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Mexican-Origin Parents' Latent Occupational Profiles: Associations with Parent-Youth Relationships and Youth Aspirations

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Abstract

This study utilized an ecological, person-centered approach to identify subgroups of families who had similar profiles across multiple dimensions of Mexican-origin mothers' and fathers' occupational characteristics (i.e., self-direction, hazardous conditions, physical activity) and to relate these subgroups to families' sociocultural characteristics and youth adjustment. The study included 160 dual-earner Mexican-origin families from the urban Southwest. Mothers' and fathers' objective work characteristics and families' sociocultural characteristics were assessed when youth were in early to middle adolescence; adjustment was assessed during late adolescence and early adulthood for two offspring in each family. A latent profile analysis identified 3 profiles that evidenced distinct patterns of occupational characteristics: a *differentiated high physical activity* profile characterized by high levels of physical activity and low levels of self-direction; an *incongruent* profile characterized by large differences between parents on self-direction, hazards, and physical activity; and a *congruent highly self-directed* profile characterized by congruence across parents on occupational characteristics. These profiles were linked to sociocultural characteristics (i.e., family income, educational attainment, and acculturation) and to relational adjustment (i.e., mother- and father-youth conflict, father warmth) and educational aspirations. Results are discussed with respect to implications of parents' work for youth's future family relationships and attainment.

Keywords

aspirations; late adolescence/early adulthood; Mexican-origin families; parent-youth relationships; parental work

Parents' work is an important extra-familial context for youth development (Bronfenbrenner, 1986). A growing body of literature suggests that characteristics of parents' work contexts have important implications for youth adjustment. Some dimensions of parents' work, such as the occupational characteristic of self-direction (i.e., autonomy, complexity, minimal supervision), are linked to positive parent-child relationship quality

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and adjustment (e.g., Greenberger, O'Neil, & Nagel, 1994), whereas other dimensions (e.g., work stressors and pressure) are associated with problematic adjustment for youth (e.g., Goodman, Crouter, Lanza, & Cox, 2008). In the present study, we sought to examine the nature and developmental significance of parents' positive *and* negative work dimensions for adjustment among Mexican-origin families during late adolescence and early adulthood.

Mexican Americans are a rapidly increasing segment of the U.S. population that is comprised disproportionately of working poor families (U.S. Census Bureau, 2011) in unskilled labor positions (Nightingale & Fix, 2004), and the majority (68%) are dual-earner families (Hernandez, Denton, & Macartney, 2008). Mexican Americans are also a young population (U.S. Census Bureau, 2011), with large cohorts of adolescents transitioning to adulthood in the next several decades (Pew Hispanic Center, 2006). The sociocultural context these youth are embedded in is often characterized by economic hardship and parents' stressful work conditions (Suárez-Orozco & Suárez-Orozco, 2001). Despite these circumstances, no prospective studies have examined how variations in the work contexts of Mexican-origin parents are associated with family or youth adjustment, which, in turn, may be linked to the successful transition to adulthood (Masten, Burt, Roisman, Obradovi , Long & Tellegen, 2004). The present study was designed to help fill this gap.

Cultural-ecological perspectives (Bronfenbrenner, 1986; García Coll et al., 1996) stress the importance of developmental contexts and emphasize identifying features of proximal and distal contexts that foster or interfere with individual adjustment. As far as we know, this is the first study of its kind, and thus, the overarching purpose of our study was descriptive. We aimed to identify *patterns* of mothers' and fathers' occupational characteristics in early and middle adolescence as developmental precursors of adjustment in late adolescence and early adulthood in a sample of Mexican-origin dual-earner families. The specific goals of this study were threefold. Our first goal used a person-oriented approach (Magnusson, 1988) to identify and describe profiles of objective characteristics of both mothers' and fathers' occupations along three dimensions: self-direction, hazardous conditions, and physical activity. A person-oriented approach allowed us to identify subgroups of families that displayed similar patterns across multiple occupational components. Grounded in a cultural-ecological perspective (García Coll et al., 1996), our second goal was to identify sociocultural characteristics (i.e., socioeconomic resources, nativity, years living in the US, acculturation) of membership in the different profiles. This allowed for an understanding of the larger context within which family work experiences were embedded and provided rich descriptive information about the varying work contexts. The third goal was to explore the prospective links between occupational profiles in early and middle adolescence with two indicators of youth well-being: (a) relational adjustment, defined here as warmth and conflict with parents, and (b) future education and career aspirations in late adolescence and early adulthood; we also examined how these associations varied as a function of developmental status/birth order.

We chose parent-youth qualities and future aspirations as indicators of adjustment because they have been identified as being particularly important during the transition to adulthood (Masten et al., 2004; Steinberg, 2001). The quality of youth's relationships with parents has been linked to positive development during adulthood (e.g., O'Connor et al., 2011). For

Mexican-origin youth, the quality of parent-youth relationships may be particularly salient because of the cultural emphasis on family relationships (Cauce & Domenech-Rodriguez, 2002). Future education and career aspirations also are important for Mexican-origin youth as there is evidence of increased risk for low educational attainment (U.S. Census Bureau, 2011) and employment in unskilled labor positions (Nightingale & Fix, 2004). Prospective studies have documented the importance of educational (e.g., Beal & Crockett, 2010) and career aspirations (e.g., Schoon & Parsons, 2002) for later success in school and work.

Profiles of Mother-Father Occupational Characteristics

Ecological theorists propose that multiple macrosystems (e.g., economic, work) and components of these systems interact to shape adjustment (Bronfenbrenner, 1986). Scholars have identified parents' work contexts as an important macrosystem linked to youth development (e.g., Bronfenbrenner, 1986). As recognized in the work-family literature (Updegraff, Crouter, Umaña-Taylor, & Cansler, 2007; Yoshikawa, 2011), the occupational characteristics of self-direction, hazardous conditions, and physical activity may be particularly important for Mexican-origin parents who primarily work in service, sales, construction, and production positions (U.S. Census Bureau, 2011) that have long hours and low wages (e.g., Nightingale & Fix, 2004). Scholars have noted that the work-family literature has focused primarily on European American mothers (Perry-Jenkins, Repetti, & Crouter, 2000) and either positive *or* negative dimensions of work while controlling for other dimensions. Few studies have examined *patterns* of multiple domains of occupational characteristics (Perry-Jenkins et al., 2000) or the congruence between mothers' and fathers' occupations (Crouter & McHale, 2005) as linked to development and adjustment. As such, our first goal was to describe the occupational patterns that emerged, with expectations of within-family (i.e., mother-father) similarities and differences in occupations. We expected to describe patterns including families where both parents were in low-skill occupations with high levels of physical demands, patterns where both parents were in skilled or professional positions characterized by high self-direction, and patterns of mothers and fathers having differentiated occupational characteristics.

Sociocultural Context of Parents' Occupational Profiles

To better understand developmental processes and adjustment, scholars have recommended examining the sociocultural contexts within which development occurs (Bronfenbrenner, 1986; García Coll et al., 1996). Thus, the second study goal was to describe how the specific patterns of family occupational characteristics were linked to sociocultural characteristics in an effort to situate these family work profiles within the larger sociocultural context. Specifically, we examined whether families' socioeconomic resources (i.e., parents' educational attainment, financial resources), years in the US, nativity, and acculturation differed across patterns of occupational characteristics. One important measure of the sociocultural context is families' socioeconomic resources (i.e., parents' educational attainment, financial resources), which are important in shaping contexts of development (McLoyd, 1998), and are associated with different work characteristics. For example, parental education has been associated with higher prestige jobs (Nightingale & Fix, 2004), which are often characterized by high self-direction and low levels of hazards. Another

aspect of the sociocultural context for Mexican-origin families is their cultural backgrounds and experiences, including years in the US, nativity, and acculturation. Acculturation is a particularly important indicator of the process of cultural change as immigrants are adapting to the values, attitudes, and language of a host culture (Berry, 2006). Previous research has documented that parents born in Mexico, who are recent arrivals to the US and are less acculturated, may have more difficulties finding employment in skilled and professional positions (Nightingale & Fix, 2004). Differences in occupational self-direction, which often characterize professional positions, have also been found with the current sample, such that Spanish-speaking parents reported less occupational self-direction than their English-speaking counterparts (Updegraff et al., 2007). Based on this research, we expected that socioeconomic resources, years in the US, nativity, and acculturation may vary across occupational profiles.

Parents' Work Contexts and Relational Adjustment and Future Aspirations

Scholars have proposed that parents' work environments are an important extra-familial context linked to adjustment (e.g., Hsueh & Yoshikawa, 2007) across development, but may be particularly salient during adolescence. During this time, parents and adolescents begin renegotiating their relationships, often including changes in levels of acceptance, conflict, and patterns of communication (e.g., De Goede, Branje, & Meeus, 2009). Moreover, the developmental task of identity exploration becomes more salient during adolescence, as youth are beginning to consider and formulate aspirations for their future education and career (e.g., Grotevant, 1998). Parents and adolescents may be particularly sensitive to both the positive and negative aspects of parents' work contexts because of the potentially dynamic nature of this developmental period. Below, we review the theoretical and empirical links between parents' occupational characteristics and (a) relational adjustment (i.e., parent-youth warmth, conflict) and (b) future aspirations (i.e., education, career). We also consider how these associations may vary as a function of developmental status (i.e., late adolescence and early adulthood)/birth order (i.e., younger versus older offspring).

Relational adjustment

Relationship quality with parents is an important indicator of relational adjustment. There are two primary theoretical traditions that connect work to parent-youth relationships. The first tradition, work socialization (e.g., Kohn & Schooler, 1982), is based on the premise that occupational characteristics (e.g., self-direction) shape workers' beliefs, values, and world views that are then applied to family processes (e.g., parenting), which then influence adolescents' social and cognitive development. For example, mothers and fathers who worked in jobs that were low in complexity provided lower quality home environments for children, including less warmth (e.g., Greenberger et al., 1994; Goodman et al., 2008; Menaghan & Parcel, 1995), with some evidence of associations being stronger for fathers than for mothers (Greenberger et al., 1994). Research with the current sample indicated that self-direction is linked with higher levels of mother-adolescent relationship quality (i.e., higher warmth, lower conflict; Wheeler, Updegraff & Crouter, 2011). The second tradition, work stress (Perry-Jenkins et al., 2000), and in particular, the role stress perspective (e.g., Bolger, DeLongis, Kessler, & Wethington, 1989), suggests that stressful occupational

characteristics may link to parent-youth relationships through the negative influence of work on parents. Cross-sectional research with the current sample has found that stressful work conditions, such as hazardous and physically demanding conditions, are associated with less warm and more conflictual interactions between fathers and adolescents (Wheeler et al., 2011). Few, if any, studies have looked at the combination of mothers' and fathers' work characteristics on parent-adolescent relations (Crouter & McHale, 2005). Based on this limited literature, we posited that patterns characterized by hazardous and physically demanding occupations would be associated with lower levels of parent-youth warmth and higher levels of conflict, whereas patterns characterized by self-directed positions would be associated with higher levels of warmth and lower levels of conflict. As there is some evidence that female and male offspring have distinct relationships with parents in Mexican-origin families (e.g., Crockett, Brown, Russell, & Shen, 2007), gender was included as a control.

Future aspirations

During adolescence and early adulthood, identity exploration and preparation for adulthood are important developmental tasks (Grotevant, 1998). Parents' work has been identified as an important distal context for youth development (Bryant, Zvonkovic, & Reynolds, 2006). The work socialization (e.g., Kohn & Schooler, 1982) literature suggests that parents' occupational characteristics shape workers' beliefs, values, and world views that then influence children's internalized values, including aspirations, through social learning mechanisms (Bandura, 1986). Thus, it would be expected that parents' transmission of knowledge about their occupational characteristics would link directly to their children's educational and occupational aspirations (Bryant et al., 2006). Empirical studies on the links between parents' work and adolescents' future aspirations have primarily focused on parents' work status (e.g., hours worked, Harvey, 1999) rather than on specific occupational characteristics (e.g., self-direction). Based on the limited literature, we posited that occupational profiles characterized by high levels of self-direction would be linked to higher educational and career aspirations. Additionally, as youth gender has been found to be related to variation in planning for the future (Mello, 2008), it was included as a control.

The role of developmental status/birth order

The associations between occupational profiles and relational adjustment and future aspirations may differ for older versus younger youth who vary in both their *birth position* (i.e., older versus younger offspring in same family) and *developmental status* (i.e., late adolescence versus early adulthood). Based on prior work, we hypothesized that these associations would be stronger for older youth who transition from middle adolescence to early adulthood as compared to younger youth who transition from early to late adolescence. First, from a developmental perspective, youth in early adulthood are expected to have more clearly formulated aspirations for the future (Steinberg, Graham, O'Brien, Woolard, Cauffman, & Banich, 2009) and, thus, may be more aware of and influenced by parents' work experiences as they develop their own future career and education plans. Second, research suggests that older offspring are likely to assume more household responsibilities than younger offspring (e.g., Orellana, 2003) and, therefore, may be more likely to take on additional chores because of parents' work demands. As a result, parents' occupational

characteristics may have implications for the quality of parent-older offspring relationships in terms of lower warmth and greater conflict.

Method

Participants

Data came from a longitudinal study of adolescent development in 246 Mexican-origin families (Updegraff, McHale, Whiteman, Thayer, & Delgado, 2005). Given the goals of the larger study, criteria for participation were as follows: (a) mothers were of Mexican origin, (b) a 7th grader was living in the home and not learning disabled, (c) an older sibling was living in the home (in all but two cases, the older sibling was the next oldest child in the family), (d) biological mothers and biological or long-term adoptive fathers lived at home, and (e) fathers worked at least 20 hours/week. Most fathers (93%) also were of Mexican origin. Families were recruited through junior high schools in five districts and five parochial schools that served communities in a southwestern metropolitan area that was diverse ethnically, linguistically, and in socioeconomic status. Of eligible families (23% of the initial rosters and 32% of those who were contacted and screened for eligibility), 67% agreed to participate, 23% refused, and 10% were unreachable, with 246 families completing interviews (see Updegraff et al., 2005 for details). The current sample is a subset of the full sample that included only dual-earner families ($n = 160$; both mothers and fathers employed), given the focus on patterns of mothers' and fathers' occupational characteristics. Mothers, fathers, and two youth were interviewed in each family.

At Time 1 (T1), dual-earner families represented a range of socioeconomic levels from poverty to upper class, with 11% meeting federal poverty guidelines. Annual median family income was \$53,500, comparable to median dual-earner Mexican-origin family income (\$49,289) in the county from which the sample was drawn (U.S. Census Bureau, 2000). The majority of parents were interviewed in Spanish (60%), were born outside the US (65%), and lived in the US an average of 13.39 ($SD = 9.41$) and 14.60 ($SD = 8.69$) years for mothers and fathers, respectively. Parents completed an average of 10 years of education ($M = 10.96$, $SD = 3.64$ for mothers; $M = 10.47$, $SD = 4.19$ for fathers). The majority of fathers (62%) and mothers (73%) worked the day shift. Fathers and mothers worked an average of 46.64 ($SD = 11.62$) and 35.90 ($SD = 11.86$) hours weekly, and were in their current positions for 7.49 ($SD = 7.04$) and 4.03 ($SD = 4.95$) years, respectively. Mothers' occupations ranged in prestige from dishwasher to teacher, with the modal occupation of housekeeper, and for fathers, from car detailer to attorney, with the modal occupations of maintenance and construction workers. For youth, the younger offspring were 51% female and 12.71 ($SD = .58$) years of age. Older offspring were 48% female and 15.68 ($SD = 1.62$) years of age. The majority of youth was US-born (68% of younger offspring, 58% of older offspring) and interviewed in English (88% of younger offspring, 86% of older offspring).

The second set of interviews, conducted five years later when the younger offspring (i.e., late adolescents) were 17.70 years old ($SD = .54$) and the older offspring (i.e., young adults) were 20.69 ($SD = 1.65$), is referred to as Time 2 (T2); 78% of the families participated ($n = 124$ families; 123 mothers, 105 fathers, 119 younger offspring, 104 older offspring). Ninety-five percent of the younger and 65% of the older offspring were living at home at the Time 2

interview. Non-participating families at T2 ($n = 36$), compared to participating families, reported lower family income ($M = \$43,041$, $SD = \$30,171$ vs. $M = \$64,696$, $SD = \$39,833$), lower maternal education ($M = 9.68$, $SD = 3.45$ vs. $M = 11.33$, $SD = 3.62$), lower maternal job prestige ($M = 32.46$, $SD = 9.60$ vs. $M = 38.05$, $SD = 2.36$), and more children ($M = 4.06$, $SD = 1.43$ vs. $M = 3.44$, $SD = 1.14$) at T1. No other differences emerged for mothers or fathers.

Procedures

Data were collected at T1 and T2 during structured in-home individual interviews averaging three hours for parents and two hours for youth. Bilingual interviewers conducted interviews separately with each family member using laptops and reading questions aloud due to literacy variations. Families received \$100 and \$125 honorariums at T1 and T2, respectively.

Measures

Separate individuals translated all materials into Spanish and back into English for local Mexican dialect. A third native Mexican-origin translator reviewed final translations and the research team resolved discrepancies. We collected measures of parents' occupational, work, and sociocultural characteristics at T1 and relational adjustment and future aspirations at T2. Higher scores indicate higher levels of all constructs.

Parents' work background characteristics—Parents reported on the number of hours at work, and job descriptions (“What is your occupation? What are your main tasks and responsibilities?”). Parents' job descriptions were coded for *occupational prestige* (i.e., ratings of “social standing” from Census occupational categories) using the National Opinion Research Council (NORC) coding system (Nakao & Treas, 1994) with a range of 0 to 100.

Parents' occupational characteristics—Using data from the Occupational Information Network (O*Net; Peterson et al., 2001), which has been validated previously (Crouter, Lanza, Pirretti, Goodman, & Neebe, 2006), objective measures of maternal and paternal occupational characteristics were constructed using parents' job descriptions. The O*Net electronic database contains data reflecting the character of occupations that allows for the comparison of attributes (e.g., knowledge, skills, activities, tasks) within and across occupations. Occupational attributes were standardized on a 100-point scale and represented the degree of importance of a particular attribute to an occupation. Sixteen O*Net attributes (e.g., making decisions, solving problems) were averaged to create a measure of *self-direction* representing occupational complexity and management. Six attributes (e.g., contaminants, extremes of noise or temperature) were averaged to create the *hazardous conditions* measure representing stressors encountered because of physical hazards. Five attributes (e.g., running, standing) were averaged to create the *physical activity* measure representing the degree of occupational physicality. Cronbach's alphas were .96, .75, and .94 for mothers' and .94, .88, and .93 for fathers' self-direction, hazardous conditions, and physical activity, respectively.

Parents' sociocultural characteristics—Parents reported on their years of education, income, birth country (0 = Mexico, 1 = U.S.), and number of years living in the U.S. The measure of *annual family income* was a sum score of each parent's report of income from employment and any other source with a log transformation applied to correct for skew. To measure *acculturation*, parents completed the Acculturation Rating Scale for Mexican Americans-II (Cuéllar, Arnold, & Maldonado, 1995). Seventeen items assessed cultural orientations toward Mexican (e.g., "I enjoy Spanish language TV") culture and 13 items assessed orientations toward Anglo (e.g., "I think in English") culture, independently. Items were rated on a 5-point scale (1 = *not at all*, 5 = *extremely often or almost always*) with $\alpha = .89$ and $.92$ for mothers' and $.91$ and $.91$ for fathers' Mexican and Anglo orientations, respectively. The two scales were highly correlated, $r = -.51, p < .001$, for mothers and $r = -.56, p < .001$, for fathers. Given this pattern of correlations, we combined the two subscales by subtracting the Mexican orientations mean from the Anglo orientations mean to create a linear score that represented acculturation along a continuum from very Mexican oriented (low) to very Anglo oriented (high).

Relational adjustment—Youth responded to the *warmth/acceptance* subscale of the Children's Report of Parental Behavior Inventory (Schwarz, Barton-Henry, & Pruzinsky, 1985) on a 5-point scale (*almost never* to *almost always*). Items (e.g., "My mom/dad understands my problems and worries") were averaged to create scores ($\alpha = .89$ and $.94$ for late adolescents' and $.92$ and $.93$ for young adults' reports on mothers and fathers, respectively). Using an adapted version of measures by Smetana (1988) and Harris (1992), youth rated (1 = *not at all*, 6 = *several times a day*) the frequency of *conflict* with parents over the past year on 12 topics (e.g., How often in the past year did you had disagreements with your mom/dad about acting in ways your parents disapprove of or disobeying rules?), with $\alpha = .86$ and $.84$ for late adolescents' and $.86$ and $.84$ for young adults' reports on mothers and fathers, respectively.

Future aspirations—Youth reported on their *educational aspirations* by responding to the question, "How far would you like to go in school?" on a continuous scale representing the total number of years of education (e.g., 12 = *high school diploma*, 21 = *MD, JD, DO, DDS, OR Ph.D.*). Youth also reported on their desired future jobs (*career aspirations*) by responding to the question, "Thinking about five years from now, what kind of job would you like to have?" As described above, responses were coded for occupational prestige (Nakao & Treas, 1994).

Results

Goal 1: Mother-Father Occupational Profiles

To address *Goal 1*, latent profile analysis in Mplus 6.11 (Muthén & Muthén, 2008–2010) was used to identify family-level profiles of T1 mothers' and fathers' occupational characteristics (see Table 1 for descriptive statistics). Latent profile analysis is a method of finding subtypes of related cases from multivariate data and estimates the probability of an individual's membership in a profile based on a series of continuous item scores (i.e., manifest indicators, here maternal and paternal occupational self-direction, hazardous

conditions, and physical activity). The latent profile classes, categories of the latent profile variable, each contain individuals who are similar to each other and different from individuals in other profile classes.

Five unconditional latent profile models were estimated including only the uncorrelated manifest indicators (i.e., mothers' and fathers' self-direction, physical activity, and hazardous conditions). Model fit was evaluated using a number of reliable indices: (a) information criteria and likelihood ratio tests (Collins & Lanza, 2010); (b) the substantive interpretation of class solutions; (c) size of profiles; and (d) the conditional response means (i.e., the profile-specific means of the manifest indicators) were compared to the overall sample means to determine if each profile offered a unique pattern that was substantively different from other profiles. Results revealed that the 3-profile solution was the most optimal solution (see Table 2).

Goal 2: Mother-Father Occupational Profiles and Sociocultural Characteristics

To address *Goal 2*, the sociocultural context of the occupational profiles, including family income, parents' educational attainment, nativity, years in US, and acculturation were added as correlates in the latent profile model, as well as in all remaining models. This allowed for the examination of the sociocultural characteristics that were associated with profile membership (e.g., if those born in the US were more likely to be in a certain occupational profile). We first present the latent profiles and their structures, and then the results for the correlates.

Interpretation of profiles—Following Collins and Lanza's (2010) suggestion of refitting the model with additional covariates, the 3-solution model was refit to include the set of sociocultural characteristics. This model closely replicated the 3-profile solution from the unconditional model as shown in Table 2 and had good fit, indicating a stable model. The final solution of the three latent profile classes is depicted graphically in Figure 1. Table 3 presents the 3-profile solution with mean differences between mothers and fathers on the manifest indicators within and across profiles.

In the first profile, labeled *Differentiated High Physical Activity* (49.1%; $n = 79$), fathers and mothers reported high levels of physical activity (PA) and hazardous conditions (HC), and low levels of self-direction (SD) relative to the other profiles, although fathers were significantly higher than mothers on self-direction and hazardous conditions, and mothers were higher than fathers on physical activity. Jobs that typified this profile included construction and operations for fathers, and cleaning and food industry for mothers. The second profile (28.4%; $n = 44$) was labeled *Incongruent* and characterized by differences in mothers' and fathers' work conditions, such that fathers' occupations were characterized by higher levels of hazardous conditions and physical activity, and lower levels of self-direction as compared to mothers. Typical positions included janitorial and mechanical occupations for fathers, and teaching and sales for mothers. Third, the smallest group to emerge (22.5%; $n = 37$), *Congruent High SD*, was characterized by congruence, as both mothers and fathers worked in positions with the highest levels of self-direction and lowest levels of hazardous conditions and physical activity (as compared to the other profiles) and parents were not

significantly different from one another on any of the work characteristics. Typical positions were management and executive for fathers and office administration and accountancy for mothers.

Given the profiles did not include indicators of work demographic characteristics, pairwise tests using posterior probability-based multiple imputations (pseudo-class draws) in Mplus 6.11 were conducted to provide descriptive information about group differences in work hours and occupational prestige. For *work hours*, results revealed no differences. Turning to *occupational prestige*, families in the Differentiated High PA ($M = 34.56$; $\chi^2(1) = 55.24$, $p < .001$) and Incongruent ($M = 36.44$; $\chi^2(1) = 29.19$, $p < .001$) profiles had lower paternal occupational prestige than families in the Congruent High SD profile ($M = 48.67$). Results for mothers' occupational prestige revealed that families in the Differentiated High PA profile ($M = 28.41$) had lower maternal occupational prestige than families in the Congruent High SD ($M = 46.64$; $\chi^2(1) = 70.49$, $p < .001$) and Incongruent ($M = 43.51$; $\chi^2(1) = 89.61$, $p < .001$) profiles.

Examining sociocultural characteristics—Next, the links between the sociocultural characteristics and the occupational profiles were explored using the Congruent High SD profile as the reference group (see Table 4). Beginning with *family income* and *paternal educational attainment*, results revealed significant negative associations with profile membership indicating that families with higher incomes and higher paternal education were less likely to be classified in the Differentiated High PA and Incongruent profiles as compared to the Congruent High SD profile. For *maternal educational attainment*, families with higher maternal educational attainment were less likely to be in the Differentiated High PA as compared to both the Congruent High SD and Incongruent profiles. For *paternal acculturation*, there was a negative association such that families with higher levels of paternal acculturation were less likely to be in the Incongruent than the Congruent High SD profile. There were no other significant associations.

Goal 3: Occupational Profiles, Relational Adjustment, and Future Aspirations

To address *Goal 3*, latent profile analysis in Mplus was used to explore the prospective links between the occupational profiles at T1 and differences in relational adjustment (i.e., parent-youth conflict and warmth) and future aspirations (i.e., academic and career aspirations) at T2 (five years later) with full information maximum likelihood estimation (FIML) to adjust for missing data. Separate models were estimated for each domain (i.e., one model for relational adjustment and one for aspirations) that simultaneously included the sibling pairs (late adolescents and young adults within families). In the relational adjustment model, late adolescent and young adult reports with both mothers and fathers were included. Controls were the sociocultural characteristics (i.e., family income, parents' educational attainment, nativity, years in US, acculturation) on the latent profile variable and youth gender on the outcome variables. We also tested youth's living arrangements (i.e., living with parents or not) as a control variable and it was not associated with any of our outcome variables, and thus was not included in our final analyses. Variances of the outcome variables were constrained to be equal across the occupational profiles because of potential estimation problems due to the small sample. To account for the nested nature of the data, the

covariance was estimated within families (e.g., mother-youth warmth with father-youth warmth; late adolescents' and young adults' reports of mothers' warmth).

To test the *prospective* associations between the latent profile variable with differences in the outcome variables, the model constraint and model test procedures in Mplus were used to test for equality across the classes on the outcome variables. This method involves constraining the means of a particular outcome variable (e.g., mother-youth warmth) to be equal across profiles. To control for number of comparisons, we first conducted omnibus tests, such that means across all three profiles were constrained to be equal. A significant Wald test indicated that there was a difference in the outcome means across the profile classes. We then did follow-up analyses to determine which pairs of means were significantly different from one another. We used a similar approach to test the *moderating* role of developmental status/birth order on the associations between the occupational profiles with relational adjustment and future aspirations. That is, we constrained late adolescents' and young adults' means to be equal on a particular outcome variable (e.g., mother-youth warmth) across all three profiles and used the Wald test to determine significant differences. Below, we describe main effects of the latent profiles and then present the results of the moderation tests.

The 3-profile solution remained a stable model (i.e., both means and proportion of sample in each profile remained nearly identical to Figure 1) for the models testing profile links to adjustment. Results are described first for relational adjustment and then future aspirations (see Table 5). Starting with *paternal warmth*, results indicated that profile membership was associated with differences in father-youth warmth for late adolescents, $\chi^2(2) = 5.99, p = .05$, and young adults, $\chi^2(2) = 9.56, p < .01$. Follow-up tests revealed that youth in Congruent High SD profile reported higher levels of father-youth warmth compared to youth in Incongruent profile for late adolescents, $\chi^2(1) = 5.89, p < .05$, and young adults, $\chi^2(1) = 8.18, p < .01$, and in the Differentiated High PA profile, only for young adults, $\chi^2(1) = 5.38, p < .05$. Tests of moderation revealed that this difference was not significant by developmental status/birth order, $\chi^2(3) = 4.45, ns$, however. There was not a significant association of profile membership with differences in mother-youth warmth. Turning to *paternal conflict*, results indicated a significant association of profile with differences in father-youth conflict for young adults, $\chi^2(2) = 10.61, p < .01$. Follow-up tests revealed that young adults in the Differentiated High PA profile reported higher levels of father-youth conflict compared to young adults in the Congruent High SD, $\chi^2(1) = 7.79, p < .01$, and Incongruent profiles, $\chi^2(1) = 7.80, p < .01$. The moderation tests indicated these differences were not significant across developmental status/birth order, $\chi^2(3) = 4.45, ns$. Turning to *maternal conflict*, results indicated an association of profile with differences in mother-youth conflict for both offspring: late adolescents, $\chi^2(2) = 6.70, p < .05$, and young adults, $\chi^2(2) = 9.66, p < .01$. Similar to father-youth conflict, follow-up tests indicated that youth in Differentiated High PA profile had higher levels of mother-youth conflict than youth in the Congruent High SD profile for both offspring: late adolescents, $\chi^2(1) = 3.80, p = .05$, and young adults, $\chi^2(1) = 8.64, p < .01$, and the Incongruent profile for both offspring: late adolescents, $\chi^2(1) = 6.32, p < .05$, and young adults, $\chi^2(1) = 6.85, p < .01$. This pattern of associations was moderated by sibling birth order, $\chi^2(3) = 8.04, p < .05$, such that the

difference between late adolescents and young adults on maternal conflict was greatest in the Congruent High SD profile relative to other profiles, $\chi^2(1) = 4.73, p < .05$ (see Table 5 for means).

Table 5 also presents the results for future aspirations. Starting with *educational aspirations*, results indicated an association of profile with differences in educational aspirations for both offspring: late adolescents, $\chi^2(2) = 14.11, p < .001$, and young adults, $\chi^2(2) = 17.19, p < .001$. Follow-up tests revealed that for late adolescents, those in the Congruent High SD profile had higher levels of educational aspirations as compared to those in the Differentiated High PA, $\chi^2(1) = 12.24, p < .001$, and Incongruent profiles, $\chi^2(1) = 5.58, p < .05$. For young adults, those in the Congruent High SD profile, $\chi^2(1) = 16.69, p < .001$, and the Incongruent profile, $\chi^2(1) = 6.52, p < .05$, had higher levels of educational aspirations as compared to those in the Differentiated High PA profile. Tests of moderation were not statistically significant, $\chi^2(3) = 4.94, ns$. There was not a significant association of profile with career aspirations.

Discussion

Guided by cultural-ecological (Bronfenbrenner, 1986; García Coll et al., 1996) and person-oriented (Magnusson, 1988) perspectives, the present study highlighted the role of Mexican-origin parents' work contexts as prospectively linked to relational adjustment and future aspirations during late adolescence and early adulthood. As an initial foray into the examination of parents' work contexts during early to middle adolescence as related to adjustment during late adolescence/early adulthood, we employed a within-family, ethnic-homogenous, prospective design to explore these associations. Overall, our findings revealed evidence of varied patterns of mothers' and fathers' occupational characteristics within and between families, of sociocultural characteristics as correlates of profile membership, and of profile membership as prospectively linked to differences in adjustment.

Family Patterns of Occupational Characteristics and Sociocultural Characteristics

Latent profile analyses revealed three quantitatively and qualitatively distinct family-level objective occupational profiles (i.e., Differentiated High Physical Activity, Incongruent, and Congruent High Self-Direction) as embedded within varying sociocultural contexts. The Differentiated High Physical Activity profile emerged as the most common profile, including nearly half of the families in this sample. Parents in this group were in occupations that were highly physical and hazardous. The prevalence of this occupational profile coincides with research on the work contexts of immigrants in the U.S. (e.g., Nightingale & Fix, 2004). Most interesting, though, was that mothers were significantly higher than fathers on physical activity *within* this profile. Physically demanding jobs have been thought to be typically dominated by men (Jacobs & Steinberg, 1990). In contrast, recent studies have found that women in immigrant families assume physically active jobs in the service industry, possibly because of the restriction of available jobs for this population (Eggerth, DeLaney, Flynn, & Jacobson, 2012). The sociocultural context of families in this profile included low family income, and the lowest levels of occupational prestige and paternal education. Remarkably, for maternal education, families in this profile fell in between the

other two profiles, such that they had higher levels than mothers in the Incongruent profile, but lower levels than mothers in the Congruent High Self-Direction profile. This was unexpected as occupations characterized by high levels of hazardous conditions and physical activity do not typically require high levels of education (Nightingale & Fix, 2004). This may be indicative of trends that show that some immigrants who enter the US with sufficient education, nevertheless, are underemployed (Nightingale & Fix, 2004).

The second largest profile, the Incongruent pattern, was characterized by the largest differences between parents on hazardous conditions and physical activity, with fathers being significantly higher than mothers on both dimensions. This seemed to typify traditional working class immigrant families, as fathers had low levels of acculturation and fathers and mothers held gender-typed positions (e.g., fathers as mechanics and mothers as teachers). In particular, this profile revealed substantial variability in work roles within families with mothers being in highly self-directed positions with moderate levels of prestige, whereas fathers were in highly physical and hazardous positions with low levels of prestige. Furthermore, the sociocultural context of families in the Incongruent profile was characterized by lower income, paternal education, and acculturation than families in the Congruent High Self-Direction profile. This profile is consistent with prior work showing that Mexican immigrant men, as compared to women, have a more difficult time of transitioning out of lower-skill positions (Blau & Kahn, 2007).

In the Congruent High Self-Direction pattern (the smallest profile) there was evidence of high levels of congruence across parents as compared to the other profiles. High levels of self-direction and low levels of hazardous conditions and physical activity characterized this profile for both mothers and fathers. This profile had high levels of occupational prestige as compared to the Differentiated High Physical Activity profile for both mothers and fathers and the Incongruent profile for fathers. This profile includes predominantly professional workers, a group that is well represented in the literature (Perry-Jenkins et al., 2000).

Occupational Profiles and Relational Adjustment and Future Aspirations

Patterns of mother-father objective occupational characteristics were prospectively associated with adjustment during late adolescence/early adulthood in complex ways that varied by youth developmental status/birth order. We posited from a work socialization perspective (Kohn & Schooler, 1982) that occupational profiles that included self-directed as compared to hazardous and physical positions may be associated with more positive parent-youth relationship quality. In support, both late adolescents and young adults in families in the Congruent High Self-Direction profile reported higher levels of warmth with fathers than those in the Incongruent profile. These findings suggest that, among dual-earner Mexican-origin parents, a family work context characterized by congruence in mothers' and fathers' occupational characteristics and high levels of self-direction in combination with low levels of hazards and physical activity is important for youth's warm and supportive relationships with fathers. These findings are consistent with theory (Kohn & Schooler, 1982) and empirical findings for young children (Greenberger et al., 1994; Goodman et al., 2008). Also consistent with theory (Bolger et al., 1989), both late adolescents and young adults in the Differentiated High Physical Activity profile reported the highest levels of

conflict with fathers and mothers as compared to the other profiles. This lends support to theory (Edwards, & Rothbard, 2000) purporting that parents' experiences in work contexts spillover to the home. In particular, the current study identified a particular combination of parents' occupational characteristics (high levels of mothers' and fathers' occupational physical activity and hazards, with low levels of mothers' and fathers' self-direction) as linked to differences in parent-youth conflict, moving beyond previous studies linking individual dimensions of work to family relationship qualities. As an important next step, future research should investigate the possible mediating and moderating mechanisms (e.g., the role of culture, acculturation processes, differential monitoring or other aspects of parenting, parents' division of labor) that may indirectly or differentially link parents' work contexts to relational adjustment. Overall, this study took an important first step in understanding the parental work context as a developmental precursor to relational adjustment among Mexican-origin families.

The findings linking patterns of mother-father occupational characteristics to differences in educational and occupational aspirations were consistent with ideas suggesting that work contexts inform youth's aspirations through social learning (Bandura, 1986; Kohn & Schooler, 1982). We posited from a work socialization perspective (Kohn & Schooler, 1982) that occupational profiles that included highly self-directed positions may be associated with more positive educational and career aspirations. Findings revealed partial support as educational but not career aspirations varied across work contexts. Both late adolescents and young adults from families in the Congruent High Self-Direction profile, which was characterized by both parents being in self-directed positions, reported higher levels of educational aspirations compared to the other work contexts. These findings highlight the importance of parents' work contexts as precursors to youth's educational aspirations.

These results have potentially important implications for late-adolescent and early-adult adjustment of Mexican-origin youth, a population whose strengths are vastly understudied (Umaña-Taylor, 2009). Youth in families in the Differentiated High Physical Activity profile reported the highest levels of conflict with fathers and mothers as compared to the other two profiles. Youth in this profile also had the lowest levels of educational aspirations. Overall, this work context may disadvantage youth in their future educational and occupational attainment. Families in the Incongruent profile typified traditional working class immigrant families and had low levels of mother- and father-youth conflict and high levels of educational aspirations. This work context may be protective for youth's relational adjustment and educational aspirations by having at least one parent working in a highly self-directed occupation with low levels of hazards and physical activity. This self-directed work context of mothers may not only be directly linked to differences in adjustment, but may also buffer the effects of fathers' work context, which was hazardous and physically active. Families within the Congruent High Self-Direction profile were the most acculturated group and in highly self-directed positions, and this profile was associated with *more* warmth with fathers and *less* conflict with parents. These youth also had high levels of educational aspirations, in accord with research on primarily European American families, which suggests that parents who work in highly self-directed positions have positive spillover effects to youth functioning (Perry-Jenkins et al., 2000). Thus, when parents work in

highly self-directed and prestigious positions and have more socioeconomic resources, there are many benefits for developing youth.

Limitations and Future Directions

As with all exploratory research, the present results need to be replicated in future studies. Additionally, there are several limitations to consider. First, this study focused on a specific Mexican-origin population: dual-earner families in the Southwest with two offspring navigating the developmental periods of late adolescence and early adulthood. Replications of the findings should include Mexican-origin families from different geographic locations or with different family and work structures to foster the generalization of findings to other subgroups of this population. Second, the nature of the sample was such that over 75% of parents were born in Mexico; thus, it was not possible to disentangle effects of parents' acculturation and nativity. It is important for future research to employ samples that have more variability in the indicators of language use, acculturation, and nativity to disentangle the roles that each of these indicators play in the availability of work opportunities and, thus, how they shape family experiences. Third, the roles of birth position and developmental status are limited in the literature that examines parental work contexts and youth outcomes, as these two variables are confounded (i.e., older offspring are higher in both birth order rank and developmental status than younger offspring). Thus, it is important for future studies to extricate the separate influence of birth order and developmental status by, for example, using data from different time points for older and younger offspring who are the same age.

Despite these limitations, the present study makes several contributions to the literature on parental work contexts as precursors of youth adjustment. First, this study used a sample of primarily nonprofessional couples to add important diversity to a literature dominated by studies of professional, middle-class workers and their families (Perry-Jenkins et al., 2000). Second, this study moved beyond variable-oriented research that examines single dimensions of occupational attributes to describe *profiles* of multiple dimensions of occupational characteristics as precursors of adjustment. Third, studies of work-family dynamics have relied mostly on between-family comparisons of mothers and one child. By including multiple family members (i.e., mothers, fathers, and sibling pairs), this study provided rich information on the linkages between work and family contexts and highlighted between- and within-family processes. The *between-family* differences (e.g., occupational profiles were differentiated by father-youth warmth) highlight the variability within the Mexican-origin population on work-family linkages. *Within-family* differences (e.g., differences in maternal conflict between younger and older offspring pairs varied by occupational profile) draw attention to possible non-shared factors that contribute to different developmental experiences of members of the same family (e.g., Dunn & Plomin, 1990), as well as the value of incorporating the experiences of *both* mothers and fathers.

Conclusion

In conclusion, this study extends research on work-family processes among Mexican-origin parents and adolescents, highlighting issues important for both future research and policy that supports families. The findings underscore the importance of patterns of parents'

occupational characteristics, including self-direction, hazards, and physical activity, as well as the significance of these contexts for youth adjustment during late adolescence and early adulthood. As one of the first studies to examine these associations, it demonstrates the need for further understanding work-family linkages particularly for vulnerable populations who have difficult work situations, and draws greater attention not only to the developmental risks but also the potential assets of Mexican-origin parents' workplaces. Our findings suggest the importance of workplace policy initiatives aimed at improving occupational characteristics for these workers as they have the potential of spilling over to improve the lives of their families.

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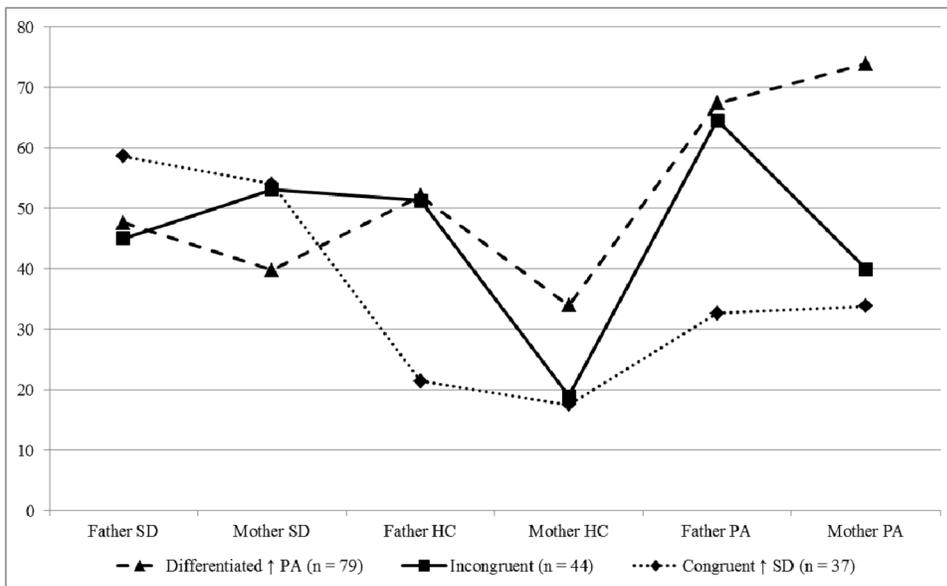


Figure 1. Latent profile indicator means for the 3-profile solution. $N = 160$ families. SD = self-direction. HC = hazardous conditions. PA = physical activity. Bayesian information criteria = 7611.98, adjusted Bayesian information criteria = 7472.69; Lo-Mendell-Rubin log likelihood test = 132.57, $p < .05$; adjusted Lo-Mendell-Rubin log likelihood test = 130.96, $p < .05$; bootstrap likelihood-ratio test = 132.57, $p < .05$; and latent class probabilities = .97, .95, .96.

Table 1

Descriptive Statistics for Study Variables (N = 160 Families)

Variable	Time	Fathers		Mothers										
		M	SD	M	SD									
<i>Latent profile manifest indicators</i>														
Self-direction	T1	49.36	10.13	46.80	11.65									
Hazardous conditions	T1	44.93	18.05	25.93	12.50									
Physical activity	T1	58.77	18.97	55.20	22.24									
<i>Work demographics</i>														
Work hours	T1	46.64	11.62	35.90	11.86									
Occupational prestige	T1	38.32	10.39	36.77	11.99									
<i>Sociocultural characteristics</i>														
Family income	T1	4.70	.26	4.70	.26									
Educational attainment	T1	10.47	4.18	10.96	3.63									
Nativity	T1	.35	.47	.34	.47									
Years in US	T1	24.46	15.61	22.64	15.14									
Acculturation ¹	T1	-.73	1.53	-.92	1.49									
<i>Adjustment</i>														
Warmth with parent														
Late adolescents ²	T2	3.47	1.06	3.84	.91									
Young adults ³	T2	3.43	1.03	4.08	.80									
Conflict with parent														
Late adolescents ²	T2	2.09	.70	2.33	.77									
Young adults ³	T2	2.00	.77	2.06	.82									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Late Adolescents²</th> <th>Young Adults³</th> </tr> </thead> <tbody> <tr> <td>Educational aspirations</td> <td>T2 16.11</td> <td>2.52 16.02</td> </tr> <tr> <td>Career aspirations</td> <td>T2 53.44</td> <td>14.29 52.89</td> </tr> </tbody> </table>							Late Adolescents ²	Young Adults ³	Educational aspirations	T2 16.11	2.52 16.02	Career aspirations	T2 53.44	14.29 52.89
	Late Adolescents ²	Young Adults ³												
Educational aspirations	T2 16.11	2.52 16.02												
Career aspirations	T2 53.44	14.29 52.89												

Note. T1 = time 1, T2 = time 2. Nativity: 0 = Mexico, 1 = US.

¹ Difference score created by subtracting Mexican from Anglo Orientations.

² Younger offspring.

³ Older offspring.

Table 2

Model Fit Indices for the Latent Profile Classification Analyses (N = 160 Families)

Profiles	BIC	ABIC	LMR	Adjusted LMR	BLRT	Class assignment probabilities
1	7931.15	7893.16	-	-	-	-
2	7724.35	7664.20	242.31*	235.69*	242.33*	.97, .98
3	7655.78	7573.47	104.10*	101.25*	104.10*	.91, .96, .96
4	7619.82	7515.35	71.49*	69.53*	71.49*	.94, .99, .95, .93
5	7618.63	7492.00	36.72	35.71	36.72*	.89, .95, .96, .98, .99

Note. AIC = Akaike information criterion; BIC = Bayesian information criterion; ABIC = sample-size adjusted Bayesian information criterion; LMR = Lo-Mendell-Rubin, BLRT = bootstrap likelihood-ratio test. Bolded text indicates the optimal solution. In particular, the 3-profile solution was the best fitting and most parsimonious model as compared to the 4-profile solution as the Lo-Mendell-Rubin log likelihood tests were close in significance levels for the 3- and 4-profile solutions and the change in the Bayesian information criteria and adjusted Bayesian information criteria decelerated after the 3-profile solution. Further, the 3-profile solution had larger sample sizes per each profile as compared to the 4-profile solution.

* $p < .05$.

Table 3

Latent Profile Analysis Conditional Response Means

Occupational characteristics	Profiles		
	DPA (<i>n</i> = 79) <i>M</i>	IN (<i>n</i> = 44) <i>M</i>	CSD (<i>n</i> = 37) <i>M</i>
Self-direction			
Father	47.66 _a	45.04 _a	58.60 _b
Mother	39.79 _a	53.14 _b	54.00 _b
F-M difference	7.87 _a ***	-8.09 _a **	4.60 _b [†]
Hazardous conditions			
Father	52.05 _a	51.31 _a	21.38 _b
Mother	33.97 _a	18.90 _b	17.51 _b
F-M difference	18.08 _a ***	32.41 _b ***	3.87 _c
Physical activity			
Father	67.38 _a	64.62 _b	32.66 _c
Mother	73.94 _a	39.89 _b	33.78 _b
F-M difference	-6.56 _a ***	24.73 _b ***	-1.12 _a

Note. DPA = differentiated high physical activity, IN = incongruent, CSD = congruent high self-direction. F-M = father compared to mother within profile. Means in the same row that do not share subscripts are significantly different from one another at $p < .05$.

[†]
 $p < .10$.

**
 $p < .01$.

 $p < .001$.

Table 4

Coefficients for the Three-Class Model including the Sociocultural Characteristics

Sociocultural characteristics	CSD vs. DPA			CSD vs. IN		
	Logit	SE	Odds ratio	Logit	SE	Odds ratio
Family income	-5.06**	2.04	.01	-3.74*	1.51	.02
Educational attainment						
Fathers	-.31*	.12	.73	-.36*	.12	.70
Mothers	-.46*	.17	.63	-.15	.15	.86
Years in US						
Fathers	.06	.08	1.06	.04	.07	1.04
Mothers	-.13	.10	.88	.02	.06	1.02
Nativity						
Fathers	.04	2.05	1.04	-.21	1.71	.81
Mothers	2.70	2.28	14.85	-.53	1.33	.59
Acculturation						
Fathers	-1.23†	.68	.29	-1.14**	.42	.32
Mothers	-.30	.78	.74	.50	.60	1.65

Note. N = 160 families. DPA = differentiated high physical activity, IN = incongruent, CSD = congruent high self-direction.

† p < .10.

* p < .05.

** p < .01.

Table 5
Time 1 Latent Profile Classes as Linked to Mean Differences in Time 2 Relational Adjustment and Aspirations

Latent profile classes	Relational Adjustment Model						Future Aspirations Model					
	Warmth with Fathers		Warmth with Mothers		Conflict with Fathers		Conflict with Mothers		Education		Career	
	LA	YA	LA	YA	LA	YA	LA	YA	LA	YA	LA	YA
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>
Differentiated/High Physical Activity	3.56 _{ab}	3.56 _a	3.85 _a	4.01 _a	2.20 _a	2.34 _b	2.56 _b	2.46 _b	15.71 _a	15.29 _b	51.26 _a	51.83 _a
Incongruent	3.17 _a	3.40 _a	3.91 _a	4.38 _a	2.02 _a	1.83 _a	2.09 _a	1.91 _a	15.81 _a	16.96 _a	54.55 _a	53.96 _a
Congruent/High Self-Direction	3.85 _b	4.12 _b	4.06 _a	4.13 _a	2.01 _a	1.77 _a	2.17 _a	1.81 _a	17.43 _b	17.11 _a	52.72 _a	57.57 _a

Note. *N* = 160 Families. LA = late adolescents/younger offspring, YA = young adults/older offspring. Youth gender was included as a control on the outcome variables. The sociocultural characteristics (i.e., family income, educational attainment, years in the US, nativity, acculturation) were included as correlates of the latent profile variable. Means in the same column that do not share subscripts are significantly different at $p < .05$.