Package 'SBI'

January 20, 2025

Type Package

Title Simple Blinding Index for Randomized Controlled Trials

Version 0.1.2

Description Computes a simple blinding index for randomized controlled trials introduced in Petroff, Bacak, Dagres, Dilk, Wachter: A simple blinding index for randomized controlled trials. Contemp Clin Trials Commun. 2024 Nov 26;42:101393. <doi:10.1016/j.conctc.2024.101393>. PMID: 39686958.

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Encoding UTF-8

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

RoxygenNote 7.3.2

NeedsCompilation no

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BlindingIndex   *Computes a simple index for blinding in randomized clinical trials.*

Description

This routine takes the entries from a 2x2 table as the arguments and returns the estimate for the difference of the probabilities p_A-p_B along with the Newcombe-Wilson-CI. It also finds a p-value dual to the Newcombe-Wilson method. For more details, see Petroff, Bacak, Dagres, Dilk, Wachter: A simple blinding index for randomized controlled trials. Contemp Clin Trials Commun. 2024 Nov 26;42:101393. doi: 10.1016/j.conctc.2024.101393. PMID: 39686958.

Usage

```
BlindingIndex(
  n_AA,
  n_BA,
  n_AB,
  n_BB,
  tolerance = 1e-12,
  switch_point = 1e-12,
  conf.level = 0.95
)
```

Arguments

n_AA	Number of patients in Group A guessing that they are in Group A. A non-negative number, usually an integer.
n_BA	Number of patients in Group A guessing that they are in Group B. A non-negative number, usually an integer.
n_AB	Number of patients in Group B guessing that they are in Group A. A non-negative number, usually an integer.
n_BB	Number of patients in Group B guessing that they are in Group B. A non-negative number, usually an integer.
	Alternatively, one can pass the first four arguments as a single 2x2 table, that is, as.table(cbind(c(n_AA, n_BA), c(n_AB, n_BB))).
tolerance	Tolerance for the 'stats::uniroot' function.
switch_point	A technical detail. A (very small) positive number.
conf.level	confidence level.

Value

est	Estimate
lwr.ci	Lower end of CI
upr.ci	Upper end of CI
p.value	p-value dual to the Wilson CI method
z	z-value corresponding to the p-value

Examples

```
BlindingIndex(50, 50, 50, 50)
```

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