ABSTRACT

The aim of this study was to analyze relationships between stressful life events and perceived well-being of immigrant adolescents. The KIDSCREEN-52 and the Stressful Life Events Inventory (SVE) were filled by 99 adolescents (44 males and 55 females), aged 12-18 in school context. Significant differences were found according to gender on Physical Well-being but not on the other scales of the KIDSCREEN-52. Also, the number of school retentions was associated with the report of lower financial resources and with a higher report of Stressful Live Events (SVE). Moreover, significant and negative correlations were found between SVE and General Quality of Life, Moods, Self-perception, Financial Resources, School environment, and Social Acceptance. The number of years living in the host country was associated with higher scores in Parent Relations and Home Life and with lower scores reported in School Environment. Furthermore, no significant relations were found between KIDSCREEN scales, SVE and immigrant generation, country of origin, family structure, and parents’ educational level. Results highlight which factors may put adolescents at risk for psycho-social adjustment. Implications for the design of intervention programmes are discussed.

Keywords: Immigrants; Adolescents; HRQOL; KIDSCREEN-52, Stressful Life Events.
INTRODUCTION

Nowadays, a combination of financial, political and social crises in undeveloped or developing countries furnishes the background for the increase in the migration of peoples, searching for either safety or better living conditions. Estimates concerning the raise in migratory flows in the last decades vary widely. According to the report of 65th session of General Assembly of the United Nations for International Migration and Development (2010) the number of international migrants was 195 million in 2005 and in 2010 was estimated at 214 million.

Immigration represents a source of social, cultural and economic empowerment for the hosting countries. However, migration flows have an effect on the social structures of the hosting countries (Dias & Gonçalves, 2007). Also, at an individual level, immigration and acculturation involve affective, behavioral and cognitive components, as well as health and economic concerns that change over time (Lansford, Deater-Deckard & Bornstein, 2007).

Due to the various strains immigrants represent a vulnerable group for developing health related problems. Immigrants face multiple challenges in acculturation within a new dominant society: for instance, they must learn to navigate different systems of language, and negotiate new cultures, frequently with disruption of familiar family roles (Landsford et al., 2007). This last issue, in particular, may put immigrant families more at risk for parental conflicts.

Particularly for adolescents, social stressors may be intensified both by demands of the developmental phase itself, and by acculturation issues, working jointly in the increase of changes in the individual's social identity and self-image. This is a complex developmental process that, if does not promote and strengthens identity, can affect the adolescents' health and well-being with repercussions on academic achievement and engagement on risk behaviours (Brindis, Wolfe, Mccarter, Ball, & Starbuck-Morales, 1995). Furthermore, children that experience stressful and negative life events are more at risk for the development of negative outcomes, such as externalizing and internalizing psychopathological problems (Harland, Reijneveld, Brugman, Verloove-Vanhorick, & Verhulst, 2002; Lerner, Walsh, & Howard, 1998; Rutter, 1996; Sandberg & Rutter, 2005).

In Portugal, in what concerns collective health and public politics, there is a increasing interest for the assessment of health related quality of life in adolescents of general population samples, as well as for the design of interventions (Gaspar, Ribeiro, Matos, & Leal, 2008a) and, in a lesser degree, for the impact of these interventions on the adolescents' well-being related behaviors and psychosocial adaptation.

However, in our country, there has been a sparse concern of researchers on developmental psychology and psychopathology concerning immigrant adolescents and their contexts of development (family, school and community). Specifically, the study of health related quality of life of immigrant adolescents must address psychosocial variables that put adolescents at risk for negative developmental outcomes.

The main goal of the present study is to analyse psychosocial factors that may influence the well-being of immigrant children. Moreover, it is our aim to identify negative life events that may be associated with negative psychosocial outcomes and the perception of well-being of the adolescents in our study.

METHOD

Sample

During the period of June through October 2010 the self-report data for the present study were collected. A total of 110 adolescents from five public schools from the Algarve participated in the
study. Although this is a convenience sample, it was our intention to include schools from several geographic areas. Participation was voluntary. Because of substantial missing data, 11 participants were excluded from analysis, resulting in a final sample of 99 adolescents (44 males and 55 females). Students’ ages ranged from 12 to 18 years (M = 15.31, SD = 1.59). A total of 75 students attended elementary schools (Grades 6 to 9), and 25 were in secondary school (Grades 10 to 12). About 55.1% of the adolescents were attending a traditional/regular course whereas 44.9% attended training courses.

In regard to the sample characterization according to length of time living in the country, 32.3% of the children are the first generation living in the country and 67.7% were born in Portugal (i.e., the second-generation immigrant). Fathers had an average of 15.4 years residing in the country, whilst mothers were living in Portugal for 13.4 years in average and adolescents for 9.6 years in average. The children’s country of origin (or their parents’ country of origin) was, respectively, an African Portuguese speaking country (PALOPs) (n=42), Brazil (n=26), Eastern Europe (n=12). The remaining adolescents (n=19) were native or their parents had migrated from other European countries such as England, Germany, and Holland.

Moreover, data collection allowed us to describe our sample according to family characteristics. About 70.7% of the adolescents live with both parents and siblings, whereas 26.3% live in a single parent family. Also, the number of children living in these families ranged from 1 to 5, with an average of 1.9 children in the household. In regard to the parents’ level of education, data collection allow us to observe that 51% of mothers have primary studies, and 35% have secondary or professional qualification studies, and a small percentage of these women with higher education qualifications (4.5%). In regard to fathers’ qualifications, 59 % of fathers have only primary studies, 25.6% have secondary or professional qualifications, and 3.8 have higher education qualifications. Moreover, 9.1% of the mothers and 11.5% of fathers have no basic education.

**Instruments**

The KIDSCREEN-52, the Stressful Life Events Inventory (SLE) and a socio-demographic questionnaire were completed by the adolescents.

The KIDSCREEN-52 (The KIDSCREEN Group, 2004; validated to Portuguese with a sample of 3195 adolescents aged 10 to 18, by the Projecto Aventura Social Team (Gaspar, Matos, Ribeiro, Leal, Ferreira, Tomé, Erhart, & Ravens-Sieberer, 2008b) is a self-report measure aimed for the evaluation of health related quality of life in children and adolescents, aged between 8 and 18. The instrument was developed in the scope of the Project “Screening and Promotion for Health-related Quality of Life in Children and Adolescents – An European Public Health Perspective”, conducted in several European countries as the first trans-cultural instrument for the assessment of health related quality of life (Ravens-Sieberer, Schmidt, Gosch, Erhart, Petersen, & Bullinger, 2007; Ravens-Sieberer, 2008). The KIDSCREEN-52 consists of 52 items that comprises 10 scales – Health and Physical Activity (5 items), Feelings (6 items), Mood (7 items), Self-perception (5 items), Autonomy (5 items), Relations with parents and family life (6 items), Financial Resources (3 items), Social support and support from peers (6 items), Social Acceptance (Bullying-rejection) (6 items), and School Environment: (3 items), aimed at describing health related quality of life. Furthermore, the KIDS-52 comprises a General Health Related Quality of Life measure (HRQOL). Health-Related Quality of Life is a construct that embraces components of well-being and physical, emotional, mental and behavioural functioning as perceived by oneself (child or adolescent) and by others (parents) which reports feelings of happiness, fitness and of satisfaction with regard to family life, peers, and school life. The Portuguese version of the KIDSCREEN-52 has shown satisfactory internal consistency, with a global Cronbach alpha of .82, ranging between .60 in Self-perception and 0.88 in “Financial issues”).
STRESSFUL LIFE EVENTS AND PERCEIVED WELL-BEING IN IMMIGRANT ADOLESCENTS FROM PORTUGAL

Stressful Life Events Inventory (SVE). A short version of the Stressful Life Events Inventory (SVE) (Inventario de Acontecimientos Vitales Estresantes, Oliva, Jiménez, Parra, & Sánchez-Queijiga, 2008), consisting in a list of 25 negative events, concerning self or significant others, likely to be experienced by the adolescent in family, peer or school related contexts (e.g., parental divorce, death of a family member, etc.). Participants should report stressful events experienced in the last 5 years, scoring “1” if the specific event had occurred and “0” if the event had not occurred. A scale total score is composed by the sum of all negative events experienced. The Spanish version of this scale has indicated good reliability and validity (Oliva et al., 2008). Cronbach’s alpha for our sample was 0.715 for the “number of events experienced” scale.

Socio-demographic information was gathered through a questionnaire designed for collecting the following data: adolescents’ age and gender, educational level, family structure and dimension, parents’ work status and qualifications, country of origin, and length of time living in Portugal.

Procedure
School boards were contacted and agreed to participate. Informed consent of parents was required through a letter sent home by the children. Participation was voluntary and no compensation was offered. Instruments were filled in classroom context and one investigator was present in order to answer any questions concerning the questionnaires’ content.

RESULTS
Results of independent samples t test procedures (Table 1) suggest significant differences in the mean values of the scores obtained in the KIDSCREEN-52 scale according to the participants’ age and gender. As shown on Table 1 significant differences were found by gender on Health and Physical Activity but not on the other scales of the KIDSCREEN-52, boys reporting significantly higher well-being and engagement in physical activities, when compared to girls.

Table 1. Differences in the KIDSCREEN-52 scales by Gender

<table>
<thead>
<tr>
<th></th>
<th>Boys (44)</th>
<th></th>
<th>Girls (55)</th>
<th></th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>DP</td>
<td>M</td>
<td>DP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health and Physical Activity</td>
<td>4.01</td>
<td>.67</td>
<td>3.45</td>
<td>.84</td>
<td>-3.695</td>
<td>.000***</td>
</tr>
<tr>
<td>Feelings</td>
<td>4.04</td>
<td>.59</td>
<td>3.77</td>
<td>.81</td>
<td>-1.881</td>
<td>.063</td>
</tr>
<tr>
<td>Mood</td>
<td>4.01</td>
<td>.83</td>
<td>3.71</td>
<td>.81</td>
<td>-1.829</td>
<td>.071</td>
</tr>
<tr>
<td>Self-perception</td>
<td>3.90</td>
<td>.60</td>
<td>3.70</td>
<td>.79</td>
<td>-1.385</td>
<td>.169</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.92</td>
<td>.84</td>
<td>3.66</td>
<td>.84</td>
<td>-1.536</td>
<td>.128</td>
</tr>
<tr>
<td>Relations with parents &amp; family</td>
<td>4.06</td>
<td>.84</td>
<td>3.76</td>
<td>1.10</td>
<td>-1.494</td>
<td>.138</td>
</tr>
<tr>
<td>Financial Resources</td>
<td>3.87</td>
<td>.82</td>
<td>3.68</td>
<td>1.08</td>
<td>-.975</td>
<td>.332</td>
</tr>
<tr>
<td>Social support &amp; support from peers</td>
<td>3.94</td>
<td>.83</td>
<td>3.86</td>
<td>.80</td>
<td>-.477</td>
<td>.635</td>
</tr>
<tr>
<td>School Environment</td>
<td>3.50</td>
<td>.66</td>
<td>3.59</td>
<td>.71</td>
<td>.658</td>
<td>.512</td>
</tr>
<tr>
<td>Social Acceptance</td>
<td>4.18</td>
<td>.88</td>
<td>4.43</td>
<td>.67</td>
<td>1.545</td>
<td>.126</td>
</tr>
<tr>
<td>HRQOL-Total</td>
<td>3.94</td>
<td>.44</td>
<td>3.76</td>
<td>.60</td>
<td>-1.688</td>
<td>.095</td>
</tr>
</tbody>
</table>

***p < .001, t test for independent samples
Secondly, it was our aim to analyze if the adolescents’ perception of health related quality of life assessed by the KIDSCREEN-52 was associated with age. Results of the Spearman non parametric correlation analyses indicate that Age was significantly and negatively associated with the Health and Physical Activity Scale ($r=-0.303; p=0.002$) and with the Mood Scale ($r=-0.237; p=0.018$) but no significant associations were found between the dimensions Feelings ($r=-0.078; p=0.444$), Self-perception ($r=0.041; p=0.688$), Autonomy ($r=-0.017; p=0.866$), Relations with parents and family life ($r=-0.060; p=0.555$), Financial Resources ($r=-0.090; p=0.377$), Social support and Support from Peers ($r=-0.134; p=0.187$), School Environment ($r=0.001; p=0.990$), Social Acceptance ($r=-0.073; p=0.470$), and with the global measure of HRQOL ($r=-0.158; p=0.118$).

Also, in order to observe if the number of school retentions was associated with the dimensions measured by the KIDSCREEN-52, Spearman correlation analyses were performed. The results suggest that the perception by the immigrant adolescents of lower financial resources was moderately but significantly associated with a higher number of school retentions ($r=-0.207, p=0.040$).

The number of years living in the host country is significantly and positively associated with higher scores in Parent Relations and Home Life ($r=0.230; p=0.022$) and lower scores reported in School Environment ($r=-0.259; p=0.010$). Furthermore, as can indicated on Table 2, no differences were found between groups of adolescents considered according to the immigrant generation.

Also, results on Kruskal-Wallis suggests no significant differences between groups categorized according to country of origin ($H(3)=0.173; p=0.982$), family structure ($H(3)=0.955; p=0.620$), fathers’ educational level ($H (3)=1.171; p=0.760$), and mothers’ educational level ($H (3)=0.766; p=0.857$) on the total HRQOL/KIDSCREEN-52.

Table 2. Differences in the KIDSCREEN-52 scales according to immigrant generation

<table>
<thead>
<tr>
<th></th>
<th>First generation (n = 67)</th>
<th>Second generation (n = 32)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Physical Activity</td>
<td>3.76 .73</td>
<td>3.48 .96</td>
<td>1.031</td>
<td>.305</td>
</tr>
<tr>
<td>Feelings</td>
<td>3.90 .68</td>
<td>3.86 .84</td>
<td>.212</td>
<td>.833</td>
</tr>
<tr>
<td>Mood</td>
<td>3.90 .76</td>
<td>3.72 .95</td>
<td>.945</td>
<td>.349</td>
</tr>
<tr>
<td>Self-perception</td>
<td>3.73 .65</td>
<td>3.89 .83</td>
<td>-.937</td>
<td>.353</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.82 .86</td>
<td>3.69 .82</td>
<td>.744</td>
<td>.459</td>
</tr>
<tr>
<td>Relations with parents &amp; family</td>
<td>3.82 1.04</td>
<td>4.05 .88</td>
<td>-1.159</td>
<td>.250</td>
</tr>
<tr>
<td>Financial Resources</td>
<td>3.85 .92</td>
<td>3.58 1.07</td>
<td>1.212</td>
<td>.231</td>
</tr>
<tr>
<td>Social support &amp; support from peers</td>
<td>3.90 .84</td>
<td>3.88 .76</td>
<td>.134</td>
<td>.893</td>
</tr>
<tr>
<td>School Environment</td>
<td>3.65 .63</td>
<td>3.35 .76</td>
<td>1.915</td>
<td>.061</td>
</tr>
<tr>
<td>Social Acceptance</td>
<td>4.33 .71</td>
<td>4.30 .91</td>
<td>.144</td>
<td>.886</td>
</tr>
<tr>
<td>HRQOL-Total</td>
<td>3.87 .53</td>
<td>3.79 .57</td>
<td>.630</td>
<td>.531</td>
</tr>
</tbody>
</table>
In figure 1 we can observe the number of stressful events (LVE) experienced by participants in the present study. The most reported stressful event in the last five years were the death of a family member (43%); house or school change (42%); School retention (36%); disease of a family member and /or financial difficulties (33%) and problems with peers (30%). Also relevant is the report of changes in the family composition along with a report of conflicts between parents (27%).

To analyze possible relations between the number of stressful life events reported by the immigrant children and the individual variables gender, age, numbers of school retentions, inferencial and correlational statistical analysis were performed. Results of the comparative mean scores on SVE reported by the two groups indicated no statistically relevant differences between boys (M= 3.50; SD=3.37) and girls (M= 4.16; SD=2.36) on the number of Stressful events (t(97)=1.152; p=0.059).

Moreover, significant and negative correlations were found between SVE and the General Quality of Life Related to Health (r=-0.250, p=0.013), Mood (r=-0.333, p=0.001), Self-perception, (r= -0.241, p=0.016), Financial Resources (r=-0.242, p=0.016), School environment (r= -0.216;p= 0.032) and Social Acceptance (r=-0.228, p=0.023).

In order to observe possible differences on SVE scores according to the variables immigrant generation, country of origin, family structure and parents’ educational level, inferential statistical analyses were performed (ANOVA’s and Student t-tests).

Firstly, results of Independent samples t-test according to the groups first-immigrant and second-immigrant generation, although not statistically significant, suggest that the second - immigrant generation adolescents (M=4.40; SD=3.39) are more prone to be exposed to stressful life events than the first - immigrant generation group (M=3.61; SD=2.55) (t (97)=1.177; p=0.56).

In what concerns the parents’ educational level, due to the small group sizes, we considered two types of groups – children whose parents had no more than the primary school level and parents with secondary studies or above. The results obtained suggested no statistically significant diffe-
rences in the report of SVE between the groups, categorized in relation to the fathers’ educational level \((t(76) =1.215; p=0.228)\) and the mothers’ educational level \((t(86) =1.408; p=0.163)\).

Because only three participants were living in a family of grandparents or other relatives, an independent t-test was conducted in order to compare adolescents living with both parents with the adolescents living in a monoparental family. The results obtained suggested no statistically significant differences in the report of SVE between these groups \((t (94) =0.535; p=0.379)\). Furthermore, in order to study possible differences in the report of SVE according to the country of origin a Kruskal-Wallis was performed, indicating no statistically significant differences between the groups \((H (3) =5.420; p=0.143)\) on the number of stressful life events.

**DISCUSSION AND CONCLUSIONS**

Studies conducted on adolescent health and, specifically, on the perception of health related quality of life in the last decade with large samples of children and adolescents suggest that the perception of health is influenced by factors such as gender and age, individual and family characteristics and by the socio-economic status of the child (Gaspar et al., 2008c; 2009; Michel et al., 2009). Significant negative correlations were found between SVE and the General Quality of Life Related to Health, Mood, Self-perception,), Financial Resources, School environment and Social Acceptance.

Boys reported higher levels of energy, fitness and engagement in physical activity, when compared to girls. This result is in accordance with the results found by Gaspar et al. (2008a, 2008b) in the responses to this scale by adolescents of the Portuguese general population. However, no other differences in HRQOL were reported according to gender on the other KIDSCREEN scales in our sample, results that differs from those found by Gaspar et al. (2008a, 2008b) in the Portuguese validation studies.

The assumption of an age related HRQOL status is consistent with psychological theories suggesting that HRQOL decreases specifically with increasing age (Michel et al., 2009). This was not confirmed in the present study for most KIDSCREEN scales. Age was significantly and negatively associated with Health and Physical Activity and with the Mood scale in our sample, but no significant associations were found between age and the other dimensions of the KIDSCREEN-52 or in the global measure of HRQOL. Thus, whereas younger immigrant adolescents report more Health related Physical Activity and higher level in Mood, no differences were found according to age in the dimensions Feelings, Self-perception, Autonomy, Relations with parents and family life, Financial Resources, Social Support, School Environment, and Social Acceptance/ Bullying Rejection.

However, as Michel et al. (2009) pointed out, reports on these instruments according to age and gender vary from country to country. Because in the Portuguese validation studies (Gaspar et al., 2008a, 2008b) age comparisons were performed between the group of children (i.e., participants 10-11 years) and adolescents (participants 12-18 years), and in the our study a group of adolescent was studied (12-18 years), comparisons with results obtained in the present study are not appropriate.

Another result worth mentioning is the association between low financial resources and school retentions. Low financial resources in the family are frequently related to a number of risk factors such as parental neglect, mainly because economic vulnerability may interfere with mental availability and with parental competence (Gordon, Savage, Lahey, Goodman, Jensen, Rubio-Stipec, et al., 2003; Knutson, DeGarmo, & Reid, 2004; Serbin & Karp, 2004). Considering that school retentions are an indicator of the academic involvement of the adolescent, parental competencies may moderate the association between these two variables studied. This issue should be investigated in a future study with an instrument designed to assess academic problems in immigrant adolescents.
Not surprisingly, significant negative correlations were found between the number of stressful live events (SVE) reported and the general HRQOL, Mood, Self-perception, Financial Resources, School environment and Social Acceptance, suggesting that this may be a suitable instrument for measuring the perceived quality of live and well-being in this target-group of adolescents. Moreover, several studies with general population based samples have found that children exposed to continued stressful events are at higher risk for developing a number of negative outcomes such as internalizing and externalizing disorders, academic problems, and interpersonal problems (e.g., Jiménez, Menéndez, & Hidalgo, 2009; Harland et al., 2002; Oliva, Jiménez, & Parra, 2009; Oliva et al., 2008; Sandler & Block, 1979).

The number of years living in the host country is positively associated with higher scores in Parent Relations and Home Life and lower scores reported in School Environment.

In addition to this finding, the second - immigrant generation adolescents seem to be more prone to be exposed to stressful life events than the first - immigrant generation group, results that lead us to suggest that a majority of adolescents that were born in Portugal can be at risk for adaptation problems in school, although they report a positive relation with their parents. In accordance with this result, Phinney and Ong (2007), and Mendoza, Javier & Burgos (2007), based on the strengths of identification with one's own ethnic group and the hosting country's culture, suggest that, in order to promote the psychological well-being of immigrant adolescents is necessary to help them to develop a strong feeling of identification with their ethnic or cultural group of origin and, simultaneously, to promote their involvement with the members of the society that hosts them.

The most reported stressful events by the immigrant adolescents were: death of a family member, house or school change, school retention, disease of a family member and /or financial difficulties and problems with peers. Also relevant, is the report of changes in the family composition (monoparentality, or remarriage of a parent), along with a report of conflicts between parents, factors that are recurrently indicated in the literature as cumulative risk factors for the engagement in a psychopathological or deviant developmental path (Langille, Curtis, Hughes & Murphy, 2003; Rutter, Giller & Hagell, 1998).

Accordingly, as several studies have reported, adolescents exposed to continued stressful live events, such as parental conflict are more at risk for developing psychosocial problems, such as emotional disorders (high levels of anxiety and depression and low self-esteem), conduct disorder, and academic problems (Hetherington & Elmore, 2003; Rutter, et al., 1998; Rutter, 2005; Rutter, 2006; Sandberg et al., 2005).

Some limits and weaknesses of our study need to be considered. One major limitation is the absence of a comparative study with a sample of native adolescents, matched for socio-demographic variables in order to analyze eventual specificities of the immigrant adolescents in what concerns SVE and HRQOL. In addition, the type of sampling and the fact that data collection was limited geographically, does not allow us to generalize the findings. Despite these limitations some implications of the present study can be withdrawn.

First, as several authors have suggested (Berry, 2001; Brindis et al., 1995; Dovidio & Esses, 2001; Gaspar, 2008), health and well-being promotion and intervention in this target group must take in account multiculturalism, and consider that immigrants are more exposed to economic vulnerability, difficulties in adapting to different school contexts and peers, and a higher risk of social exclusion.

Secondly, a positive approach of immigrant adolescents must consider the empowerment of their personal and cultural identity (i.e., a positive sense of belonging to two different cultural streams), the involvement of families and community when interventions are conceived.
REFERENCES


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