Acculturation and Self-esteem Among Indian Immigrants in Portugal

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Abstract

The goal of this research was to analyze the process of acculturation and psychological adaptation among Indian immigrants living in Portugal. The sample included 206 Indian immigrants (46% females) with an average age of 36 years. Participants completed measures of acculturation strategies, security, perceived discrimination, attitudes toward ethnocultural groups, ethnic identity, self-esteem, and demographics. Integration was the dominant acculturation strategy for this sample, and integration predicted higher self-esteem. Support for the multiculturalism hypothesis was found, and ethnic identity appeared as a significant predictor of positive feelings about themselves. Furthermore, the extent to which ethnic identity and integration affected immigrants' self-esteem was analyzed. A path model evidenced that integration mediated the effect of ethnic identity on self-esteem. Ethnic identity experienced by Indian immigrants in Portugal and integration strategy play an essential role in their psychological adaptation. The findings are discussed in terms of the conceptional context.

Keywords Acculturation strategies · Ethnic identity · Indian immigrants · Multiculturalism · Self-esteem

Introduction

Mobility of individuals across national boundaries is experienced by a great number of persons nowadays (Grigoryev et al., 2020; United Nations, 2019). This article examines several psychosocial aspects involved in the intercultural relations of

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Indian immigrants from South Asia in Portugal. Two pivotal domains of intercultural relations are acculturation and adaptation (Berry et al., in press).

The Portuguese presence in India dates from the arrival of Vasco da Gama in 1498 until the integration in the Indian Union of Goa, Daman, and Diu in 1961. There were two waves of Indian migration to Portugal. The first, in smaller numbers, came from Goa, Daman, and Diu in relation to their integration in the Indian Union. The second wave, in larger numbers (mostly from Mozambique and Angola), occurred in the 1970s after the Portuguese decolonization (1974–1975). However, data on population originating in India are very scarce as "data from the National Statistics Institute (INE) only concerns foreign populations (Indian nationality or India as place of birth)" (Lourenço, 2013, p. 4). According to the "Serviço de Estrangeiros e Fronteiras" (SEF) in 2018, there were 17,619 Indian registered citizens. These were mostly concentrated in the Lisbon area.

Four religious communities of Indians live in Portugal: Hindus, Muslims, Ismailis, and Roman Catholics of Goa (Malheiros, 1996). Their differences are marked not only by religion, but also by education. Globally, Goans have greater educational and occupational standing in comparison with other groups. In conformity with Singhvi et al. (2001), most Indian immigrants in this country work in retail or wholesale businesses and some serve as skilled or unskilled workers. The Indians are well integrated and present a low rate of child delinquency and school failure (Pinto, 2005). This study employs the theories of acculturation (Sam & Berry, 2016) to the case of Indian immigrants in Portugal.

Literature Review and Hypotheses

The process of intercultural contact has been conceptualized under the field of acculturation (Sam & Berry, 2016; Vinokurov et al., 2020). From this kind of contact, changes emerge at both individual (i.e., acculturative stress, health, and identity) and group levels (i.e., political, and economic structures) (Berry, 2017). Prominent forms of acculturation include antecedent factors, acculturation strategies, and acculturation outcomes (Te Lindert et al., 2008).

Antecedent factors concern the contextual conditions in the background of the acculturation process such as "the characteristics of the receiving society (e.g., perceived or objective discrimination), characteristics of the society of origin (e.g., political context), characteristics of the immigrant group (e.g., ethnic vitality) and personal characteristics (e.g., expectations, norms and personality)" (Celenk & Van de Vijver, 2011, p. 3).

Acculturation strategies were proposed in order to understand how immigrant people seek to relate to each other in the society of settlement (Berry et al., in press). In accordance with Berry's acculturation model (2017), members of non-dominant groups meet two main challenges in the society of settlement: the wish to maintain one's cultural heritage ("cultural maintenance") and the wish to participate in the settlement country ("host country participation"). From the intersection of these challenges "cultural maintenance" and "host country participation," four acculturation strategies arise labeled as assimilation, integration, separation, and marginalization.

Assimilation describes an immigrant's weak desire to maintain his/her own cultural identity but rather to have daily interactions in the larger society. Integration is the immigrant's wish to maintain his/her own cultural identity and to have daily interactions in the larger society. Separation is when an immigrant wishes to maintain his/her own cultural identity and has a low interest in interacting with other cultures. Finally, marginalization is when an immigrant has little desire to maintain his/her own cultural identity or to establish interactions in the larger society.

Acculturation outcomes concern the consequences of the acculturation process. Sociocultural and psychological outcomes have been distinguished (Ward et al., 2001). Sociocultural adaptation refers to the obtainment of culturally appropriate skills in order to operate effectively in a particular cultural context and is interpreted within the social learning paradigm (Ward & Rana-Deuba, 1999). Psychological adaptation involves the feelings of well-being, mental health, and life satisfaction in the new cultural setting and is interpreted within a stress and coping framework. Psychological adaptation is assessed through measuring well-being or psychological distress. Hence, self-esteem has been utilized as an indicator of psychological adaptation (Berry et al., 2006; Phinney et al., 1997).

Several psychosocial studies have been conducted with Indian adolescents in Portugal. Pinto and Neto (2008) found that Indian adolescents living in Portugal reported similar levels of life satisfaction as native Portuguese youth. Another study compared the level of happiness of Indian youths with Portuguese youths (Neto, & Pinto, 2010). Whether demographic and mental health variables predict happiness has been analyzed as well. Happiness was assessed with the Oxford Happiness Inventory (Argyle et al., 1989). Indian youth reported significantly greater happiness than native Portuguese youths. Furthermore, happiness was positively linked to self-esteem and life satisfaction and negatively linked to loneliness.

Neto and Neto (2009) examined the level of adaptation of Indian youth living in Portugal. The results showed that Indian adolescents seemed to be well-adapted. Regarding indicators of psychological adaptation, it was even found that Indian adolescents scored higher in self-esteem and lower in psychological problems than young Portuguese. The two groups did not differ in levels of satisfaction with life, mastery, and behavioral problems. The overall framework of the adaptation indicators that emerged showed that adaptation of young immigrants is similar to or even better than that of young Portuguese. These researchers advanced several factors to interpret those findings such as proficiency in the language of the host society, family and ethnic support, and tolerance of the Portuguese cultural context in relation to immigrants.

This set of results with Indian youth is consistent with the assumption that most immigrant people adapt well in new cultural contexts, notwithstanding the challenges they may encounter in response to cultural changes and to living at the confluence of cultures (Berry, 2017). All the previous studies concerned Indian adolescents, while the present study concerns psychosocial aspects of Indian adults.

This study has five objectives. The first objective is to analyze how Indians are acculturating to Portugal by scrutinizing their acculturation strategies. The acculturation literature has pointed out that integration is usually the most preferred strategy, and marginalization the least preferred (Sam & Berry, 2016). For

instance, research with immigrant adolescents who were settled in 13 societies (Berry et al., 2006) showed that 36.4% were integrated, 18.7% assimilated, 22.5% separated, and 22.4% were marginalized. In Canada, the majority of first-generation immigrants were in the integration group (Berry & Hou, 2016). In Portugal, integration was the most preferred strategy, and marginalization the least preferred strategy for Angolan, Cape Verdean, and Indian youth immigrants (Neto, 2002). In this research, we first consider the preference of acculturation strategies among adult Indian immigrants.

The second objective is to examine the level of well-being attained by Indian immigrants. We examine their adaptation in terms of well-being using the concept and measure of *self-esteem* as an indicator of psychological adaptation. International investigation has shown that acculturation strategies are related to immigrants' adaptation. For example, Berry et al. (2006) found a positive relationship between integration and psychological adaptation around the world. In Portugal, Neto (2010) found that integration is positively related to psychological adaptation of immigrant adolescents with family backgrounds from Angola, Cape Verde, Guinea-Bissau, India, Mozambique, São-Tomé, and East Timor. A meta-analysis supported these general relationships between the integration strategy and the psychological adjustment (Nguyen & Benet-Martínez, 2013). Integrated people evidence greater psychological adjustment than those utilizing other strategies. A more recent meta-analysis has also confirmed these results (Stogianni et al., 2021).

The third objective is to scrutinize the multiculturalism hypothesis. This hypothesis was first suggested by Berry, Kalin, and Taylor (1977). It proposes that confidence in one's own identity and place in society leads to the acceptance of cultural differences and to a reduction in discriminatory attitudes. This acceptance includes various aspects such as accepting cultural diversity, tolerance, reduction of discrimination, and accepting immigrants and ethno-cultural groups (Berry, 2013). In contrast, when one's own identity is threatened, individuals will develop hostility and prejudice (Stephan et al., 2005).

The multiculturalism hypothesis has been tested in diverse countries (e.g., Berry et al., 1977; Lebedeva & Tatarko, 2013; Phinney et al., 2007; Ward & Masgoret, 2008). In Canada, multicultural ideology and a sense of economic and cultural security were related to higher acceptance of immigrants (Berry et al., 1977). In New Zealand, Ward and Masgoret (2008) showed that security was linked in a positive way to multiculturalism and attitudes toward immigrants. In Portugal, native adolescents who were secure in their plural cultural context reported being both more tolerant of and more welcoming to immigrants (Neto, 2009). The multiculturalism hypothesis has also been tested in Portugal with the six numerically largest immigrant groups (Angola, Brazil, Cape Verde, Guinea-Bissau, Romania, and Ukraine) and Portuguese natives, and it has been largely supported (Neto & Neto, 2017). When immigrants were threatened by acts of discrimination, they showed a preference for separation and marginalization strategies. Furthermore, this view was expanded to intercultural expectations: for native Portuguese, perceived discrimination was predicted by segregation and exclusion. Additionally, positive intergroup attitudes, such as tolerance, perceived consequences of immigration, and attitudes toward ethnocultural groups, also emerged as significant predictors of multicultural

ideology. Therefore, multicultural ideology seems to be associated with acceptance of others. The Indian immigrants were not included in that study.

In the present study, we operationalize confidence in one's own identity and place in society as both feeling secure in Portugal and perceiving to be discriminated, which is the opposite to feelings of security. The concept of security includes cultural, economic, and personal security (Berry et al., 1977). Cultural security refers to issues such as language and identity; economic security involves an individual's status in society such as employment and income; personal security refers to persons' sense of safety to move around in their neighborhood and cultural setting. The level of discrimination perceived by immigrants is a core component of their acculturation. Perceived discrimination reveals attitudes of the new cultural context toward immigrants and concerns the perception of being unfairly regarded because of prejudice and ethnocentrism. It constitutes a potentially serious acculturative stressor, adversely affecting well-being and mental health (Carter et al., 2019; Gherghina, 2021; Sangalang et al., 2019).

Past research has shown that a higher sense of security predicts higher preference for integration and assimilation (Berry, 2017). This makes sense, as both acculturation strategies are grounded on seeking participation in the larger society. The opposite is also predicted by the multiculturalism hypothesis, that is, when people are threatened, namely by discriminatory events, they will prefer separation and the marginalization, and display low acceptance of culturally different others.

The fourth objective is to examine the relationships of ethnic identity with self-esteem. The concept of ethnic identity has been considered important in acculturation research (Kranz & Goedderz, 2020). Phinney (1995) described ethnic identity as being "that part of an individual's self-concept which derives from knowledge of membership in a social group, together with the value and emotional significance attached to the membership" (p. 58). Higher ethnic identity affords higher levels of emotional stability and personal security for immigrants (Phinney et al., 2001). Research has shown that ethnic identity and adaptation were positively related. For instance, ethnic identity was positively related to psychological adaptation in an international project (Berry et al., 2006). A stronger ethnic identity was associated with a greater psychosocial adjustment (Poyrazli, 2003).

Along this line, ethnic identity may be a relevant determinant of self-esteem. Past research showed positive links between ethnic identity and self-esteem (Phinney et al., 1997; Umaña-Taylor, 2004). For instance, a study with American-born high school students (Latinos, African Americans, and Whites) found that ethnic identity was a significant predictor of self-esteem (Phinney et al., 1997). Most of the investigation about ethnic identity was concentrated on studying adolescents and university students (Smith & Silva, 2011). In contrast, the present research concerns adult workers.

The fifth objective is to analyze whether the relationship between ethnic identity and self-esteem would be mediated by integration. These psychological variables were selected given their relevance in acculturation literature on immigrant well-being. An investigation gap in the field of acculturation is that studies have preponderantly analyzed direct effects of several predictors on adjustment and neglected indirect processes underlying the relationships between factors (Berry, 2017; Zhang

& Goodson, 2011). This research seeks to clarify the associations among ethnic identity and self-esteem by testing the potential mediating effect of integration. Integration usually appeared related to psychological adaptation as we have described above. There is also research supporting the assumption that the integration strategy constitutes an antecedent of psychological adjustment (Berry et al., 2006). This can contribute new insights to existing literature and offer empirical evidence that is likely to be used to improve psychological adaptation of immigrants.

To sum up, our hypotheses derived from the aforementioned research are:

1. Much of past investigations has shown that acculturating persons typically report a preference to utilize an integration strategy. We predict that the most preferred acculturation strategy by Indian immigrants will be integration.
2. Grounded on past research that immigrants utilizing the integration typically report greater levels of psychological adaptation than those achieving the other three acculturation modes, it is expected that integration will predict higher self-esteem.
3. Based on the multiculturalism hypothesis (the greater the immigrants' security, the greater is their acceptance of culturally different people), it is specifically predicted:

    H3$_a$ The higher is the feeling of being secure, the higher is acceptance of different ethnocultural groups (natives of the society of settlement and other ethnocultural groups of immigrants), integration, and assimilation.

    H3$_b$ The higher perceived discrimination is, the lower is attitude toward natives of the society of settlement, and the higher is a preference for separation and marginalization.
4. Grounded on the past research showing that immigrants with higher ethnic identity in general tend to present higher levels of psychological well-being, we expect that higher ethnic identity will predict higher self-esteem.
5. Higher ethnic identity will present an indirect positive effect on self-esteem via the positive effect of integration (mediation model).

No predictions are advanced about demographics, because the literature does not provide consistent results on the impact of background variables on adaptation (Ouarasse & van de Vijver, 2005; Kunuroglu, 2021; Phinney et al., 1997).

Method

Participants

The sample included 206 Indian immigrants, 46% of which were females and 54% were males. Ages ranged from 18 to 64 years ($M_{age} = 35.75$; $SD_{age} = 9.72$). The average duration of stay in the country of settlement was 26.22 years ($SD = 9.10$). Seventy-nine percent of the respondents were married. About work, the modal category was managerial work (35%). Concerning the education level, half of the participants

attended tertiary education. Regarding religion, most of the sample indicated as being Hindu (53.4%) (see Table 1).

Measures

Acculturation Strategies

This scale consists of 20 items, grounded on Berry's model (Berry et al., 1989; Neto, 2002). The four acculturation strategies (assimilation, integration, separation, and marginalization) were assessed, each with five statements. Example items of each acculturation strategy are as follows: "I feel Indians should adapt to mainstream in Portuguese society and not maintain their own traditions" (Assimilation); "I prefer to have only Indian friends" (Separation); "Indians should have both Indian and

Table 1 Socio-demographic characteristics of the Indian immigrants

	Indians ($N = 206$)
Mean age (SD)	35.75 (9.72)
Gender	
Male	112 (54%)
Female	94 (46%)
Mean years in Portugal (SD)	26.22 (9.10)
Marital status	
Married	162 (78.6%)
Not married	42 (20.4%)
Not answered	2 (1.0%)
Level of education	
Less than secondary school	57 (27.7%)
Secondary school	40 (19.4%)
Tertiary education	104 (50.5%)
Not answered	5 (2.4%)
Work	
Unskilled work	19 (9.2%)
Skilled work	30 (14.6%)
Managerial work	72 (35.0%)
Professional work	32 (3.1%)
Without work	49 (23.8%)
Not answered	5 (2.4%)
Religion	
Roman Catholic	10 (4.9%)
Muslim	25 (12.1%)
Buddhist	16 (7.8%)
Hindu	110 (53.4%)
Other	40 (19.4%)
Not answered	5 (2.4%)

Portuguese friends" (Integration); and "I don't want to attend either Portuguese or Indian social activities" (Marginalization). Responses were on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). In this sample, the internal consistency, evaluated through the Cronbach's alpha, of assimilation, integration, separation, and marginalization was 0.87, 0.88, 0.83, and 0.88, respectively.

Ethnic Identity

Ethnic identity was evaluated with four statements based on the Multigroup Ethnic Identity Measure (Neto & Neto, 2017; Phinney, 1992). An example item is as follows: "I am happy that I am Indian." Response choices ranged from "strongly disagree" (1) to "strongly agree" (5). Greater scores denote more ethnic identity. In the present sample, Cronbach's coefficient alpha was 0.96.

Self-esteem

To examine psychological adaptation, we measured self-esteem. The 10-item Rosenberg (1965; Neto & Mullet, 2004) self-esteem scale was utilized (e.g., "I feel that I have a number of good qualities" and "I feel that I do not have much to be proud of."). The items were responded on a 5-point scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Items were scored such that higher scores denoted higher self-esteem. In this sample, Cronbach's coefficient alpha was 0.71.

Security

This measure comprises thirteen items (Berry & Kalin, 1995; Neto, 2009). An example item is "This country is prosperous and wealthy enough for everyone to feel secure." The response choices ranged from 1 ("totally disagree") to 5 ("totally agree"). In this sample, Cronbach's coefficient alpha was 0.92.

Perceived Discrimination

This measure comprises 5 statements (Berry et al., 2006; Neto, 2006) assessing the experience of discrimination (e.g., "I don't feel accepted by the Portuguese."). Response choices ranged from 1 ("strongly disagree") to 5 ("strongly agree"). In this sample, Cronbach's alpha was 0.93.

Attitude Toward Nationals

The "feeling thermometer" was utilized to measure attitude toward Portuguese. It comprises a 100-point scale utilized to denote favorability toward national people (0 = *extremely unfavorable*, 100 = *extremely favorable*).

Attitude Toward Other Immigrants

The "feeling thermometer" was also used to measure attitudes toward 17 groups of other immigrants, such as Chinese, Timorese, and Venezuelans. A 100-point scale was utilized to denote the favorability toward those immigrant people (0 = *extremely unfavorable*, 100 = *extremely favorable*). In this sample, Cronbach's alpha was = 0.95.

Demographics

Respondents provided information about their age, gender, country of birth, length of sojourn, marital status, education level, work status, and religious affiliation.

Procedure

The recruitment of the respondents was achieved by a trained research assistant in the Lisbon Metropolitan area. Respondents were sought with the help of personal networks and snowball sampling. The recruitment was done in various places: shops, restaurants, and immigrant associations. It was a convenience sample, suitable in cross-cultural research when the research does not have access to an accurate list of an entire population, as is the case of immigrants (Lonner & Berry, 1986). The response rate was 90%. All procedures performed in studies involving human participants were in accordance with the national ethical standards and the 1864 Helsinki declaration and its amendments or comparable ethical standards. Participants were informed about the purposes of the research and gave informed consent. Participants were free to withdraw from the survey anytime without providing any motive. Fulfilment of the survey in general needed less than 30 min. Participation was anonymous and voluntary and not financially remunerated.

Data Analysis

Five kinds of analyses were performed. First, we calculated descriptive statistics of all scales to provide the respondents' global picture of their acculturation; for instance, there was interest to know if their average self-esteem score would be above or below the scale midpoint. Second, analyses of variance were performed to evidence eventual demographic effects. Third, to demonstrate the acculturation strategies affecting self-esteem, hierarchical regression models were conducted. Fourth, to test the multiculturalism hypothesis Pearson's correlations were calculated. Fifth, a mediation model was tested in which the antecedent variable (ethnic identity) influenced the intervening variable (integration), which in turn influenced the outcome (self-esteem) by means of path analysis. Data analysis was performed utilizing

IBM SPSS statistical software and IBM SPSS Amos (Version 26). The criterion for statistical significance was set at 0.05.

Results

Prior to testing the five hypotheses, descriptive statistics were calculated (see Table 2), and a set of ANOVAs were carried out to examine potential relations between demographics and self-esteem. One-sample t test indicated that the average score of self-esteem ($M=3.36$; $SD=0.62$) was significantly above the scale midpoint of 3 ($p<0.001$). Hence, globally, this sample seemed to reveal a slightly positive level of self-esteem. Also, the mean scores of attitude toward host members ($M=72.22$; $SD=28.15$), and ethnic identity ($M=3.71$; $SD=1.24$), were significantly greater than the midpoint of the scales (all $ps<0.001$), while the mean scores of assimilation ($M=2.61$; $SD=0.85$), separation (M=2.74; SD=0.82), marginalization ($M=2.60$; $SD=0.89$), and security ($M=2.64$; $SD=0.84$), were significantly lower than the midpoint of the scales ($ps<0.001$). The values of integration, attitude toward other immigrants, and perceived discrimination did not differ from the scale's midpoint. Therefore, these results seem to reflect that this sample of immigrants experienced high levels of attitude toward host members and ethnic identity, and low levels of assimilation, separation, marginalization, and security.

Next, we examined the relations between self-esteem and demographic variables.

Age Two age groups were formed: young adults (18 to 35 years), and middle-aged adults (36 to 65 years). Significant differences were found between age groups, [$F_{(1,\ 205)}=5.46$, $p<0.05$, $\eta^2=0.026$] on self-esteem. Young adults ($M=3.27$, $SD=0.54$) reported lower self-esteem than middle-aged adults (M=3.47, SD=0.68).

Table 2 Means, standard deviations, and reliability coefficients of the measures for the Indian immigrants ($N=206$)

	M	*SD*	Number of items	Cronbach's α
Assimilation	2.61	.85	5	.87
Integration	3.06	.93	5	.88
Separation	2.74	.82	5	.83
Marginalization	2.60	.89	5	.88
Self-esteem	3.36	.62	10	.71
Security	2.64	.84	13	.92
Attitude toward host members	72.22	28.15	1	---
Attitude toward other immigrants	52.82	20.64	17	.95
Perceived discrimination	2.92	.88	5	.93
Ethnic identity	3.71	1.24	4	.96

Gender No significant differences were found between men and women [$F_{(1, 205)} = 1.86$, $p > 0.05$, $\eta^2 = 0.009$] on self-esteem.

Marital Status No significant differences were evidenced between married migrants and those who were not married [$F_{(1, 203)} = 0.24$, $p > 0.05$, $\eta^2 = 0.001$] on self-esteem.

Education The effect of the level of education on self-esteem was not significant [$F_{(1, 200)} = 0.56$, $p > 0.05$, $\eta^2 = 0.006$].

Length of Residence As regards the duration of sojourn, two groups were formed: those with 25 years or less of duration of sojourn in the country, and those with more than 26 years. There were no length of residence differences for immigrants with a shorter length of stay and those with a longer length of stay [$F_{(1, 205)} = 1.84$, $p > 0.05$, $\eta^2 = 0.009$] on self-esteem. In sum, the effect of demographics on self-esteem was not prominent.

One-sample *t* test indicated that the score of integration ($M = 3.06$; $SD = 0.94$) was significantly higher ($p < 0.001$) than the score of assimilation ($M = 2.61$; $SD = 0.85$), separation ($M = 2.74$; $SD = 0.82$), and marginalization ($M = 2.60$; $SD = 0.89$). Therefore, the preferred acculturation strategy was integration which supports the first hypothesis.

To test whether acculturation strategies predict self-esteem, hierarchical multiple regression was performed. Before performing regressions, collinearity diagnostics was explored to guarantee that the variance inflation factor (VIF) did not surpass 10 and the tolerance statistics were all above 0.2 (Field, 2017). These analyses suggested no problems with collinearity. The same procedure was also used in the following regression analyses which were performed. To control for the potential confounding effects of demographics, they were entered in the first block. Acculturation strategies were added in the second block. In the first block, age emerged as a significant demographic predictor. In the second block, the results showed that 27% of the total variance in self-esteem could be explained by the independent variables, $F_{(9, 193)} = 7.38$, $p < 0.001$. Self-esteem was predicted by higher integration ($\beta = 0.44$, $p < 0.001$) (Table 3). These results support the second hypothesis.

To test the multiculturalism hypothesis, Pearson's correlations were used. As expected, security was positively correlated with attitude toward host members ($r = 0.40$, $p < 0.001$, 95% [CI] = [0.28, 0.52]), attitude to other immigrants ($r = 0.38$, $p < 0.001$, 95% [CI] = [0.24, 0.49]), assimilation ($r = 0.32$, $p < 0.001$, 95% [CI] = [0.12, 0.43]) and integration ($r = 0.54$, $p < 0.001$, 95% [CI] = [0.42, 0.62]). Perceived discrimination was negatively correlated with attitude toward nationals ($r = -0.14$, $p < 0.05$, 95% [CI] = [-0.27, 0.01]), and positively correlated with separation ($r = 0.59$, $p < 0.001$, 95% [CI] = [0.44, 0.49]), and marginalization ($r = 0.62$, $p < 0.001$, 95% [CI] = [0.44, 0.70]). These findings support our third hypothesis.

Path analysis was used for testing mediation effects of integration on the relationship between the level of ethnic identity and self-esteem. Skewness (-1.21 and 1.18) and kurtosis coefficients (between -0.44 and 0.55) for ethnic identity,

Table 3 Hierarchical regression models of demographic variables and acculturation strategies predicting self-esteem among immigrants

Variables	Block 1, β	95% CI	Block 2, β	95% CI
Age	.29**	[.01, .03]	.16	[.00, .02]
Gender	−.06	[−.26, .11]	−.10	[−.28, .03]
Level of education	.02	[−.10, .13]	−.02	[−.10, .10]
Length of residence	.01	[−.01, .01]	.07	[−.01, .02]
Marital status	−.13	[−.46, .06]	−.09	[−.35, .06]
Assimilation			−.15	[−.31, .08]
Integration			.44***	[.18, .40]
Separation			.07	[−.21, .25]
Marginalization			.09	[−.15, .26]
R^2	.07		.27	
Adjusted R^2	.05		.23	
F change	2.95*		12.05***	

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

integration, and self-esteem were between -2 and $+2$, which means that the univariate normality was met (Schumacker & Lomax, 2004). These data checks support the recourse to path analysis. As expected, all pairwise correlations among these measures were significant. Ethnic identity was positively correlated with integration ($r = 0.25$, $p < 0.001$, 95% [CI] = [0.15, 0.35]), and with self-esteem ($r = 0.20$, $p < 0.01$, 95% [CI] = [0.10, 0.30]). Additionally, integration was positively correlated with self-esteem ($r = 0.48$, $p < 0.001$, 95% [CI] = [0.38, 0.58]).

The findings of regression analyses testing mediation effect of integration on the relationship between ethnic identity and self-esteem can be seen in Fig. 1. The beta weight when ethnic identity was regressed alone on self-esteem was 0.20. Thus, hypothesis 4 was supported. The beta weight dropped from 0.20 to 0.09 when integration was appended into the equation. Approximately 24% of the variance in self-esteem was accounted for by the independent variables. The indirect effect was tested by means of a percentile bootstrap estimation approach with 1000 samples,
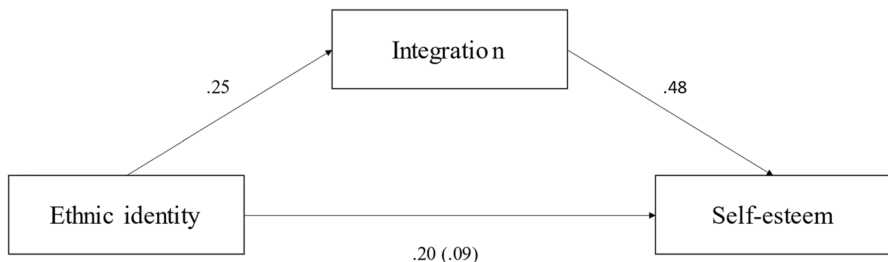
Fig. 1 Model of the mediating role of integration in the relationship between ethnic identity and self-esteem. Value in parentheses is the reduced beta coefficient when the mediator is presented

implemented with IBM SPSS Amos. These findings showed that the indirect coefficient was not significant, $\beta = 0.09$, 90% CI $= 0.03, 0.09$ (Fig. 1). In accordance with Baron and Kenny (1986), full mediation is achieved if the predictor variable (ethnic identity) has no significant effect on the outcome variable (self-esteem) when the mediator (integration) is controlled. Hence, our findings showed that integration fully mediated the relationship between ethnic identity and self-esteem; thus, hypothesis 5 was supported.

Discussion

This research set out to analyze several phenomena in relation to the acculturation and adaptation of Indian immigrants in Portugal: their acculturation strategies, their security, their attitudes toward ethnocultural groups, their perceived discrimination, their ethnic identity, and their self-esteem. It also aimed to comprehend the complex relationships among these factors. This research tested five hypotheses and the data supported all of them.

The most preferred acculturation strategy of this sample was integration; this finding supports our first hypothesis. This is very much in agreement with the findings of national (Neto, 2002; Neto & Neto, 2017) and international literature (Sam & Berry, 2016). The common preference of integration implies the shared recognition by immigrants that they are able to be "doubly engaged" in both their home culture and their host culture. According to Berry and Hou (2017), "the reason for this pattern of findings may be that individuals and groups come to realize that this is the most psychologically satisfying way of living in culturally plural societies" (p. 37).

We have examined how well the Indian immigrants were adapting while living interculturally. In accordance with the integration hypothesis, a preference of integration stimulates better psychological adjustment (Berry, 2017; Neto, 2020). This was evaluated with a measure of psychological adaptation: self-esteem. The average level of self-esteem was somewhat high (3.4 on a 5-point scale). Consistent with the integration hypothesis, we found that integration predicted significantly higher self-esteem. Based on this result, we conclude that our second hypothesis was supported. This result is in line with the usual results in the literature on psychological adaptation (Nguyen and Benet-Martínez, 2013; Stogianni et al., 2021). In the 17 country studies of MIRIPS (Mutual Intercultural Relations in Plural Societies) project, support for the integration hypothesis was found in 29 of 37 possible evaluations (Berry et al., in press).

We tested the multiculturalism hypothesis with feelings of security in Portugal and perceptions of discrimination. On one hand, we found that the higher feelings of security, the higher was the acceptance of other ethnocultural groups, and the higher the preference for integration and assimilation. On the other hand, we found that the higher perceived discrimination, the lower the attitude toward natives of the society of settlement and a higher preference for separation and marginalization. Therefore, we found support for our third hypothesis, in line with findings evidenced within diverse cultural settings (Lebedeva & Tatarko, 2013; Phinney et al., 2007; Ward & Masgoret, 2008). In the 17 country studies

of the MIRIPS project, support for the multiculturalism hypothesis was found in 36 of 39 possible evaluations (Berry et al., in press).

In this work, we looked into the association between ethnic identity and self-esteem, in addition to the mediating role of the integration strategy. Before examining the hypothesis, the findings pointed out that ethnic identity, integration, and self-esteem were all correlated. The findings of the regression analysis also evidenced the effect of ethnic identity on self-esteem, supporting the fourth hypothesis. As expected, ethnic identity significantly predicted immigrants' positive feelings. This is consonant with prior research showing that the level of ethnic identity is related to enhanced self-esteem (Bracey et al, 2004; Phinney et al., 2001). According to Bracey et al. (2004), "one explanation for this robust relationship is that high levels of ethnic identity serve to protect individuals from the effects of negative stereotypes and discrimination by providing them a larger frame of reference with which to identify and, in turn, protecting their psychological well-being" (p. 130).

In addition, the findings of the path analysis indicated that ethnic identity affected self-esteem not only directly, but also indirectly via integration. It can be assumed that ethnic identity not only enhances the immigrants' self-esteem directly, but also has indirect influence via the mediating effect of the integration strategy. These findings supported our fifth hypothesis.

Taken together, the present results provide a new understanding of the mechanism underlying the link of ethnic identity with self-esteem. Indian immigrants experiencing more ethnic identity tended to feel more integrated in the society of settlement and in turn experience higher self-esteem. Furthermore, this research contributes to the acculturation literature by establishing the central role of integration in explaining the relationship between ethnic identity and self-esteem, which indicates that targeting programs to enhance integration may help increase the self-esteem of immigrants.

Finally, concerning the demographics, the literature about the effects of various demographic variables on adaptation did not report coherent findings. Several studies have found inconsistent results on the predictive role of several variables such as age, gender, length of residence, and education level on adaptation (Kunuroglu, 2021). Our analyses of variance as well as regression analyses indicated that the demographic variables did not contribute prominently to the immigrants' self-esteem.

There are some limitations to our study. Firstly, the sample was recruited by the snowball technique, which limits its representativeness. Secondly, this is a correlational study, and the direction of effects cannot be established. Thirdly, this empirical study focuses on only one ethnocultural group. Future investigation is needed to explore whether present findings can be extended to other groups of immigrants in the same country or in other countries. Notwithstanding its limitations, to the best of our knowledge, the present research is the first to test the relationship and mechanism linking ethnic identity, integration, and self-esteem among Indian immigrants.

Conclusion

Integration was the dominant acculturation strategy for Indian immigrants living in Portugal, and integration predicted higher self-esteem. Support for the multiculturalism hypothesis was found. A path model evidenced that integration mediated the effect of ethnic identity on self-esteem. Ethnic identity experienced by Indian immigrants in Portugal and integration strategy play an essential role in their psychological adaptation.

The psychosocial implications of the present work are various and relevant. The findings provide important insights into the determinants of self-esteem. Our results suggest that ethnic identity plays a role in determining immigrants' self-esteem. Hence, counselors may incorporate the enhancement of ethnic identity in their work with Indian immigrants. Furthermore, as integration was shown to be a mediator between ethnic identity and self-esteem, another main implication of our results in order to increase psychological adaptation for a settlement policy is the promotion of engagement with both the home society and the new society by way of integration.

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