make_pt_youthvars_gad7()
```

**Details**

youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

**Value**

A prototype for youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

---

```
make_pt_youthvars_k6
```

*Make prototype youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores*

---

**Description**

Create a new prototype for the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

**Usage**

```
make_pt_youthvars_k6()
```

**Details**

youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

**Value**

A prototype for youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

---

make\_pt\_youthvars\_oasis

*Make prototype youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores*

---

**Description**

Create a new prototype for the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Usage**

make\_pt\_youthvars\_oasis()

**Details**

youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Value**

A prototype for youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

---

make\_pt\_youthvars\_phq9

*Make prototype youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores*

---

**Description**

Create a new prototype for the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Usage**

make\_pt\_youthvars\_phq9()

**Details**

youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Value**

A prototype for youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

---

make\_pt\_youthvars\_scared

*Make prototype youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores*

---

**Description**

Create a new prototype for the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Usage**

make\_pt\_youthvars\_scared()

**Details**

youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Value**

A prototype for youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

---

make\_pt\_youthvars\_sofas

*Make prototype youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)*

---

**Description**

Create a new prototype for the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Usage**

make\_pt\_youthvars\_sofas()

**Details**

youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Value**

A prototype for youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

---

make_sub_tot_plts	<i>Make sub total plots</i>
-------------------	-----------------------------

---

### Description

make\_sub\_tot\_plts() is a Make function that creates a new R object. Specifically, this function implements an algorithm to make sub total plots. The function returns Composite (a plot).

### Usage

```
make_sub_tot_plts(
  data_tb,
  col_nms_chr,
  plot_rows_cols_pair_int,
  round_var_nm_1L_chr = "round",
  make_log_log_tfmn_1L_lgl = F,
  heights_int,
  y_label_1L_chr = "Percentage"
)
```

### Arguments

data_tb	Data (a tibble)
col_nms_chr	Column names (a character vector)
plot_rows_cols_pair_int	Plot rows columns pair (an integer vector)
round_var_nm_1L_chr	Round variable name (a character vector of length one), Default: 'round'
make_log_log_tfmn_1L_lgl	Make log log transformation (a logical vector of length one), Default: F
heights_int	Heights (an integer vector)
y_label_1L_chr	Y label (a character vector of length one), Default: 'Percentage'

### Value

Composite (a plot)

---

make_tfd_repln_ds_dict_r3	<i>Make transformed replication dataset dictionary</i>
---------------------------	--

---

### Description

make\_tfd\_repln\_ds\_dict\_r3() is a Make function that creates a new R object. Specifically, this function implements an algorithm to make transformed replication dataset dictionary ready4 s3. The function returns Transformed replication dataset dictionary (a ready4 S3).

**Usage**

```
make_tfd_repln_ds_dict_r3(repln_ds_dict_r3 = NULL)
```

**Arguments**

```
repln_ds_dict_r3
  Replication dataset dictionary (a ready4 S3), Default: NULL
```

**Value**

Transformed replication dataset dictionary (a ready4 S3)

---

make\_var\_by\_round\_plt *Make variable by round*

---

**Description**

make\_var\_by\_round\_plt() is a Make function that creates a new R object. Specifically, this function implements an algorithm to make variable by round plot. The function returns Variable by round (a plot).

**Usage**

```
make_var_by_round_plt(
  data_tb,
  var_nm_1L_chr,
  round_var_nm_1L_chr = "round",
  x_label_1L_chr,
  y_label_1L_chr = "Percentage",
  y_scale_scl_fn = scales::percent,
  label_fill_1L_chr = "Data collection"
)
```

**Arguments**

```
data_tb      Data (a tibble)
var_nm_1L_chr Variable name (a character vector of length one)
round_var_nm_1L_chr
  Round variable name (a character vector of length one), Default: 'round'
x_label_1L_chr X label (a character vector of length one)
y_label_1L_chr Y label (a character vector of length one), Default: 'Percentage'
y_scale_scl_fn Y scale scale (a function), Default: scales::percent
label_fill_1L_chr
  Label fill (a character vector of length one), Default: 'Data collection'
```

**Value**

Variable by round (a plot)

---

predictors_lup	<i>Predictors lookup table</i>
----------------	--------------------------------

---

### Description

A lookup table of the short name and long name of each predictor used in the models included with the youthu package.

### Usage

```
predictors_lup
```

### Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 7 rows and 9 columns.

### Details

A tibble

**short\_name\_chr** Short name (a character vector)

**long\_name\_chr** Long name (a character vector)

**min\_val\_dbl** Minimum value (a double vector)

**max\_val\_dbl** Maximum value (a double vector)

**class\_chr** Class (a character vector)

**increment\_dbl** Increment (a double vector)

**class\_fn\_chr** Class function (a character vector)

**mdl\_scaling\_dbl** Model scaling (a double vector)

**covariate\_lgl** Covariate (a logical vector)

---

print_descv_stats_tbl	<i>Print descriptive statistics table</i>
-----------------------	---

---

### Description

`print_descv_stats_tbl()` is a Print function that prints output to console. Specifically, this function implements an algorithm to print descriptive statistics table. The function is called for its side effects and does not return a value.

**Usage**

```
print_descv_stats_tbl(
  df,
  bl_fup_vals_chr = c("Baseline", "Follow-up"),
  caption_1L_chr = NULL,
  header_col_nms_chr = NULL,
  mkdn_tbl_ref_1L_chr = NULL,
  output_type_1L_chr,
  round_var_nm_1L_chr,
  test_1L_lgl = F,
  variable_nms_chr
)
```

**Arguments**

df	Data.frame (a data.frame)
bl_fup_vals_chr	Baseline follow-up values (a character vector), Default: c("Baseline", "Follow-up")
caption_1L_chr	Caption (a character vector of length one), Default: NULL
header_col_nms_chr	Header column names (a character vector), Default: NULL
mkdn_tbl_ref_1L_chr	Markdown table reference (a character vector of length one), Default: NULL
output_type_1L_chr	Output type (a character vector of length one)
round_var_nm_1L_chr	Round variable name (a character vector of length one)
test_1L_lgl	Test (a logical vector of length one), Default: F
variable_nms_chr	Variable names (a character vector)

---

prototype_lup	<i>Class prototype lookup table</i>
---------------	-------------------------------------

---

**Description**

Metadata on classes used in readyforwhatsnext suite

**Usage**

```
prototype_lup
```

**Format**

An object of class `ready4_class_pt_lup` (inherits from `ready4_class_pt_lup`, `tbl_df`, `tbl`, `data.frame`) with 28 rows and 6 columns.

**Details**

A tibble

**type\_chr** Type (a character vector)

**val\_chr** Value (a character vector)

**pt\_ns\_chr** Prototype namespace (a character vector)

**fn\_to\_call\_chr** Function to call (a character vector)

**default\_val\_chr** Default value (a character vector)

**old\_class\_lgl** Old class (a logical vector)

---

replication\_popl\_tb    *Synthetic population replication dataset*

---

**Description**

A purely synthetic dataset, representative of the original study data, that can be used for replication runs of package algorithms.

**Usage**

```
replication_popl_tb
```

**Format**

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 1711 rows and 43 columns.

**Details**

A tibble

**fkClientID** unique client identifier

**round** round of data collection

**d\_interview\_date** date of data collection

**d\_age** age

**d\_gender** gender

**d\_sex\_birth\_s** sex at birth

**d\_sexual\_ori\_s** sexual orientation

**d\_ATSI** Aboriginal or Torres Strait Islander

**d\_country\_bir\_s** country Of birth

**d\_english\_home** speaks English at home

**d\_english\_native** native English speaker

**d\_studying\_working** education and employment status

**d\_relation\_s** relationship status

**s\_centre** service centre name

**c\_p\_diag\_s** primary diagnosis

**c\_clinical\_staging\_s** clinical stage  
**k6\_total** Kessler Psychological Distress Scale (6 Dimension)  
**phq9\_total** Patient Health Questionnaire  
**bads\_total** Behavioural Activation for Depression Scale  
**gad7\_total** Generalised Anxiety Disorder Scale  
**oasis\_total** Overall Anxiety Severity and Impairment Scale  
**scared\_total** Screen for Child Anxiety Related Disorders  
**c\_sofas** Social and Occupational Functioning Assessment Scale  
**aqol6d\_q1** Assessment of Quality of Life (6 Dimension) question 1  
**aqol6d\_q2** Assessment of Quality of Life (6 Dimension) question 2  
**aqol6d\_q3** Assessment of Quality of Life (6 Dimension) question 3  
**aqol6d\_q4** Assessment of Quality of Life (6 Dimension) question 4  
**aqol6d\_q5** Assessment of Quality of Life (6 Dimension) question 5  
**aqol6d\_q6** Assessment of Quality of Life (6 Dimension) question 6  
**aqol6d\_q7** Assessment of Quality of Life (6 Dimension) question 7  
**aqol6d\_q8** Assessment of Quality of Life (6 Dimension) question 8  
**aqol6d\_q9** Assessment of Quality of Life (6 Dimension) question 9  
**aqol6d\_q10** Assessment of Quality of Life (6 Dimension) question 10  
**aqol6d\_q11** Assessment of Quality of Life (6 Dimension) question 11  
**aqol6d\_q12** Assessment of Quality of Life (6 Dimension) question 12  
**aqol6d\_q13** Assessment of Quality of Life (6 Dimension) question 13  
**aqol6d\_q14** Assessment of Quality of Life (6 Dimension) question 14  
**aqol6d\_q15** Assessment of Quality of Life (6 Dimension) question 15  
**aqol6d\_q16** Assessment of Quality of Life (6 Dimension) question 16  
**aqol6d\_q17** Assessment of Quality of Life (6 Dimension) question 17  
**aqol6d\_q18** Assessment of Quality of Life (6 Dimension) question 18  
**aqol6d\_q19** Assessment of Quality of Life (6 Dimension) question 19  
**aqol6d\_q20** Assessment of Quality of Life (6 Dimension) question 20

---

 repln\_ds\_dict\_r3

*Data dictionary for study population dataset*


---

### Description

A data dictionary of the variables used in the source and replication (synthetic) datasets for the First Bounce transfer to utility study

### Usage

repln\_ds\_dict\_r3

**Format**

An object of class ready4\_dictionary (inherits from tbl\_df, tbl, data.frame) with 47 rows and 4 columns.

**Details**

A tibble

**var\_nm\_chr** Variable name (a character vector)

**var\_ctg\_chr** Variable category categories (a character vector)

**var\_desc\_chr** Variable description (a character vector)

**var\_type\_chr** Variable type (a character vector)

---

transform\_ds\_for\_tstng

*Transform dataset for testing*

---

**Description**

transform\_ds\_for\_tstng() is a Transform function that edits an object in such a way that core object attributes - e.g. shape, dimensions, elements, type - are altered. Specifically, this function implements an algorithm to transform dataset for testing. Function argument data\_tb specifies the object to be updated. Argument depnt\_var\_nm\_1L\_chr provides the object to be updated. The function returns Transformed data (a tibble).

**Usage**

```
transform_ds_for_tstng(
  data_tb,
  depnt_var_nm_1L_chr = "aqol6d_total_w",
  dep_var_max_val_1L_dbl = 0.999,
  candidate_predrs_chr = NA_character_,
  covar_var_nms_chr = NA_character_,
  round_var_nm_1L_chr = "round",
  round_val_1L_chr = "Baseline",
  remove_all_msng_1L_lgl = F
)
```

**Arguments**

data\_tb            Data (a tibble)

depnt\_var\_nm\_1L\_chr

Dependent variable name (a character vector of length one), Default: 'aqol6d\_total\_w'

dep\_var\_max\_val\_1L\_dbl

Dep variable maximum value (a double vector of length one), Default: 0.999

candidate\_predrs\_chr

Candidate predictors (a character vector), Default: 'NA'

covar\_var\_nms\_chr

Covariate variable names (a character vector), Default: 'NA'

round\_var\_nm\_1L\_chr  
 Round variable name (a character vector of length one), Default: 'round'

round\_val\_1L\_chr  
 Round value (a character vector of length one), Default: 'Baseline'

remove\_all\_msng\_1L\_lgl  
 Remove all missing (a logical vector of length one), Default: F

**Value**

Transformed data (a tibble)

---

transform\_raw\_ds\_for\_analysis  
*Transform raw dataset for analysis*

---

**Description**

transform\_raw\_ds\_for\_analysis() is a Transform function that edits an object in such a way that core object attributes - e.g. shape, dimensions, elements, type - are altered. Specifically, this function implements an algorithm to transform raw dataset for analysis. Function argument raw\_ds\_tb specifies the object to be updated. The function returns Transformed dataset (a tibble).

**Usage**

```
transform_raw_ds_for_analysis(raw_ds_tb)
```

**Arguments**

raw\_ds\_tb      Raw dataset (a tibble)

**Value**

Transformed dataset (a tibble)

---

validate\_youthvars\_aqol6d\_adol  
*Validate youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)*

---

**Description**

Validate an instance of the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

**Usage**

```
validate_youthvars_aqol6d_adol(x)
```

**Arguments**

- x An unvalidated instance of the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent))

**Details**

youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent))

**Value**

A prototpe for youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent))

---

validate\_youthvars\_bads

*Validate youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores*

---

**Description**

Validate an instance of the youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

**Usage**

```
validate_youthvars_bads(x)
```

**Arguments**

- x An unvalidated instance of the youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

**Details**

youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

**Value**

A prototpe for youthvars S3 class for Behavioural Activation for Depression Scale (BADs) scores

---

validate\_youthvars\_gad7

*Validate youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores*

---

### **Description**

Validate an instance of the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

### **Usage**

validate\_youthvars\_gad7(x)

### **Arguments**

x                      An unvalidated instance of the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

### **Details**

youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

### **Value**

A prototpe for youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

---

validate\_youthvars\_k6    *Validate youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores*

---

### **Description**

Validate an instance of the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

### **Usage**

validate\_youthvars\_k6(x)

### **Arguments**

x                      An unvalidated instance of the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

### **Details**

youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

**Value**

A prototype for youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

---

validate\_youthvars\_oasis

*Validate youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores*

---

**Description**

Validate an instance of the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Usage**

validate\_youthvars\_oasis(x)

**Arguments**

x	An unvalidated instance of the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores
---	--

**Details**

youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Value**

A prototype for youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

---

validate\_youthvars\_phq9

*Validate youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores*

---

**Description**

Validate an instance of the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Usage**

validate\_youthvars\_phq9(x)

**Arguments**

x	An unvalidated instance of the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores
---	---

**Details**

youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Value**

A prototype for youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

---

validate\_youthvars\_scared

*Validate youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores*

---

**Description**

Validate an instance of the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Usage**

validate\_youthvars\_scared(x)

**Arguments**

x                    An unvalidated instance of the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Details**

youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Value**

A prototype for youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

---

validate\_youthvars\_sofas

*Validate youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)*

---

**Description**

Validate an instance of the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Usage**

validate\_youthvars\_sofas(x)

**Arguments**

x                    An unvalidated instance of the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Details**

youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Value**

A prototpe for youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

---

write\_all\_outp\_dirs    *Write all output directories*

---

**Description**

write\_all\_outp\_dirs() is a Write function that writes a file to a specified local directory. Specifically, this function implements an algorithm to write all output directories. The function returns Paths (a list).

**Usage**

```
write_all_outp_dirs(paths_ls)
```

**Arguments**

paths\_ls            Paths (a list)

**Value**

Paths (a list)

---

write\_descv\_tbls      *Write descriptive tables*

---

**Description**

write\_descv\_tbls() is a Write function that writes a file to a specified local directory. Specifically, this function implements an algorithm to write descriptive tables. The function returns Descriptive table (a list).

**Usage**

```
write_descv_tbls(
  data_tb,
  ds_descvs_ls,
  predictors_lup,
  descv_outp_dir_1L_chr,
  nbr_of_digits_1L_int = 2
)
```

**Arguments**

data_tb	Data (a tibble)
ds_descvs_ls	Dataset descriptives (a list)
predictors_lup	Predictors (a lookup table)
descv_outp_dir_1L_chr	Descriptive output directory (a character vector of length one)
nbr_of_digits_1L_int	Number of digits (an integer vector of length one), Default: 2

**Value**

Descriptive table (a list)

---

youthvars\_aqol6d\_adol *youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)*

---

**Description**

Create a new valid instance of the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

**Usage**

```
youthvars_aqol6d_adol(x = make_pt_youthvars_aqol6d_adol())
```

**Arguments**

x	A prototype for the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent), Default: make_pt_youthvars_aqol6d_adol()
---	--

**Details**

youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

**Value**

A validated instance of the youthvars S3 class for Assessment of Quality of Life Six Dimension Health Utility - Adolescent Version (AQoL6d Adolescent)

---

youthvars_bads	<i>youthvars S3 class for Behavioural Activation for Depression Scale (BADS) scores</i>
----------------	---

---

**Description**

Create a new valid instance of the youthvars S3 class for Behavioural Activation for Depression Scale (BADS) scores

**Usage**

```
youthvars_bads(x = make_pt_youthvars_bads())
```

**Arguments**

x	A prototype for the youthvars S3 class for Behavioural Activation for Depression Scale (BADS) scores, Default: <code>make_pt_youthvars_bads()</code>
---	--

**Details**

youthvars S3 class for Behavioural Activation for Depression Scale (BADS) scores

**Value**

A validated instance of the youthvars S3 class for Behavioural Activation for Depression Scale (BADS) scores

---

youthvars_gad7	<i>youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores</i>
----------------	---

---

**Description**

Create a new valid instance of the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

**Usage**

```
youthvars_gad7(x = make_pt_youthvars_gad7())
```

**Arguments**

x	A prototype for the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores, Default: <code>make_pt_youthvars_gad7()</code>
---	--

**Details**

youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

**Value**

A validated instance of the youthvars S3 class for Generalised Anxiety Disorder Scale (GAD-7) scores

---

youthvars_k6	<i>youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores</i>
--------------	--

---

**Description**

Create a new valid instance of the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

**Usage**

```
youthvars_k6(x = make_pt_youthvars_k6())
```

**Arguments**

x	A prototype for the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores, Default: make_pt_youthvars_k6()
---	--

**Details**

youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

**Value**

A validated instance of the youthvars S3 class for Kessler Psychological Distress Scale (K6) - US Scoring System scores

---

youthvars_oasis	<i>youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores</i>
-----------------	--

---

**Description**

Create a new valid instance of the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Usage**

```
youthvars_oasis(x = make_pt_youthvars_oasis())
```

**Arguments**

x	A prototype for the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores, Default: make_pt_youthvars_oasis()
---	---

**Details**

youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

**Value**

A validated instance of the youthvars S3 class for Overall Anxiety Severity and Impairment Scale (OASIS) scores

---

youthvars_phq9	<i>youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores</i>
----------------	---

---

**Description**

Create a new valid instance of the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Usage**

```
youthvars_phq9(x = make_pt_youthvars_phq9())
```

**Arguments**

x                    A prototype for the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores, Default: make\_pt\_youthvars\_phq9()

**Details**

youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

**Value**

A validated instance of the youthvars S3 class for Patient Health Questionnaire (PHQ-9) scores

---

youthvars_scared	<i>youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores</i>
------------------	--

---

**Description**

Create a new valid instance of the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Usage**

```
youthvars_scared(x = make_pt_youthvars_scared())
```

**Arguments**

x                    A prototype for the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores, Default: make\_pt\_youthvars\_scared()

**Details**

youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

**Value**

A validated instance of the youthvars S3 class for Screen for Child Anxiety Related Disorders (SCARED) scores

---

youthvars_sofas	<i>youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)</i>
-----------------	--

---

**Description**

Create a new valid instance of the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Usage**

```
youthvars_sofas(x = make_pt_youthvars_sofas())
```

**Arguments**

x	A prototype for the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS), Default: make_pt_youthvars_sofas()
---	---

**Details**

youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

**Value**

A validated instance of the youthvars S3 class for Social and Occupational Functioning Assessment Scale (SOFAS)

# Index

## \* datasets

- abbreviations\_lup, 5
  - adol\_dim\_sclg\_eqs\_lup, 8
  - aqol6d\_adult\_disv\_lup\_tb, 8
  - aqol6d\_adult\_itm\_wrst\_wghts\_lup\_tb, 9
  - aqol6d\_adult\_vldn\_pop\_with\_STATA\_scores\_tb, 10
  - aqol6d\_dim\_sclg\_con\_lup\_tb, 12
  - aqol6d\_domain\_qs\_lup\_tb, 13
  - aqol6d\_from\_8d\_coefs\_lup\_tb, 14
  - aqol\_scrng\_dict\_r3, 14
  - fn\_type\_lup\_tb, 16
  - fns\_dmt\_tb, 15
  - predictors\_lup, 35
  - prototype\_lup, 36
  - replication\_popl\_tb, 37
  - repln\_ds\_dict\_r3, 38
- abbreviations\_lup, 5
- add\_adol6d\_scores, 5
- add\_interval\_var, 6
- add\_participation\_var, 7
- adol\_dim\_sclg\_eqs\_lup, 8
- aqol6d\_adult\_disv\_lup\_tb, 8
- aqol6d\_adult\_itm\_wrst\_wghts\_lup\_tb, 9
- aqol6d\_adult\_vldn\_pop\_with\_STATA\_scores\_tb, 10
- aqol6d\_dim\_sclg\_con\_lup\_tb, 12
- aqol6d\_domain\_qs\_lup\_tb, 13
- aqol6d\_from\_8d\_coefs\_lup\_tb, 14
- aqol\_scrng\_dict\_r3, 14
- assert\_ds\_is\_valid, 15
- fn\_type\_lup\_tb, 16
- fns\_dmt\_tb, 15
- is\_youthvars\_aqol6d\_adol, 17
- is\_youthvars\_bads, 17
- is\_youthvars\_gad7, 18
- is\_youthvars\_k6, 18
- is\_youthvars\_oasis, 19
- is\_youthvars\_phq9, 19
- is\_youthvars\_scared, 20
- is\_youthvars\_sofas, 20
- make\_corstars\_tbl\_xx, 21
- make\_descv\_stats\_tbl, 21
- make\_final\_rpln\_ds\_dict, 22
- make\_formula, 23
- make\_itm\_resp\_plts, 24
- make\_new\_youthvars\_aqol6d\_adol, 24
- make\_new\_youthvars\_bads, 25
- make\_new\_youthvars\_gad7, 26
- make\_new\_youthvars\_k6, 26
- make\_new\_youthvars\_oasis, 27
- make\_new\_youthvars\_phq9, 27
- make\_new\_youthvars\_scared, 28
- make\_new\_youthvars\_sofas, 28
- make\_pt\_youthvars\_aqol6d\_adol, 29
- make\_pt\_youthvars\_bads, 29
- make\_pt\_youthvars\_gad7, 30
- make\_pt\_youthvars\_k6, 30
- make\_pt\_youthvars\_oasis, 31
- make\_pt\_youthvars\_phq9, 31
- make\_pt\_youthvars\_scared, 32
- make\_pt\_youthvars\_sofas, 32
- make\_sub\_tot\_plts, 33
- make\_tfd\_repln\_ds\_dict\_r3, 33
- make\_var\_by\_round\_plt, 34
- predictors\_lup, 35
- print\_descv\_stats\_tbl, 35
- prototype\_lup, 36
- replication\_popl\_tb, 37
- repln\_ds\_dict\_r3, 38
- transform\_ds\_for\_tstng, 39
- transform\_raw\_ds\_for\_analysis, 40
- validate\_youthvars\_aqol6d\_adol, 40
- validate\_youthvars\_bads, 41
- validate\_youthvars\_gad7, 42
- validate\_youthvars\_k6, 42
- validate\_youthvars\_oasis, 43
- validate\_youthvars\_phq9, 43
- validate\_youthvars\_scared, 44
- validate\_youthvars\_sofas, 44

[write\\_all\\_outp\\_dirs](#), 45

[write\\_descv\\_tbls](#), 45

[youthvars \(youthvars-package\)](#), 4

[youthvars-package](#), 4

[youthvars\\_aqol6d\\_adol](#), 46

[youthvars\\_bads](#), 47

[youthvars\\_gad7](#), 47

[youthvars\\_k6](#), 48

[youthvars\\_oasis](#), 48

[youthvars\\_phq9](#), 49

[youthvars\\_scared](#), 49

[youthvars\\_sofas](#), 50