

# EXPLORATORY STUDY OF RISK-TAKING AND SELF-HARM BEHAVIOURS IN ADOLESCENTS: PREVALENCE, CHARACTERISTICS AND ITS RELATIONSHIP TO ATTACHMENT STYLES

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## Introduction

Injuries and risk-taking behaviours in adolescence are an important public health concern and a major cause of morbidity and mortality in this age group (Steinberg, 2007).

Many types of risk-taking (RT) and self-harm (SH) behaviours typically appear for the first time in adolescence (Vrouva et al., 2010). RT refers to engagement in behaviours that have the potential to be harmful or dangerous. SH involves deliberate infliction of physical harm to one's body. According to Vrouva, Fonagy, Fearon and Roussow (2010), it is important to measure RT and SH simultaneously because they are clinically, empirically, and conceptually associated.

In Adolescence is important the quality of relationships (e.g., family, peers) and safe, supportive environments (e.g., academic context, community), that may provide opportunities to build emotional and social skills, as well as promote health and safety behaviours in this developmental period.

## Objectives

- (1) Analyse the prevalence of risk-taking and self-harm behaviours in community adolescents, controlling the effect of gender and age;
- (2) Examine the link between RT and SH behaviours;
- (3) Investigate the relationship between attachment style and RT and SH behaviours.

## Method

### Participants and Procedure

The sample was composed by 346 adolescents, which 152 are boys (43.9%) and 194 are girls (56.1%) from 7<sup>th</sup> to 12<sup>th</sup> grade (years of education mean = 9.35, SD = 1.51). The mean age was 15.10 (SD = 1.77) years old, ranging from 12 to 18. No gender differences were found concerning age,  $t(346) = -.023, p = .982$ , and years of education  $t(344) = -.598, p = .550$ .

This adolescents sample was collected from public and private schools in the district of Coimbra, Portugal. Ethics approval was granted by the Head Teacher of the school and parents were informed about the goals of the research and gave their consent. Participation was voluntary, anonymous and research ethical principals were attained.

### Measures

**Risk-Taking and Self-Harm Inventory for Adolescents (RTSHIA):** Vrouva et al., 2010; Portuguese version by Xavier, Pinto-Gouveia, & Cunha, 2011) is a self-report measure that assess risk-taking (RT) and self-harm (SH) behaviours in adolescents from community and clinical settings. The 12 RT-related items ranged from mild behaviours (e.g., smoking tobacco, taking chances while doing one's hobbies) to serious RT (e.g., participating in gang violence). The 22 SH-related items are about intentionally behaviours, such as self-mutilation, disordered eating, self-demeaning behaviour, and SH ideation, with or without suicidal intent. The items were on a 4-point scale, referring to frequency of these behaviours in lifelong history. In this study the Cronbach's alpha was .87 for total scale, .80 for RT subscale and .89 for SH subscale.

**Attachment Questionnaire for Children (AQ-C; Sharpe et al., 1998; Portuguese version by Cunha, Pinto-Gouveia, & Xavier, 2011)** is a simplified version of Hazen and Shaver's (1987) attachment measure. This questionnaire is composed by three statements describing characteristic behaviours and affects in relationships. Each description represents one of the three attachment styles (secure, avoidant and ambivalent). Children were instructed to choose the description that applied best to them.

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## Results

### 1. Prevalence of risk-taking (RT) and self-harm (SH) behaviours in community adolescents

Table 1. Prevalence of risk-taking and self-harm behaviours (N = 346)

RT behaviours	Never N (%)	More than once N (%)	Many times N (%)
Taking chances while doing hobbies	144 (41.6)	129 (37.3)	73 (21.1)
Cross the road dangerously	255 (73.7)	82 (23.7)	9 (2.6)
Cheating	141 (40.8)	165 (47.7)	40 (11.6)
Suspend or drop out of school	308 (89)	37 (10.7)	1 (0.3)
Stay out late at night without parents know	294 (85)	48 (13.9)	4 (1.2)
Participate in violence	293 (84.7)	43 (12.4)	10 (2.9)
Sexual risk behaviours	312 (90.2)	30 (8.7)	4 (1.2)
Avoid sexual protective behaviours	289 (83.5)	47 (13.6)	10 (2.9)
Risk of sexual abuse	333 (96.2)	12 (3.5)	1 (0.3)
Alcohol use/abuse	236 (68.2)	90 (26)	20 (5.8)
Drugs use	310 (89.6)	26 (7.5)	10 (2.9)
Smoking tobacco	204 (59)	87 (25.1)	55 (15.9)
<b>SH behaviours</b>			
Cut intentionally the skin	305 (88.2)	37 (10.7)	4 (1.2)
Burn intentionally the skin	315 (91)	26 (7.5)	5 (1.4)
Bitten intentionally yourself	309 (89.3)	35 (10.1)	2 (0.6)
Banged intentionally the head against something	319 (92.2)	24 (6.9)	3 (0.9)
Picking at wounds	296 (85.5)	45 (13)	5 (1.4)
Scratching intentionally the skin	288 (83.2)	52 (15)	6 (1.7)
Rubbed intentionally a sharp object or dripped anything toxic onto your skin	330 (95.4)	14 (4)	2 (0.6)
Injured part of the body intending to hurt yourself	306 (88.4)	39 (11.3)	1 (0.3)
Broken deliberately a bone	336 (97.1)	9 (2.6)	1 (0.3)
Pulling one's hair out	284 (82.1)	54 (15.6)	8 (2.3)
Inhaled deliberately something harmful	319 (92.2)	22 (6.4)	5 (1.4)
Starving oneself	321 (92.8)	23 (6.6)	2 (0.6)
Using laxatives	341 (98.6)	4 (1.2)	1 (0.3)
Eating too much	338 (97.7)	5 (1.4)	3 (0.9)
Staying in a friendship or a relationship with somebody who repeatedly hurt one's feelings	258 (74.6)	77 (22.3)	11 (3.2)
Trying to make oneself suffer by thinking horrible things about oneself	279 (80.6)	59 (17.1)	8 (2.3)
Taking an overdose	322 (93.1)	20 (5.8)	4 (1.2)
Seriously thought about harming a part of the one's body	297 (85.8)	44 (12.7)	5 (1.4)
Seriously thought about suicide	290 (83.8)	47 (13.6)	9 (2.6)
Trying to commit suicide	330 (95.4)	14 (4)	2 (0.6)
SH leading to hospitalization or medical treatment	328 (94.8)	17 (4.9)	1 (0.3)

### 2. Gender differences for risk-taking and self-harm behaviours

Table 2. Means and standard deviations of Risk-Taking and Self-Harm Inventory for Adolescents (RTSHIA) and gender differences

	Total Sample (N = 346)		Boys (n = 152)		Girls (n = 194)		t	p
	M	SD	M	SD	M	SD		
<b>RTSHIA Total</b>	9.04	9.41	9.95	10.68	8.34	8.24	1.538	.125
<b>RT</b>	5.63	5.44	7.11	6.36	4.47	4.26	4.398	.000
<b>SH</b>	3.41	6.16	2.84	6.73	3.86	5.66	-1.539	.125

Note. RTSHIA = Risk-Taking and Self-Harm Inventory for Adolescents; RT = Risk-Taking subscale; SH = Self-Harm subscale.

### 3. Influence of age and years of education in RT and SH behaviours

Table 3. Correlations (two-tailed Pearson's r) between age and years of education and RT and SH behaviours (N = 346)

	RTSHIA Total	RT	SH
Age	.33***	.41***	.14*
Years of education	.20***	.28***	.06

Note. \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001. RTSHIA = Risk-Taking and Self-Harm Inventory for Adolescents; RT = Risk-Taking subscale; SH = Self-Harm subscale.

### 4. Comparative study between attachment styles regarding RT and SH behaviours

In this study we used the categorical choice of attachment style in the AQ-C and we obtained three groups of attachment style, namely secure (n = 244), avoidant insecure (n = 70) and ambivalent insecure (n = 32). We conducted an analysis of variance (ANOVA) to compare these three groups in terms of risk-taking and self-harm behaviours. This analysis yielded significant differences in self-harm (SH) behaviours of securely and avoidantly attached adolescents. There were not significant differences between insecure attachment groups in relation to the variables in study (Table 4).

Table 4. Means, standard deviations and F-values for RTSHIA Total, RT and SH dimensions with attachment styles as grouping variable

	AQ-C						ANOVA (F values)		Post-hoc comparisons
	Secure (n = 244)		Avoidant (n = 70)		Ambivalent (n = 32)		F	p	
RTSHIA Total	8.61	9.64	10.09	9.33	10.09	7.90	.892	.411	ns
RT	5.83	5.85	5.24	4.70	4.97	3.25	.581	.560	ns
SH	2.77	5.93	4.84	6.62	5.13	6.21	4.517	.012	Sec > AvIns

Note. ns = non significant; AQ-C = Attachment Questionnaire for Children; RTSHIA = Risk-Taking and Self-Harm Inventory for Adolescents; RT = Risk-Taking subscale; SH = Self-Harm subscale; Sec = Secure Attachment style; AvIns = Avoidant Insecure.

## Discussion

- \*RT behaviours more prevalent are taking chances while doing one's hobbies, smoking tobacco and cheating.
- \*SH behaviours more frequent are intentionally self-demeaning thoughts and behaviours (e.g., staying in a friendship with somebody who repeatedly hurt one's feelings; trying to make oneself suffer by thinking horrible things about oneself; pulling one's hair out).
- \*Boys showed higher RT behaviours than girls.
- \*In this sample, there is a positive association between age and both behaviours (RT and SH).
- \*There is a positive association between years of education and RT behaviours.
- \*Insecurely attached teenagers reported higher SH behaviours than did securely attached adolescents.

## Conclusions

This study shows the prevalence of RT and SH behaviours in a community sample of adolescents, showing how gender and age can influence the expression of both behaviours. It seems that secure attachment may be protective to the engagement in SH behaviours, strengthening the important role of quality of relationships on psychological adjustment in adolescents.

## References

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