



Strangers, Powerless and Hopeless in their Own Town: Alienation among Adolescents in Times of Recession

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Authors' contributions

This work was carried out in collaboration between all authors. Author GT designed the manuscript. Author MGM supervised the work. Authors IC, CS and PG collaborated in the statistical analysis. Author JCA collaborated in the final revision of the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

The present work aims to make use of a national survey in order to propose an analysis of all the available indicators theoretically associated with the construct of alienation, and then validate a tool enabling not only to estimate alienation and its components in Portuguese adolescents, but also to identify associations regarding other demographic variables present in the survey. Participants were a group of adolescents that answered the Portuguese survey of Health Behaviour in School-aged Children (HBSC). The Portuguese survey included students from grades 6, 8 and 10 within

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the public education system. For this study, only adolescents from the 8th and 10th grades were included in the sample, comprising 3494 students.

The results show a good adequacy of the CFA model. This model has retained 4 scale proposals - Social Isolation, Normlessness, Powerlessness and Meaninglessness, and a full scale – Alienation. The good fit of the data allowed the use of the scale and its sub-scales in the study of alienation among adolescents, enabling researchers to identify demographic correlates and to propose tailored preventive actions because in fact some gender, grade (as a proxy for age) and socio economic status differences are highlighted.

Keywords: Adolescents; alienation; mental health; socio-economic status.

1. INTRODUCTION

Difficulties in relationships with peers have negative consequences that can extend into adulthood. These consequences may be attenuated by feelings for school and adolescents' cognitive skills [1]. Adolescents begin to establish new relationships and expand their peer group. In this phase it is necessary to redefine social relationships, as they become prepared to take on new social roles. When a failure occurs in this process, adolescents can isolate themselves and feelings of loneliness can have a negative effect on their life satisfaction [2].

The concept of alienation has received extensive treatment in the literature of social philosophy, psychology and sociology. While the term alienation is most commonly used to identify the feelings of estrangement or detachment from self, others, or society in general, it has also been used to refer to feelings of loss of self, despair, apathy, loneliness, rootlessness, powerlessness, pessimism, neutralism, disaffection, withdrawal, disengagement, indifference, anxiety, depersonalization, isolation, atomization, and meaninglessness [3].

Bronfenbrenner defined alienation as the feeling of disconnectedness from social settings, to the extent where the individual views his/her relationships in social contexts as no longer tenable. The notion of alienation, within psychology, was at its peak of popularity in the 1960s and 1970s. According to the psychological theory of alienation, which is in line with the existentialist theory of psychological wellbeing, the need to belong is one of the strongest human needs and thwarting the need to belong and find meaning can have devastating consequences for wellbeing itself [4]. The word "alienation" means separation, being excluded, lacking a sense of belonging, meaninglessness, and isolation.

Meaninglessness refers to incomprehensibility and lack of understanding of personal and social events, while isolation signifies the feeling of being excluded by society and groups, the feeling of being abandoned. The alienated person is socially less effective and does not strongly connect to the goals part of the society to which he or she should belong [5].

Seeman was one of the first studies in social psychology that aimed to clarify the traditionally sociological concept of alienation by examining its multidimensionality. He identified five dimensions: Self-estrangement, powerlessness, social isolation, meaninglessness, and normlessness. Subsequently, he added a sixth - cultural estrangement [6].

Social alienation refers to separation, exclusion or isolation. It is associated to people with greater social difficulties or who are not involved in community activities. Sometimes it is described as the shutdown of others or of society in general, isolation, withdrawal and may affect the perception of health in young people [5]. Regarding health it is associated to risks, with correlations between social alienation and anxiety, deviant behaviours, less involvement in school activities, fewer social skills, lower self-esteem and others [5].

Social alienation can be considered a risk factor during adolescence, since it appears related to several physical and psychological health problems [7]. In school, adolescents with feelings of "not belonging" to a peer group are those with fewer friends, a smaller social network and with lower self-esteem. These feelings can promote the development of symptoms of depression and other psychological symptoms [5].

Rayce, Holstein and Kreineiner analyzed the association between alienation towards oneself, towards those closest to oneself, and the outcome symptom load and found a graded and

significant association between alienation and high symptom load. For this analysis, the authors constructed and validated an index of alienation, with data stems from the Danish contribution to the cross-national study Health and Behaviour in School-aged Children (HBSC) [7].

These results indicate the need to continue to investigate social alienation and its consequences on health and well-being in adolescents. However, the lack of tools to assess alienation among adolescents difficults this task.

The present work aims to make use of a national survey in order to propose an analysis of all the available indicators theoretically associated with the construct of alienation, and then validate a tool enabling not only to estimate alienation and its components in Portuguese adolescents, but also to identify associations regarding other demographic variables present in the survey. Participants were a group of adolescents that answered the Portuguese survey of Health Behaviour in School-aged Children (HBSC), using the same or similar questions as Rayce, Holstein and Kreineiner, used in the Portuguese population, and in depth looking for demographic differences (gender, grade/age and SES- Socio Economic Status) [7].

2. METHODS

2.1 Participants

Participants took part in the Portuguese study that integrates the European study HBSC-Health Behaviour in School-aged Children (www.hbsc.org; www.fmh.utl.pt/aventurasocial; www.aventura-social.com), carried out in Portugal in 2010.

The HBSC study was initiated in 1982 by a team of investigators from Finland, Norway and England, and since 1985/86 it is carried out every 4 years. Throughout the years, the study has grown and nowadays 44 European and Northern American countries participate in it, in collaboration with the World Health Organization [8]. The aim of the study is to achieve a new and expanded understanding of adolescents' health behaviour and health and well-being in their social contexts, through the gathering of data that allow national and international comparisons [8].

The Portuguese study included students from 6th, 8th and 10th grades of the public school system with an average age of 14 years ($SD=1.85$). The national sample consisted of 5050 students from 256 classes from 125 randomly selected Portuguese schools. This sample is representative of the mentioned school grades and was stratified by Administrative Education Regions. Regarding gender distribution: 52.3% were girls, distributed the following way in terms of grade: 30.8% in 6th grade, 31.6% in 8th grade and 37.6% in 10th grade. The response rate was 89.9%. Since the first study conducted in Portugal in 1998 schools are selected through a list of national schools. One tries to keep their involvement in schools since the first study. After information on existing classes, these are chosen randomly, taking into account the years of schooling included in the study.

For this study only adolescents from 8th and 10th grades were considered, comprising a total of 3494 students.

2.2 Procedure

The unity of analysis used in this study was the class. In each school, the classes were randomly selected. The teachers administered the questionnaires in the classroom. Student participation was voluntary and anonymous. The study occurred in January of 2010. This study was approved by the scientific committee, the ethical national committee and the Portuguese data protection authority. The request of consent for the adolescents' parents was sent to all adolescents and participated only those that were authorized by their responsible.

2.3 Measures and variables

The data collection was conducted through the HBSC 2010 Questionnaire [9]. This questionnaire provides information about demographic data, well-being indicators (quality of life related with health, happiness and satisfaction with life) and about the relationship with peers and family, among other variables [9,8].

Description about the variables, their range and basic descriptive statistics can be found in Table 1.

Table 1. Items used

Items		
	Initial items	Items after CFA
Social Isolation	V1 Do you feel lonely?	-
	V2 Talk to father	-
	V3 Talk to mother	-
	V4 Talk to elder brother	-
	V5 Talk to elder sister	V5 Talk to elder sister
	V6 Talk to best friend	V6 Talk to best friend
	V7 Talk to friend same sex	V7 Talk to friend same sex
	V8 Talk to friend opposite sex	V8 Talk to friend opposite sex
	V9 Students accept me	V9 Students accept me
	V10 number of friends	V10 number of friends
	V11 Have one or more special friends	V11 Have one or more special friends
	V12 Evenings with friends	-
	V13 After school with friends	-
	V14 talk with your friends on the phone / mobile phone	V14 talk with your friends on the phone / mobile phone
	V15 Talk with your friends by sms	V15 Talk with your friends by sms
	V16 Is it easy or difficult for you to make new friends?	V16 Is it easy or difficult for you to make new friends?
	V17 your colleagues did not want to be with you at school, and you ended up being alone	V17 your colleagues did not want to be with you at school, and you ended up being alone
Normlessness	V18 Bullied others past 2 months	V18 Bullied others past 2 months
	V19 Times physical fight	V19 Times physical fight
	V20 In the last 30 days, how many days have you been with a gun?	V20 In the last 30 days, how many days have you been with a gun?
	V21 Have you ever been involved in situations of provocation through new technologies	V21 Have you ever been involved in situations of provocation through new technologies
Powerlessness	V22 Life satisfaction	V22 Life satisfaction
	V23 happiness	V23 happiness
	V24 I'm so sad...	V24 I'm so sad...
	V25 When I make plans, I am sure that I can perform them	V25 When I make plans, I am sure that I can perform them
	V26 When I can not do things at first, I insist and keep trying	V26 When I can not do things at first, I insist and keep trying
	V27 When I'm trying to learn something new, if I can not give up easily	V27 When I'm trying to learn something new, if I can not give up easily
	V28 When I'm sad, I usually start doing something to make me feel better	V28 When I'm sad, I usually start doing something to make me feel better
	V29 If something goes not as planned, I can change my behavior to try to achieve my goal	V29 If something goes not as planned, I can change my behavior to try to achieve my goal
	V30 When I have a serious disagreement with someone, I can talk calmly about it without losing control	V30 When I have a serious disagreement with someone, I can talk calmly about it without losing control
	V31 Normally understand my feelings before demonstrating	V31 Normally understand my feelings before demonstrating
	V32 I can resist doing something when I know I do not	V32 I can resist doing something when I know I do not
	Meaninglessness	V33 I think completing high school or vocational training
V34 I go to university or other school of higher education after completing high		V29 I go to university or other school of higher education after completing high
V35 What do you think when you finish high school?		V30 What do you think when you finish high school?

3. RESULTS

With the aims to construct and validate a tool to evaluate alienation in Portuguese adolescents, a confirmatory factor analysis (CFA) was conducted. In this CFA same variables used by Rayce, Holstein and Kreineiner [7] were also included. The variables that do not exist in the Portuguese study were replaced by similar variables. In Table 1 are the initial variables and the variables that remained after CFA.

The results obtained in relation to the adequacy of the CFA model showed that it presented lower levels of adequacy (see Table 2, step 1). However, the analysis of the results obtained in the Langrange Multiplier test (LM test), a test that assesses the need to add new parameters to the model [10], showed that the introduction of some connections between factors would decrease significantly the value of the qui-square. A decision was made to add them and to re-evaluate the model (see Table 2, step 2). After the introduction of these parameters, the results show better levels of the model's adequacy. Finally, the results obtained in the Wald test, which show the non-significant model parameters [10], were analyzed. These showed the existence of some non-significant relations, which were eliminated. The results obtained after the elimination of these parameters are shown in Table 2, step 3.

Table 2 shows that the procedures undertaken have improved the adjustment index of the CFA model. As a conclusion, the adjustment index is acceptable and the model shows a good adequacy.

The standardized solution in the CFA model shows that, in general, the independent factor has a good impact on the dependent factors, ranging from $\beta=.22$ and $\beta=.63$ (Fig. 1.).

The same factors created by Rayce, Holstein and Kreineiner [7] remained: Social Isolation, Normlessness, Powerlessness, Meaninglessness and the general factor Alienation. There was good internal consistency for all five factors, with values ranging between $\alpha = .54$ and $\alpha = .79$ (see Table 3).

The explained variance factors, as well as the residual, for the confirmatory factor analysis model are presented in Table 4. As shown, these values are also appropriate and range from $R^2 = .05$ e $R^2 = .40$.

The correlations between factors range from $-.024$ and $.212$ (See Table 5).

After these analysis, the differences between the alienation subscales for gender, grade and socio-economic status (SES) were observed. Regarding the mean differences using the ANOVA test, the results show that boys have higher means for the following subscales: Alienation Total (M = 59.4, SD = 10.9) (F (1, 1696) = 16.985, $p \leq .001$), Social Isolation (M = 23.9, SD = 5.8) (F (1, 2204) = 47.722, $p \leq .001$), Normlessness (M = 5.6, SD = 2.2) (F (1, 2759) = 184.798, $p \leq .001$) and Meaninglessness (M = 6.3, SD = 3.2) (F (1, 3139) = 58.748, $p \leq .001$). On the other hand, girls have higher means for Powerlessness (M = 25.9, SD = 6.6) (F (1, 3153) = 35.938, $p \leq .001$).

Table 2. Adjustment index

	χ^2 (g.l.)	CFI	NNFI	RMSEA (90% I.C.) ²	SRMR
Step 1	4007.68 (556)	.57	.54	.063 (.061-.065)	.073
Step 2	2871.87 (343)	.67	.64	.061 (.059-.063)	.064
Step 3	1096.58 (335)	.90	.89	.034 (.032-.036)	.045

Table 3. Internal consistency of the scales

Factors	Items	N	M	SD	Cronbach
Alienation total	29	1698	58.2	10.7	.75
Social Isolation	11	2206	22.7	5.6	.65
Normlessness	4	2761	5.1	1.9	.54
Powerlessness	11	3155	25.3	6.6	.79
Meaninglessness	3	3141	5.8	3.1	.61



Fig. 1. Confirmatory factor analysis model

Table 4. Explained Variance

Factor	R ²	Disturbance
Social Isolation	.32	.82
Normlessness	.05	.98
Powerlessness	.40	.77
Meaninglessness	.17	.91

Regarding the variable grade, the adolescents from the 8th grade have higher means for the following subscales: Social Isolation (M = 23.4, SD = 5.9) (F (1, 1696) = 30.517, $p \leq .001$), Normlessness (M = 5.3, SD = 2) (F (1, 2759) = 18.613, $p \leq .001$) and Meaninglessness (M = 6.2, SD = 3.2) (F (1, 3139) = 41.006, $p \leq .001$). Adolescents from the 10th grade have higher means for Powerlessness (M = 25.8, SD = 6.3) (F (1, 3153) = 23.623, $p \leq .001$). Finally, for SES, the adolescents with low SES have higher means for Alienation Total (M = 59.2, SD = 10.8) (F (1, 1392) = 31.491, $p \leq .001$), Social Isolation (M = 22.9, SD = 5.7) (F (1, 1789) = 4.292, $p \leq .05$), Powerlessness (M = 25.5 SD = 6.5) (F (1,

2525) = 21.198, $p \leq .001$) and Meaninglessness (M = 6.2, SD = 3.2) (F (1, 2528) = 92.116, $p \leq .001$), as shown in Table 6.

4. DISCUSSION

The notion of alienation, within psychology, was at its peak of popularity in the 1960s and 1970s. Seeman was one of the first studies in social psychology that aimed to clarify the traditionally sociological concept of alienation by examining its multidimensionality. He identified five dimensions: Self-estrangement, powerlessness, social isolation, meaninglessness, and normlessness. Subsequently, he added a sixth - cultural estrangement [6].

Social alienation can be considered a risk factor during adolescence, since it appears related to several physical and psychological health problems [7]. Feelings of alienation are characterized by an individuals' belief that he/she

Table 5. Correlation among the scales

	Social Isolation	Normlessness	Powerlessness	Meaninglessness
Social Isolation	-	-.024	.159**	.122**
Normlessness	-	-	.115**	.120**
Powerlessness	-	-	-	.212**

** $p < .01$

Table 6. Comparisons between alienation subscales according to gender, grade and SES (ANOVA)

Gender	Boy			Girl			F	p
	N	M	SD	N	M	SD		
Alienation Total	751	59.4	10.9	947	57.2	10.4	16.985	.000
Social Isolation	973	23.6	5.8	1233	21.9	5.3	47.722	.000
Normlessness	1284	5.6	2.2	1477	4.7	1.4	184.798	.000
Powerlessness	1440	24.5	6.5	1715	25.9	6.6	35.938	.000
Meaninglessness	1435	6.3	3.2	1706	5.4	2.9	58.748	.000
Grade	8th grade			10 th grade			F	p
N	M	SD	N	M	SD			
Alienation Total	762	58.5	11.2	936	57.9	10.2	1.375	.241
Social Isolation	966	23.4	5.9	1240	22.1	5.2	30.517	.000
Normlessness	1283	5.3	2	1478	4.9	1.7	18.613	.000
Powerlessness	1414	24.6	6.8	1741	25.8	6.3	23.623	.000
Meaninglessness	1427	6.2	3.2	1714	5.4	2.9	41.006	.000
SES Father	Medium/High			Low			F	p
N	M	SD	N	M	SD			
Alienation Total	595	55.9	9.9	799	59.2	10.8	31.491	.000
Social Isolation	777	22.3	5.4	1014	22.9	5.7	4.292	.038
Normlessness	926	5.1	1.8	1301	5.1	1.8	.100	.752
Powerlessness	1089	24.3	6.4	1438	25.5	6.5	21.198	.000
Meaninglessness	1078	5.0	2.6	1452	6.2	3.2	92.116	.000

is different from others. In this state the individual experiences low self-esteem and aspires to become another person, which can lead to psychological problems. During adolescence, individuals have a strong desire for peer relationships and to be accepted by peers. Alienation can affect emotional health, self-esteem and self-image, which leads to psychological symptoms. At school, alienated adolescents who experience a sense of not belonging often have fewer friends, smaller social networks and may exhibit low self-esteem [11].

Rayce, Holsein and Kreineiner [7] used the Danish data of the cross-national HBSC study. The aim of the present study was to investigate the same questions that was also used in the Portuguese HBSC study, for the proposal of an alienation index that can help to understand alienation in Portuguese adolescents and its components, and furthermore allow to identify its variation with gender, grade (as a proxy to age) and SES. This understanding is important in order to better propose tailored actions that may help to prevent alienation in Portuguese adolescents. Such actions are especially important in recession times where adolescents' wellbeing and sense of purpose seems to fade with devastating effects on their wellbeing especially mental health [8].

The results showed the adjustment index of the CFA model and its good adequacy. The model presented 4 scale proposals - Social Isolation, Normlessness, Powerlessness and Meaninglessness, and a full scale - Alienation. The good fit of the data will allow the use of the scale in the analysis of alienation among Portuguese adolescents, enabling the prevention and mediation of a problem that can negatively influence youth. The present version of the alienation tool also demonstrated differences among adolescents in terms of gender, grade and SES. Several studies show the differences between boys and girls regarding their friendships and interpersonal relationships [12-15].

Boys tend to have lower quality friendships [13,15] and perhaps that is why they have the tendency to have higher means in most of the presented subscales and consequently show a higher probability to present social alienation. A similar trend is observed among younger adolescents maybe because they are in a construction phase where interpersonal

relationships tend to stabilize later and can decrease such feelings of social alienation.

Belonging to a lower SES, also appears to influence feelings of social alienation. Low SES can make decrease the availability of activities where it is possible to build interpersonal relationships among adolescents.

These results show the need to tailor actions in order to meet differently the needs of adolescents in terms of:

- 1). Gender - Boys seems to present higher alienation indexes, which means, so far, non-met needs, at least nationally; interestingly girls, while presenting in general a lower alienation, still seem to be more powerlessness, suggesting that gender equity is not totally fulfilled, at least nationally;
- 2). Age (by the proxy "school grade") - During mid adolescence younger adolescents from 8th grade (mean age 14) seems to present higher alienation indexes,; interestingly the older ones (10th grade, mean age 16), while presenting in general a lower alienation, still seem to be more powerlessness, suggesting that at least nationally, there is a developmental path way from general alienation to conformity to a powerlessness acceptance.
- 3). Socio Economic Status- More economically deprived adolescents presented, as expected higher levels in all components of alienation. Association of social alienation with economic deprivation makes this a central feature, especially in times of recession [8].

5. CONCLUSION

In sum the study of Social alienation and its components among Portuguese adolescents, allowed to go one step further in the identification of demographic characteristics that seem to define (demographic) risk groups that have to be met when designing and implementing preventive actions either in the school, family and /or community contexts [8].

Highlighted as a preventive strategy, the need to empower adolescents and increase their social participation and social engagement in order to prevent social alienation, especially in times of recession [8].

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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