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Differences in happiness and coping with stress in Secondary Education students

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Abstract

The objective of this study was to describe the coping strategies adopted by adolescents in different situations of stress that occur in their daily-to-day lives, and their perception of happiness. To go about this, first- and four-year students of Spanish compulsory Secondary Education (ESO in Spanish), who went to different Secondary Schools, were evaluated. The study sample was formed by 1,402 students (711 males and 691 females) aged 11-18 years.

The results showed differences for gender and year of studies in the strategies they adopted to cope with stress. Happiness reduced as age increased. The coping strategies that address others and unproductive coping strategies influenced happiness, while productive coping strategies did not.

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1. Introduction

Coping and its strategies are becoming increasingly important in the psychology field. Knowing how people cope with problems, and the factors that determine handling and using such strategies, are themes that are growing and extending, and have reached the fields of childhood and adolescence (Frydenberg & Lewis, 1996; Lazarus & Folkman, 1986).

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Research into coping lies in the idea of believing that the actions we perform to cope with stress and the strategies that we adopt to handle it can determine the learning process, a subject's development and also his/her quality of life (Delahaij & van Dam, 2016). From this perspective, on the one hand, coping is considered a part of the psychosocial competence, which includes the behavioural, cognitive and emotional strategies employed by a subject to cope with life's demands (Frydenberg & Lewis, 1997).

On the other hand, happiness is widely sought by humans, and in many different ways. More specifically, we can talk about subjective happiness (Lyubomirsky & Lepper, 1999), and in such a way that some people consider they are happy despite the tragic situation they find themselves in or even if they are not lucky with love and health. However, there are others who consider they are unhappy despite all the advantages and conveniences that their lives offer.

Lately studies into subjective happiness have increased in number (Ortiz, Gancendo & Reyna, 2013; Vera-Villaroel, Celis-Atenas & Córdoba-Rubio, 2011), and it can be stated that happiness and well-being tend to be associated with physical and mental health, and also with creativity, which are factors that protect against depression and suicide (Moyano & Ramos, 2007). Within the subjective well-being construct, being satisfied with life begins as a cognitive component (Diener, 1984), and helps people make an overall evaluation of their life and examine aspects of their life by subjective judgements (Pavot, Diener, Colvin & Sandvik, 1991).

The purpose of this research was to analyse the relation between coping styles/strategies and the level of subjective happiness in adolescent first- and fourth-year Secondary Education (ESO) students, and the differences in coping between these two groups.

2. Methods

2.1. Structure

Our study sample was formed by 1,402 first- and fourth-year Secondary Education students: 711 males (50.71%) and 691 females (49.29%), who voluntarily participated. Their age ranged was 11-18 years, with a mean age of 13.77 years ($SD = 1.718$). The majority groups were aged 12 and 15 years, and were the reference ages of these students (Table 1). All their parents or legal guardians signed an informed consent and the ethical considerations of the Declaration of Helsinki were observed.

Table 1. Study sample distributed according to age (n=1,402)

Year 1 (n=760)			Year 4 (n=642)		
Age	Frequency	Percentage	Age	Frequency	Percentage
11	5	0.4%	15	411	29.3%
12	549	39.2%	16	143	10.2%
13	175	12.5%	17	85	6.1%
14	31	2.2%	18	3	0.2%

2.2. Instruments

Adolescent Coping Scale (ACS) (Frydenberg & Lewis, 1996) is an 80-item questionnaire, 79 of which are of a close 5-point Likert-type (it never happens to me or I never do it; it rarely happens to me or I rarely do that; it sometimes happens to me or I sometimes do it; it often happens to me or I often do it; it very often happens to me or I very often do it), and a final open item used to evaluate 18 coping strategies. In this study, this scale shows high internal consistency with Cronbach's alpha of .78.

Subjective Happiness Scale (SHS) (Lyubomirsky & Lepper, 1999) is an overall measure of subjective happiness that evaluates a well-being as an overall psychological phenomenon by considering the definition of happiness from the perspective of someone who answers it. It consists in four items with Likert-type responses, and is corrected by the summation of the points scored, divided by the total item number. In our study, this scale shows high internal consistency with Cronbach's alpha of .82.

2.3. Procedure

The participants had 30 minutes to complete the above-described questionnaires. In all cases they were reminded that the collected information would remain anonymous and confidential. The data collected in the present study were obtained in April and May 2015.

Data were statistically analysed with the statistical software SPSS 22.0. A descriptive analysis was done for each variable. In all cases work was done at the lowest significance level possible and those differences with a $p < 0.05$ were considered significant. Contrasts were considered bilaterally. Finally, predictor equations were established according to happiness by logistic regression by following the forward stepwise regression procedure based on Wald statistics.

3. Results

Tables 2 and 3 provide the results obtained by the participants in the present research. First of all, the percentage of use of the various strategies adopted by the female and male students is indicated, along with the mean and standard deviation that correspond to each coping scale. The means for age and gender were compared.

The results indicated how the strategies most widely used by the participants (physical distraction, seeking relaxing diversions, work hard and be successful, focus on the positive) were related with productive coping, whereas those they used less corresponded to unproductive coping (reduce stress, not cope, ignore the problem). Age was seen to influence a different use for almost all the coping strategies (except for social action and keep to oneself). Regarding gender, unproductive coping strategies were used differently (ignore, reduce stress or keep to oneself) and strategies that address others were also used (social support, social action and seek professional help). No differences were found for the productive coping strategies adopted. In subjective happiness, the age variable intervened ($F=93.474$; $p=.000$), but the gender variable did not ($F=.013$; $p=.908$).

Table 2. Descriptive statistics by gender (Use of strategies: 1: not used 2: rarely used 3: sometimes used 4: often used 5: very often used)

Strategies to cope with stress	Males (as a %)					Females (as a %)				
	1	2	3	4	5	1	2	3	4	5
Seek social support	4.63	12.86	40.48	37.39	4.63	0.63	12.68	35.52	44.19	6.98
Concentrate on solving the problem	1.03	9.26	36.88	43.22	7.2	1.27	8.88	41.23	41.65	6.98
Work hard and be successful	0.51	7.55	26.93	49.57	14.92	0	8.25	27.27	54.33	10.15
Worry	0.51	6.17	37.39	43.4	12.52	0.63	3.81	30.44	56.45	8.67
Invest in close friends	3.6	16.3	42.88	29.5	7.72	1.9	15.86	44.4	30.87	6.98
Want to belong	0	8.06	38.42	43.74	7.2	0.63	4.44	39.96	49.89	5.07
Build up hopes	3.09	19.38	50.26	26.24	1.03	0.63	21.56	48.84	27.7	1.27
Not cope	25.56	53.86	18.52	1.03	1.03	20.93	55.6	19.66	3.17	0
Reduce stress	43.57	46.14	8.23	2.06	0	30.23	51.37	11.42	6.34	0
Social action	16.3	62.78	16.47	4.46	0	26	61.95	9.51	2.54	0
Ignore the problem	18.87	45.11	25.39	9.78	0.86	25.37	47.57	26.43	0.63	0
Self-blame	5.66	30.36	43.4	17.5	3.09	5.07	29.81	45.67	13.74	5.71
Keep it to oneself	2.57	31.05	45.28	18.52	2.57	6.34	38.05	37.84	13.95	3.81
Seek spiritual support	10.46	50.94	27.27	9.26	1.03	8.25	56.87	22.2	12.68	0
Focus on the positive	2.06	8.58	34.31	38.59	14.92	2.54	10.78	29.81	44.82	12.05
Seek professional help	9.09	32.25	33.1	20.41	5.15	10.78	40.59	36.58	8.25	3.81
Seek relaxing diversions	1.03	9.26	14.24	42.54	32.42	0.63	10.78	13.95	48.2	26.43
Physical distraction	1.54	5.49	9.43	33.28	50.26	3.17	19.03	20.08	26	31.71

Table 3. Descriptive statistics, means comparison by gender and age

Strategies to cope with stress	Gender				Age	
	x	d.s.	F	Sig.	F	Sig.
Seek social support	3.34	.872	17.029	.000	7.211	.000
Concentrate on solving the problem	3.46	.804	.778	.378	7.980	.000
Work hard and be successful	3.69	.800	1.506	.220	22.043	.000
Worry	3.65	.763	3.555	.060	2.612	.011
Invest in close friends	3.24	.903	.465	.495	4.932	.000
Want to belong	3.53	.723	.386	.534	12.055	.000
Build up hopes	3.05	.771	1.112	.292	18.647	.000
Not cope	2.01	.746	2.631	.105	7.976	.000
Reduce stress	1.80	.769	37.110	.000	11.617	.000
Social action	2.00	.695	31.639	.000	1.732	.097
Ignore the problem	2.17	.849	35.404	.000	4.947	.000
Self-blame	2.83	.905	.582	.446	7.299	.000
Keep it to oneself	2.80	.874	11.849	.001	1.858	.073
Seek spiritual support	2.39	.824	.006	.937	14.203	.000
Focus on the positive	3.55	.926	.437	.509	17.816	.000
Seek professional help	2.69	.993	26.039	.000	13.637	.000
Seek relaxing diversions	3.93	.995	2.145	.143	2.806	.007
Physical distraction	3.98	1.111	114.610	.000	8.813	.000

Finally, multiple regression was carried out (Table 3) to predict the result of the categorical variable, by selecting the factorial scores that corresponded to coping strategies as the predictor variables, and happiness as the criterion variable, to specify the predictive value of the coping strategies on happiness. This analysis is useful for modeling the probability of an event (happiness) which occurs according to other factors (coping strategies), which was one of the objectives of this study.

Table 3 shows the steps followed by the models when explanatory variables were introduced, which proved significant for predicting the probability of happiness. The model created for the dependent variable happiness allowed us to make correct estimates in 92.9% of the cases ($X^2=477.351$, $p<0.001$). The following predictor variables formed part of the equation: worry, want to belong, build up hopes, not cope, reduce stress, social action, self-blame, keep for oneself, seek spiritual help and focus on the positive. The Nagelkerke R^2 statistics estimated a fit value of 0.607 for happiness.

The model components are offered in Table 3. The odds ratio obtained for the happiness variable indicated that: a) the probability of perceiving subjective happiness was 4.942-fold greater among the people who adopted the want to belong strategy; 2.599-fold for those who used the seeking spiritual support strategy; 2.175-fold among the adolescents who used the focus on the positive strategy; and 1.891- and 1.622-fold for those who adopted the social action and build up hopes strategies as the main involved variables; b) variables worry, not cope, reduce stress, self-blame and keep it for oneself influenced less subjective happiness.

Table 4. The binary logistic regression results for probability of happiness.

	B	E.T.	Wald	p	OR	95%CI
Worry	-.827	.190	18.828	.000	.438	.301 - .636
Want to belong	1.598	.232	47.494	.000	4.942	3.137 - 7.784
Build up hopes	.484	.180	7.236	.007	1.622	1.140 - 2.308
Not cope	-1.007	.211	22.670	.000	.365	.241 - .553

Reduce stress	-.445	.158	7.889	.005	.641	.470 - .874
Social action	.637	.238	7.168	.007	1.891	1.186 – 3.016
Self-blame	-1.008	.191	27.840	.000	.365	.251 - .531
Keep for oneself	-.628	.159	15.695	.000	.534	.391 - .728
Seek spiritual support	.955	.186	26.455	.000	2.599	1.806 – 3.739
Focus on the positive	.777	.147	28.028	.000	2.175	1.631 – 2.900

NOTE: *B* = coefficient; *S.E.* = standard error; *p* = probability; *OR* = odds ratio;
95% *IC* = 95% confidence interval

4. Discussion

From the Positive Psychology approach (Seligman & Csikszentmihalyi, 2000), how a variety of different coping resources, styles and specific strategies are important in successfully adapting to stress has been reported (Compas, 1987). Therefore, coping strategies are useful for focusing on the problem, especially when making efforts to face negative emotions linked to stress, and adolescents who resort to the worst strategies are more affected by being badly accepted (Andrei, Mancini, Mazzoni, Russo & Baldaro, 2015).

Our research results are in line with previous studies (Viñas, González, García, Malo & Casas, 2015), and showed how age influenced not only the way different coping strategies were employed, but also the perception of happiness. Happiness reduced the older adolescents were. This could be due to a shift from an optimistic view early in adolescence to a more pessimistic view later in adolescence about failure in adults. Expectations change later in adolescence, and this shift responds to this particular developmental stage (Frydenberg, 1997). In gender terms, male students used more unproductive-type strategies (ignore the problem or keep it to oneself), whereas female students used the seek social support strategy more, which is in line with former research works (Frydenberg & Lewis, 2009). This allowed us to consider gender to be a variable that intervened in coping strategies.

Regarding happiness, the coping strategies related to a coping style that addressed others (want to belong, seek spiritual support, social action) intervened in determining adolescents having a better perception of subjective happiness. However, aspects of unproductive coping style (worry, not cope, reduce stress, self-blame and keep it for oneself) indicated how using strategies less meant more subjective happiness. In line with this, those strategies that belonged to a productive coping style (concentrate on solving the problem, physical distraction, seek relaxing diversions and work hard and be successful) did not intervene in perceiving subjective happiness. This would indicate that adolescents found happiness in strategies linked to groups and those that addressed others, along with avoiding unproductive coping, keeping away from those who could expect a higher level of personal and individual effort (productive coping). This finding agreed with other research works that have explained the importance of individual happiness in groups (Uchida & Oishi, 2016), where social support and coping show a reliable association with well-being in adolescence (Zeidner, Matthews & Shemesh, 2016). This doubtlessly should make us reflect on the role played by schools and how they are educating our young people as they prefer, for their happiness, strategies based on coping styles with the group as opposed to productive coping strategies, which we teach in class, a matter that is related with our students' self-esteem and capacity as people. If the strategy that most determines happiness is Wanting to Belong, then it is a good indicator of this aspect, where we see that our students are happier belonging to a group than solving problems themselves. Far from being a good indicator, this tells us that we face a gregarious belonging phenomenon as opposed to our young people's individual capacities and competences. Our main conclusions fall in line with what Frydenberg and Lewis proposed (2009): that on the one hand, despite the use of group coping strategies, the increased use of productive coping strategies and a decrease in the use of non-productive strategies will increase the well-being of adolescents. The well-being will increase if they use more productive coping strategies and fewer unproductive coping strategies. On the other hand, work should be done with our youths so they feel capable of dealing with their problems themselves rather than seeking support in gregarious movements and leaving this responsibility to others instead of resorting to their own capacity.

Our study has its limitations. Despite the large study sample, the results suggested that although happiness and coping strategies were well related, we examined subjective happiness, which would lead to a positive view of emotional coping for future mid-term achievements, rather than to a positive view of the future in general (Christophe

& Hansenne, 2016) and is, therefore, limited in time. As future research works, and in line with that proposed by Diener, Suh, Lucas and Smith (1999), we should conduct in-depth studies into the interaction between psychological factors and different life events. We should also continue investigating the relation with strategies to cope with stress to different subjective well-being components (subjective happiness, satisfaction with life and affections), and also in programmes that promote the use of productive coping strategies as they increase personal well-being.

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