

## REPETITIVE NEGATIVE THINKING IN UNIVERSITY STUDENTS WITH SPECIFIC LEARNING DISORDER: DOES GENDER MATTER?

Maristella Scorza, Michela Camia, Erika Benassi, Damiano Angelini, Angela Ciaramidaro and Sara Giovagnoli

## Abstract

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**Objective:** To date, the literature on repetitive negative thinking (RNT), rumination and worry, in students with Specific Learning Disorder (SLD) is still scant. This study seeks to deeply examine those variables in university students with and without SLD, focusing on the differences between males and females.

**Method:** A survey was administered to 107 university students between 18 and 31 years (mean age=21,56; SD=2,60). Of these, 65 were typically developing (TD) and 42 had a diagnosis of SLD. Participants responded to the Ruminative Response Scale (RRS) and the Penn-State Worry Questionnaire (PSWQ). Anxious and depressive symptoms were also assessed.

**Results:** Significant differences were found between university students with and without SLD on all the scales except for PSWQ. Regression analyses reported that rumination significantly affected depression and anxiety whereas worry seemed to have a role only in anxiety. Finally, female students with SLD showed higher levels of internalizing symptoms among all the subjects.

**Conclusions:** The results give psychologists a greater understanding of RNT in university students with SLD, suggesting the importance of including those psychological processes in the clinical assessment.

**Key words:** specific learning disorder, worry, rumination, gender, university students, assessment

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## 1. Introduction

Specific Learning Disorder (SLD) is a common neurodevelopmental disorder, with a prevalence ranging from 5 to 15% and characterised by persistent difficulties in the acquisition of reading, spelling, writing and mathematics, despite adequate intelligence, intact sensory abilities and an appropriate instruction (American Psychiatric Association, 2013). Given the impact of this condition on daily life, people with SLD often experience lower quality of life and overall well-being compared to control groups (e.g. Benassi et al., 2022; Camia et al., 2022; Davis et al., 2009). Higher levels of apprehension and reduced levels of self-confidence, self-esteem and stability have also been reported among adults with dyslexia (Livingston et al., 2018; Riddick et al., 1999). A wide literature shows that children and adults with SLD often developed more internalising symptoms, such as anxiety and depression, than typical developing peers (TD) (for

reviews see Livingston et al., 2018; Mugnaini et al., 2009; Wilmot et al., 2023). However, according to Klassen et al. (2013) no differences in internalizing symptoms between male and female dyslexics were reported. Other studies found that university students with SLD showed higher levels of depression, negative feelings, somatic complaints, social difficulties, lower academic self-esteem and attentional problems relative to TD peers (Burden, 2008; Carroll & Iles, 2006; Davis et al., 2009; Gennaro et al., 2019; Ghisi et al., 2016). Regarding anxiety, the data are mixed. Some studies reported no difference in anxiety in university students with SLD (Nelson & Gregg, 2012), whereas others reported higher risk for anxiety in these students compared to controls (e.g., Scorza et al., 2018).

The cognitive process known as "repetitive negative thinking," or "RNT," is defined by self-focused, frequent, and repetitive thinking (Segerstrom et al., 2003). The main constituents of RNT are rumination and worry (Ehring & Watkins, 2008; Watkins, 2008). Rumination

is defined as thoughts that repetitively focus attention on negative past events, problems and emotions, their causes, meanings, and consequences (Nolen-Hoeksema & Morrow, 1991). Even if rumination often occurs in different psychiatric conditions, it is used also by healthy people as an adaptive process that help overcome challenges and modify the behaviours (Trincas et al., 2018). Worry is characterised by future directed thinking and has been defined as a chain of thoughts and images laden with negative emotions and relatively uncontrollable; worry is usually focused on problem-solving on a future issue whose outcome is unknown (e.g., Olatunji et al., 2013). Although rumination and worry are employed as strategies for self-regulation and modulating own affective experiences, they may be counterproductive and even lead to psychological disorders (for reviews see: Kaplan et al., 2018; Watkins, 2008).

Rumination seems to be associated with internalising symptoms (for a review see du Pont et al., 2018). Rumination has been linked to increased levels of generalized anxiety disorder and depression in young adults and adults (Calmes & Roberts, 2007; Jandrić et al., 2023; McLaughlin & Nolen-Hoeksema, 2012). Rumination seems to be associated also to posttraumatic stress symptom severity (see Review by Moulds et al., 2020) and to social phobia symptoms (Lundh & Sperling, 2002). Previous research with adults has shown that rumination contributes to the maintenance or intensification of depressive symptoms and that women are more likely to ruminate than men (Butler & Nolen-Hoeksema, 1994; Katz & Bertelson, 1993; Nolen-Hoeksema et al., 1999).

Similar, excessive worry contributes to psychopathological disorders (e.g., Kaplan et al., 2018). For instance, worry has been reported in many anxiety disorders, especially in generalised anxiety disorder and in mood disorders (Chelminski & Zimmerman, 2003; Starcevic, 1995; Wells, 2009). Associations between worry and difficulties in emotional regulation were also found (e.g. Salters-Pedneault et al., 2006).

Therefore, RNT is a variable that is relevant to mental health but has not been extensively investigated in SLD students and the studies focused only on children and adolescents. Recently, Chaharduoli (Chaharduoli et al., 2021) evaluated 106 students with and without SLD reporting higher scores in the subscales of distraction, meditation and contemplation. Recently, the rumination in Italian children with SLD was investigated by Bonifacci and colleagues (Bonifacci et al., 2020) showing higher levels of rumination in children with SLD relative to their peers when referring to a negative social situation.

The aim of this study was to investigate the association between repetitive negative thinking and internalising symptoms, specifically depression and anxiety, in students with SLD. We hypothesise that the SLD group had a distinct profile, with higher scores on all clinical scales and an inefficient use of RNT that negatively impacted the other measures, which is consistent with current research. Furthermore, our second aim is to compare the psychological profiles of male and female students, assuming that females had higher psychological impairments than males.

## 2. Method

### 2.1. Participants

One hundred-seven university students between 18 and 31 years of age (mean age=21,56; SD=2,60) took

part in the study. Of these, 65 were typically developing (TD) students (Mean age = 21.65; SD = 2,36; females =45) and 42 were diagnosed clinically with Specific Learning Disorder (SLD) and had a mean age 21,43 (SD=2,96; females=25) (see **table 1** for SLD sample details). Age was not significantly different between the TD and SLD groups ( $t_{(105)}=.424$ ;  $p=.674$ ). For demographic details on participants see **table 1**.

Students with SLD were recruited from the Specific

**Table 1.** Demographic and clinical characteristics of the SLD and TD groups.

Group		male (n = 25)	female (n = 17)
SLD	Mean age (SD)	21.11 (1.97)	21.64 (3.50)
	Single Specific deficit	8 (47%)	11 (44%)
	Two specific deficits	4 (24%)	4 (16%)
	Three or four deficits	5 (29%)	10 (40%)
TD		male (n = 20)	female (n = 45)
	Mean age (SD)	21.60 (2.48)	21.67 (2.33)

Learning and Disabilities Service of the University. All participants with SLD received a diagnosis based on the ICD-10 (World Health Organization, 2019) coding system and met the criteria indicated in the National Italian Consensus Conference on SLD published by the Italian Ministry of Health (Istituto Superiore di Sanità, 2011). Questions about dispensative measures and compensatory tools have been proposed. All the students with SLD reported to have dispensative measures and to use compensatory tools during the exams and tests. None of the SLD students had neurological problems or visual and hearing impairments.

The controls were recruited among university students. They were invited to participate via email through the university's mailing list and through the campus website's homepage via a link to the online survey. Those who agreed to participate provided a digital informed consent of privacy protection disclaimer before the beginning of the questionnaire and completed an online questionnaire on Google form. Students with neurological and psychiatric disorders or with psychological problems were excluded. The students were all native speakers of Italian.

The study met the ethical guidelines for human subject protection, including adherence to the legal requirements of the country (Declaration of Helsinki), and it received formal approval by the local research Ethical Committee (protocol code 2023/0044335 on 06 April 2023).

### 2.2. Self-report measures

The two groups completed the following questionnaires: the Ruminative Response Scale, the Penn-State Worry Questionnaire, the Beck Anxiety Inventory and the Beck Depression Inventory. All the tests are wide used in clinical settings as well as in clinical studies. All the scales have good psychometric properties (see below).

**Rumination.** The Ruminative Response Scale (RRS; Nolen-Hoeksema & Morrow, 1991; Italian version Palmieri et al., 2007) is widely-used self-report measures individuals' general tendency to ruminate. The RRS comprises 22 items which are rated using a 4-points Likert scale (1="almost never" and 4="almost

always”). Higher scores indicate higher levels of rumination. The RSS has good reliability and validity across clinical and community samples (Treyner et al., 2003). A total score between 0-52 indicates no rumination, whereas a score > 52 indicates the presence of rumination. The Ruminative Response Scale has good psychometric properties (Palmieri et al., 2007).

**Worry.** The Penn-State Worry Questionnaire (PSWQ; Meyer et al., 1990; Italian version Morani et al., 1999) is widely-used self-report measures of the intensity and uncontrollability of worry. The PSWQ comprises 16-items which are rated using a 5-point Likert scale (1 = “not at all typical of me” and 5= “very typical of me”). Higher scores indicate higher levels of worry. The total score is divided in 3 levels: 0-55 no worry, 55-66 some problems with worry, > 66 severe level of worry. The PSWQ has good psychometric properties (Meyer et al., 1990; Morani et al., 1999).

**Anxiety.** The Beck Anxiety Inventory (BAI; Beck et al., 1988; Italian Version Sica & Ghisi, 2007) is a widely used 21-item self-report measure assessing the main components of anxiety, such as “Numbness or tingling”, “Feeling hot” and “Dizzy or lightheaded”. Items are rated on a 4-point Likert scale (0 = “Not at all” and 3 = “Severe”). Higher scores indicate higher levels of anxiety. The total score may be categorised into four anxiety degrees: normal (0-7), mild (8-15), moderate (16-25) and severe anxiety (25-30). The BAI has good psychometric properties across clinical and community samples (Sica & Ghisi, 2007).

**Depression.** The Beck Depression Inventory (BDI; Beck et al., 1961; Italian Version Ghisi et al., 2006) is a widely used 21-item self-report measure assessing symptoms of depression, which are rated on a on a 4-point Likert scale (e.g. “I do not feel sad” to “I am so sad or unhappy that I can’t stand it”). Higher scores indicate higher levels of depression. The standardised cutoffs are: 0–13: minimal depression, 14–19: mild depression, 20–28: moderate depression and 29–63: severe depression. The BDI has good psychometric properties across clinical and community samples (Sica & Ghisi, 2007).

### 2.3. Statistical analysis

A multivariate analysis of variance (MANOVA) was performed on BAI, BDI, RSS and PSWQ considered as dependent variables, using the Group (TD vs SLD) as between-subject’s factor. Then, we compared the frequency of clinically relevant scores (specific cut-off related to the different scale as reported in the “Materials” paragraph) in TD and SLD group by Fisher's exact test or Chi-squared test according to the

scale rules for symptomatology thresholds (i.e. Absent, Mild, Moderate and Severe for BDI and BAI scales). Furthermore, a Regression analysis was performed to analyse the effect of RSS and PSWQ on the clinical symptoms (BAI and BDI).

Lastly, a second multivariate analysis of variance (MANOVA) was performed on BAI, BDI, RSS and PSWQ as dependent variables, using the Group (TD vs SLD) and the sex (Females vs Males) as between-subject’s factors. Following pairwise comparisons were Bonferroni corrected.

## 3. Results

### 3.1 Differences in psychological well-being and RNT between SDL and TD groups

The first Multivariate Analysis of Variance showed a significant group effect (Group effect:  $F_{(5,101)} = 7.021$ ;  $p < .001$ ; partial  $\eta^2 = .258$ ), with higher scores for the SLD group compared to TD group (see **table 2**). Looking at the results of the univariate analysis, the SLD group had significantly higher scores on RSS (TD: mean = 37.72, SE = 1.58; SLD: mean = 49.33, SE = 1.97;  $p < .001$ ), BAI (TD: mean = 13.48, SE = 1.48; SLD: mean = 22.24, SE = 1.82;  $p < .001$ ) and BDI (TD: mean = 10.14, SE = 1.23; SLD: mean = 16.46, SE = 1.53;  $p < .001$ ) (see **table 2** and **figure 1**). No significant differences emerge in the group comparison for the PSWQ scale ( $p = .95$ ), where very similar scores are observed, as shown in **figure 1**.

To compare the frequency of clinically relevant scores (specific cut-off related to the different scale as reported in “Materials” paragraph) in TD and SLD group a Fisher's exact test or chi-squared test were performed according to the scale rules for clinical thresholds. The frequencies of individuals with SLD in the different symptomatology groups is significantly different from the frequencies observed for the TD group in all scales examined except the PSWQ scale (see **table 3**). In particular, the percentage of SLD with moderate/severe symptomatology out of the total SLD is higher than that observed in TDs.

### 3.2 Impact of RNT on the clinical symptoms

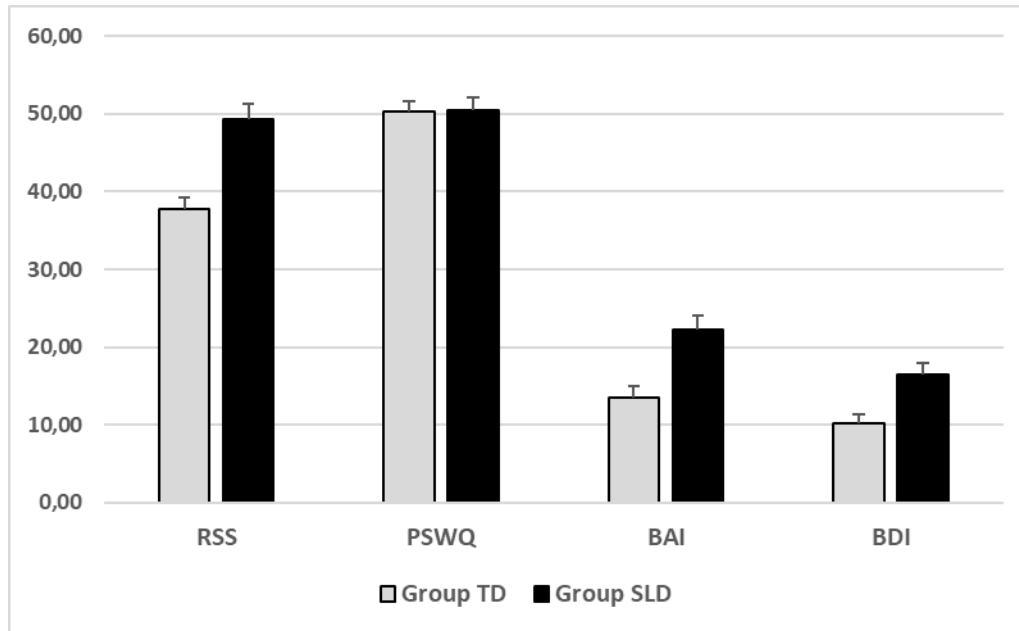
Regression analysis showed that RSS significantly predicted the BAI and BDI symptomatology. In particular, RSS implies a significant increase in BAI and BDI. PSWQ significantly and positively affects BAI (see **table 4**). No significant effect was found between PSWQ and BDI.

**Table 2.** Multivariate Analysis of Variance: Comparison between the profile of students with SLD and of TD students. Mean score (and standard errors) in BAI (Beck Anxiety Inventory), BDI (Beck Depression Inventory), RSS (Ruminative Response Scale) and PSWQ (Penn-State Worry Questionnaire) were reported.

	Group	Mean (SE)	F(df)	p	EF
RSS	TD	37.723 (1.582)	21.140 (1,105)	<.001	.168
	SLD	49.333 (1.968)			
PSWQ	TD	50.262 (1.353)	.004 (1,105)	.947	.001
	SLD	50.405 (1.683)			
BAI	TD	13.477 (1.467)	14.006 (1,105)	<.001	.118
	SLD	22.238 (1.825)			
BDI	TD	10.138 (1.229)	10.667 (1,105)	<.001	.092
	SLD	16.458 (1.529)			

Note. SE=Standard Errors; df= degree of freedom; EF= Effect Size (Partial Eta Squared)

**Figure 1.** Comparison between the mean score (and standard errors) of students with SLD and of TD students in RSS (Ruminative Response Scale), PSWQ (Penn-State Worry Questionnaire) BAI (Beck Anxiety Inventory) and BDI (Beck Depression Inventory)



**Table 3.** Comparison of the frequency of clinically relevant scores in SLD and TD groups

Group	Symptomatology (%)	Symptomatology (%)				Chi <sup>2</sup> (df)
		Absent	Mild	Moderate	Severe	
RSS	TD	56 (86.2%)			9 (13.8%)	11.38(1)**
	SLD	24 (57.1%)			18 (42.9%)	
PSWQ	TD	43 (66.2%)		16 (24.6%)	6 (9.2%)	.835(2)
	SLD	28 (66.7%)		12 (28.6%)	2 (4.8%)	
BAI	TD	22 (33.8%)	18 (27.7%)	18 (27.7%)	7 (10.8%)	12.91(3)**
	SLD	8 (19.0%)	6 (14.3%)	12 (28.6%)	16 (38.1%)	
BDI	TD	48 (73.8%)	8 (12.3%)	6 (9.2%)	3 (4.6%)	12.16(3)**
	SLD	17 (40.5%)	11 (26.2%)	8 (19.0%)	6 (14.3%)	

Note. \*p<.05; \*\*p<.01; a= Fisher's Exact Test p<.001; df= degree of freedom.

**Table 4.** Regression analysis: the effect of Rumination and Worry on psychological profile (BAI and BDI)

Dependent Variable	b (SE)	t	p	EF	
RSS	BAI	0.44 (0.77)	5.69	<.001	.237
	BDI	0.53 (0.53)	9.93	<.001	.490
PSWQ	BAI	0.29 (0.99)	2.95	.004	.077
	BDI	0.12 (0.68)	1.83	.070	.031

Note. \*SE=Standard Errors; EF= Effect Size (Partial Eta Squared)

**3.3 Female students with SLD were more impacted by their clinical profile.**

The second Multivariate Analysis of Variance didn't show a significant gender effect, but a significant sex\*group interaction effect was found (Group\*Sex interaction effect: F(5,99)=3.198; p=.010; partial η<sup>2</sup>=.139). Univariate analysis showed a significant interaction effect in all scales examined except the PSWQ (see table 5). Post-hoc comparisons revealed that the SLD female group showed higher scores compared to the SLD males in the BAI (p > 0.01). A

direct comparison of the SLD female group with TD females showed higher scores for the first group in all the scales (p > 0.001), with the exception of the PSWQ. As shown in figure 2, the SLD female group exhibited significantly higher scores than the TD female group across all scales (p < 0.001), except for the PSWQ.

**4. Discussion**

The main purpose of this study was to investigate the clinical profile and its relationships with RNT aspects in university students with SLD. In the current

study anxiety and depression symptoms were more frequently reported in university students with SLD than in their TD peers. Furthermore, comparing the frequency and the severity of clinical symptomatology in TD and SLD groups we found a higher percentage of students with moderate and severe symptomatology in the SLD group. These findings support previous studies that found higher levels of anxiety and depression in adults with SLD (Ghisi et al., 2016; Klassen et al., 2013; Scorza et al., 2018). Moreover, recently, Giovagnoli et al. (2020), found that adolescents with dyslexia showed an increased level of self-perceived anxiety, depression and somatic symptoms, whereas no significant differences emerged in childhood between dyslexics and controls. It appears therefore important to continue investigating the psychological condition of young adults with SLD, aiming to understand which factors may contribute to the worsening of the psychopathological symptoms.

Moreover, our results indicated that students with SLD reported significantly higher levels of rumination than TD controls (see **table 2**). This result is in line with recent studies conducted by Chaharduoli et al. (2021) on adolescents with SLD and by Bonifacci et al. (2020) on Italian children with SLD. Our results seem to confirm this scenario also in university students with SLD. It has been suggested that adults who have been exposed during childhood to adverse experiences or adverse outcomes may sustain the tendency to engage in RNT (Mansueto et al., 2022). Studies on children with dyslexia found a relationship between psychological problems and negative school experiences, such as social isolation, humiliation and bullying (e.g. Burden, 2008) and reported emotional (fear, shyness and loneliness) and physiological (nausea, tremors or rapid heartbeat) manifestations (Alexander-Passe, 2008; Murray & Greenberg, 2001). Thus, students with SLD could be at particular risk for rumination.

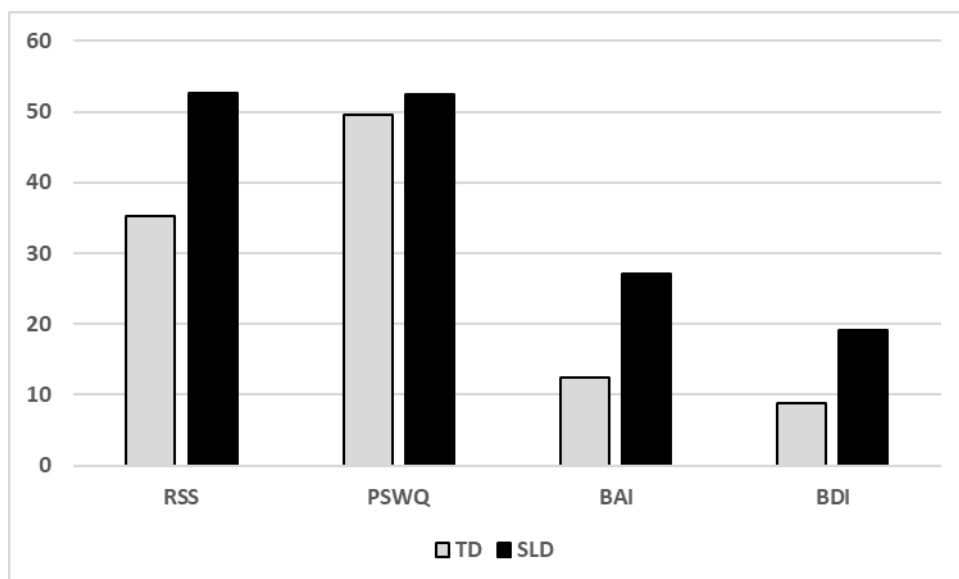
To the best of our knowledge, our study is the first to examine worry in students with SLD. No differences emerged between the two groups in terms of worry processes (see **table 2**). These data contrast with reports of adults with other psychological disorders, such as patients with personality disorders and eating disorders (e.g. S. Palmieri et al., 2021; Spada et al., 2021), that showed higher level of worry compared to patients

with emotional disorders, but without a diagnosis of personality disorders, and to general population. Instead, our findings appear similar to profiles of adults with bipolar disorder that did not report different levels of worry compared to healthy adults (Favaretto et al., 2020). Our data suggest that the university students with SLD do not appear worried about future problems. This result could arise from the fact that students with SLD who succeed in continuing their studies at college and university are generally those who are more successful and resilient (Matteucci & Soncini, 2021); another reason might concern the use of compensatory and dispensatory tools that university provides them and that, supporting the achievement of good academic results, may allow to see the future more positively.

Interestingly, we found that rumination significantly predict the anxiety and depression in the whole group. In particular, increased rumination appears to increase levels of anxiety and depression. Our findings replicated previous studies supporting the impact of rumination on later depressive episodes and on the risk of higher levels of general anxiety (Nolen-Hoeksema et al., 2007). Recently, the predictive effect of rumination on anxiety and depression in adolescents have been reported by Jandrić (Jandrić et al., 2023). The authors underline the importance of rumination as a unique transdiagnostic process related to different internalizing disorders. Instead, worry seemed to have an effect only on anxiety in our sample. In particular we found a significant effect of the PSWQ scores and BAI, but a trend with the BDI. Consequently, our findings only partly confirmed the previous literature reporting an association between worry, anxiety and depression. Some authors, however, supported the idea that rumination and worry exhibited both shared and distinctive features (e.g., Stade & Ruscio, 2023). According to our data, rumination and worry are decoupled: students with SLD exhibit high levels of rumination but are not different from the control group in terms of worry.

Our further aim was to examine the clinical profiles of both male and female students. It has been proposed that integrating gender differences into the study of both types of RNT, is a crucial step in understanding how RNT contributes to the increased risk of emotional disorder between adolescence and adulthood (Young & Dietrich, 2015). Our results revealed a significant

**Figure 2.** Comparison between the mean score of female students with SLD and of TD in RSS (Ruminative Response Scale), PSWQ (Penn-State Worry Questionnaire) BAI (Beck Anxiety Inventory) and BDI (Beck Depression Inventory)



impact for gender and groups in all the scales, with the exception of the worry scale (see **table 5**). Moreover, a direct comparison within the SLD group revealed higher levels of anxiety for the female group, and comparing university females with SLD with females of the control group, female with SLD showed significantly higher levels of rumination, total anxiety and depression. These results confirm previous works reporting that female students with SLD have more internalising symptoms than male students with SLD (Basta et al., 2022; Nelson & Gregg, 2012). Gender differences have been previously described in a sample of college students in which women showed more internalizing symptoms than males and this profile seems to be related to women's propensity to dedicate more attention to their affective states, especially when they're sad (Butler & Nolen-Hoeksema, 1994). In general, gender differences have been documented also in a wide number of emotion-related processes (for a review, see Nolen-Hoeksema, 2012). However, we found no difference regarding the process of worry when comparing between groups (TD and SLD) or when comparing between genders, in line with other authors found no gender differences in the worry process among undergraduates (Basevitz et al., 2008; Robichaud et al., 2003), but in contrast with Bottesi and colleagues (Bottesi et al., 2018) reporting higher level of worry in females than in male undergraduates. To summarize, it seems that having an SLD diagnosis and being a woman are two associated factors that affect psychological well-being. The role of the gender and the complexity of the SLD on psychological problems was described in children and adolescents with SLD (Mugnaini et al., 2009). Here, we confirmed for the first time the same tendency in university students with SLD.

Although the present study provides new relevant insights, some limitations should be reported. First of all, the sample size was too small, especially for the SLD group. The recommended sample size required, as determined by G\*Power software, was  $N=196$  (approximately  $n=100$  subjects per subsample), using an alpha level of .005, power of .80, and a medium effect size. Thus, it could be interesting to replicate the study

with a larger sample. Another limitation pertains to the use of self-reported questionnaires. Social desirability and self-report biases may contribute to errors in measurements. Although the selected questionnaires are widely used in clinical settings and research, it might be useful to propose a structured interview conducted by a psychologist. Finally, we collected data only from a single point of time. A longitudinal study could be useful to better understand the psychological profile and both the protective and risk factors across the university experience.

## 5. Conclusions

To our knowledge, this is the first study that investigates rumination and worry in university students with SLD. The study contributes, on one hand, to expanding the data already present in the literature on psychological well-being in university students with and without SLD, and on the other hand, introduces new important results regarding rumination and worry. In particular, we confirmed previous findings on internalizing symptoms in students with SLD showing more anxiety and depression compared to the controls. And, the study adds new evidences on the role of gender on the onset of internalizing symptoms, particularly in the presence of SLD. Thus, it follows that SLD could represent a risk factor not only for anxiety and depression but also for negative cognitive processes such as rumination.

The findings provide new evidence for the importance of organising psychological support services for university students. Given the increasing number of students with SLD in universities, it is essential to arrange activities and services specifically for SLD. It could be useful to plan both assessment and psychological support pathways, such as individual meetings, group psychoeducational activities and training sessions, in order to prevent emotional impairment during the academic year. In particular, specific interventions targeting psychological symptoms could be useful to improve academic performance and motivation and to limit dropout.

**Table 5.** *Multivariate Analysis of Variance: Sex\*group interaction effect on the psychological profile (BAI, BDI, RSS, PSWQ)*

	Group	Sex	Mean (SE)	F(df)	p	EF
RSS	TD	M	43.25 (2.75)	9.99(1,103)	.002	.088
		F	35.27 (1.83)			
	SLD	M	44.53 (2.98)			
		F	52.60 (2.46)			
PSWQ	TD	M	51.90 (2.43)	2.94(1,103)	.089	.028
		F	49.53 (1.62)			
	SLD	M	47.24 (2.63)			
		F	52.56 (2.17)			
BAI	TD	M	15.90 (2.52)	11.02(1,103)	.001	.097
		F	12.40 (1.68)			
	SLD	M	15.12 (2.73)			
		F	27.08 (2.25)			
BDI	TD	M	12.95 (2.17)	7.03(1,103)	.009	.064
		F	8.89 (1.44)			
	SLD	M	12.65 (2.35)			
		F	19.20 (1.94)			

Note. SE=Standard Errors; df= degree of freedom; EF= Effect Size (Partial Eta Squared)

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