

## Chapter 6

# Gender Differences in Psychological Well-Being and Distress During Adolescence

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Several investigations report a greater prevalence of depressive symptoms in girls compared to boys during adolescence (Baron & Campbell, 1993; Cyranowski, Frank, Young, & Shear, 2000). Moreover, females show higher anxiety levels compared to males both in clinical sample and general population (Spence, 2001).

Nowadays, however, there still are a paucity of studies exploring levels of psychological well-being in youth and few psychometric instruments for measuring this concept in adolescence. One of these is VSP-A, a French health-related quality of life instrument, specific for adolescents, encompassing a six-dimensional psychological well-being: energy, friends, parents, leisure, school, and a total index to indicate the general health status. Validation results of VSP-A showed that females reported lower scores in the most of VSP-A scales and on the global health-related quality of life index (Simeoni, Auquier, Antoniotti, Sapin, & San Marco, 2000; Sapin, Simeoni, El Khammar, Antoniotti, & Auquier, 2005).

A complete model of psychological well-being in an eudemonic perspective (Ryan & Deci, 2001) has been proposed by Carol Ryff (1989), encompassing six key dimensions: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Once defining these dimensions, Ryff (1989) created a self-rating questionnaire (PWB scales) for measuring these constructs. Research, using this instrument on adult and aging individuals, have been already published and have pointed out that females show lower psychological well-being levels compared to males (Ryff, 1989; Ryff & Keyes, 1995; Steca, Ryff, D'Alessandro, & Delle Fratte, 2002; Ruini, Ottolini, Rafanelli, Ryff, & Fava 2003a; Ruini et al., 2003b). In two studies on an Italian population (Steca et al., 2002;

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Ruini, Ottolini, Rafanelli, Ryff, & Fava, 2003a; Ruini et al., 2003b), females reported significant lower levels in all PWB scales compared to males except in positive relations. Women showed higher scores in this scale also in US investigation (Ryff, 1989; Ryff & Keyes, 1995), but no other significant differences were found for any other dimensions of well-being.

Since, in above-mentioned studies, participants were already out of adolescence, the aim of this investigation is to explore gender differences in the levels of psychological well-being and distress during one of the most controversial period of human life: adolescence. As adolescence is a period of life during which a lot of changes follow quickly one after another, we conducted a follow-up study in order to explore if results would be stable over time.

## Method

### *Participants*

Participants were 568 adolescents aged from 11 to 18 years (Mean age = 13.68 years, SD = 1.90); 312 were female (54.9%) and 256 were male (45.1%). Adolescents attended both middle schools ( $N = 223$ ; 39.3%) and high schools ( $N = 345$ ; 60.7%). They were recruited through advertisements from various schools in Northern Italy, which volunteered to participate in the study.

### *Measures*

Participants were administered the following rating scales in their schools.

*Psychological Well-Being Scales* (PWB, Ryff, 1989). This is an 18-item, self-rating scale that covers 6 areas of well-being: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Each scale is made up of three items and its score may range from 0 to 6.

*Symptom Questionnaire* (SQ, Kellner, 1987). This is a 92-item, self-rating scale that yields four scales of distress (anxiety, depression, somatization, and hostility-irritability) and four scales of well-being (relaxation, contentment, physical well-being, and friendliness). Each symptom scale score may range from 0 to 17; each well-being scale may score from 0 to 6. In the present study, SQ well-being subscales were computed to represent the lack of these well-being dimensions, so the higher the score, the higher the distress.

A previous study, not already published, has shown that adolescent PWB mean scores tend to be stable over a 3-month period. Pearson's coefficients ranged from .48 to .77 and were significant for all six scales at  $p \leq .01$ . Test-retest Pearson's coefficients were satisfactory for all SQ scales as well. They ranged from .44 to .61 and were significant for all scales at  $p \leq .01$ .

## Procedure

A 3-month follow-up has been undertaken. At follow-up, 59 subjects were not present. Written, informed consent for collecting and analyzing these data was obtained from students' parents and teachers.

## Results

Descriptive statistics were used to calculate mean scores and standard deviations for all scales. Student *t*-test was used to analyze gender differences in PWB and SQ scores. *t*-test on adolescent PWB scales (Tables 6.1 and 6.2) indicated that there were no significant gender differences between males and females. However, at the first test, females tended to score lower on self-acceptance scale than males (Table 6.1).

Girls reported also higher levels of distress than boys. *t*-Test indicated significant gender differences in all SQ scales, except in friendliness (Table 6.2). On retest, results were very similar (Table 6.2). Females scored significantly higher than males in all SQ scales, except in contentment and friendliness, where females reported better levels compared to males.

**Table 6.1** Gender differences in PWB and SQ scales (test)

Questionnaire	Scales	Females <i>N</i> =312		Males <i>N</i> =256		<i>t</i> <sup>a</sup>
		Mean	SD	Mean	SD	
Psychological well-being scale	Autonomy	12.08	4.00	11.54	3.91	1.62
	Environmental mastery	13.38	3.56	12.96	3.74	1.38
	Personal growth	11.77	3.47	11.84	3.64	0.22
	Positive relations	12.42	4.44	12.43	4.36	0.02
	Purpose in life	12.09	4.50	12.78	4.56	1.81
	Self-acceptance	11.96	3.84	12.56	3.50	1.94*
	Total	73.69	14.77	74.10	15.69	0.32
Symptom questionnaire	Anxiety	4.85	3.82	3.47	2.92	4.86**
	Depression	4.80	3.87	3.19	3.17	5.48**
	Somatization	4.33	3.70	2.91	3.20	4.90**
	Hostility	4.79	4.07	3.56	3.57	3.83**
	Relaxation	2.42	1.83	1.66	1.50	5.44**
	Contentment	1.15	1.67	0.85	1.30	2.41*
	Physical well-being	2.53	1.89	1.90	1.57	4.29**
Friendliness	1.34	1.46	1.48	1.52	1.12	

\* $p \leq .05$ , \*\* $p \leq .01$  <sup>a</sup>Degrees of freedom: For Psychological Well-Being Scales  $df = 566$ ; for Symptom Questionnaire from 563 to 566

**Table 6.2** Gender differences in PWB and SQ scales (retest)

Questionnaire	Scales	Females <i>N</i> =277		Males <i>N</i> =232		<i>t</i> <sup>a</sup>
		Mean	SD	Mean	SD	
Psychological well-being scale	Autonomy	11.76	4.08	11.48	4.10	0.78
	Environmental mastery	13.28	3.35	12.75	3.63	1.69
	Personal growth	11.98	3.53	11.74	3.70	0.76
	Positive relations	12.18	4.43	12.33	4.20	0.39
	Purpose in life	11.90	4.68	12.61	4.79	1.69
	Self-acceptance	12.22	3.67	12.39	3.68	0.51
	Total	73.32	15.29	73.30	16.99	0.01
	Anxiety	4.37	3.93	3.32	3.33	3.26**
Symptom questionnaire	Depression	4.26	4.09	3.16	3.50	3.26 **
	Somatization	3.87	3.68	2.72	3.56	3.56 **
	Hostility	4.34	4.24	3.50	3.84	2.33 *
	Relaxation	2.19	1.80	1.68	1.50	3.49 **
	Contentment	1.01	1.55	1.04	1.49	0.24
	Physical well-being	2.43	2.00	1.77	1.62	4.13 **
	Friendliness	1.37	1.45	1.66	1.63	2.14 *

\* $p \leq .05$ , \*\* $p \leq .01$  <sup>a</sup>Degrees of freedom: For Psychological Well-Being Scales  $df = 566$ ; for Symptom Questionnaire from 563 to 566

## Discussion

According to recent findings (Galambos, Barker, & Krahn, 2006; Goldbeck, Schmitz, Besier, Herschbach, & Henrich, 2007), differences between boys and girls have been found both in terms of psychological well-being and distress. In this investigation, females tend to report lower levels of psychological well-being (except in environmental mastery) and higher levels of distress than males. Particularly, girls display an impaired self-acceptance and higher levels of anxiety and depression compared to boys. This is in line with the findings of Galambos et al. (2006), which showed impaired levels of self-esteem, more depression and more anger in a sample of Canadian young girls compared to boys. Girls also report in our study, as well as in Goldbeck et al. (2007), a generally impaired sense of well-being and life satisfaction compared to boys. These gender differences could be due to the fact that females tend to have more negative cognitive styles than males (Boggiano & Barret, 1991; Hankin & Abramson, 2001) even if data on this issue are still controversial and need further investigations (Nolen-Hoeksema, Girgus, & Seligman, 1992; Abel, 2001). In the present study, girls show, in fact, similar scores compared to boys in PWB scales such as environmental mastery, autonomy, and positive relations. These aspects may constitute important strengths or resources for adolescent girls which may act as protective factors against stress and future adversities and reduce their greater risk of experiencing depression.

These findings are not completely in line with studies using PWB scales on Italian adults and aging population (Steca et al., 2002; Ruini et al., 2003a, 2003b), where females reported significant lower levels in all PWB scales compared to males except positive relations. In fact, differences between boys and girls in PWB scales are not statistically significant in the present investigation, although females report higher levels of distress than males also during adolescence. These results suggest that adolescence is a period of the life with peculiar characteristics in boys and girls, and further investigations are needed.

The present study has several limitations: a naturalistic design, a small and self-selected sample, and the absence of observed-rated instruments. Further, in this study, we have not taken into consideration the personality factors which can account for individual differences in experiencing well-being and negative emotions (Hand, Archer, Handel, & Forbey, 2007; Hendriks, Kuyper, Offringa, & Van der Werf, 2008). However, it underlines the importance of studying psychological well-being in adolescents as a route to identify protective resources that may moderate the risks of developing future distress in young generations. The findings, in fact, provide new insight concerning psychological well-being and its relationship to distress during adolescence.

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