Appendix 1

Review question
1. Are Brazilian university students at higher risk of eating disorders (ED) symptoms than the general population?

2. Is there a specific university major/area of study related to a greater number of students at higher risk of ED?

3. Is there a region of Brazil in which university students are at higher risk of ED?

Searches
- We will conduct a systematic review using three electronic databases (SciELO, LILACS and PubMed) and analyze all studies published until July 2017.

- The search terms were selected from MeSH (Medical Subject Headings): "anorexia", anorexia nervosa', "bulimia"", "bulimia nervosa", "binge eating disorders", "BED" - correlated to - university", universities", "college", , "student", "undergraduate", academic", "scholar" and DeCS (Descritores em Ciência da Saúde): "anorexia nervosa", "bulimia nervosa", "transtorno da compulsão alimentar"- correlated to – "estudantes", "universidade".

- We first developed a search strategy for PubMed/MEDLINE, which was subsequently adapted for the other databases – including the use of Portuguese terms.

- We intend to include studies conducted in Brazil and published in English, Portuguese or Spanish.

- The reference lists of all included articles will be also hand searched to check for other relevant studies and, if necessary, a grey literature search will be conducted by requesting unpublished scientific works from their authors.

Types of study to be included
Inclusion criteria:
- We will include cross-sectional or follow-up studies with a sample of Brazilian university students who completed an eating disorder and/or body image assessment with a validated research instrument (such as self-administered questionnaire and/or a semi-structured interview).

Exclusion criteria:
- We will exclude studies that used a non-validated tool or an incomplete version of a validated instrument (e.g. applying only some of the items). Questionnaire validation studies will be also excluded.

Condition or domain being studied
We are interested in studying the mental health of Brazilian university students with respect to eating disorder symptoms (e.g. disordered eating behavior or body image dissatisfaction) that have been assessed through questionnaires.

Participants/population
Students enrolled in Brazilian universities.

Intervention(s), exposure(s)
The exposure of interest for this study is the university environment and stressors associated with being a college student.

Comparator(s)/control
Controlled by age/gender, individuals not enrolled in a university.

Primary outcome(s)
The main outcome measure will be the percentage of Brazilian university students with ED symptoms and the rates according to major/area of study and region of Brazil.

Secondary outcome(s)
Data quality and reliability, literature gaps

Risk of bias (quality) assessment
- Two authors will independently perform each search step. Disagreements regarding inclusion will be discussed with the other authors until a consensus is reached.

- The Newcastle-Ottawa Scale will be used for assessing the quality of all studies included in the review.

- The studies included in the meta-analysis will be assessed for heterogeneity and publication bias.

Strategy for data synthesis
- The results will be described narratively.

- If there is sufficient data, we will conduct a meta-analysis using Comprehensive meta-analysis software v.3.

- Heterogeneity of the studies will be analyzed using the Q and I^2 statistics. If high heterogeneity is detected across studies in the meta-analysis, a random-effects model will be used.

- Publication bias will be analyzed with a visual inspection of funnel plots.

- Egger's test will be applied and forest plots will be made available.

- Finally, if there is significant heterogeneity, we will conduct a meta-regression wherever possible to determine whether moderators account for effect size variance. At least 10 studies per group will be the minimum threshold for this procedure.

Analysis of subgroups or subsets
- If there is significant heterogeneity, we will conduct a meta-regression procedure wherever possible to determine whether moderators account for

effect size variance. At least 10 studies per group will be the minimum threshold for this procedure.

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None.

Conflicts of interest
None.

Language
English

Country
Brazil

Table S1 Newcastle-Ottawa Quality Assessment (adapted for cross sectional studies) results for each article included in the systematic review – Selection Domain.

Author, Year	Selection				
	Representativeness of the sample	Sample size	Non-respondents	Ascertainment of the exposure (risk factor)	Total / Quality rating
Alberton et al., 2013[26]	*	-	-	**	3 / Good
Alvarenga et al., 2010[27]	*	-	-	**	3 / Good
Alvarenga et al., 2011[28]	*	*	-	**	4 / Good
Alvarenga et al., 2013[29]	*	-	-	**	3 / Good
Bosi et al., 2006[30]	*	*	-	**	4 / Good
Bosi et al., 2008[31]	*	-	-	**	3 / Good
Bosi et al., 2009[32]	*	*	-	**	4 / Good
Bosi et al., 2014[33]	*	*	-	**	4 / Good
Cenci et al., 2009[34]	*	*	-	**	4 / Good
Costa et al., 2010[36]	*	*	-	**	4 / Good
Ferrari et al., 2012[37]	*	*	-	**	4 / Good
Fiates et al., 2001[38]	*	-	-	**	3 / Good
Frank et al., 2016[39]	*	-	-	**	3 / Good
Garcia et al., 2010[40]	*	-	-	**	3 / Good
Gonçalves et al., 2008[41]	*	-	-	**	3 / Good
Kirsten et al., 2009[42]	*	-	-	**	3 / Good
Laus et al., 2009[43]	*	-	-	**	3 / Good
Legnani et al., 2012[44]	*	-	-	**	3 / Good
Martins et al., 2015[45]	*	-	-	**	3 / Good
Miranda et al., 2012[46]	*	*	-	**	4 / Good
Nicoli et al., 2011[47]	*	-	-	**	3 / Good
Penz et al., 2008[48]	*	-	-	**	3 / Good
Pereira et al., 2011[49]	*	-	-	**	3 / Good
Pinto et al., 2009[50]	*	-	-	**	3 / Good
Quadros et al., 2010[51]	*	-	-	**	3 / Good
Rech et al., 2010[52]	*	-	-	**	3 / Good
Santos et al., 2008[53]	*	-	-	**	3 / Good

Author, Year	Selection				
	Representativeness of the sample	**Sample size**	**Non-respondents**	**Ascertainment of the exposure (risk factor)**	**Total / Quality rating**
Silva et al., 2012[54]	*	-	-	**	3 / Good
Souza et al., 2002[55]	*	-	-	**	3 / Good
Stipp et al., 2003[57]	*	-	-	**	3 / Good
Vitolo et al., 2006[58]	*	*	-	**	4 / Good

Table S2 Newcastle-Ottawa Quality Assessment (adapted for cross sectional studies) results for each article included in the systematic review – Comparability and Outcome domains.

Author, Year	Comparability		Outcome		
		Total / Quality Rating	**Assessment of the outcome**	**Statistical test**	**Total / Quality Rating**
Alberton et al., 2013[26]	**	2 / Good	*	-	1 / Poor
Alvarenga et al., 2010[27]	*	1 / Fair	*	*	2 / Fair
Alvarenga et al., 2011[28]	*	1 / Fair	*	*	2/ Fair
Alvarenga et al., 2013[29]	*	1 / Fair	*	*	2/ Fair
Bosi et al., 2006[30]	*	1 / Fair	*	-	1/Poor
Bosi et al., 2008[31]	*	1 / Fair	*	*	2/Fair
Bosi et al., 2009[32]	*	1 / Fair	*	*	2/Fair
Bosi et al., 2014[33]	*	1 / Fair	*	*	2/Fair
Cenci et al., 2009[34]	*	1 / Fair	*	*	2/Fair
Costa et al., 2010[36]	*	1 / Fair	*	*	2/Fair
Ferrari et al., 2012[37]	**	2 / Good	*	-	1/Poor
Fiates et al., 2001[38]	*	1 / Fair	*	-	1/Poor
Frank et al., 2016[39]	**	2 / Good	*	-	1/Poor
Garcia et al., 2010[40]	*	1 / Fair	*	-	1/Poor
Gonçalves et al., 2008[41]	**	2 / Good	*	*	2/Fair
Kirsten et al., 2009[42]	*	1 / Fair	*	-	1/Poor
Laus et al., 2009[43]	*	1 / Fair	*	-	1/Poor
Legnani et al., 2012[44]	**	2 / Good	*	-	1/Poor

Author, Year	Comparability		Outcome		
		Total / Quality Rating	Assessment of the outcome	Statistical test	Total / Quality Rating
Martins et al., 2015[45]	**	2 / Good	*	-	1/Poor
Miranda et al., 2012[46]	**	2 / Good	*	-	1/Poor
Nicoli et al., 2011[47]	*	1 / Fair	*	-	1/Poor
Penz et al., 2008[48]	-	0 / Poor	*	-	1/Poor
Pereira et al., 2011[49]	*	1 / Fair	*	-	1/Poor
Pinto et al., 2009[50]	*	1 / Fair	*	-	1/Poor
Quadros et al., 2010[51]	**	2 / Good	*	-	1/Poor
Rech et al., 2010[52]	**	2 / Good	*	-	1/Poor
Santos et al., 2008[53]	*	1 / Fair	*	-	1/Poor
Silva et al., 2012[54]	*	1 / Fair	*	-	1/Poor
Souza et al., 2002[55]	*	1 / Fair	*	-	1/Poor
Stipp et al., 2003[57]	*	1 / Fair	*	-	1/Poor
Vitolo et al., 2006[58]	*	1 / Fair	*	-	1/Poor

Table S3 Prevalence of positive Bulimic Investigatory Test, Edinburgh (BITE) screening - symptom subscale in Brazilian university students (by major).

Article	Sample Size	High score	Cutoff point	Moderate score	Cutoff point
Medicine					
Souza et al.[55]	199	350%	≥ 20	23.10%	From 10 to 19
Pinto et al.[50]	85 (46+39)	4.8% (2.2% + 2.6%)	≥ 20	78.8% (32.6 + 46.2)	From 10 to 19
Bosi et al.[33]	189	6.30%	≥ 20	31.70%	From 10 to 19
Sports Science					
Bosi et al.[31]	191	0%	≥ 20	24.60%	From 10 to 19
Psychology					
Bosi et al.[32]	175	5%	≥ 20	20.80%	From 10 to 19
N/A					
Cenci et al.[34]	220	3.6%	≥ 20	32.7	From 10 to 19

N/A = not available.

Table S4 Prevalence of positive Bulimic Investigatory Test, Edinburgh (BITE) severity subscale in Brazilian university students (by major)

Article	Sample size	High score	Cutoff point	Moderate score	Cutoff point
Medicine					
Souza et al.[55]	199	2%	≥ 10	2%	From 5 to 9
Pinto et al.[50]	46	6.5%	≥ 10	8.7%	From 5 to 9
Pinto et al.[50]	39	10.3%	≥ 10	23.1%	From 5 to 9
Bosi et al.[33]	189	1.60%	≥ 10	6.30%	From 5 to 9
Sports Science					
Bosi et al.[31]	191	2.60%	≥ 10	4.70%	From 5 to 9
Psychology					
Bosi et al.[32]	175	5%	≥ 10	2.60%	From 5 to 9

Table S5 Prevalence of positive Body Shape Questionnaire (BSQ) in Brazilian university students (by major).
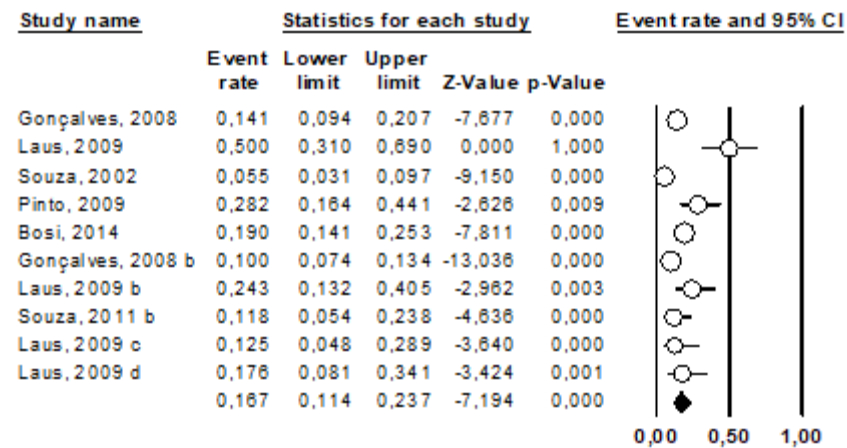
Legend: N/A = not available. *Total result from Souza 2011 included mild cases.

Article	Sample size	High	Cutoff point	Moderate	Cutoff point	Total (Severe + moderate cases)
Nutrition						
Laus et al.[43]	24	25%	> 110	21%	From 91 to 110	46%
Stipp et al.[57]	104	6.70%	≥ 141	10.60%	From 111 to 140	17.30%
Bosi et al.[30]	193	6.20%	≥ 140	12.40%	From 111 to 140	18.60%
Silva et al.[54]	175	5.70%	> 140	8%	From 111 to 140	13.70%
Sports science						
Laus et al.[43]		16%	> 110	30%	From 91 to 110	46%
Garcia et al.[40]	96	1%	> 140	8.30%	From 111 to 140	9%
Legnani et al.[44]	229	N/A	≥ 140	N/A	From 111 to 140	8.60%
Bosi et al.[31]	191		≥ 140		From 111 to 140	17%
Psychology						
Stipp et al.[57]	135	3%	≥ 141	19.20%	From 111 to 140	23%

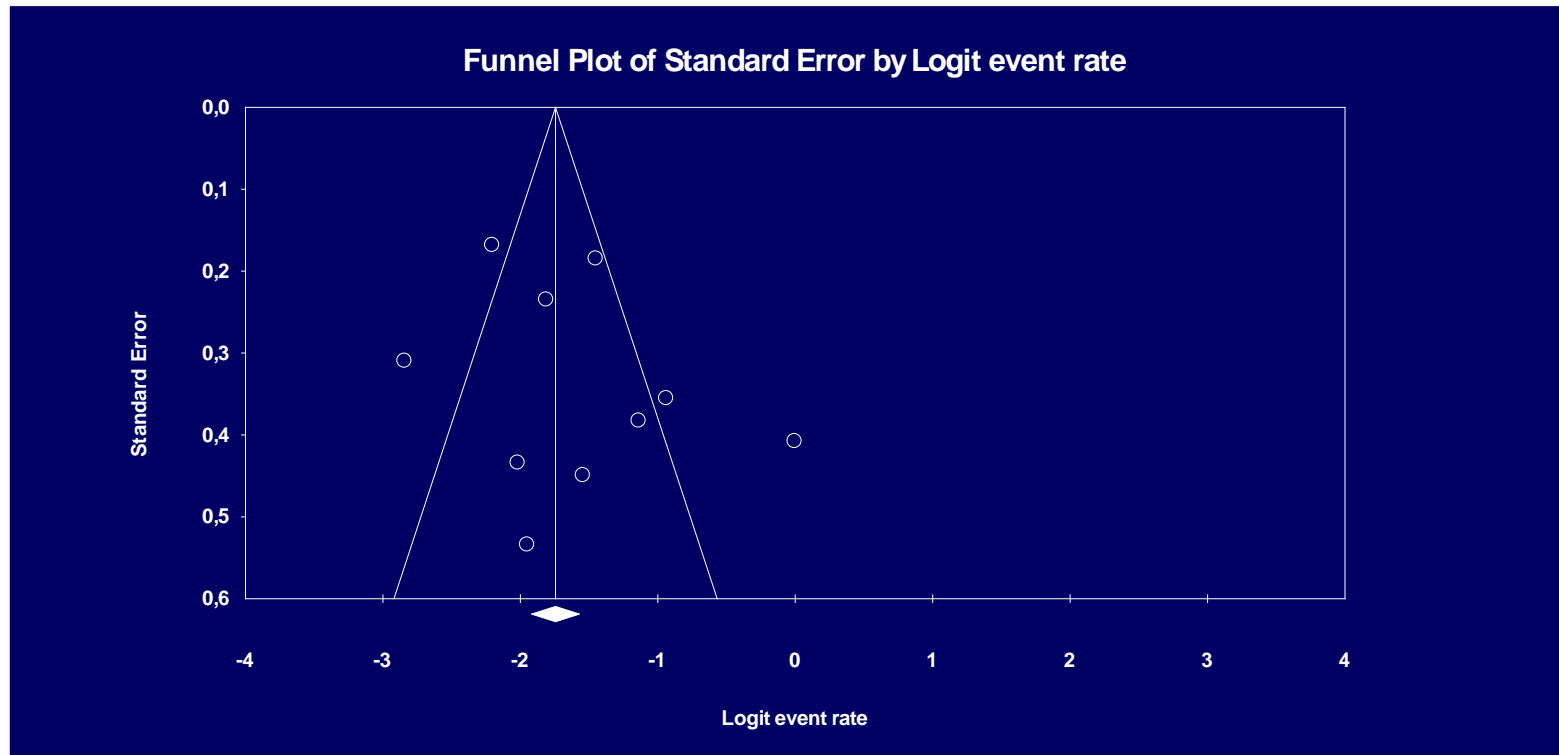| Article	Sample size	High	Cutoff point	Moderate	Cutoff point	Total (Severe + moderate cases)
Bosi et al.[32]	175	9.70%	≥ 140	9.70%	From 111 to 140	19.40%
Medicine						
Garcia et al.[40]	98	9.20%	> 140	10.20%	From 111 to 140	19.40%
Bosi et al.[33]	189	17.60%	> 140	10.10%	From 111 to 140	27.70%
Marketing						
Laus et al.[43]	32	28%	> 110	3%	From 91 to 110	31%
Management						
Laus et al.[43]	34	26%	> 110	9%	From 91 to 110	35%
N/A						
Cenci et al.[34]	220	4.5%	N/A	15.5%	N/A	20%
Costa et al.[36]	220	4.5%	≥ 141	15.5%	From 111 to 140	20%
Souza et al.[56]	352	N/A	≥ 140	N/A	From 111 to 140	46.7%*

Figure S1 Forest plot of positive screening rates in studies using the Eating Attitudes Test (EAT-26) (cutoff point ≥ 20).

95% CI = 95% confidence interval.

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Figure S2 Funnel plot of studies using the EAT-26 (cutoff ≥ 20 points)

Figure S3 Funnel plot of studies using the EAT-26 (cutoff ≥ 21 points)