

Lorence Lara, Bárbara; Hidalgo García, Ma. Victoria; Dekovic, Maja
Adolescent adjustment in at-risk families: The role of psychosocial stress and parental socialization
Salud Mental, vol. 36, núm. 1, enero-febrero, 2013, pp. 49-57
Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz
Distrito Federal, México

Available in: <http://www.redalyc.org/articulo.oa?id=58225671007>



Salud Mental,
ISSN (Printed Version): 0185-3325
perezrh@imp.edu.mx
Instituto Nacional de Psiquiatría Ramón de la
Fuente Muñiz
México

Adolescent adjustment in at-risk families: The role of psychosocial stress and parental socialization

Bárbara Lorence Lara,¹ Ma. Victoria Hidalgo García,² Maja Dekovic³

Artículo original

SUMMARY

Introduction

The study of factors associated with internalizing and externalizing problems in adolescents living in at-risk families is a subject of recent interest in mental health in Spain. The presence of mental health problems in children and adolescents is too frequent in these families due to their high exposure to a variety of risk factors and the lack of protection factors. However, few studies have examined the contribution of specific factors to each type of mental health problem in adolescents from at-risk Spanish families. This study strives to contribute to knowledge in this field, by analyzing the role of two important dimensions frequently linked to adolescents' adjustment: psychosocial stress and parental socialization. Likewise, this study seeks to identify whether both dimensions predict differently for two types of mental health problems in adolescents from at-risk families.

Methodology

The sample was composed by 134 Spanish adolescents (56 girls and 78 boys) with an average age of 13.52 (SD = 1.57). These adolescents grew up in families who were receiving psychosocial intervention from Social Services in Spain for family preservation reasons. This research is considered to be a cross-sectional descriptive study and the instruments administered allowed the collection of data about mental health problems, psychosocial stress, parental socialization and intervention data by Social Services.

Results

The hierarchical multiple regression models showed that both domains (psychosocial stress and parental socialization) were significantly related to mental health problems, but a different pattern of findings emerged for each type of problem. When co-morbidity between both problems was controlled, psychosocial stress was mainly related to internalizing problems, whereas parental socialization predicted the externalizing ones.

Discussion and conclusions

This study underscores the importance of distinguishing between two types of mental health problems analyzed (internalizing and externalizing) and emphasizes that both, the enhancement in parental socialization as well as the training of adolescents in positive social skills to cope better with stressful life events, should be part of at-risk family programs.

Key words: Risk, family research, adolescent, mental health, Psychological stress, parental socialization.

RESUMEN

Introducción

El estudio de factores asociados con problemas internalizantes y externalizantes en adolescentes que viven en familias en riesgo es objeto de interés reciente en salud mental en España. La presencia de problemas de salud mental en menores y adolescentes es demasiado frecuente en estas familias debido a la alta y variada exposición a factores de riesgo, así como a la falta de elementos de protección que les rodean. Sin embargo, pocos estudios han examinado la contribución que factores específicos hacen a cada tipo de problemas de salud mental en adolescentes de familias españolas en riesgo. Este estudio intenta contribuir al conocimiento en este campo, analizando el papel de dos dimensiones frecuentemente relacionadas con el ajuste adolescente: estrés psicosocial y socialización parental. Asimismo, este estudio trata de identificar si ambas dimensiones predicen de forma diferente los dos tipos (internalizantes y externalizantes) de problemas de salud mental en adolescentes de familias en situación de riesgo.

Metodología

La muestra se compone de 134 adolescentes españoles (56 chicas y 78 chicos) con una media de edad de 13.52 (DT=1.57). Estos adolescentes crecieron en familias que estaban recibiendo una intervención psicosocial por parte de los Servicios Sociales españoles por razones de preservación familiar. El diseño de esta investigación es de carácter transversal y descriptivo. Los instrumentos administrados permitieron recabar datos sobre problemas de salud mental, estrés psicosocial, socialización parental y la intervención recibida por los Servicios Sociales.

Resultados

Los modelos de regresión múltiple jerárquica mostraron que ambos dominios (estrés psicosocial y socialización parental) estuvieron significativamente relacionados con los problemas de salud mental, pero emergió un patrón de resultados diferentes para cada tipo de problemas. Cuando la comorbilidad entre ambos problemas fue controlada, el estrés psicosocial estuvo significativamente relacionado con los

¹ Departamento de Psicología Evolutiva y de la Educación. Universidad de Huelva, España.

² Developmental and Educational Psychology. University of Seville, Spain.

³ Department of Child and Adolescent Studies. University of Utrecht, The Netherlands.

Correspondencia: Bárbara Lorence Lara. Dpto. Psicología Evolutiva y de la Educación, Universidad de Huelva, Campus del Carmen. Avda. Tres de Marzo s/n, 21071 Huelva. Tel. (+34) 959 21-9209 Fax. (+34) 959 21-9201. E-mail: barbara.lorence@dpee.uhu.es

Recibido primera versión: 13 de septiembre de 2011. Segunda versión: 13 de agosto de 2012. Aceptado: 13 de agosto de 2012.

problemas internalizantes, mientras que la socialización parental se asoció con los problemas externalizantes.

Discusión y conclusiones

Este estudio subraya la importancia de distinguir entre los dos problemas de salud mental analizados y hace hincapié en que, tanto la mejora en la socialización de los progenitores como el entrenamiento

de los adolescentes en habilidades sociales positivas que permitan afrontar adecuadamente acontecimientos estresantes, deben ser contenidos fundamentales en los programas de intervención destinados a familias en situación de riesgo psicosocial.

Palabras clave: Riesgo, estudio de familias, adolescentes, salud mental, estrés psicosocial, socialización parental.

INTRODUCTION

Multiple features of the adolescents' environment, such as quality of parenting and the psychosocial stress experienced, have been directly linked to adolescents' risk for maladjustment (e.g.).^{1,2} However, there are no conclusive data for adolescents growing up in at-risk families, because few studies have carefully analyzed the role of parental socialization and psychosocial stress in adolescent development in this type of family. Undoubtedly, the label "at-risk families" can cover a wide variety of family situations. Given the complexity of the processes that lead to family psychosocial risk, the authors concur with Rodrigo et al.³ in defining these families as: "those in which the persons responsible for the care and education of the minor, due to personal and relational circumstances, are neglectful of their parental functions or use them inappropriately, compromising or prejudicing the minor's personal and social development, but without the situation attaining a degree of severity that would justify a foster care order whereby it were considered appropriate to separate the minor from his or her family".

Current risk and protection models recognize family functioning as complex and multilevel.⁴ Research has considered specific family characteristics as risk factors for adolescent development: for example, the importance of economic pressure, truancy, dysfunctional marital relations, complicated life trajectories, psychosocial stress and conflictive parents-children interactions (e.g.).^{5,6} In some theoretical models, psychosocial stress (related to cumulative stressful life events) is considered an important concept to explain the maladjustment. It is emphasized that risk factors have a tendency to reinforce one another. In other words, the risk factors tend to multiply and amplify their impact as the factors accumulate. As the occurrence of risks increases, accompanying stress might weaken the person's coping strategies.^{4,7}

Psychosocial stress has often been studied in at-risk families, especially when the topic of the study is adolescent adjustment. During adolescence, boys and girls in general are more vulnerable to psychosocial stress, but this might be especially true for teenagers living in adverse family circumstances. These adolescents are exposed to a variety of stressful life events, and the lack of resources available in these contexts tends to increase risk for their adjustment.⁸⁻¹⁰ Thus, several studies have found data that show a strong association between accumulation of stressful events in ad-

olescents and internalizing and externalizing problems, in both non at-risk families^{2,11} and at-risk families.^{12,13}

The existence of stressful events in children's lives is very important for adjustment problems. Nevertheless, some boys and girls in even the most adverse negative circumstances develop normally, or may even function at a high level.^{14,15} Child and adolescent well-being is expressed by the complex and multivariate function process emerging from the transaction of intrapersonal and interpersonal factors over time in specific familiar and extra-familiar contexts. There are many factors that act as protective elements from the negative effects caused by stressful circumstances.¹⁶ There is an extensive research tradition exploring how parental socialization constitutes an important protective factor for adolescent development. The influence of parenting practices seems to be particularly relevant during times of stress.¹⁷

Parental socialization has historically been one of the most popular topics in the field of developmental psychology, mainly because of its association with developmental outcomes for children and adolescents (e.g.).¹⁸⁻²¹ Many professionals have expressed a special interest in the study of this dimension during adolescence. This is mainly due to four important reasons: 1) adolescence is a period when many changes take place in the lives of children and their families, thus making children more vulnerable to more stressful psychosocial experiences.²² 2) It is a period when conflicts between parents and adolescents increase. At this stage, adolescents have to renegotiate their position within the family and this is often the main cause of increased family conflicts.²³ 3) During this period, parents tend to change their parental socialization practices. This change is linked both to new needs and interests of boys and girls during this stage, and to parents' own developmental processes.²⁴⁻²⁶ 4) Despite the existence of other, extremely influential development contexts, such as peers, adolescent adjustment is still related to parenting behavior.²⁷

The relevance of parental socialization during adolescence can be analyzed from two perspectives:^{18,19} 1) focusing on categorical parenting styles, or 2) focusing on the traditional parenting dimensions: Acceptance/Involvement (responsiveness, inductive strategies) and Strictness/Imposition (harsh parenting). According to Cumming et al.,¹⁶ the distinct nature of these two dimensions advanced the understanding of the influence of specific parental practices on child adjustment. For this reason, this study has been carried out within the second framework, analyzing parenting dimensions separately.

According to the dimensional perspective, several studies have shown that adolescents who perceive their parents as affectionate, caring and communicative (Acceptance/Involvement) have fewer indicators of internalizing and externalizing problems (e.g.).²⁸⁻³² Various arguments have been given to explain the positive effect of these practices on adjustment in adolescence, which highlight that this pattern of parental behavior creates a favorable family environment that makes adolescents more sensitive and responsive to the influence of family. In the absence of such environment, adolescents are more likely to disregard advice and rules established by parents.^{1,33}

There is no consistent data on whether Acceptance/Involvement practices are more beneficial for externalizing problems than for internalizing ones. Some studies have found that responsiveness behaviors play a more important role in internalizing than externalizing problems,³⁴ but others show that relations between supportive aspects of parenting appear to be stronger for externalizing than for internalizing problems.^{27,31}

The association between problem behavior and Strictness/Imposition is even less clear. This dimension has been measured in different ways; depending on the measures used, the studies have shown different results. The instrument used in this study understands Strictness/Imposition as harsh parenting, including parental practices such as verbal scolding, physical punishment and revoking privileges. Empirical studies have shown that parents who use harsh parenting are linked with high levels of both externalizing problems^{35,36} and internalizing problems.^{9,37} In some studies, the relationship with internalizing problems has been found only in the presence of high levels of harsh parenting.³⁸

Exposure to Strictness/Imposition during adolescence is thought to increase children's risk for adjustment problems during the adolescence period for two reasons: Patterson's theory of coercive family process^{39,40} suggested that negative exchange within the parent-adolescent relationship eventually leads to the teaching, socialization, and acquisition of antisocial and aggressive behaviors. Conversely, those parents who are able to maintain positive relations with their adolescent children facilitate pro-social development,⁴¹ and thus have the potential to reduce, within the peer group, the likelihood of maladaptive behaviors (such as violent aggression). Coercive techniques have also been associated with increases in feelings of humiliation and helplessness.⁴²

Although several studies have indicated the importance of these two parenting dimension for adolescent adjustment, some results revealed that the dimensions can have different meanings depending on the socio-cultural environment analyzed.⁴³ From these data, it could be argued that there is no single type of parenting that is suitable for all adolescents and in every family context. Therefore, it is necessary to explore specific relationships between parental socialization and problem behavior in different families, such as at-

risk families in Spain. There are still several fields that need in-depth study of those adolescents who grow up in these families. According to the available data, at-risk families are characterized by inadequate parenting practices.³ Usually, these families use harsh and punitive parental practices in the relationships with their children.^{3,9,44} Some authors argue that this type of parental behavior pattern is due to family distress suffered by parents in these contexts.⁴⁵⁻⁴⁸

There has been speculation that strict parenting practices are adaptive and beneficial for adolescent wellbeing in specific social contexts; for example, those characterized by unsafe or dangerous neighborhoods.⁴⁹ In an at-risk context, parenting practices based on strictness and coercion could guarantee the safety of the children and adolescents. On this assumption, some studies have shown that low levels of autonomy granting, high parental restriction and punitive parenting are beneficial practices for adolescents living in high-risk communities, when compared with those growing up in low-risk communities, especially concerning the externalization of problems (e.g.).⁵⁰ According to Belsky, Steinberg and Draper,⁵¹ differences between these groups may reflect specific adaptive solutions of the parents to problems posed by the characteristic demands of a particular environment.

In summary, a theoretical review indicates that several authors have assumed an association between parental socialization and psychosocial stress on problem behavior in community families. Few empirical studies, however, have statistically tested these assumptions with at-risk families. To fill this lack of studies, the present study seeks to analyze these associations in at-risk families, by controlling the co-morbidity between internalizing and externalizing problems. Interestingly, both problem behaviors tend to co-occur in such a way that children who are rated high on internalizing problems also tend to be rated high on externalizing problems (e.g.).⁵²⁻⁵⁴ Accordingly, the comparison of the prediction results in controlling or not co-morbidity between mental health problems could be different. Thus, when both behavior problems are analyzed as separate dependent variables, without controlling for the co-variation between the score, there is a risk of repeatedly predicting the common variance rather than independently predicting variance that is unique to each problem domain.⁵⁵

The present study attempts to expand the existing knowledge of the prediction of parental socialization and psychosocial stress in a specific environment: at-risk family contexts that have received psychosocial intervention from Social and Community Services for family preservation, during adolescence. The main aim of this study is to examine the unique effects of psychosocial stress and parental socialization on behavior problem in these adolescents. Moreover, the work examines whether the predictors of problem in this at-risk sample differ for two types of problem behaviors, internalizing and externalizing problems, when co-morbidity between both is controlled or not.

First, based on previous studies, the authors consider both domains –parental socialization and psychosocial stress– to be relevant predictors for adolescent problem behavior in families at-risk. Second, the study hypothesized that the Acceptance/Involvement dimension would predict both types of problem behaviors, whereas harsh parenting, in the present study defined as Strictness/Imposition, would be more important for externalizing than for internalizing problems. Finally, the authors expected that the relations between parental socialization and psychosocial stress, on the one hand, and problem behavior, on the other, would be different if co-morbidity between the two types of problem behavior is controlled.

METHOD

Participants

The sample consisted of 134 adolescents, 56 girls (41.8%) and 78 boys (58.2%) from Seville (Spain), ranging in age from eleven to seventeen ($M=13.52$, $SD=1.57$). These adolescents lived in families who were receiving psychosocial intervention from Sevilla City Social Services in Spain, for family preservation reasons. Family preservation includes all those steps that must be taken to keep a child within his/her family when those responsible for the child's care, health and education, for various reasons, have abandoned their parental roles or make inappropriate use thereof, compromising or damaging the child's social and personal development, but without reaching a point to justify his/her separation from the family.³ The adolescents in this study were experiencing a family situation that required the support of Social Services, and actively participated in any of the specific programs for families at risk carried out by Social Services. Specifically, 47.8% of the parents of these families were participating in a preventive parent education program and 51.7% of the adolescents were participating in social education programs.

A high percentage of these families were single-parent families (44.7%) and the parents were characterized by low-skilled jobs (86.2%), uncertain employment (41.5%) and a low educational level (45.5% elementary education not completed). The families lived in small houses ($M=69.50$ m², $SD=13.35$ m²) and the mean number of children per family was 2.46 ($SD=1.07$).

Procedure

Professionals (psychologists and social workers) from the eleven Social Services districts of the Seville City Hall selected 134 adolescents for this study, based on the following criteria: 1) the family had been referred by Social Services as living in at-risk psychosocial conditions, and 2) some member of the family had received preventive psychosocial intervention from this Social Protection System.

This research is considered as a cross-sectional descriptive study.⁵⁶ The instruments were administered at adolescents' homes or in the classroom where the education program was offered. Adolescents completed a battery of questionnaires in Spanish for 90 minutes. Researchers stayed in the room during this task and then conducted the interview. The evaluation consisted of two parts: first, the adolescents filled out three self-report instruments, and the second part consisted of a personal interview to complete the questionnaire on parental socialization. Parents' data were collected directly from psychologists employed by Social Services.

Measures

Behavioral problems. Participants completed the Youth Self-Report (YSR).⁵⁷ This questionnaire consisted of 112 items that measured eight mental health subscales: withdrawn (e.g., "I would rather be alone than with others"), somatic complaints (e.g., "I feel dizzy or lightheaded"), anxiety and depression (e.g., "I cry a lot"), social problems (e.g., "I'm too dependent on adults"), thought problems (e.g., "I see things that other people think aren't there"), attention problems (e.g., "I feel confused or in a fog"), aggressive behavior (e.g., "I destroy things belonging to others"), and rule-breaking behaviors (e.g., "I steal from places other than home"). The first three subscales, composed of 21 items, were referred to as "internalizing problems", while the last two were referred to as "externalizing problems" and included 32 items. Adolescents selected a response from 0 (not true) to 2 (very true). Cronbach's alphas for this study were $\alpha = .79$ for internalizing problems and $\alpha = .86$ for externalizing problems.

Psychosocial stress. This variable was evaluated by means of a self-report measure designed by Oliva, Jiménez & Parra⁵⁸ consisting of a list of 29 negative events likely to be experienced by adolescents in the family (e.g., "parental divorce"), school (e.g., "important problems with teachers"), peer contexts (e.g., "breaking up with boy/girlfriend") and personal event (e.g., "pregnancy"). Each item was scored "1" if the specific event had occurred and "0" if the event had not occurred in the last five years. When adolescents answered that an event had occurred, they were asked to rate the emotional impact that this event had on their lives from 1 (none) to 10 (very high). A total score of Stressful Life Events was achieved by adding up all negative events experienced. A second score, Emotional Impact, was obtained by the sum of the emotional impact data divided by the sum of stressful life events. The reliability analysis of this sample showed $\alpha = .72$ for Stressful Life Events and $\alpha = .81$ for Emotional Impact.

Parental socialization. Participants were interviewed to complete the "Parental Socialization Scale for Adolescents" (ESPA-29).⁵⁹ In this instrument, the adolescent was asked to assess the socialization styles of both parents in 29 situations representative of everyday family life: thirteen compliance situations (e.g., "a teacher calls mother and tells her that you

are behaving well in class”) and sixteen non-compliance situations (e.g., “you arrive home late”), to assess parental practices from 1=never to 4=always. In each of the thirteen compliance situations, the adolescent had to rate the parenting practices of Affection (“my mother shows affection”) and Indifference (“my mother seems indifferent”). In each of the sixteen non-compliance situations, offspring, the adolescent had to rate the parenting practices on Dialogue (“my mother talks to me”), Detachment (“my mother doesn’t tell me anything”), Verbal Scolding (“my mother scolds me”), Physical Punishment (“my mother spans me”) and Revoking Privileges (“my mother takes something away from me”). This questionnaire consisted of 116 items for each parent and allowed the study to obtain two dimensions of parenting: 1) the Acceptance/Involvement dimension was obtained by averaging the responses on Affection, Dialogue, Indifference, and Detachment (the last two subscales were reversed code); 2) the Strictness/Imposition dimension was calculated by averaging the responses on Verbal Scolding, Physical Punishment, and Revoking Privileges.

This scale was originally validated in Spain with a sample of almost 3000 adolescents⁵⁹ between the ages of ten and eighteen and the questionnaire was recently used in different studies (e.g.).⁶⁰⁻⁶² The reliability analysis showed $\alpha=.96$ for the Acceptance/Involvement and $\alpha=.92$ for the Strictness/Imposition.

Intervention by social services. Social Services professionals provided information about the type of intervention each family obtained. The types of intervention were: Level 1: voluntary education program, without specific intervention by Social Services, 23.9% of participants; Level 2: economic and informative support from Social Services, 20.1% of participants; Level 3: specific family intervention by Social Services to promote their social reintegration, 48.5% of participants; Level 4: an intervention by Social Services because of a threat to the integrity of the children who lived in this context, 7.5% of participants.

Analytic approach

In this study, to identify the predictors of problem behavior in adolescents growing up in at-risk families, hierarchi-

cal linear regression analyses were conducted separately for each behavior problem: internalizing and externalizing problems. Specifically, a hierarchical linear regression analyses was conducted to study the total effect and unique effect of psychosocial stress and parental socialization dimensions on each type of problem behavior. The assumptions of regression analyses (normality of the criterion variable, normal distribution and homoscedasticity of the residuals) were verified in models.

The first set of analyses was conducted without controlling for the co-varying problem behavior domain. The control variables of the regression analyses were the sex and age of the adolescents, and intervention by Social Services, which were entered in the first block. The second block consisted of the intrapersonal dimension, psychosocial stress (i.e., stressful life events and emotional impact). The third block consisted of the interpersonal dimensions related to parental socialization dimensions (i.e. acceptance/involvement and strictness/imposition). In the second set of analyses, to control for co-morbidity, the co-varying problem behavior domain was included in the second block (for example, if internalizing problems were being predicted, externalizing problems would be included in this block).

RESULTS

Descriptive statistics and bivariate associations

Table 1 shows the means, standard deviations, and bivariate correlations among adolescent mental health problems (internalizing problems and externalizing problems), psychosocial stress (stressful life events and emotional impact) and parental socialization (Acceptance/Involvement and Strictness/Imposition).

Inter-correlation between both adolescent behavioral problem domains was significant, indicating that externalizing problems were positively associated with internalizing problems. Regarding the relationships between psychosocial

Table 1. Means, standard deviations, and correlations among mental health problems, psychosocial stress and parental socialization (n=134)

	M	SD	1	2	3	4	5
Mental Health Problems							
1. Internalizing problems	10.77	5.77	1.00				
2. Externalizing problems	15.17	8.60	.28**	1.00			
Psychosocial Stress							
3. Stressful life events	8.15	4.08	.15	.20*	1.00		
4. Emotional impact	4.94	2.05	.28**	.12	.27**	1.00	
Parental Socialization							
5. Acceptance/involvement	2.93	0.63	-.17	-.31**	.01	.04	1.00
6. Strictness/imposition	2.00	0.05	.02	-.22*	.10	.10	.34***

*p < .05; **p < .01; ***p < .001.

stress and behavioral problems, two correlations were significant. A higher level of stressful life events was linked with a higher level of externalizing problems, while a higher level of emotional impact was associated with a higher level of internalizing problems. Bivariate correlations between parenting behavior dimensions and adolescent outcomes indicated that acceptance/involvement and strictness/imposition were negatively associated with externalizing problems, but not with internalizing problems. Dimensions of socialization practices were positively interrelated, but both dimensions were unrelated to psychosocial stress measures.

Predicting adolescent adjustment in at-risk families

The results of hierarchical multiple regression models are presented in table 2. First, the effects of parenting behaviors and psychosocial stress on adolescent adjustment were examined, without controlling the co-varying adjustment problems domain (Model 1). The results indicate that the internalizing problems domain explained 14% of the variance, whereas the percentage of the variance for the externalizing problems domain was 11%.

For internalizing problems, psychological stress accounted for 7% of the variance after being controlled for sex, age and familiar intervention by Social Services. In addition, parental socialization additionally predicted 5% of the variance of this variable. Specifically, emotional impact and parental acceptance were significant predictor variables of internalizing problems. Regarding externalizing problems, the analyses indicated that parental socialization explained 12% of the variance with only parental acceptance being the unique significant predictor.

In the second set of analyses (Model 2), the effect of co-varying problem behavior type was controlled to analyze the

specificity of the relationship between psychosocial stress and the parenting dimensions, on the one hand, and each type of behavioral problem, on the other. Models showed that internalizing problems explained 18% of total variance and externalizing problems explained 15% of total variance. When co-occurring psychopathology was included in these models, psychosocial stress and parental socialization explained less of the variance in adolescent outcomes than previously, both for mental health problems. In this analysis, both dimensions (psychosocial stress and parental socialization) explained 9% of internalizing problems and 12% of externalizing problems compared with 12% and 15%, respectively, in previous models.

These results confirmed the importance of emotional impact as a significant predictor of internalizing problems. However, parental acceptance ceased to be significant once the co-morbidity was controlled. This suggests a possible lack of unique effects of the parental acceptance on the internalizing problems. For externalizing problems, there was a difference between the first and second model. After controlling for the internalizing problem dimension, both the strictness/imposition and acceptance/involvement dimensions proved to be significant predictors of the externalizing problems. These data showed the specificity of the relation between parental socialization and externalizing problems.

DISCUSSION

The findings of this research were relevant in several ways. First, this study examined the unique effect of parental socialization and psychosocial stress on adolescent problem behavior. Second, the study sample consisted of adolescents growing up in at-risk families, whereas most available research has focused on samples of community adolescents.

Table 2. Summary of hierarchical regression analyses predicting internalizing problems and externalizing problems

	Internalizing problems				Externalizing problems			
	Model 1		Model 2		Model 1		Model 2	
	β	R ² change	β	R ² change	β	R ² change	β	R ² change
Control variables		.08*		.08*		.01		.01
Sex (1=girl; 2=boy)	-.26**		-.26**		.00		.00	
Age	.01		.01		.07		.07	
Intervention by SS	.09		.09		-.00		-.02	
Covarying psychopathology domain		-		.08**		-		.08**
Externalizing or internalizing problems			.28**				.30**	
Psychosocial stress		.07*		.06*		.03		.02
Stressful life events	.01		-.03		.15		.15	
Emotional impact	.27**		.25**		.09		.01	
Parental socialization		.05*		.03		.12**		.10**
Acceptance/involvement	-.24*		-.18		-.28**		-.22*	
Strictness/imposition	.06		.10		-.18		-.20*	

Note. Model 1 = without controlling for co-varying mental health problems; Model 2 = with control for co-morbidity.
*p < .05; **p < .01; ***p < .001.

Third, based on the previous findings suggesting the existence of high co-morbidity between two types of problem behavior,^{52,53} this study controlled for an association between them.

This paper had three aims, the first of which was to discover whether psychosocial stress was a significant predictor of adolescent mental health problems. Current risk models have tested whether cumulative stressful circumstances are associated with adjustment problems during adolescence in at-risk family contexts.^{12,13} These results support previous studies and provide additional specific information about this topic. Although the correlation matrix of this study indicated that the accumulation of stressful life events was associated with externalizing problems, and emotional impact was related with internalizing problems, when all these domains were assessed simultaneously in hierarchical regression models, only the emotional impact of stressful events significantly predicted internalizing problems. In contrast, both aspects of psychosocial stress did not predict externalizing problems in this sample. These results disagree with previous studies focused on at-risk families.^{12,13} They suggest that psychosocial stress has greater impact on internalizing than on externalizing problems. Although these findings require confirmation from future studies, the data from this study suggest that stressful life events with a high emotional impact, such as many boys and girls experience in at-risk families, cause important internalizing problems during adolescence.

The second aim of this research was to examine the unique effect of parental socialization dimensions on adolescent mental health problems in at-risk families. In this regard, results were not completely consistent with previous research that focused on the Acceptance/Involvement dimension. In most previous studies, the parenting dimension concerning responsiveness, acceptance and warmth has been associated with low internalizing problems (e.g.).^{24,31} The results found in this research supported this finding when externalizing problems were not controlled, but this association disappeared when this co-varying psychopathology was controlled. According to Callahan et al.,⁵⁵ this result emphasizes the importance of analyzing the unique effects in this field. Similar findings have been reported by Parra and Oliva,²⁷ who found a weaker association between this parenting dimension and internalizing problems compared with externalizing ones. According to these authors, it is also necessary to consider the influence of other socialization contexts, such as peers, and biological variables on internal maladjustment.

Regarding the Strictness/Imposition dimension, our findings showed that externalizing problems were negatively predicted by harsh and coercive parental practices in the adolescent sample growing up in at-risk contexts. This study supports previous findings in other studies with at-risk samples:⁵⁰ adolescents in at-risk families are exposed to a high occurrence of risk events and this exposure increases the risk for maladjustment. Probably, a high level of strict control and

firm limit setting in these families contribute to a decrease in behavioral problems such as aggression, addiction, etc. According to Belsky et al.,⁵¹ differences between at-risk samples and community samples reflect specific adaptive solutions to problems characteristic of a particular context. The findings from this study showed that parenting characterized by strictness and imposition was not as negative for adolescent adjustment in at-risk families as other studies have found in community family contexts.³⁶ One must remember, however, that this finding does not mean that an extreme level of strict control is favorable for at-risk adolescent adjustment, because, although this sample could be characterized as an at-risk sample, the parents still show a relatively low level of strictness. In other words, this is not a sample of maltreatment families, who use strict control daily. One should be careful in generalizing these results for a larger or different population.

Finally, the third aim was to examine if there are different predictors of internalizing and externalizing problems during adolescence. The findings indicate that psychosocial stress is more important for internalizing problems, whereas parental socialization is more important for externalizing problems. These differences in the role of parental socialization on behavior problems may be explained by the fact that internalizing problems refer to the private dimension influenced by multilevel interactive factors (biological and social) during adolescence.^{27,31} It is also possible that parents do not recognize their adolescents' internalizing problems and fail to react to them, which contrasts with externalizing problems that are more visible and tend to elicit a reaction from the parent. On the other hand, it is also possible that other aspects of socialization, such as the parent's own well-being, might be more important for adolescents' internalizing problems than the parenting dimension assessed in the present study. For example, there is strong scientific evidence that maternal depression is associated with adolescent internalizing problems,⁶³ suggesting that maternal well-being may play an important role in child internalizing symptoms.

In conclusion, this research indicates the importance of parental socialization for externalizing problems of adolescents in at-risk contexts and psychosocial stress for internalizing problems. Previous studies have shown a high prevalence of externalizing and internalizing problems in boys and girls growing up in at-risk families.^{10,64} This study suggests that prevention and/or intervention efforts to help these adolescents should include two components: first, working with parents to enhance their supportive and controlling socialization practices, and second, training adolescents in problem-solving strategies, to adequately address the high number of stressful events they have to confront daily.

Several limitations of this research should be noted. First, data were obtained exclusively from adolescents as the sole source of information. Second, the findings of this study were based on an at-risk sample of adolescents, but at-risk diversity was found in this sample. Third, because of the

cross-sectional nature of these data, the authors cannot conclude that parental socialization is actually a cause of externalizing problems in at-risk samples of adolescents. Future research should include data from multiple sources (parents or teachers), increase the sample size to analyze differences by family risk levels and, finally, obtain data from different moments of the adolescent's life (longitudinal studies).

ACKNOWLEDGMENTS

Funds for this study were provided by Seville Council, the Ministry of Education and Science (SEJ2007-66105) and Regional Ministry of Economy, Innovation and Science, Regional Government of Andalusia (Research fellowship FPDI).

REFERENCES

- Fletcher AC, Steinberg L, Williams-Wheeler M. Parental influences on adolescent problem behaviour: revisiting Stattin and Kerr. *Child Dev* 2004;75(3):781-796.
- Friedman RJ, Chase-Lansdale PL. Chronic adversities. In: Rutter M, Taylor E (eds). *Child and adolescent psychiatry*. Oxford: Blackwell Science; 2002.
- Rodrigo MJ, Máiquez ML, Martín JC, Byrne S. *Preservación familiar: un enfoque positivo para la intervención con familias*. Madrid: Pirámide; 2008.
- Cowan PA, Cowan CP, Schultz M. Thinking about risk and resilience in families. In: Hetherington EM, Blechman EA (eds). *Stress, coping and resiliency in children and families*. Mahwah, New Jersey: Lawrence Erlbaum; 1996.
- Conger RD, Elder GHJ. *Families in troubled times: Adapting to change in rural America*. New York: Aldine De Gruyter; 1994.
- Sameroff AJ, Fiese BH. Transactional regulation: the developmental ecology of early intervention. In: Shonkoff JP, Meisels SJ (eds). *Handbook of early childhood intervention*. Nueva York: Cambridge University Press; 2000.
- Osofsky JD, Thompson MD. Adaptive and maladaptive parenting: perspectives on risk and protective factors. In: Shonkoff JP, Meisels SJ (eds). *Handbook of early childhood intervention*. New York: Cambridge University Press; 2000.
- Lorence B, Jiménez L, Sánchez J. Un análisis de los sucesos vitales estresantes experimentados por adolescentes que crecen en familias usuarias de los Servicios Sociales Comunitarios. *Portularia Revista Trabajo Social* 2009;9(1):115-126.
- McLoyd VC, Jayaratne TE, Ceballos R, Borquez J. Unemployment and work interruption among African American single mothers: Effects on parenting and adolescent socioemotional functioning. *Child Dev* 1994;65:562-589.
- Rodrigo MJ, Máiquez ML, García M, Mendoza R et al. Relaciones padres-hijos y estilos de vida en la adolescencia. *Psicothema* 2004;16(2):203-210.
- Oliva A, Jiménez J, Parra A, Sánchez-Queija I. Acontecimientos vitales estresantes, resiliencia y ajuste adolescente. *Revista Psicopatología Psicología Clínica* 2008;13(1):53-62.
- Costello EJ, Keeler GP, Angold A. Poverty, race/ethnicity and psychiatric disorder: a study of rural children. *American J Public Health* 2001;91:1494-1498.
- Fergusson DM, Horwood LJ, Lynskey MT. The effects of unemployment on psychiatric illness during young adulthood. *Psychological Medicine* 1997;27:371-381.
- Grant KE, Compas BE, Thurm AE, McMahon SD et al. Stressors and child and adolescent psychopathology: Evidence of moderating and mediating effects. *Clinical Psychology Review* 2006;26:257-283.
- Luthar SS. Resilience in development: A synthesis of research across five decades. In: Cicchetti D, Cohen DJ (eds). *Developmental psychopathology: Risk, disorder, and adaptation*. New York: Wiley; 2006.
- Cummings EM, Davies PT, Campbell SB. *Developmental psychopathology and family process: theory, research, and clinical implications*. New York: The Guilford Press; 2000.
- López FG, Brennan KA. Dynamic processes underlying adult attachment organization: toward an attachment theoretical perspective on the healthy and effective self. *J Counseling Psychology* 2000;47(3):283-300.
- Baumrind D. Effective parenting during the early adolescent transition. In: Cowan PA, Hetherington M (eds). *Family transitions*. Hillsdale, New Jersey: Lawrence Erlbaum; 1991a.
- Maccoby EE, Martin JA. Socialization in the context of the family: parent-child interaction. In: Mussen PH (Series ed) & Hetherington EM (ed). *Handbook of child psychology: Vol. 4. Socialization, personality, and social development*. New York: Wiley; 1983.
- Musitu G, Cava MJ. *La familia y la educación*. Barcelona: Octaedro; 2001.
- Steinberg L. We know some things: Parent-adolescent relationships in retrospect and prospect. *J Research Adolescence* 2001;11:1-19.
- Kraemer HC, Kazdin AE, Offord DR, Kessler RC et al. Coming to terms with the terms of risk. *Arch Gen Psychiatry* 1997;54:337-343.
- Laible DJ, Carlo G, Raffaelli M. The differential relations of parent and peer attachment to adolescent adjustment. *J Youth Adolescence* 2000;29(1):45-59.
- Collins WA, Steinberg L. Adolescent development in interpersonal context. In: Damon W, Eisenberg N (eds). *Handbook of child psychology: Vol. 4. Socioemotional processes*. New York: Wiley; 2006.
- Paulson SE, Sputa CL. Patterns of parenting during adolescence: Perceptions of adolescents and parents. *Adolescence* 1996;31:369-381.
- Shek D. Differences between father and mothers in the treatment of, and relationship with, their teenage children: perceptions of Chinese adolescents. *Adolescence* 2000;35:135-147.
- Parra A, Oliva A. Un análisis longitudinal sobre las dimensiones relevantes del estilo parental durante la adolescencia. *Infancia Aprendizaje* 2006;29:453-470.
- Baumrind D. The discipline controversy revisited. *Family Relations* 1996;45(4):405-414.
- Collins WA, Laursen B. Parent-adolescent relationships and influences. In: Lerner RM, Steinberg L (eds). *Handbook of adolescent psychology*. New Jersey: Wiley; 2004.
- Darling N, Steinberg L. Parenting style as context: an integrative model. *Psychol Bull* 1993;113(3):487-498.
- Gray MR, Steinberg L. Unpacking authoritative parenting: Reassessing a multidimensional construct. *J Marriage Family* 1999;61:574-587.
- Steinberg L, Lamborn SD, Darling N, Mounts N et al. Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development* 1994;65:754-770.
- Musitu G, Román JM, Gutiérrez M. *Educación familiar y socialización de los hijos*. Barcelona: Idea Books; 1996.
- Muris P, Meesters C, Van Den Berg S. Internalizing and externalizing problems as correlates of self-reported attachment style and perceived parental rearing in normal adolescents. *J Child Family Studies* 2003;12(2):171-183.
- Patterson GR, DeBaryshe BD, Ramsey E. A developmental perspective on antisocial behavior. *Am Psychol* 1989;44:329-335.
- Prinz P, Onghena P, Hellinckx W, Grietens H et al. Parent and child personality characteristics as predictors of negative discipline and externalizing problem behaviour in children. *European J Personality* 2004;18:73-102.
- Ge X, Best KM, Conger RD, Simons RL. Parenting behaviours and the occurrence and co-occurrence of adolescent depressive symptoms and conduct problems. *Dev Psychol* 1996;32(4):717-731.
- Turner H, Finkelhor D. Corporal punishment as a stressor among youth. *J Marriage Family* 1996;58:155-166.

39. Patterson GR. Coercive family process. Eugene, OR: Castalia; 1982.
40. Patterson GR, Reid JB, Dishion TJ. Antisocial boys. Eugene, OR: Castalia; 1992.
41. Patterson GR. Children who steal. In: Hirschi T, Gottfredson M (eds.). *Understanding crime: Current theory and research*. London: Sage; 1980.
42. Lasky MR. Family genesis of aggression. *Psychiatric Annals* 1983;23:494-499.
43. Chao RK. Extending research on the consequences of parenting style for Chinese Americans and European Americans. *Child Dev* 2001;72:1832-1843.
44. Pinderhughes E, Dodge K, Bates J, Pettit G et al. Discipline responses: Influences of parents' socioeconomic status, ethnicity, beliefs about parenting, stress, and cognitive-emotional processes. *J Family Psychology* 2000;14(3):380-400.
45. Conger RD, Conger KJ, Elder GH, Lorenz FO et al. Family process model of economic hardship and adjustment of early adolescent boys. *Child Dev* 1992;63:526-541.
46. Conger RD, Conger KJ, Elder GH, Lorenz FO et al. Family process model of economic hardship and adjustment of early adolescent girls. *Child Dev* 1993;29:206-219.
47. DeGarmo DS, Forgatch MS, Martínez CR. Parenting of divorced mothers as a link between social status and boys' academic outcomes: Unpacking the effects of socioeconomic status. *Child Dev* 1999;70:1231-1245.
48. Luthar SS. Poverty and children's adjustment. Thousand Oaks, CA: Sage; 1999.
49. Baumrind D. Relation of authoritative upbringing to adolescent outcomes. Paper presented at the biennial meeting of the society for research in child development. Seattle, WA; April; 1991b.
50. Baldwin AL, Baldwin C, Cole RE. Stress-resistant families and stress-resistant children. In: Rolf J, Masten AS, Cicchetti D, Nuechterlein KH, Wintraub S (eds.). *Risk and protective factors in the development of psychopathology*. Cambridge, UK: Cambridge University Press; 1990.
51. Belsky J, Steinberg L, Draper P. Childhood experience, interpersonal development and reproductive strategy: An evolutionary theory of socialization. *Child Dev* 1991;62:647-670.
52. Caron, C, Rutter M. Comorbidity in child psychopathology: concepts, issues and research strategies. *J Child Psychol Psychiatry* 1991;32:1063-1080.
53. Reitz E, Dekovic M, Meijer M. The structure and stability of externalizing and internalizing problem behavior during early adolescence. *J Youth Adolescence* 2005;34(6):577-588.
54. Weiss B, Catron T. Specificity of the comorbidity of aggression and depression in children. *J Abnorm Child Psychol* 1994;22(3):389-401.
55. Callahan KL, Scaramella LV, Laird RD, Sohr-Preston SL. Neighborhood disadvantage as a moderator of the association between harsh parenting and toddler-aged children's internalizing and externalizing problems. *J Family Psychology* 2011;25(1):68-76.
56. Montero I, León OG. A guide for naming research studies in Psychology. *International J Clinical Health Psychology* 2007;7(3):847-862.
57. Achenbach TM. *Manual for the child behavior checklist 4/18 and 1991 profile*. Burlington: University of Vermont, Department of Psychiatry; 1991.
58. Oliva A, Jiménez J, Parra A. Protective effects of supportive family relationships and the influence of stressful life events on adolescent adjustment. *Anxiety Stress Coping* 2009;22(2):137-152.
59. Musitu G, García JF. ESPA29. Escala de Socialización Parental en la Adolescencia. Madrid: TEA Ediciones; 2001.
60. López-Jáuregui A, Elosua P. Adaptation of the ESPA29 parental socialization styles scale to the Basque language: Evidence of validity. *Spanish J Psychology* 2009;12(2):737-745.
61. Martínez I, García JF. Internalization of values and self-esteem among Brazilian teenagers from authoritative, indulgent, authoritarian, and neglectful homes. *Adolescence* 2008;43(169):13-29.
62. Villar P, Luengo MA, Gómez-Fraguela JA, Romero E. Assessment of the validity of parenting constructs using the multitrait-multimethod model. *European J Psychological Assessment* 2006;22:59-68.
63. Weissman NM, Wickramaratne P, Nomura Y, Warner V et al. Offspring of depressed parents: 20 years later. *Am J Psychiatry* 2006;163:1001-1008.
64. McLoyd VC. Socioeconomic disadvantage and child development. *Am Psychol* 1998;53:185-204.

Declaration of conflict of interests: None