The Influence of Discrimination on Immigrant Adolescents' Depressive Symptoms: What Buffers its Detrimental Effects?*

Influencia de la Discriminación en los Síntomas de Depresión en Adolescentes Inmigrantes: ¿Qué Elementos Mitigan sus Efectos Perjudiciales?

Francesca Cristini[1], Luca Scacchi[1], Douglas D. Perkins[2], Massimo Santinello[3], and Alessio Vieno[3]

[1] University of Valle d'Aosta, Italy
[2] Vanderbilt University, USA
[3] University of Padova, Italy

Abstract. The present study examined the link between perceived discrimination, depressive symptoms, cultural identity and social support at school reported by immigrant adolescents. Participants were 214 mostly male, immigrant adolescents in grades 9 through 13 of high schools in two small cities in northern Italy. Results showed that discrimination has a significant detrimental effect on psychological well-being of foreign-born adolescents. Additionally, the current study outlined that the only protective factor for depressive symptoms, among the analyzed variables concerning cultural identity and school social support, was social support from teachers. None of the analyzed moderators buffered the relationship between discrimination and depressive symptoms reported by immigrant adolescents. These results have implications for preventive interventions for immigrant adolescents and suggest a protective role for teachers. Future research should detect strategies to reduce discrimination and prejudice toward immigrant adolescents and detect factors that may buffer detrimental effects of discrimination on psychological well-being.
Keywords: cultural identity, depression, discrimination, immigrants, Italian immigration, late adolescence, social support.

Resumen. El presente estudio examina la relación entre discriminación percibida, síntomas de depresión, identidad cultural y apoyo social percibido en una muestra de 214 estudiantes adolescentes inmigrantes. Todos ellos cursaban estudios entre los grados 9 y 13 en institutos de enseñanza secundaria de dos pequeñas ciudades del norte de Italia. Los resultados confirmaron que la discriminación posee un efecto perjudicial significativo en el bienestar psicológico de los adolescentes nacidos en el extranjero. Además, el presente estudio confirma que el apoyo social por parte de los profesores es un factor protector contra los síntomas de la depresión. En cambio otros potenciales moderadores analizados, como identidad cultural y otras fuentes de apoyo social, no mitigaron la relación entre discriminación y síntomas de depresión en los adolescentes inmigrantes. Estos resultados tienen implicaciones para el diseño de intervenciones preventivas con adolescentes inmigrantes puesto que subrayan el papel protector del profesorado. Futuras investigaciones deberían centrarse en detectar estrategias para reducir la discriminación y prejuicios hacia los adolescentes inmigrantes y detectar los factores que puedan mitigar los efectos perjudiciales de la discriminación en el bienestar psicológico.
Palabras clave: adolescencia tardía, apoyo social, depresión, discriminación, identidad cultural, inmigrantes, inmigración en Italia.

Immigration is usually seen as a challenge and potential threat to a person's well-being because it involves a number of stressful processes, such as settlement into the host cultural environment while retaining one's original culture, differences in languages and customs, the discrimination and hostile attitudes of the host society (Ward, Bochner, & Furnham, 2001). During adolescence these stressors are exacerbated as they add to the normative challenges of this developmental period (Smetana, Campione-Barr, & Metzger, 2006).

Many studies have found that immigrant adolescents report higher levels of psychological complaints, such as anxiety and depressive symptoms, than do non-immigrants (Bacallao & Smokowski, 2007; Vieno, Santinello, Lenzi, Baldassari, & Mirandola, 2009; Walsh, Harel-Fisch, & Fogel-Grinvald, 2010). Indeed, there is a need to analyze psychological adaptation of immigrant adolescents and especially for a

more in-depth examination of risk and protective factors for immigrant adolescents' psychological well-being.

Discrimination is one of the most significant risk factors for psychological adaptation of immigrant adolescents (Romero, Carvajal, Volle, & Orduna, 2007). Additionally, some studies have identified protective factors that may promote psychological well-being of immigrant adolescents and buffer the detrimental effects of discrimination (Smokowski, Bacallao, & Buchanan, 2009). Many of these studies focused, on one hand, on ethnic identity (Mandara, Gaylord-Harden, Richards, & Ragsdale, 2009) and, on the other hand, on social support (Crockett, Iturbide, Torres Stone, McGinley, Raffaelli, & Carlo, 2007).

Identity development is especially relevant during adolescence as the search for, and development of, one's identity are crucial developmental tasks during this period (Erikson, 1968). Additionally, for immigrant adolescents, a central concern is their capacity to navigate multiple cultures (e.g., school/work cultures, host peer culture, and culture of origin) and negotiate their own identity to both maintain their link with the original ethnic group and to achieve full citizenship (Lafromboise, Coleman, & Gerton, 1993). A limitation in the literature, however, is that most studies focus on the influence of *ethnic* identity and neglect the influence of *national* identity.

School context may be especially relevant for acculturation of immigrant adolescents, their identity development and their adaptation (Walsh et al., 2010). Supportive relationships with adults at school may provide guidance, encouragement and safety to immigrant adolescents and may help protect them from negative outcomes (Hurd & Zimmerman, 2010). Recent research has suggested that support in school may play a greater role in mental health outcomes of immigrant adolescents, in comparison to social support from other sources such as family and peers (Walsh et al., 2010). Few studies about social support for immigrant adolescents analyzed social support at school, however.

Most previous studies about risk and protective factors for immigrant adolescents' psychological well-being have limitations: they focus separately on just a few of these variables; they examine the influence of ethnic identity neglecting the influence of national identity; they pay less attention to social support from school even though this kind of social support may play an important role in mental health outcomes of immigrant adolescents.

In sum, there is a need to analyze jointly immigrant adolescents' psychological well-being, perceived discrimination, and the influence of protective factors such as ethnic identity, national identity, and social support from school. Thus the aims of the present study were: to explore the links between perceived discrimination and depressive symptoms reported by immigrant adolescents; and to analyze the direct and moderating role of ethnic identity, national identity and social support from school.

Discrimination and psychological adaptation of immigrants

Ethnic discrimination is one of the most relevant risk factors for immigrant adolescents' psychological well-being (Romero et al., 2007). This kind of discrimination can be defined as unfair and differential treatment on the basis of ethnicity or race (Blank, Dabady, & Citro, 2004) and as the daily hassles that members of lower status groups face (Edwards & Romero, 2008).

To understand how experiences of discrimination may influence the adaptation of immigrant adolescents, a relevant model is Garcia Coll et al's (1996) *integrative developmental model of children and adolescents*. This model posits social position variables—such as immigrant status, ethnicity, and low SES—indirectly contribute to adolescent development by exposing them to oppressive social mechanisms such as racism and discrimination. Consequently, experiencing racism and discrimination may profoundly affect the psychological well-being of immigrant adolescents.

Additionally, *acculturative stress theory* (Berry, Kim, Minde, & Mok, 1987) provides a framework to understand the influence of discrimination on immigrant adolescents' psychological well-being. This theory proposes that when individuals are exposed to two cultures (culture of origin and of the host country), they must negotiate, resolve, and adapt to cultural differences. During this process come other stressors, such as being of minority status (Berry, 2003), personal and institutional discrimination (Fuertes & Westbrook, 1996), underemployment, unemployment, living in disadvantage contexts (Heyfron, 2006; Molcho, Cristini, Nic Gabhainn, Santinello, Moreno, Gaspar de Matos, Bjarnson, Baldassari, & Due, 2010). Immigrants, then, are likely to experience different forms of discrimination and those experiences may lead to greater psychological maladjustment (Romero et al., 2007).

The detrimental effect of discrimination on psychological adaptation was confirmed in longitudinal studies (Berkel, Knight, Zeiders, Tein, Roosa, Gonzales, & Saenz, 2010; Benner & Kim, 2009), in cross-sectional studies (Huynh & Fuligni, 2010; Suarez-Morales & Lopez, 2009) and in a meta-analytic review (Pascoe & Smart Richman, 2009). Based on these results and on the previously described models we expect that immigrant adolescents are at risk for exposure to discrimination and that perceived discrimination is linked to poorer psychological adaptation.

First-generation immigrant adolescents are especial-

ly at risk for detrimental effects of discrimination, as studies have found that first-generation immigrants perceive more discrimination than do second-generation immigrants (Juang & Cookston, 2009; Ying, Lee, & Tsai, 2000). For this reason in the present study we focused on perceived discrimination and psychological well-being of first-generation immigrant adolescents.

Protective factors related to cultural identity

Identity development is a crucial developmental task during adolescence (Erikson, 1968). Additionally, for immigrant adolescents, a central question is their capacity to negotiate their own identity between the host and the original culture (Lafromboise et al., 1993). Cultural identity is the extent to which immigrants identify with their ethnic group and with the larger society (Phinney, Berry, Vedder, & Liebkind, 2006). It has roots in studies that have provided evidence for a two-dimensional model of acculturation in which orientation toward ethnic/heritage versus national/host values, practices and behaviors are considered separate dimensions. Cultural identity is indeed a broad term that includes both ethnic and national identity (Phinney & Devich-Navarro, 1997).

Ethnic identity refers to identification with one's ethnic group or culture of origin (Phinney et al., 2006). Recent models conceptualize ethnic identity as a bidimensional, dynamic construct (Sabatier, 2008) composed of two dimensions: commitment (or affirmation) and exploration. Commitment is described as a sense of belonging and as "strong attachment and a personal investment in a group"; exploration is defined as "seeking information and experiences relevant to one's ethnicity" (Phinney & Ong, 2007, pp. 272). Based on this model, in the present study we considered both ethnic identity commitment and exploration.

People need a strong sense of group identification to maintain positive well-being as this identification fulfills needs for meaning and belonging (Bettencourt & Dorr, 1997). Group identity is particularly beneficial for members of groups that are devalued in society, such as ethnic minorities and immigrants. Ethnic identity positively influences psychological adaptation of immigrant adolescents (Kiang & Fuligni, 2010; Mandara et al., 2009). Additionally some studies showed that group identification is a coping strategy that buffers the negative effects associated with ethnic discrimination (Branscombe, Schmitt, & Harvey, 1999). As discussed by Tajfel and Turner (1986), the reinforcement of ethnic identity may be a strategy people use to cope with the consequences of being a member of a devalued group. For the current study, we examine both the direct protective effects and the moderating role of ethnic identity in the relationship between discrimination and psychological well-being.

In comparison to the number of studies about ethnic identity, less attention has been paid to *national identity*, or immigrants' identification with their host society (Phinney et al., 2006). Recent models (Berry, Phinney, Sam, & Vedder, 2006; Bourhis, Barrette, El-Geledi, & Schmidt, 2009) suggest that a key task for immigrants is their capacity to function in two cultures. For immigrant adolescents, adaptation is central to negotiating their own identity in such a way that they both maintain links with their country of origin and achieve full citizenship and relationships with the host country (Lafromboise et al., 1993). Based on this evidence, in the current study we assume that both ethnic and national identity may positively influence psychological adaptation of immigrant adolescents and that both may buffer the detrimental effects of perceived discrimination on psychological adaptation.

Protective factors related to social support from school

School is a relevant developmental context for adolescents as getting along with teachers and peers and reporting positive involvement in school activities are markers of effective adaptation and of fulfillment of some of the developmental tasks of adolescence (Masten, Burt, & Coatsworth, 2006). Students with a positive perception of school and support from teachers and schoolmates reported fewer symptoms of depression and better social-emotional functioning (Galanaki, Polychronopoulou, & Babalis, 2008). Especially for immigrant adolescents, the school environment may be relevant to find supportive adult models and friendship with peers; school context may be also the gateway to integration and development of a sense of belonging in the new society; additionally this context may be an influential source of strain or support for immigrant adolescents to cope with stressful life events. As immigration and the settlement process can change family structure, create differences in acculturation between parents and adolescents, impact parental ability to perform tasks of support and monitoring, and challenge the opportunity to rely on social support from friends (Cristini, Vieno, Scacchi, Santinello, 2010; Walsh, Shulman, Bar-On, & Tsur, 2006), school context may offer source of social support to cope with these difficulties. Congruently, recent research found that support within the school, in comparison to that of parents and peers, had a greater influence on mental health outcomes of immigrant adolescents (Walsh et al., 2010).

School context may provide various forms of social support that could have important benefits for psychological adaptation of immigrant adolescents: social support from teachers, from schoolmates, and support for multiculturalism.

Social support from teachers is related to increased

life satisfaction and decreased levels of depressive symptoms (Cemalcilar, 2010; LaRusso, Romer, & Selman, 2008). In particular for immigrant adolescents, support from teachers had a stronger influence on psychological well-being than did support from friends and parents (Walsh et al., 2010).

Additionally, *social support from schoolmates* plays a significant role in adolescents' psychological development. Negative relationships with schoolmates predicted more depressive symptoms and lower self-esteeem (Loukas & Murphy, 2007; Lopez & DuBois, 2005). Socially connected adolescents are more likely to develop supportive relationships with pro-social peers and they may be less likely to develop emotional problems (Burton, Stice, & Seeley, 2004).

Finally *school support for multiculturalism* plays a relevant role, as multiculturalism promotes flexibility, adaptability and empathy for others, fosters feelings of safety, improves intergroup relations (Juvonen, Nishina, & Graham, 2006), promotes appreciation of diverse viewpoints, and enhances tolerance of others (Kurlaender & Yun, 2002). Although many studies have measured multiculturalism objectively (Juvonen et al., 2006), other studies examined the influence of perceived multiculturalism as subjectively reported by the students (Le, Lai, & Wallen, 2009). From this perspective, perceived multiculturalism is defined as students' perceptions of how much cultural diversity, collaboration and participation of minority youth is valued and encouraged in the school (Brand, Felner, Shim, Seitsinger, & Dumas, 2003). Perceived school multiculturalism is positively related to psychological adaptation of immigrant youth (Le et al., 2009).

Current study

The aims of the present study were: to explore the link between perceived discrimination and depressive symptoms reported by immigrant adolescents in northern Italy; and to analyze the direct and moderating role on this relationships of ethnic identity, national identity, social support from teachers and from schoolmates, and school support for multiculturalism.

We hypothesized that perceived discrimination is linked with higher levels of depressive symptoms (Berkel et al., 2010; Huynh & Fuligni, 2010). We expected that ethnic identity (Mandara et al., 2009), national identity (Phinney et al., 2006), support from teachers (Walsh et al., 2010), support from schoolmates (Loukas & Murphy, 2007) and support for school multiculturalism (Le et al., 2009) positively influence psychological adaptation of immigrant adolescents. Additionally we hypothesized that cultural identity and social support at school act as moderating factors in the relationship between perceived discrimination and psychological adaptation (Branscombe et al., 1999; Walsh et al., 2010).

Method

Participants

Data were provided by 214 foreign-born adolescents[1] (66.8% male; mean age = 17.56, *S.D.* = 1.58). Participants were from the first year (corresponding to 9th grade) to the fifth (last) year of an Italian high school system. The sample was mainly composed of male students because we selected only technical, vocational and professional high schools and these schools in Italy are mainly attended by males. These kinds of schools prepare learners for manual, trade, or technical jobs. We selected these kinds of high schools because in the Italian school system such schools report a higher percentage of immigrant students. Other kinds of Italian high schools report only about 2% immigrant students (Demaio, 2008), which was too few to justify their inclusion in this study.

Data were collected in two small cities in Northern Italy. Immigrant adolescents were from the following areas: 37.3% European countries not included in the EU; 25.9% European countries included in the EU between 2004 and 2007; 15.2% Africa; 9.7% South America; 8.1% Asia; 2.2% European countries included in the EU before 2004. Countries where the main percentages of immigrant adolescents came from are: 24.3% Romania, 17.3% Moldavia, 15.5% Albania, 11.7% Morocco. All other countries are represented in our sample of immigrant adolescents with percentages lower than 4%.

In the sample of 214 immigrant adolescents, father's education level varied with 43.7% not having completed high school, 37.3% having a high school or technical school diploma, and 19% having a college or graduate degree. Mother's education level varied with 41.4% not having completed high school, 35% having a high school diploma or a technical school diploma, and 23.6% having a college or graduate degree.

Measures

Immigrant status and demographics. Native or immigrant status was based on the country where the adolescent was born. The demographics we analyzed were gender, age, and family affluence. *Family Affluences* was measured by the Family Affluence Scale (FAS; Currie, Molcho, Boyce, Holstein, Torsheim, & Richter, 2008) which includes family car ownership, unshared rooms, number of computers at home, and how many different times the family went on holiday in the last 12 months. FAS was computed as the sum of these indicators.

Depressive symptoms. The Italian version of the CES-D Scale (Vieno, Kiesner, Pastore, & Santinello, 2008) was used to assess the adolescents' level of self-reported depressive symptoms. Previous studies have

reported sound psychometric properties when using the CES-D with immigrant populations (Grzywacz, Hovey, Seligman, Arcury, & Quandt, 2006). Four items were removed because, according to preliminary principal component analyses, these items did not load well with the other 16 items. Examples of items are "I felt everything I did was an effort" and "I felt lonely". Items required a response using a 4-point Likert scale 1 = Never, or almost never, 4 = Frequently or always). Cronbach's alpha was 0.92.

Perceived discrimination. Perceived discrimination was measured by the subscale of that name in the Acculturative Stress Inventory for Children (Suarez-Morales, Dillon & Szapocznik, 2007), which was adapted slightly to clarify the focus of the present study on ethnic group or nationality. The subscale is composed of eight items, such as "Because of my ethnicity, I feel others don't include me in some of the things they do, games they play, etc.", "I feel bad when others make jokes about people who are in the same ethnic group as me." Items were measured on a five-point scale (1 = Never; 5 = Always). Cronbach's alpha was 0.82.

Social support at school. We analyzed three sources of social support at school: support from teachers, support from schoolmates, support for multiculturalism. *Teacher support* was measured by a four-item scale (Currie, Samdal, Boyce & Smith, 2001). A sample item is "When I need extra help from my teachers I can get it". Each item was measured on a five-point scale (1 = Do not agree at all; 5 = Very much agree). Cronbach's alpha was 0.74. *Schoolmates' support* was measured using a three-item scale (Currie et al., 2001). Cronbach's alpha was 0.75. A sample item is "Other students accept me as I am." Items were measured on a five-point scale (1 = Do not agree at all; 5 = Very much agree). *Support for cultural pluralism* at school was measured by the apposite subscale of the "Inventory of School Climate-Student" (ISC-S; Brand et al., 2003). The subscale is composed of four items, such as "Students of many different races and cultures are chosen to participate in important school activities." Items were measured on a four-point scale (1 = Never; 4 = Often). Cronbach's alpha was 0.72.

Cultural identity. We analyzed both ethnic identity and national identity. *Ethnic identity* was measured on the six-item scale of Phinney and Ong (2007). It is composed of two dimensions, each measured by three items: exploration (e.g., "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs") and commitment (e.g., "I have a strong sense of belonging to my own ethnic group"). Items were measured on a five-point scale (1 = Do not agree at all; 5 = Very much agree). Cronbach's alpha was 0.79 for the exploration dimension and 0.92 for the commitment dimension. *National identity* was measured on the seven-item scale of Phinney & Devich-Navarro (1997). Examples of items

are "I feel good about being Italian" and "I feel that I am part of mainstream Italian culture." Items were measured on a five-point scale (1 = Do not agree at all; 5 = Very much agree). Cronbach's alpha was 0.93.

Analysis

Bivariate correlations were analyzed between all study variables. Regression analyses were conducted to analyze the influence of discrimination, cultural identity, and social support from school on depressive symptoms. We added interaction terms between discrimination, cultural identity, and social support variables to investigate moderation effects. For all independent measures (except for gender, age and immigrant status) uncentered variables were used (Cohen, Cohen, West, & Aiken, 2003). Independent variables were entered in the following blocks: 1) age, gender, FAS; 2) discrimination; 3) ethnic identity exploration, ethnic identity commitment, national identity; 4) teacher support, classmate support; school support for multiculturalism; 5) interaction terms between discrimination, identity and social support variables. Subsequently we deleted nonsignificant interaction terms from the model.

Results

Table 1 presents means, standard deviations, and correlations between depressive symptoms, perceived discrimination, cultural identity, and social support from school. Most of the correlations were lower than 0.30, which we considered weak, as suggested by Cohen (1988). Depressive symptoms showed a positive correlation with discrimination ($r = 0.24$; $p < .01$). Additionally, depressive symptoms were negatively correlated with social support from teachers ($r = -0.23$; $p < .01$), social support from schoolmates ($r = -0.17$; $p < .05$), and school support for multiculturalism ($r = -0.16$; $p < .05$). The measure of depressive symptoms was not significantly correlated with ethnic or national identity.

In addition to its relationship with depression, perceived discrimination was also negatively correlated with national identity ($r = -0.20$; $p < .01$) and with classmates' support ($r = -0.29$; $p < .001$) and positively correlated with ethnic identity exploration ($r = 0.17$; $p < .05$).

Ethnic identity exploration and ethnic identity commitment were strongly and positively correlated ($r = 0.77$; $p < .01$); the measure of national identity was negatively related to both ethnic identity exploration ($r = -0.22$; $p < .01$) and ethnic identity commitment ($r = -0.31$; $p < .001$). Both measures of ethnic identity were positively related to teacher support (ethnic identity exploration: $r = 0.28$; $p < .001$; ethnic identity commit-

ment: $r = 0.19$; $p < .01$). We found a positive correlation between ethnic identity exploration and school support for multiculturalism ($r = 0.18$; $p < .05$). Interestingly, national identity was positively related to classmate support ($r = 0.19$; $p < .05$). Finally, we found a positive correlation between teacher support and school support for multiculturalism ($r = 0.28$; $p < .001$).

protective factor against depressive symptoms: social support from teachers ($B = -0.22$; $t = -3.29$; $p < .001$). These results confirmed the relevant role of school context and especially the role of support from adults in this context.

None of the interaction terms between discrimination and respectively ethnic identity, national identity,

Table 1. Correlations and Descriptive Statistics for Study Variables

	Depressive symptoms	Discrimination	Ethnic identity exploration	Ethnic identity commitment	National identity	Classmates support	Teacher support	Support for multiculturalism
Depressive symptoms	-							
Discrimination	0.24**	-						
Ethnic identity exploration	-0.02	0.17*	-					
Ethnic identity commitment	-0.07	0.13	0.77**	-				
National identity	-0.08	-0.20**	-0.22**	-0.31***	-			
Classmates support	-0.17*	-0.29***	-0.07	-0.12	0.19*	-		
Teacher support	-0.23**	0.01	0.28***	0.19**	-0.07	0.17*	-	
Support for multiculturalism	-0.16*	-0.04	0.18*	0.13	-0.05	0.10	0.28***	-
M	1.73	2.39	3.38	3.67	2.37	3.51	3.12	2.47
SD	0.62	0.84	1.01	1.13	1.05	0.84	0.84	0.76

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

Results presented in Table 2 are unstandardized regression coefficients with standard errors in parentheses. All blocks of variables, except the cultural identity measures, made a unique contribution in explaining variability in depressive symptoms. The final model explained 25% of the variance in depressive symptoms. Results of the last model showed that, controlling for the influence of gender ($B = 0.50$; $t = 4.91$; $p < .001$) and the other demographics and predictors of depression, discrimination is associated with more depressive symptoms ($B = 0.19$; $t = 2.88$; $p < .01$). Only one of the analyzed variables played the role of

support from teachers, from classmates and for multiculturalism were statistically significant, so we deleted the interaction terms from the final model. None of these variables indeed played the role of moderating factors in the relationship between discrimination and depressive symptoms.

Discussion

The present study examined the link between perceived discrimination and depressive symptoms

Table 2. Multiple Regression Models Predicting Depressive Symptoms of Immigrant Adolescents

	Step 1		Step 2		Step 3		Step 4	
	B (S.E.)	t	B (S.E.)	t	B (S.E.)	t	B (S.E.)	t
Female	0.49 (0.11)	4.63***	0.52 (0.10)	5.01***	0.54 (0.11)	5.12***	0.50 (0.10)	4.91***
Age	-0.02 (0.03)	-0.65	-0.01 (0.03)	-0.36	-0.01 (0.03)	-0.37	-0.02 (0.03)	-0.75
FAS	-0.05 (0.03)	-1.69	-0.02 (0.03)	-0.70	-0.02 (0.03)	-0.71	-0.02 (0.03)	-0.48
Discrimination			0.18 (0.06)	2.82**	0.18 (0.07)	2.66**	0.19 (0.06)	2.88**
Ethnic identity exploration					0.04 (0.08)	0.42	0.11 (0.09)	1.30
Ethnic identity commitment					-0.10 (0.07)	-1.42	-0.13 (0.07)	-1.84
National identity	-				0.04 (0.05)	-0.80	-0.06 (0.05)	-1.06
Classmates support							0.03 (0.07)	0.42
Teacher support							-0.22 (0.07)	-3.29**
Support for multiculturalism							0.04 (0.07	0.51
R^2	0.17		0.22		0.24		0.31	
Adjusted R^2	0.15		0.19		0.20		0.25	
ΔR^2 (ΔF; p)	0.17 (8.00; $p < .001$)		0.05 (7.96; $p < .01$)		0.02 (1.08; N.S.)		0.07 (3.66; $p < .05$)	

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

reported by immigrant adolescents (Huynh & Fuligni, 2010); additionally we analyzed whether cultural identity (Kiang & Fuligni, 2010; Berry et al., 2006) and different forms of social support from school act as protective factors against depression and as moderators in the relationship between discrimination and depression (Branscombe et al., 1999; Walsh et al., 2010). In sum, the current study has shown that perceived discrimination has a significant detrimental effect on the psychological well-being and that the only significantly protective factor for psychological well-being of immigrant adolescents, among the analyzed variables concerning cultural identity and school social support, was support from teachers.

Discrimination is a relevant harmful factor to consider in the development of ethnic minority and immigrant adolescents (Garcia Coll et al., 1996). Experiencing discrimination may be profoundly damaging for the psychological adaptation of immigrants, especially during adolescence because youth often have fewer or less structured coping strategies to deal with stressors in comparison to adults (Garnefski, Legerstee, Kraaij, van de Kommer, & Teerds, 2002). Further, previous studies report that stressful life events, such as discrimination, tend to be more frequent in ethnic minority and younger age groups (Hatch & Dohrenwend, 2007). Indeed, immigrant adolescents represent a target with very high risk for discrimination and its detrimental effects.

Our most encouraging result was that social support from teachers appears to play an important protective role for the psychological adaptation of immigrant adolescents (Walsh et al., 2010). Immigrant adolescents reporting more teacher support were significantly less depressed (LaRusso et al., 2008). Supportive relationships with non-parental adults provide esteem, guidance, and encouragement and may help protect youth from negative outcomes (Hurd & Zimmerman, 2010). This protective influence of social support from teachers may be especially influential for immigrant youth as the immigration and settlement process can disrupt other forms of social support from friends, parents and extended family members (Walsh et al., 2006). For immigrant adolescents, it may be harder to find friends who share their ethnicity and to build positive relationships with peers (Hamm, 2000). Indeed, immigrant adolescents may need to rely on forms of social support other than parental and peer support, such as social support from teachers. Additionally, teachers' social support may provide an important, positive counterbalance in the host society where immigrant adolescents experience discrimination, lack of acceptance, and prejudice. Discrimination implies many barriers to establish ties with the receiving society, such as the communication of negative messages regarding their ethnicity and their identity, the feeling of being rejected, unfair treatment daily, the development of insecurity and low self-esteem. Given this

assaultive immigrant experience, a strong bonding and social support from teachers offer a safe haven, a secure place where immigrant adolescents feel acceptance, respect and sympathy.

Regarding the influence of cultural identity on psychological problems, contrary to our hypothesis (Kiang & Fuligni, 2010), the present study showed that depressive symptoms were not significantly related to ethnic and national identity. Both regression and correlation analyses confirmed these results. Most of the previous literature focused on ethnic identity showed its protective role against psychological problems (Kiang & Fuligni, 2010; Mandara et al., 2009). One of the few studies that analyzed the role of national identity found that high levels of both national and ethnic identity was associated with greater psychological adaptation (Berry et al., 2006).

Although results of the current study are inconsistent with previous research that has found cultural identity to be protective for immigrant adolescents' psychological well-being, our results are consistent with other research that has found ethnic identity to not be significantly related to depression and anxiety (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002; Sellers, Copeland-Linder, Martin, & Lewis, 2006). Some authors argued that much of the inconsistency in results regarding the influence of ethnic identity on mental health may be explained by the different measures used to assess ethnic identity; especially by different results emerging for ethnic identity exploration and ethnic identity affirmation (Helms, 2007). However, in the present study we used both of these subscales and neither of them showed a significant relationship with depressive symptoms. Some authors have argued that other variables, such as self-esteem, may account for the effects of ethnic identity on mental health (Mandara et al., 2009). Future studies should analyze the role of levels and sources of self-esteem in the relationship between ethnic identity and depressive symptoms.

Finally, other factors related to the composition of the immigrant sample may explain the failure to find this hypothesized relationship. Our sample is highly diverse as immigrants came from many different countries and they live in two different Italian cities. They may feel different cultural distances between the society of origin and the receiving society. They may also feel different levels of discrimination and devaluation as some immigrant groups in Italy are viewed more negatively than others. We do not know how long immigrants in our sample had resided in Italy, but it is possible that they may be at different stages of adaptation to the host society. Any of these factors may explain the lack of relationship between ethnic identity and depressive symptoms.

The final objective of the present study was to find possible moderators of the relationship between discrimination and depressive symptoms. Results of the

regression model showed that none of the analyzed variables (ethnic identity, national identity, support from teachers, from classmates and for multiculturalism) moderated the relationship between discrimination and depressive symptoms. Some authors have hypothesized that the moderating role of ethnic identity may depend on the extent to which discrimination is a part of one's ethnic identity. For example, ethnic identity of African Americans is tied to a long history of discrimination and prejudice. The identity of other ethnic minority groups may be less protective against the detrimental effect of discrimination if their ethnic identity is not based as strongly on this factor (Yoo & Lee, 2005). An additional explanation for the lack of moderation effect by ethnic and national identity may be the ambiguous directionality of the relationship between discrimination and cultural identity. On one hand, the perception of discrimination may strengthen ethnic identity and weaken national identity (Branscombe et al., 1999); on the other hand, ethnic identity exploration and discussion with parents and peers about race and ethnicity may make youth more aware of discrimination and, indeed, they may perceive more discrimination (Huynh & Fuligni, 2010). Thus, cultural identity may be associated with discrimination, but may not buffer its detrimental effect on psychological well-being. Additionally, it may be that specific cultural identity profiles, not the single components, buffer the harmful effect of discrimination (Berry et al., 2006). Another explanation for the lack of moderation effect by all analyzed variables may be that discrimination has such a strong and detrimental effect that none of the examined factors are able to buffer its effect on our sample (Brondolo, ver Halen, Pencille, Beatty, & Contrada, 2009). Finally, as with the main effect of cultural identity on psychological well-being, other factors related to the composition of our immigrant sample may explain the failure to find the hypothesized moderator role of cultural identity: immigrants are part of different ethnic groups, they live in two different host cities, they may have lived in Italy for different lengths of time. Indeed, distance between original and host cultures may confuse the moderating role of cultural identity. Future studies should test the effect of these factors to analyze the moderating role of cultural identity on the relationship between discrimination and depressive symptoms.

One major limitation of the current study is the cross-sectional and correlational nature of the data and analysis. Longitudinal assessments are necessary to support a causal interpretation. In addition, due to the limited sample size, we could not analyze our hypotheses distinguishing between specific immigrant groups, based on ethnicity or country of origin. Future research is needed to replicate our findings in specific minority or immigrant groups. A further limitation is that we relied entirely on self-report measures by students. Future studies should also include objective data and information from teachers and parents. The present sample was predominantly male and may not generalize to females or immigrants outside of northern Italy. A final limitation is due to the use of an index of depressive symptoms on a normal population, which results in low levels of symptoms.

Nonetheless, results of the present study highlight at least two relevant factors in the lives of immigrant adolescents: the detrimental effect of discrimination on psychological well-being and the pivotal role of social support from teachers to enhance the psychological well-being of immigrant adolescents.

These results have important implications for education and society. Regarding perceived discrimination, results of the current study suggest that programs designed to improve integration and psychological adaptation of immigrant adolescents should include strategies to reduce discrimination; these strategies should act on multiple levels, from individual teachers to schools and school systems to the societal level, and promote structural changes in contexts such as schools, employment, and communities. Prevention programs for ethnic minority youth must invest resources in undoing the negative effects of discrimination and racism (Murry, Berkel, Brody, Gerrard, & Gibbons, 2007). Future studies need to identify effective large-scale programs and policies to reduce prejudice and discrimination that sustain disparities among immigrant adolescents and their families. In addition to these practices at a contextual level, future research should aim to detect individual-level variables that can buffer the detrimental effects of discrimination. Indeed it should be possible to join contextual practices to reduce discrimination and strategies to promote individual protective factors and help adolescents dealing with personal experiences of discrimination.

With regard to school environment, our results confirmed the pivotal role of this context and especially of the quality of teacher-student relationships. The school environment may be a safe place where immigrant adolescents experience integration and develop a sense of belonging in the new society. Results on the protective role of teachers' support point to the importance of educating teachers about their critical role in the lives of immigrant adolescents, about cultural sensitivity, and about pluralistic approaches to teaching and mentoring immigrant adolescents. Additionally, results suggest aiming intervention strategies at promoting psychological well-being by enhancing the support provided by significant adults within the school context. For example, by improving teachers' competence to communicate with, and support, immigrant adolescents and their families, and teachers' sensitivity and ability to monitor and interpret possible signs of discrimination and psychological unease of immigrant adolescents, teachers can help immigrant adolescents in their process of integration not only in the classroom but also in their new society. As immigrant populations

worldwide grow rapidly and immigrant adolescents are exposed to life circumstances and stressors that may put them at risk for poor psychological adjustment (Bacallao & Smokowski, 2007), understanding the role of protective factors within schools and communities is central to support immigrant adolescents in the challenging process of settlement in a new society. This knowledge will facilitate the identification of effective practices, programs and policies to promote positive development of this growing part of the youth population.

References

Bacallao, M. L. & Smokowski, P.R. (2007). The costs of getting ahead: Mexican family system changes after immigration. *Family Relations, 56,* 52-66.

Blank, R. M., Dabady, M., & Citro, C. F. (Eds.). (2004). *Measuring racial discrimination*. Washington, DC: The National Academies Press.

Benner, A. D. & Kim, S. Y. (2009). Experiences of discrimination among Chinese American adolescents and the consequences for socioemotional and academic development. *Developmental Psychology*, *45*, 1682-1694.

Berkel, C., Knight, G. P., Zeiders, K. H., Tein, J. Y., Roosa, M. W., Gonzales, N. A., & Saenz, D. (2010). Discrimination and adjustment for Mexican American adolescents: A prospective examination of the benefits of culturally related values. *Journal of Research on Adolescence, 20,* 893-915.

Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *The International Migration Review, 1,* 491-511.

Berry, J. W. (2003). Conceptual approaches to acculturation. In K. Chun, P. Balls-Organista, & G. Marin (Eds.), *Acculturation: Advances in theory, measurement and applied research* (pp. 17-37). Washington, DC: APA Press.

Berry J. W., Phinney J. S., Sam D. L., and Vedder P. (2006). Immigrant youth: Acculturation, identity, and adaptation. *Applied Psychology: An International Review*, *55*, 303-332.

Bettencourt, B. A. & Dorr, N. (1997). Collective self-esteem as a mediator of the relationship between allocentrism and subjective well-being. *Personality and Social Psychology Bulletin*, *23*, 955-964.

Bourhis R. Y., Barrette G., El-Geledi S. and Schmidt R.S. (2009). Acculturation orientations and social relations between immigrant and host community members in California. *Journal of Cross-Cultural Psychology*, *40*, 443-467.

Brand, S., Felner, R. D., Shim, M., Seitsinger, A., & Dumas, T. (2003). Middle school improvement and reform: Development and validation of a school-level assessment of climate, cultural pluralism and school safety. *Journal of Educational Psychology, 95*, 570-588.

Branscombe, N. R., Schmitt M. T., & Harvey R. D. (1999).

Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, *77*, 135-149.

Brondolo, E., ver Halen, N. B., Pencille, M., Beatty, D., & Contrada, R. J. (2009). Coping with racism: A selective review of the literature and a theoretical and methodological critique. *Journal of Behavioral Medicine*, *32*, 64-88.

Burton, E., Stice, E., & Seeley, J. R (2004). Prospective test of the stress-buffering model of depression in adolescent girls: No support once again. *Journal of Consulting and Clinical Psychology, 72,* 689-697.

Caldwell, C. H., Zimmerman, M. A., Bernat, D. H., Sellers, R. M., & Notaro, P. C. (2002). Racial identity, maternal support, and psychological distress among African American adolescents. *Child Development, 73,* 1322-1336.

Cemalcilar Z. (2010). Schools as socialization contexts: understanding the impact of school climate factors on students' sense of school belonging. *Applied Psychology: An International Review*, *59*, 243-272.

Cohen J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (second ed.). Lawrence Erlbaum Associates.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.)*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Cristini, F., Vieno, A., Scacchi, L., & Santinello, M. (2010). Migrant families and adolescence: parenting style, internalization and externalization problems [Famiglie migranti e adolescenza: stili genitoriali e problemi di internalizzazione ed esternalizzazione]. *Journal of Family Studies* [*Rivista di Studi Familiari], 2,* 60-81.

Crockett, L. J., Iturbide, M. I., Torres Stone, R. A., McGinley, M., Raffaelli, M., & Carlo, G. (2007). Acculturative stress, social support, and coping: Relations to psychological adjustment among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology, 13,* 347-355.

Currie, C., Molcho, M., Boyce, W., Holstein, B., Torsheim, T., & Richter, M. (2008). Researching health inequalities in adolescents: The development of the HBSC Family Affluence Scale. *Social Science & Medicine, 66,* 1429-1436.

Currie, C., Samdal, O., Boyce, W., & Smith, R. (Eds.), (2001). Health Behaviour in School-aged Children: A WHO Cross-National Study (HBSC), Research Protocol for the 2001/2002 Survey. Child and Adolescent Health Research Unit (CAHRU), University of Edinburgh.

Demaio, G. (2008). Gli studenti di cittadinanza estera in Italia [Foreign students in Italy]. In Caritas/Migrantes (Eds.), *Immigrazione: dossier statistico 2008, XVIII rapporto [Immigration: Statistical dossier 2008, XVIII report],* (pp. 239-247). Rome: Edizioni Idos.

Edwards, L. M., & Romero, A. J. (2008). Coping with discrimination among Mexican descent adolescents. *Hispanic Journal of Behavioral Science*, 30, 24-39.

Erikson, E. (1968). *Identity, youth and crisis*. New York: Norton and Co.

Fuertes, J. & Westbrook, F. (1996). Using the social, attitudinal, familial, and environmental (S.A.F.E.) acculturation stress scale. *Measurement & Evaluation in Counseling & Development*, 29(2), 67-76.

Galanaki, E. P., Polychronopoulou, S. A., & Babalis, T. K. (2008). Loneliness and social dissatisfaction among behaviourally at-risk children. *School Psychology International, 29,* 214-229.

Garcia Coll, C., Crnic, K., Lamberty, G., Wasik, B. H., Jenkins, R., Vazquez Garcia, H., & McAdoo, H. P. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67, 1891-1914.

Garnefski, N., Legerstee, J., Kraaij, V., van de Kommer, T., & Teerds, J. (2002). Cognitive coping strategies and symptoms of depression and anxiety: A comparison between adolescents and adults. *Journal of Adolescence*, 5, 603-611.

Grzywacz, J. G., Hovey, J. D., Seligman, L. D., Arcury, T. A., & Quandt, S.A. (2006). Evaluating short-form versions of the CES-D for measuring depressive symptoms among immigrant Latinos. *Hispanic Journal of Behavioral Sciences, 28,* 404-424.

Hamm, J. V. (2000). Do birds of a feather flock togeher? The variable bases for African, American, Asian American, and European American adolescents' selection of similar friends. *Developmental Psychology, 36,* 209-219.

Hatch, S. L. & Dohrenwend, B. P. (2007). Distribution of traumatic and other stressful life events by race/ethnicity, gender, SES and age: A review of the research. *American Journal of Community Psychology*, 40, 313-332.

Helms, J. E. (2007). Some better practices for measuring racial and ethnic identity constructs. *Journal of Counseling Psychology, 54,* 235-246.

Heyfron, J. E. (2006). Immigrants in the labour market. In D. L. Sam & J. W. Berry (Eds.), *Cambridge Handbook of Acculturation Psychology* (pp. 439-451). Cambridge, UK: Cambridge University Press.

Huynh, V. W. & Fuligni, A. J. (2010). Discrimination hurts: The academic, psychological, and physical well-being of adolescents. *Journal of Research on Adolescence, 20,* 916-941.

Hurd, N. M. & Zimmerman, M. A. (2010). Natural mentors, mental health, and risk behaviors: A longitudinal analysis of African American adolescents transitioning into adulthood. *American Journal of Community Psychology, 46*, 36-48.

Juang, L. P., & Cookston J. T. (2009). Acculturation, discrimination, and depressive symptoms among Chinese American adolescents: A longitudinal study. *The Journal of Primary Prevention, 30,* 475-496.

Juvonen, J., Nishina, A., & Graham, S. (2006). Ethnic diversity and perceptions of safety in urban middle schools. *Psychological Science, 17,* 393-400.

Kiang, L. & Fuligni, A. J. (2010). Meaning in life as a mediator of ethnic identity and adjustment among adolescents from Latin, Asian, and European American backgrounds. *Journal of Youth and Adolescence*, 39, 1253-1264.

Kurlaender, M., & Yun, J. T. (2002). *The impact of racial and ethnic diversity on educational outcomes: Cambridge, MA school district*. Cambridge, MA: The Civil Rights Project, Harvard University.

LaFromboise, T., Coleman, H. L. K., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin, 114*(3), 395-412.

LaRusso, M. D., Romer, D., & Selman, R. L. (2008). Teachers as builders of respectful school climates: Implications for adolescent drug use norms and depressive symptoms in high school. *Journal of Youth and Adolescence, 37*(4), 386-398.

Le, T. N., Lai, M. H., & Wallen, J. (2009). Multiculturalism and subjective happiness as mediated by cultural and relational variables. *Cultural Diversity and Ethnic Minority Psychology, 15,* 303-313.

Lopez, C. & DuBois, D. L. (2005). Peer victimization and rejection: investigation of an integrative model of effects on emotional, behavioural, and academic adjustment in early adolescence. *Journal of Clinical Child and Adolescent Psychology, 34,* 25-36.

Loukas, A. & Murphy, J. L. (2007). Middle school student perceptions of school climate: Examining protective functions on subsequent adjustment problems. *Journal of School Psychology, 45,* 293-309.

Mandara, J., Gaylord-Harden, N. K., Richards, M. H., & Ragsdale, B. L. (2009). The effects of changes in racial identity and self-esteem on changes in African American adolescents' mental health. *Child Development*, 80, 1660-1675.

Masten, A. S., Burt, K. B., & Coatsworth, J. D. (2006). Competence and psychopathology in development. In D. Cicchetti & D. Cohen (Eds.), *Developmental Psychopathology: Vol. 3. Risk, disorder and psychopathology* (2nd ed., pp. 696-738). New York: Wiley.

Molcho, M., Cristini, F., Nic Gabhainn, S., Santinello, M., Moreno, C., Gaspar de Matos, M., ... Due, P. (2010). Health and well-being among child immigrants in Europe. *Eurohealth, 16, 20-23*.

Murry, V. M., Berkel, C., Brody, G. H., Gerrard, M., & Gibbons, F. X. (2007). The Strong African American Families program: Longitudinal pathways to sexual risk reduction. *Journal of Adolescent Health*, 41, 333-342.

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological Bulletin, 135*, 531-554.

Phinney, J. S., Berry, J. W., Vedder, P., & Liebkind, K. (2006). The acculturation experience: Attitudes, identities and behaviors of immigrant youth. In J. W. Berry, J. S. Phinney, D. L. Sam, & P. Vedder (Eds.), *Migrant youth in cultural transition: Acculturation, identity, and adaptation across national contexts* (pp. 71-116). Mahwah, New Jersey: Lawrence Erlbaum.

Phinney, J. S., & Devich-Navarro, M. (1997). Variations in bicultural identification among African American and

Mexican American adolescents. *Journal of Research on Adolescence, 7,* 3-32.

Phinney J. S. & Ong, A.D. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology*, *54*, 271-281.

Romero, A. J., Carvajal, S. C., Volle, F., & Orduña, M. (2007). Adolescent bicultural stress and its impact on mental well-being among Latinos, Asian Americans, and European Americans. *Journal of Community Psychology, 35,* 519-534.

Sabatier, C. (2008). Ethnic and national identity among second generation immigrant adolescents in France: The role of social context and family. *Journal of Adolescence, 31,* 185-205.

Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. L. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence, 16,* 187-216.

Smetana J. G., Campione-Barr N., & Metzger A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology, 57,* 255-284.

Smokowski, P. R., Bacallao, M., Buchanan, R. L. (2009). Interpersonal mediators linking acculturation stressors to subsequent internalizing symptoms and self-esteem in latino adolescents. *Journal of Community Psychology, 37,* 1024-1045.

Suarez-Morales, L., Dillon, F.R., & Szapocznik, J. (2007). Validation of the Acculturative Stress Inventory for Children. *Cultural Diversity and Ethnic Minority Psychology*, *13*, 216-224.

Suarez-Morales, L., & Lopez, B. (2009). The impact of acculturative stress and daily hassles on pre-adolescent psychological adjustment: Examining anxiety symptoms. *Journal of Primary Prevention, 30,* 335-349.

Tajfel, H. & Turner, J. C. (1986). An integrative theory of intergroup conflict. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 2-24). Chicago: Nelson-Hall.

Vieno, A., Kiesner, J., Pastore, M., Santinello, M. (2008). Antisocial behavior and depressive symptoms: Longitudinal and concurrent relations. *Adolescence, 43*(171), 649-660.

Vieno, A., Santinello, M., Lenzi, M., Baldassari, D., & Mirandola M. (2009). Health status in immigrants and native early adolescents in Italy. *Journal of Community Health, 34,* 181-187.

Walsh, S. D., Harel-Fisch, Y., & Fogel-Grinvald, H. (2010). Parents, teachers and peer relations as predictors of risk behaviors and mental well-being among immigrant and Israeli born adolescents. *Social Science & Medicine, 70,* 976-984.

Walsh, S., Shulman, S., Bar-On, Z., & Tsur, A. (2006). The role of parentification and family climate in adaptation among immigrant adolescents in Israel. *Journal of Research on Adolescence, 16,* 321-349.

Ward, C., Bochner, S., & Furnham, A. (2001). *The psychology of culture shock* (2nd ed.). Hove, UK: Routledge.

Ying, Y. W., Lee, P., & Tsai, J. (2000). Cultural orientation and racial discrimination: Predictors of coherence in Chinese American young adults. *Journal of Community Psychology*, *28*(4), 427-442.

Yoo, H. C. & Lee, R. M. (2005). Ethnic identity and approach-type coping as moderators of racial discrimination/well-being relation in Asian Americans. *Journal of Counseling Psychology, 52,* 497-550.

Notes

[1] This sample of immigrant adolescents is part of a sample of 2533 immigrant and non immigrant adolescents attending high schools in two cities in northern Italy (66.7% male; mean age = 17.26, *S.D.* = 1.63). They were selected for a larger research to study immigrant adolescents adaptation and to compare developmental outcomes of immigrant and non immigrant adolescents.