



Published in final edited form as:

J Fam Issues. 2016 July ; 37(10): 1384–1411. doi:10.1177/0192513X14541444.

Parental Involvement with College Students in Germany, Hong Kong, Korea, and the United States

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Abstract

Rates of college attendance have increased throughout the world. This study asked whether students across nations experience high involvement with parents (frequent contact and support) and how satisfied they are with parental involvement. College students from four major Western and Asian economies participated: Germany ($n = 458$), Hong Kong ($n = 276$), Korea ($n = 257$), and the United States ($n = 310$). Consistent with solidarity theory, students across nations reported frequent contact with parents and receiving several forms of social support (e.g., practical, emotional, and advice) every month. Multilevel models revealed Asian students received more frequent parental support than German or US students, but were less satisfied with that support. Students in Hong Kong resided with parents more often and gave more support to parents than students in other cultures. Discussion focuses on cultural (i.e., filial obligation) and structural (i.e., coresidence) factors explaining parental involvement.

Keywords

college student; parent child relationship; social support; solidarity theory; young adult; emerging adulthood; education

Increasing numbers of young adults are enrolling in universities worldwide (National Center for Education Statistics, 2009). This prolonged education leads to questions about intergenerational ties. Culture plays a key role in shaping family relationships (Antonucci & Birditt, 2011), but a shared status may elicit homogeneity in parent/child ties. Across nations, college students may be highly involved with parents. Student status involves continuation from adolescence in some respects, and dependency on parents may persist.

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The academic calendar typically provides longer vacations than in the work world, allowing students to spend time with parents. Finally, parents may invest in students because college is the path to a successful future.

Nonetheless, parents' relationships with young adult students may differ across countries. In Western cultures, emerging adulthood includes exploration of identity, dependency on parents, and delayed responsibilities (Arnett, 2000). In Asian cultures, individuals are less likely to experience a prolonged transition, and responsibilities towards others begin in early adulthood (Arnett, 2000). Likewise, structural differences in tuition and opportunity to attend university generate variability in students' ties to parents. Western cultures favor a flow of support from parent to child until the end of life (when support patterns may reverse), whereas Asian countries value support from grown child to parents starting in young adulthood (Fingerman et al., 2011; Grundy & Henretta, 2006). Norms of filial piety also render intergenerational households more common in Asia than in the US or Germany (Kim, Cheng, Fingerman, & Zarit, in press).

This study examined college students' ties to parents in two Western (i.e., Germany and the US) and two Asian (i.e., Hong Kong and Korea) nations. We asked how higher education is associated with similarity and differences in parent-child ties across countries.

Similarity in Parental Involvement with College Students across Nations

This study drew on intergenerational solidarity theory to consider similarities in students' ties to parents (Bengtson, 2001). According to this perspective, positive features of intergenerational ties such as high contact and frequent support exchanges are reciprocally linked (Bengtson, 2001; Lowenstein, 2007). Thus, students' ties may involve frequent support from parents as well as frequent contact.

Moreover, intergenerational solidarity theory specifies the "developmental stake hypothesis" that is, parents are more heavily invested in the tie than children because they view their children as a legacy (Giarrusso, Feng, & Bengtson, 2005). This may be the case particularly for college students. Across cultures, parents may invest a great deal in young children to prepare them for college. Then, student status may evoke parental support due to the importance of a college degree for future success. Research in the US and Europe has found parents offer tangible (e.g., financial) and non-tangible support (e.g., advice) to children attending college (Attias-Donfut & Wolff, 2000; Fingerman et al., 2012); the same may be true in Asian countries.

Cross-National Differences in Parental Involvement with College Students

Although we expected parents to be highly involved, we also expected cross-national differences in level of involvement. Both cultural values and public policies may generate differences in parent-child relationships across nations (e.g., Kohli, 1999; Kohli, Albertini, & Künemund, 2010).

Cultural values for intergenerational support

Cultural values regarding family support influence individuals' behaviors (Becker, Beyene, Newsom, & Mayen, 2003; Fuligni, 2007; Lowenstein, Katz, & Gur-Yaish, 2007). In Western cultures, norms of filial obligation require grown children to support aging parents who suffer physical or mental declines (Zarit & Eggebeen, 2006). Studies in the US (Fingerman et al., 2011), the UK (Grundy & Henretta, 2006), and European nations find parents provide more financial and intangible support to grown children than the reverse (Albertini, Kohli, & Vogel, 2007).

In contrast, rules of filial piety in Asia dictate respect and provision of support to parents even in young adulthood, and grown children avoid asking parents for support (Kim et al., in press; Nelson, Badger, & Wu, 2004). There has been a loosening of filial piety values in Asia recently (Sung, 2004) and Asian students today may be less concerned with respect for older generations than their parents were. Nonetheless, these beliefs have a strong history in Asia.

Furthermore, differences may be evident in students' reciprocation of parental support due to filial beliefs. Research reveals that college students in Asian countries may be concerned with reciprocating support in general, due to norms of interdependence (Kitayama & Uchida, 2004; Sung, 2004). Thus, we expected German and American students to receive more frequent support than students in the Asian countries, but Asian students to give more support to their parents.

University attendance and tuition

Structural factors shape access to higher education and influence support patterns. The base level of higher education in a society may contribute to parents' views of whether offspring require support. If college attendance is rare, parental investment may be greater during college.

Attendance in higher education has risen worldwide, but varies by nation. In 2011 (when data were collected), only 49% of German young adults passed the Abitur examination (a qualifying examination for college); 55.3 % of these young adults continued with university (i.e., 26% of German youth; Federal Statistical Office Germany, 2012). In the US, 69% of young adults continue education following high school, but only 39% of young adults complete a four-year degree (National Center for Education Statistics, 2009). Among Hong Kong students who finish high school (known as secondary school), 53% enter university. Many of these young adults study abroad (e.g., the US, the UK, Canada); 18% of young adults attend Hong Kong universities (Hong Kong Special Administrative Region, 2012). Currently, Korea has the highest rate of post-secondary education attendance in the world; 80% of Korean young adults who graduate high school enter college (Korean Education Development Institute, 2010). In countries where fewer young adults attend four-year colleges (e.g., Germany and the US), parents may be more involved with young adults who do so.

Moreover, as Kohli (1999) has suggested, governmental programs may shape family support. When government programs are generous, families may give less support. In

Germany, tuition for public university is covered by federal funding, and individuals who gain entry to public universities pay nominal fees between €300 and €1,000 (euro) per year. In the US, federal loans, need-based scholarships, and student employment help pay tuition, but parents incur considerable financial burdens. The average cost for a public four-year university in the US was \$15,600 in 2010-2011 (National Center for Education Statistics, 2012). In Hong Kong, the government subsidizes tertiary education; tuition is around HK \$42,000 (\$5,385 US dollar) per year. In most cases, parents cover tuition. In Korea, sources of tuition include public and private loans, students' part-time jobs, and a small percentage (5%) receive scholarships. Over 70% of Korean students list their parents as the main source of their tuition (Kyunghyang News, 2009; Yonsei University, 2011). Thus, parents in all nations may provide financial support to cover tuition, but those costs are higher in the US than in European or Asian nations.

Coresidence with parents

Scholars argue that coresidence is a form of support due to the value of rent and household expenses (Schoeni & Ross, 2005). Individuals in shared households also have opportunities to exchange daily support (Becker et al., 2003).

Cultural beliefs also are associated with the likelihood of intergenerational coresidence (Newman & Aptekar, 2006). Asian adults view parent-child coresidence in adulthood as more desirable than do adults in the US or Germany (Kim et al., in press). In Hong Kong, housing is particularly expensive and unavailable, approximately half of college students reside with parents (Chinese University of Hong Kong, 2012). A majority of Korean college students (60%) reside with parents (Yonsei University, 2011). By contrast, in Germany, approximately 37% of adults aged 18 to 34 years reside with parents, and college students are likely to reside apart from parents (Choroszewic & Wolff, 2010). In the US, 80% of freshmen who attend public state universities reside in dormitories or apartments during the academic year and only 13% reside with parents; these patterns are likely to persist throughout college (Pryor et al., 2012).

Evaluations of Support and Different Types of Support

Finally, students may feel more positively about parental support in some cultures. Young adults in the US benefit from receiving tangible (e.g., financial) and non-tangible (e.g., advice and emotional) support from parents (Fingerman et al., 2012; Umberson, 1992).

In Asian cultures, individuals rarely seek explicit social support in general and are likely to view explicit support from any party unfavorably (Kim, Sherman, & Taylor, 2008). Asian young adults may believe that it is not appropriate to upset other people by asking for support (Kim, Sherman, Ko, & Taylor, 2006; Taylor et al., 2004). Moreover, as mentioned previously, Asian students may view it as their duty to support their parents (rather than the reverse; Kim et al., in press). Thus, students in Asian countries may evaluate parental support less favorably than students in Western countries.

Moreover, parents in different cultures may provide different types of support. Explicit support includes financial, practical support, advice, or discussing problems (e.g., emotional

support). Implicit support may involve simply spending time and listening to the other person (Kim et al., 2008; Uchida, Kitayama, Mesquita, Reyes, & Morling, 2008). Studies have shown that students from Asian countries typically respond well to implicit support, and students from the US may be less likely to benefit from implicit support (Uchida et al., 2008), but these patterns have not been examined in relationships with parents. Although overall parental support may be lower for Asian students, Asian parents may offer implicit types of support (e.g., listening and companionship) as frequently as Western parents.

Other Factors Associated with Parental Support

We controlled for other factors associated with parental involvement, including gender of grown children. In Western countries, daughters receive more support than sons (Raley & Bianchi, 2006). In Asian countries, traditionally parents favored sons over daughters and retained stronger ties to sons (Das Gupta et al., 2003). We also controlled for child's age. Parents provide more support to younger than to older grown children (Fingerman, Miller, Birditt, & Zarit, 2009; Hartnett, Furstenberg, Birditt, & Fingerman, 2013; Swartz, Kim, Uno, Mortimer, & O'Brien, 2011). Age of college attendance varies by country. In Hong Kong and the US, young people go from high school to university around age 18. The Abitur in Germany (prior to 2011) required an additional year of high school. Korean students often take an extra year in high school to compete for entrance into universities and men may complete two years of mandatory military service after freshmen or sophomore year in college.

Further, well-educated parents provide more frequent support to grown children than less well-educated parents (Schoeni & Ross, 2005). We also included parental work status; individuals who are employed for pay may have fewer available hours to help family members (Bianchi & Milkie, 2010). We included parental marital status because parents who are married have a shared investment in their grown children and provide more support to grown children than are parents who are divorced, remarried, or single (Aquilino, 2005; Kalmijn, in press).

In sum, this study considered many aspects of parental involvement including: frequency of contact, support from parents, and coresidence. We also examined support students provided to parents and evaluations of support received from parents. We expected students across nations to report frequent contact and support from parents. Nonetheless, we expected students in Western countries (i.e., Germany, the US) to receive explicit support (e.g., practical support, advice) more frequently than students from Asian nations (i.e., Hong Kong, Korea). We expected parental implicit support (e.g., listening, companionship) would show no differences. Further, we expected students in the US to receive the most financial support due to tuition costs.

We predicted students in Asian nations would be more likely to reside with parents, and thus have more frequent contact with parents. Asian students would provide more frequent support to their parents associated with that coresidence and with cultural values of filial piety. Finally, we expected students in Asian countries to evaluate receipt of parental support less favorably than students in Western countries.

Method

Participants were recruited at high caliber universities providing a four-year degree (or equivalent) in each nation. Each university was ranked within the top 500 universities according to reputable rating systems (Academic Rankings of World Universities, 2011; Center for Measuring University Performance, 2010). Recruitment occurred via psychology, social or natural science classes for course credit or payment of \$10 (for students not eligible for credit).

Participants completed a web-based survey translated from English and back-translated into the appropriate language by native speakers of the language who were fluent in English. Participants received a link to the survey and password via their course instructor.

We further limited the sample. We did not include individuals who had immigrated to the host nation in the past five years, excluding students who immigrated to attend college. Seventeen participants over age 25 were excluded. Finally, six participants who did not have living parents and eight participants with missing data on variables regarding parental support were eliminated from our analysis. We analyzed data from 1,301 college students.

Participants identified each of their parents ($N = 2,456$). They answered questions about each living parent, their mother and father, separately. Most students had two living parents. Of these parents, 99.1% of mothers were biological, with six stepmothers and four adoptive mothers (distributed across the four nations) and 98% of fathers were biological with nine stepfathers and ten adoptive fathers (distributed across the four nations). Table 1 includes background information for the sample. More female than male students participated. On average students were aged 18 to 22 and in their second or third year of college. We asked about each parent separately, but we present background information regarding mothers and fathers combined. On average, parents were in their 50s. Most parents were married and over half worked full-time.

Measures

Coresidence—Students indicated whether they lived with a parent or parents year round, lived in a dormitory or apartment while attending university. In analyses, we compared students who resided with parents year round (coded 1) to students who resided in a dorm or apartment during the academic year or year round (coded 0).

Contact with parents—Students indicated frequency of contact with their mother and their father separately: (a) in-person, (b) by telephone, and (c) by email, rated 1 (*less than once a year or not at all*), 2 (*once a year*), 3 (*a few times a year*), 4 (*monthly*), 5 (*a few times a month*), 6 (*weekly*), 7 (*a few times a week*), and 8 (*daily*). Email contact was infrequent and was not considered further.

Support exchanges—Participants completed the *Intergenerational Support Index* (ISI; Fingerman et al., 2011). The ISI assesses six types of family support: emotional, practical, companionship, advice, financial assistance, and listening to others talk about daily events rated 1 (*less than once a year or not at all*), 2 (*once a year*), 3 (*a few times a year*), 4

(*monthly*), 5 (*a few times a month*), 6 (*weekly*), 7 (*a few times a week*), and 8 (*daily*). Some of these items (e.g., financial, practical, and emotional support) have been used in cross-national studies in Europe and Israel (e.g., Albertini et al., 2007; Lowenstein et al., 2007). Participants completed the six items for how much support they received *from* and provided *to* each of their parents, their mother and father. Regarding reliability, α ranged from 0.82 to 0.84 for support received and from 0.81 to 0.86 for support provided across the four nations. We considered the ISI as a scale and also looked separately at each type of support with consideration of explicit types of support (e.g., financial, practical, advice, and emotional support) and implicit types of support (e.g., listening and companionship) participant received from their mother and their father.

We were interested in financial support via tuition or allowance. Participants answered items (1 = *yes*, 0 = *no*) regarding parental help with: (a) tuition or fees for college and (b) an allowance for expenses. Regarding reciprocal support, participants indicated whether they: (a) provide money to the parent on a regular basis and (b) help parent pay for household expenses.

Evaluations of support—Participants indicated the extent to which each parent gave support they wished to receive. This item was rated 1 (*not at all*) to 5 (*a great deal*).

Filial obligation—Participants completed a four-item measure of filial obligation used in Europe and Israel (Lowenstein et al., 2007). Sample items included: “Adult children should live close to their older parents so that they can help if needed” and “Parents are entitled to some return for the sacrifices they have made for their children” rated from 1 (*strongly disagree*) to 4 (*strongly agree*). Alphas were 0.67 Germany, 0.72 Hong Kong, 0.73 Korea, and 0.67 US.

Control variables—Control variables included offspring demographic characteristics: gender (1 = *male*, 0 = *female*) and age. Year in college (e.g., freshmen and sophomore) highly correlated with offspring age ($r = 0.73$) and was not included in analyses. We controlled for each parent’s characteristics: gender (1 = *father*, 0 = *mother*), years of education, marital status (1 = *married*, 0 = *not married*), and work status (1 = *works full-time*, 0 = *not working full-time*).

Analytic Strategy

We tested measurement equivalence for the scales across nations via confirmatory factor analysis. The *Intergenerational Support Index* showed the same factor structure (i.e., one-factor) and similar factor loadings across nations. Consistent with a study of ten nations (Lowenstein et al., 2007), we also found one factor for the filial obligation scale across nations.

To account for the nested structure of the data, we used multilevel models. Students answered questions about their mother and their father separately (i.e., two parents nested within students). Predictor and control variables were grand-mean centered. We considered frequency of contact, support, and evaluations of support as continuous outcomes using the PROC MIXED procedure in SAS (Littell, Milliken, Stroup, & Wolfinger, 1996). We treated

“*nation*” as a categorical predictor variable in alphabetical order (i.e., the US as comparison category). Tukey-Kramer post-hoc tests compared each of the four nations.

For coresidence, the majority of participants’ parents (84%) were married and resided in the same household. Thus, we treated coresidence as one outcome per student (rather than two parents nested within student) via logistic regression (SAS PROC GLIMMIX) coding coresidence with one or both parents = 1 and residing in a dorm or apartment = 0.

Further, we asked whether coresidence and cultural values (i.e., filial obligation) explained observed cross-national differences in support provided to parents. With a categorical predictor (i.e., nation) instead of traditional tests of mediation, comparisons of model fit statistics may explain whether additional variables account for more variance in a model (Iacobucci, 2012). In MLM, model fit comparisons use the -2 log-likelihood indicators with the difference in number of parameters as degrees of freedom in a chi-square (Singer & Willett, 2003).

Results

Descriptive Statistics

Contact with parents and coresidence—In Table 2, we present average contact with mothers and fathers combined for descriptive purposes. On average, students reported talking with each parent by phone once a week or a few times a month. In-person contact varied by nation, occurring monthly, a few times a month, weekly or daily, depending on the country. Over half of students in Hong Kong lived with parents, over a third lived with parents in Korea, and fewer than a fifth lived with parents in Germany or the US.

Support from parents—Averages of support exchanged with parents from the *Intergenerational Support Index* are found in Table 2. The mean for each type of support is shown in Figure 1. On average, grown children reported receiving the six types of support monthly or a few times a month. In Germany, Korea, and the US, the most frequent type of support was a mother or father listening to the student talk about daily life, occurring at least once a week. In Hong Kong, practical support occurred as frequently as talk about daily life.

Students in all four nations received assistance paying tuition: 68% in Germany, 74% in Hong Kong, 73% in Korea, and 75% in the US received parental help with college fees (not shown in table). Moreover, 50% in Germany, 65% in Hong Kong, 66% in Korea, and 44% in the US received an allowance.

Support provided to parents—By contrast, on average, students reported providing their parents support only several times a year (Table 2). Specifically, students listened to their parents talk about daily life every week or every few weeks (See Figure 1). Few gave financial support to parents: in Germany 4%, in Hong Kong 6%, in Korea 5%, and in the US 6% of students reported ever providing money or paying for household expenses (not shown in table).

Models for Cross-National Differences in Parental Support, Coresidence, and Contact

Support received from parents—Hypotheses regarding support from parents were as follows: (a) students in Western nations (i.e., Germany and the US) would receive explicit support (e.g., practical support and advice) more frequently than students in Asian nations, (b) implicit support (e.g., listening and companionship) would show no cross-national differences, and (c) students in the US would receive the most financial support.

As can be seen in Table 3, the overall model revealed a significant cross-national difference in parental support. Tukey post-hoc tests showed students in Hong Kong received more total support than students in Korea, the US or Germany. Also, students in Korea received more total parental support than students in the US or Germany.

With regard to explicit support, Tukey post-hoc tests revealed students in Asian countries (i.e., Hong Kong and Korea) received more frequent practical support than students in Germany or the US (i.e., Hong Kong > Korea > US = Germany). Students in Korea and Hong Kong also received more frequent financial support than students in Germany. Thus, we did not find support for the hypothesis that students in the US would receive the most frequent financial support. We did not find significant cross-national differences for emotional support or advice.

With regard to implicit support, Tukey post-hoc tests revealed students from Hong Kong socialized with their parents more often than students in other nations. Students from Korea and the US reported their parents listened to them more frequently than students from Hong Kong.

As can be seen in Table 3, several control variables also were significantly associated with parental support. Daughters received more support than sons. Younger offspring received more support than older offspring (except emotional support). Mothers provided more support than fathers did (except financial support). Parents with more education provided more support (except practical support). Also, parents who were married provided more support. Working parents provided more financial support, but they provided less practical support or listening.

Coresidence and contact—We predicted that students in Asian nations would be more likely to coreside with parents, and have more frequent contact with parents (see Table 4). Tukey post-hoc tests revealed students in Hong Kong and Korea were more likely to coreside with parents than students in the US or Germany. Moreover, students from Hong Kong were more likely to coreside with parents than students in Korea, and students from Germany were more likely to coreside than students in the US (i.e., Hong Kong > Korea > Germany > US).

Regarding contact, students in Hong Kong had more frequent contact in person with parents than students from the other nations. Students from Korea also had more frequent in-person contact than students from Germany or the US (i.e., Hong Kong > Korea > Germany > US). Students in Hong Kong had more frequent phone contact with parents than students from

other countries; students in Korea and the US had more frequent phone contact than students from Germany (i.e., Hong Kong > Korea = US > Germany).

Support provided to parents and evaluations of support received—We expected Asian students to provide more frequent support to their parents. The multilevel model for support students provide *to* parents is found in Table 5. In Tukey post-hoc tests, students from Hong Kong provided more support to parents than students from the US or Germany.

We also expected students in Asian countries to evaluate receipt of parental support less favorably than students in Western countries. The multilevel model for evaluations of whether parents gave desired support revealed cross-national differences (see Table 5). Consistent with predictions, Tukey post-hoc tests indicated students from Korea and Hong Kong were less satisfied with parental support than students in Germany or the US.

Coresidence and filial obligation as predictors—We examined whether coresidence accounts for differences in support exchanges. When coresidence was included in the model for support received from parents, cross-national differences (i.e., Asian vs. Western countries) disappeared. With regard to the -2 log-likelihood difference between the original model (Table 3) and the model with coresidence (Table 6) for receipt of parental support, $\chi^2 = 78.8, p < .001$; inclusion of coresidence improved the model fit. In findings not shown in the table, coresidence partially accounted for cross-national differences in practical support, financial support, listening to talk about daily life, and companionship.

Coresidence also explained the cross-national differences in support offspring provide *to* parents. When coresidence was included in the model, previous cross-national differences (i.e., Hong Kong vs. Western countries) disappeared. The -2 log-likelihood difference between the original model (Table 5) and the model with coresidence (Table 6) for provision of support to parents, $\chi^2 = 96.3, p < .001$, again indicated a better fit for the model.

When we entered coresidence in the model for in-person contact, differences between Korea and Western countries disappeared, though differences between Hong Kong and other countries remained (Table 6). The -2 log-likelihood difference between the original model (Table 4) and the model with coresidence (Table 6) for in-person contact was significant, $\chi^2 = 784.4, p < .001$. However, in the model for phone contact, coresidence was not significant.

To examine whether differences in support reflected cultural values we reran the model, entering filial obligation. Cross-national differences in support provided to parents disappeared with filial obligation in the equation. The -2 log-likelihood difference between the original model (Table 5) and the model with filial obligation (Table 6) was significant, $\chi^2 = 186.2, p < .001$. Thus, inclusion of filial obligation improved the model for support provided to parents.

Discussion

This study examined college students' relationships with their parents in two Western and two Asian countries. College attendance is becoming a normative facet of young adulthood around the world, and we asked whether educational experiences are associated with

similarity in parental involvement in different nations. Indeed, we found that certain aspects of parent-child relationships were similar, but we also identified differences associated with cultural and structural factors.

Similarities in Student Involvement with Parents

Findings suggest a degree of homogeneity in relationships between parents and students cross-nationally. College students in four nations reported frequent contact and receiving many types of support from parents fairly often.

Thus, we found support for intergenerational solidarity theory regarding associations between contact and intergenerational support (Bengtson, 2001; Fingerman et al., 2012) and also regarding the generational stake (Bengtson & Kuypers, 1971, Giarrusso et al., 2005). Completion of college is associated with future economic benefits (Furstenberg, 2010; Schoeni & Ross, 2005). Parents may be highly involved with students as an investment in their future success (Fingerman et al., 2009). Parental involvement also may reflect continuity of patterns established in childhood that facilitated the child's entrance into university.

We also found similarities in demographic characteristics associated with parental involvement. Despite cultural differences, age and gender were associated with parental involvement across countries. Consistent with studies in Western countries, younger grown children engaged in more frequent contact and received more support than did older grown children (Hartnett et al., 2013; Swartz et al., 2011). Mothers were in more frequent contact and provided more support than fathers (Raley & Bianchi, 2006). In addition, young women were more likely to engage in contact and to receive more frequent support from parents than were young men. In Asian countries, traditionally, sons cared for parents in late life, and even in early adulthood sons were more involved with parents than daughters (Kim et al., in press; Lin & Yi, 2013; Yeh, 2009). Thus, greater involvement of daughters may reflect a trend towards less traditional family support patterns in Asia (Sung, 2004).

In all four countries, married parents provided more support than parents who were not married. These findings may partially reflect a skew in the sample of parents (most parents were married), but are consistent with studies of parental marital status in the US (Aquilino, 2005). Similarly, as in prior research conducted in the US and the UK (e.g., Henretta, Wolf, van Voorhis, & Soldo, 2012; Johnson, 2013), parents with higher education provided more support to grown children. Thus, although parental education differed across nations, parental education mattered for support of offspring in all four countries.

Cross-national Differences in Relationships with Parents

Findings also revealed unexpected differences with regard to support. Based on norms of filial piety (Kim et al., in press) and preferences regarding the flow of intergenerational support (e.g., Grundy & Henretta, 2006; Fingerman et al., 2012), we had expected students in Western nations to receive more frequent parental support than students in Asian nations. Unexpectedly, Asian students reported more frequent support from parents, particularly: advice, financial support, and companionship. The findings were surprising because Kim et al. (2008) had found that in general, Asian college students demonstrate an aversion towards

explicit types of support (e.g., advice, practical support, and financial support). But in this study, students in Asia received more advice and finances from parents than students in the US and students in Hong Kong received the most practical support. These findings suggest that parents may provide students with support they deem necessary or helpful, even in cultures that may typically value implicit over explicit support.

We also observed differences between students in the two Asian countries, however, with students from Hong Kong receiving more practical support, and more companionship than students from Korea and students from Korea receiving more listening. Structural factors (e.g., housing arrangements) and cultural factors (e.g., obligation beliefs) contributed to the observed cultural differences.

Coresidence—As expected, rates of coresidence were higher in Asian countries than in Western countries (e.g., Kim et al., in press), but rates of coresidence differed across all four countries. Indeed, Newman and Aptekar (2006) also found large national differences in intergenerational coresidence in Europe. For adults aged 18 to 35, 10% resided with parents in Scandinavian countries, compared to 60% in Southern European countries (e.g., Spain). Public policies such as government subsidies and public housing for students accounted for these cross-national differences. Similarly, in the present study, coresidence may reflect structural factors, such as population density, availability of dormitories, rental apartments and subsidies.

Values for coresidence also may vary by culture. A qualitative study in the US found ethnic differences in coresidence associated with differences in beliefs about family (Becker et al., 2003). Thus, students and parents in countries with high rates of coresidence also may share beliefs that such coresidence is a desired norm.

Coresidence also played a role in parental contact and support. Students reported the most frequent in-person contact in Hong Kong, where they also were more likely to coreside with parents. Clearly, coresidence facilitates in-person contact. Coresidence also may facilitate support. Offspring who coreside with parents can easily turn to them for advice and practical help (e.g., parents do the student's laundry when s/he has an exam). Alternately, relationship factors that encourage coresidence (e.g., filial obligation) may encourage other forms of support.

Support provided to parents and filial piety—College students reported providing little support to their parents, regardless of nation, although they provided more frequent implicit forms of support (e.g., listening) than explicit forms of support (e.g., financial). Students in Hong Kong provided their parents with more frequent support than students in other nations, and students from Korea provided similar levels of support. The observed cross-national differences were consistent with filial piety (Kim et al., in press; Sung, 2004). Cultural values, in the form of filial obligation, helped account for these differences in support provided to parents.

This study considered young adults, but findings were consistent with literature regarding aging parents. Studies in the US, Europe, and Israel found associations between individuals'

beliefs about obligation and actual support of parents in late life (Lowenstein & Daatland, 2006; Silverstein, Gans, & Yang, 2006). Similarly, this study found that beliefs about obligation to parents were associated with college students' provision of support to parents.

Evaluations of support—As expected, Asian students were less satisfied with parental support than students from Western countries. In general, young adults in Asian cultures view social support less favorably than young adults in the US (Kim et al., 2008). We had initially anticipated a distinction between implicit and explicit support that did not bear out, however. Prior studies suggested that Asian students might receive less explicit support and be less satisfied with explicit support they did receive (Kim et al., 2006; Kim et al., 2008; Uchida et al., 2008). Here, we found that Asian students were less satisfied with parental support overall, but they received as much or more explicit support than students in Western countries.

It is not clear whether students in Asian countries benefit from parental support. Studies in the US have found college students benefit from receiving parental support (Fingerman et al., 2012; Umberson, 1992). A recent study of support in the Middle East also found that college students reported benefits of receiving support from family (though not from receiving support from friends; Brannan, Biswas-Diener, Mohr, Mortazavi, & Stein, 2012). Similar patterns may be evident in East Asia and warrant research attention.

Further, Asian students may experience ambivalence regarding parental support. Ambivalence theory suggests that parents and grown children experience mixed feelings about providing support and receiving support from the other party (Fingerman, Chen, Hay, Cichy, & Lefkowitz, 2006; Levitzki, 2009). In this case, Asian students were less satisfied with the support they received. Some Asian students may view parental support as an investment they are obligated to return to the parents. Norms of filial piety are changing throughout Asia, however (Sung, 2004). Thus, it is possible that these students desired more support from parents. In Chinese, there is a saying, "If you give a small cup of rice, I am eternally grateful. But if you give a large bag of rice... I think why didn't you give me more as you have so much?" Future research should address Asian students' dissatisfaction in greater detail.

Limitations and Directions for Future Research

Limitations are inherent to cross-national research (Cohen, 2007). It was not possible to assure comparable samples across nations. Students in the Asian countries may have differed from students in Western countries in ways that elicit greater parental support. Also, although many of the measures had been used in Europe or Asia (e.g., Lowenstein & Daatland, 2006; Lowenstein et al., 2007), there may be other important dimensions of relationships with parents in some cultures.

This study focused on two Asian and two Western countries. In general, we found differences between students in these two geographic regions. Nonetheless, findings were nuanced. Inclusion of students from a greater number of nations might allow comparisons of government programs (Kohli, 1999) and housing arrangements (Newman & Aptekar, 2006)

that shape parent/child ties. But there are few cross-national studies regarding students' ties to parents and this study expands extant knowledge by considering four nations.

The study is further limited by a focus on universities of high reputation (Academic Rankings of World Universities, 2011; Center for Measuring University Performance, 2010). Parental investment may be unique for students attending elite universities. Future studies should involve samples from multiple universities in each country.

In sum, given increasing rates of higher education throughout the world, student status may be accompanied by similarities in family ties. This study of students in four nations found high rates of parental contact and support for students. Despite cultural differences in the transition to adulthood (Nelson et al., 2004), students' relationships with parents appeared somewhat homogeneous. Nonetheless, cultural differences were evident. Students in Asian cultures received more parental support, but felt less satisfied with that support. Consistent with norms of filial piety and structural factors such as coresidence, students in Hong Kong provided more to their parents than students in other nations did. Thus, cross-national differences in intergenerational relationships reflected beliefs (e.g., filial obligation) and structural factors (e.g., coresidence). Student status is associated with high parental investment, but culture and structural factors shape the parameters of those ties.

Acknowledgement

This study was supported by grant, R01AG027769 “*The Family Exchanges Study II*” awarded by the National Institute on Aging (NIA) as well as by grant 5 R24 HD042849, “*Population Research Center*” and by grant, 5 T32 HD007081, “*Training Program in Population Studies*,” awarded to the Population Research Center at The University of Texas at Austin by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD).

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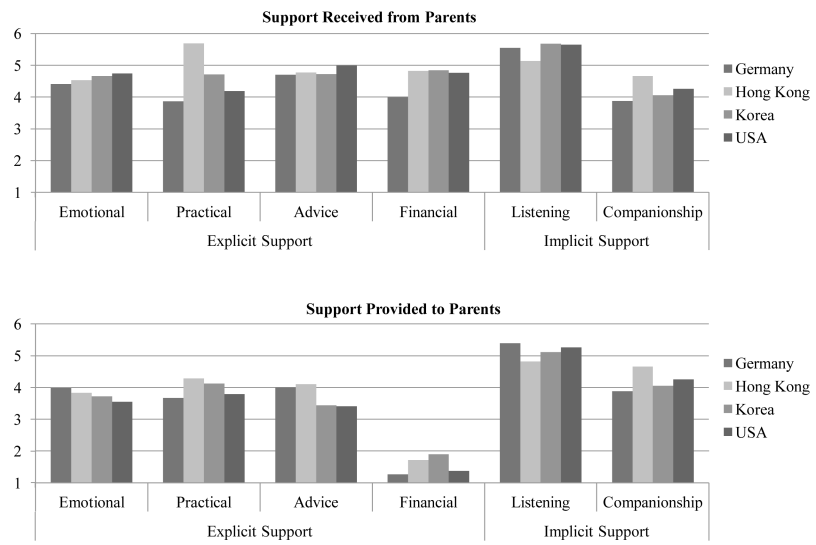


Figure 1.
Each Type of Support Received from and Provided to Parents

Table 1
Background Information for College Students and Their Parents from Each Nation

	Germany (<i>n</i> = 458)	Hong Kong (<i>n</i> = 276)	Korea (<i>n</i> = 257)	US (<i>n</i> = 310)
Offspring characteristics				
Age, <i>M</i> (<i>SD</i>)	22.18 (1.88)	19.95 (1.33)	21.42 (2.22)	19.99 (1.38)
Male, %	27.3	49.8	42.6	47.6
Married, %	2.8	0.4	0.4	0.6
Year in college, <i>M</i> (<i>SD</i>)	2.84 (1.43)	1.72 (0.82)	2.84 (1.27)	2.55 (1.20)
Number of siblings, <i>M</i> (<i>SD</i>)	1.41 (1.02)	1.39 (0.72)	1.20 (0.58)	1.85 (1.25)
Geographically proximate ^a , %	45.4	82.8	33.7	11.3
Parent characteristics				
Age, <i>M</i> (<i>SD</i>)	52.10 (5.65)	50.98 (5.66)	50.36 (3.73)	50.48 (5.06)
Father, %	46.6	48.9	48.0	48.9
Years of education, <i>M</i> (<i>SD</i>)	12.98 (3.24)	10.74 (3.78)	15.12 (2.66)	15.87 (2.06)
Married, %	76.7	90.3	88.8	79.5
Working full-time, %	52.0	61.4	63.8	75.3

Notes. Participant *N* = 1,301; Parent *N* = 2,456.

^aFor German, Korean and US samples, geographic proximity indicates lives within 50 miles or 80 kilometers; for Hong Kong sample, geographic proximity indicates parent resides within Hong Kong.

Table 2
Descriptive Information for Offspring Contact, Coresidence, and Support Exchanges with Parents

	Germany (<i>n</i> = 458)	Hong Kong (<i>n</i> = 276)	Korea (<i>n</i> = 257)	US (<i>n</i> = 310)	<i>F</i> or <i>Chi-square</i>
Contact with parents					
Contact by phone ^a , <i>M</i> (<i>SD</i>)	5.51 (1.56)	6.18 (1.48)	5.96 (1.68)	5.94 (1.33)	24.01***
Contact in person ^a , <i>M</i> (<i>SD</i>)	5.02 (1.64)	6.58 (1.67)	5.57 (2.07)	4.84 (1.58)	117.92***
Coreside with parents					
Coreside, %	15.3	57.2	39.7	2.6	280.93***
Support exchanges with parents					
Received from parents ^a , <i>M</i> (<i>SD</i>)	4.40 (1.28)	4.94 (1.39)	4.78 (1.47)	4.77 (1.26)	19.62***
Provided to parents ^a , <i>M</i> (<i>SD</i>)	3.70 (1.15)	3.93 (1.38)	3.73 (1.45)	3.62 (1.14)	6.07***
Evaluations of support					
Receive support I want ^b , <i>M</i> (<i>SD</i>)	4.18 (1.00)	3.62 (1.03)	3.83 (1.09)	4.23 (0.92)	47.76***
Beliefs about support					
Filial obligation ^c , <i>M</i> (<i>SD</i>)	3.17 (0.65)	3.73 (0.63)	3.40 (0.66)	3.47 (0.66)	40.80***

Notes. Participant *N* = 1,301; Parent *N* = 2,456.

^a Frequency of contact and each type of support: 1 = less than once a year or never, 2 = once a year, 3 = a few times a month, 4 = monthly, 5 = a few times a week, 6 = weekly, 7 = a few times a week, and 8 = daily.

^b 1 = not at all to 5 = a great deal.

^c 1 = strongly disagree to 4 = strongly agree.

* *p* < .05.

** *p* < .01.

*** *p* < .001.

Table 3

Multilevel Models for Offspring Support Received from Parents

	Explicit support					Implicit support	
	Total	Emotional support	Practical support	Advice	Financial support	Listening support	Companion-ship
	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)
Fixed effects							
Intercept	4.86*** (0.10)	5.41*** (0.15)	4.08*** (0.14)	5.05*** (0.13)	4.09*** (0.16)	6.31*** (0.12)	4.18*** (0.11)
<i>Nation</i>							
Germany	-0.15 (0.09)	-0.33* (0.14)	-0.13 (0.13)	-0.02 (0.12)	-0.27 (0.15)	-0.05 (0.12)	-0.16(0.11)
Hong Kong	0.32*** (0.10)	-0.05 (0.16)	1.46*** (0.14)	-0.05 (0.14)	0.28 (0.17)	-0.37** (0.13)	0.57*** (0.12)
Korea	0.10 (0.10)	-0.08 (0.15)	0.50*** (0.13)	-0.18 (0.13)	0.33* (0.16)	0.03 (0.12)	-0.11(0.11)
US	-	-	-	-	-	-	-
Controls							
Offspring							
Gender ^a	-0.42*** (0.07)	-0.68*** (0.10)	-0.29** (0.09)	-0.37*** (0.08)	-0.48*** (0.11)	-0.53*** (0.08)	-0.20** (0.08)
Age	-0.10*** (0.02)	-0.03 (0.03)	-0.14*** (0.02)	-0.12*** (0.02)	-0.17*** (0.03)	-0.56** (0.02)	-0.08*** (0.02)
Parent							
Gender ^a	-0.74*** (0.04)	-1.38*** (0.07)	-0.37*** (0.07)	-0.74*** (0.06)	-0.09 (0.06)	-1.38*** (0.06)	-0.47*** (0.05)
Education	0.04*** (0.01)	0.03* (0.01)	0.01 (0.01)	0.05*** (0.01)	0.06*** (0.01)	0.04** (0.01)	0.03** (0.01)
Marital status ^b	0.44*** (0.08)	0.33** (0.12)	0.66*** (0.11)	0.48*** (0.10)	0.60*** (0.12)	0.34*** (0.10)	0.34*** (0.09)
Work status ^c	-0.07 (0.05)	-0.06 (0.08)	-0.32*** (0.08)	-0.12 (0.07)	0.24*** (0.07)	-0.17* (0.07)	-0.01 (0.06)
Random effects							
Intercept VAR	0.80*** (0.05)	1.54*** (0.12)	0.98*** (0.10)	1.15*** (0.09)	2.40*** (0.13)	0.97*** (0.08)	1.09*** (0.07)
Residual VAR	0.72*** (0.03)	2.05*** (0.09)	2.19*** (0.09)	1.58*** (0.07)	1.33*** (0.06)	1.52*** (0.06)	0.94*** (0.04)
-2 Log-likelihood	7268.8	9354.0	9217.6	8739.1	9090.5	8576.5	7937.2

^aNotes. Coded 1 male and 0 female.^bCoded 1 married and 0 not married.^cCoded 1 working full-time and 0 not working full-time.* $p < .05$.** $p < .01$.

 $p < .001$.

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Table 4

Multilevel Models for Coresidence and Parental Contact

	<u>Coresidence^a</u>		<u>In-Person contact</u>		<u>Phone contact</u>	
	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)
Fixed effects						
Intercept	-3.68***	(0.37)	4.49***	(0.13)	6.46***	(0.11)
<i>Nation</i>						
Germany	2.05***	(0.39)	0.52***	(0.14)	-0.50***	(0.10)
Hong Kong	3.93***	(0.38)	1.64***	(0.15)	0.30**	(0.11)
Korea	3.30***	(0.39)	0.93***	(0.14)	-0.03	(0.10)
US	-		-		-	
<i>Controls</i>						
Offspring						
Gender ^b	-0.02	(0.15)	-0.03	(0.09)	-0.24***	(0.07)
Age	-0.06	(0.04)	-0.19***	(0.03)	0.01	(0.02)
Parent						
Gender ^b	-		-0.24***	(0.04)	-1.16***	(0.05)
Years of education	-		-0.01	(0.01)	0.02	(0.01)
Marital status ^c	-		0.46***	(0.10)	0.22**	(0.08)
Work status ^d	-		-0.03	(0.05)	-0.04	(0.06)
Random effects						
Intercept VAR	-		2.24***	(0.10)	0.72***	(0.06)
Residual VAR	-		0.56***	(0.02)	1.20***	(0.05)
-2 Log-likelihood	1182.7		8007.5		8029.9	

^aNotes. 1 coreside with any parent 0 reside in dorm or apartment. Because 84.2% of parents were married, we coded one coresidence status per participant (i.e., living with parents or not living with any parents).

^b 1 male 0 female.

^c 1 married and 0 not married.

^d 1 working full-time and 0 not working full-time.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 5

Multilevel Models for Support Provided to Parents and Evaluations of Support

	Support provided		Evaluations of support	
	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)
Fixed effects				
Intercept	4.16***	(0.09)	3.83***	(0.08)
Nation				
Germany	0.03	(0.09)	0.12	(0.07)
Hong Kong	0.31**	(0.10)	-0.39***	(0.08)
Korea	0.08	(0.09)	-0.39***	(0.07)
US	–		–	
Controls				
Offspring				
Gender ^a	-0.24***	(0.06)	-0.03	(0.05)
Age	-0.02	(0.02)	-0.00	(0.01)
Parent				
Gender ^a	-0.94***	(0.04)	-0.31***	(0.04)
Years of education	0.01	(0.01)	0.04***	(0.01)
Marital status ^b	0.16*	(0.07)	0.38***	(0.06)
Work status ^c	-0.14**	(0.05)	0.24***	(0.04)
Random effects				
Intercept VAR	0.72***	(0.05)	0.38***	(0.03)
Residual VAR	0.61***	(0.03)	0.56***	(0.02)
-2 Log-likelihood	6939.8		6256.5	

^aNotes. 1 male 0 female.

^b1 married 0 not married.

^c1 working full-time 0 not working full-time.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 6

Effects of Coresidence and Filial Obligation on Parental Involvement

	In-person contact by coresidence		Phone contact by coresidence		Support received by coresidence		Support provided by coresidence		Support provided by filial obligation	
	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)
Fixed effects										
Intercept	4.45***	(0.11)	6.46***	(0.11)	4.85***	(0.10)	4.14***	(0.09)	4.16***	(0.09)
<i>Nation</i>										
Germany	0.21	(0.11)	-0.51***	(0.10)	-0.23*	(0.09)	-0.04	(0.09)	0.15	(0.09)
Hong Kong	0.42***	(0.12)	0.26*	(0.12)	-0.01	(0.11)	-0.02	(0.10)	0.23*	(0.10)
Korea	0.06	(0.12)	-0.07	(0.11)	-0.13	(0.10)	-0.16	(0.09)	0.11	(0.09)
US	-		-		-		-		-	
Predictors										
Coresidence ^a	2.45***	(0.08)	0.09	(0.08)	0.67***	(0.07)	0.69***	(0.07)	-	
Filial obligation	-		-		-		-		0.34***	(0.04)
Controls										
Offspring										
Gender ^b	-0.04	(0.08)	-0.24***	(0.07)	-0.43***	(0.06)	-0.24***	(0.06)	-0.23***	(0.06)
Age	-0.16***	(0.02)	0.01	(0.02)	-0.09***	(0.02)	-0.02	(0.02)	-0.02	(0.02)
Parent										
Gender ^b	-0.19***	(0.03)	-1.15***	(0.05)	-0.73***	(0.04)	-0.93***	(0.04)	-0.95***	(0.04)
Years of education	-0.00	(0.01)	0.02	(0.01)	0.04***	(0.01)	0.01	(0.01)	0.01	(0.01)
Marital status ^c	0.40***	(0.08)	0.21*	(0.08)	0.42***	(0.07)	0.13	(0.07)	0.13	(0.07)
Work status ^d	-0.00	(0.04)	-0.04	(0.06)	-0.06	(0.05)	-0.12**	(0.05)	-0.14**	(0.05)
Random effects										
Intercept VAR	1.36***	(0.07)	0.72***	(0.06)	0.75***	(0.05)	0.67***	(0.04)	0.68***	(0.04)
Residual VAR	0.46***	(0.02)	1.20***	(0.05)	0.71***	(0.03)	0.60***	(0.03)	0.62***	(0.03)
-2 Log-likelihood	7223.1		8028.8		7190.0		6843.5		6753.6	

^a1 coreside, 0 reside in dorm or apartment.

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b 1 male, 0 female.

c 1 married, 0 not married.

d 1 works full-time 0 not working full-time.

* $p < .05$.

** $p < .01$.

*** $p < .001$.