RESEARCH ARTICLE

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Student–Faculty Interaction: A Key to Academic Integration and Success for Ethnic Minority Students at a Major University in Southwest China

Abstract This study examines the academic performance and “engagement” of ethnic minority students at a leading university in southwest China. Results indicate that ethnic minority students have significantly lower grades, lower class ranking, and have failed more courses than majority Han students. Results also show that the level of student–faculty interaction (SFI) for ethnic minority students is significantly lower than for Han students. Study results also indicate that average scores in coursework and student ranking among their cohorts are significantly, but weakly, correlated with SFI. The study concludes that SFI may have little influence on students’ academic achievement itself, but would help students integrate into the college community, enabling a sense of belonging, which is a major factor in supporting academic success among ethnic minority students.

Keywords student–faculty interaction, academic performance, minority students

Introduction

China has 56 officially recognized ethnic groups. The Han ethnicity is the largest, with the remaining 55 groups referred to as “ethnic minorities.” China’s ethnic minority population is 114 million, which accounts for 8.5 % of the total population according to China’s 6th census (China News Net, 2011). Since 1949, the year in which “new” China was founded, access to higher education for

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China's 55 ethnic minorities has lagged behind that for the Han majority (Hannum, 2001; Rong & Shi, 2001). Minority students have maintained a higher education enrollment rate of between 1 % to 6 % of the total since 1949 (Jacob, 2007, p. 156). In 2011, according to a study of 59 Chinese universities, about 6.87 % of students enrolled in major universities were from ethnic minority groups (*Chinese Higher Education Equity Report*, 2011, May, p. 7). With the expansion of Chinese higher education that began less than two decades ago, the number of minority students has increased accordingly. However, the overall quality of higher education for ethnic minority students remains lower than that available to the Han majority. According to Huang (2000), each of the 12 universities specifically founded for China's minority students, "impresses people with its backwardness, its conservativeness, its low efficiency, and its inability to attract talent" (p. 203). In this context, there is clearly a need for greater understanding of factors that influence the academic performance of minority students at the higher education level in China.

In our previous study, we examined cultural and linguistic backgrounds and psychological factors, such as personal self-esteem, collective self-esteem, and collegiate psychological sense of community, as influences on the academic and social adjustment of minority students at a leading university for nationalities (Wu, Tuchscherer, & Parkay, 2012). The study found that cultural and linguistic backgrounds have no significant or direct influence on the academic and social adjustment of minority students; collective self-esteem has a significant influence on it and explains 10 % of the variance in academic and social adjustment of students. Collegiate psychological sense of community i.e., sense of belonging were found to have a significant and strong influence on the academic and social adjustment of students. These study results suggest that a collegiate environment characterized by a sense of belonging, togetherness, and a feeling of mutual respect is very important for students if they are to adjust socially and academically while attending a university for ethnic minorities in China. Therefore, a university should recognize that if it enhances students' sense of belonging to the university (sense of community); it will increase their prospects of academic success (p. 153).

This study, however, uses the National Survey of Student Engagement (NSSE), initially developed to assess the quality of undergraduate education in the US, to examine the academic performance and engagement of ethnic minority students

at a leading university in southwest China. At this university, minority students make up about 21 % of enrollment. The university is located in a province with a high concentration of ethnic minorities. Twenty-six out of the 56 indigenous ethnic groups in China were originally from this area. Compared with most other provinces, the universities in the area serve a higher percentage of minority students. In this context, the researchers used the NSSE to explore major differences in educational process, experiences and academic performance among ethnic minority and Han students.

Literature Review

Studies of college student development by Astin (1993), Pascarella and Terenzini (2005), and Tinto (1993) found that the time and energy students devote to educationally purposeful activities is the single best predictor of their learning and personal development (Kuh, 2002). Based on these theories, Kuh (2003) developed the “student engagement” theory. Student engagement reflects the time and energy students devote to their own learning and research-based effective educational activities, as well as students’ views on how supportive their university is of their learning. The results of the study can be compared with peer institutions and national norms to discover “gaps” to improve, and explore the “problems” and characteristics of students’ learning from inside the institution.

In 2009, the NSSE survey was translated into Mandarin and adapted to the Chinese context by a research team from Tsinghua University and Indiana University (Ross, 2010). The NSSE measures five indicators of student engagement at the undergraduate level: Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), Student–Faculty Interaction (SFI), Enriching Educational Experience (EEE), and Supportive Campus Environment (SCE). In 2009, the survey was first used nationwide in China, and about 27 higher institutions voluntarily participated in the study. By 2013, participating Chinese institutions increased to 77 (Shi, 2014, May). By 2013, the accumulative total number of participating institutions was 108 (Institute of Education, 2014). The number of student participants increased from 24,252 in 2009 to 101,647 in 2013 (Shi, 2014, May).

Tsinghua University, a top Chinese university, conducted a survey and

compared itself with top research institutions in America. According to the *Annual Tsinghua University Education Survey 2009: A Comparison with American Top Research Universities*, Luo, Shi, and Tu (2009) found that, by comparing the five indicators for Tsinghua University and the American universities for the same category, i.e., American overall top research universities, Tsinghua had significantly lower mean scores in Student–Faculty Interaction (SFI) but significantly higher scores in Supportive Campus Environment (SCE), and no significant differences in the other three indicators: Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), and Enriching Educational Experience (EEE; p. 4). A further study focusing on SFI suggested that the responses to the three questions showed significant differences between Tsinghua University and top American research universities; i.e., (1) for the statement, “provide prompt and detailed feedback on tests or completed assignment,” 27.1 % of Tsinghua students reported that they never received “prompt and detailed feedback from instructors,” while only 7 % of American students reported the same problem (p. 4); (2) For “talk about career plans with faculty members,” about 44.3 % of Tsinghua students reported that they never “talked about career plans with faculty members,” while only 20 % of American students reported the same (p. 4); and (3) Regarding the statement, “discuss grades and scores with instructors,” Tsinghua students got significantly lower scores than their American peers (p. 5). Through the interviews, it was found that many Chinese students think the grading was not only about “assessment,” as it was considered the teacher’s “right.” Therefore, they felt that “right” had no space for discussion, so few of them would discuss “grades and scores” with their teachers (p. 5). The researcher suggested that SFI was culturally relevant and affected by cultural differences (p. 5).

SFI has been studied broadly and deeply in Western countries, especially in the US. American scholars Cole and Griffin (2013) indicated that more frequent high-quality interactions with peers and faculty in educationally meaningful activities provide the most productive educational gains and academic success (p. 574). Tinto suggests that students who are more engaged in campus life (e.g., SFI) have greater institutional commitment and thus are more likely to persist (as cited in Cole & Griffin, 2013, p. 574). However, as student populations have continued to grow in number, diversity, and complexity, critics have argued that Tinto’s conception of integration theory fails to recognize cultural assumptions

embedded in its use and that it is particularly problematic when applied to racial/ethnic minority students (Guiffida, 2006; Hurtado & Carter, 1997; Hurtado et al., 2007; Tierney, 1997, 1999; Cole & Griffin, 2013). For example, Kuh and Love's (2000) cultural perspective on student departure highlights the importance of cultural influences and enclaves in developing membership of a campus community. Hurtado and Carter (1997) assert that what is missed in the application of Tinto's theory is students' sense of integration, which is a psychological measure. What often occurs in how Tinto's model is operationalized is that students' participation in campus activities—like the frequency of SFI—is used to interpret students' level of integration in the campus milieu (Cole & Griffin, 2013).

The study focuses on Asian American students suggested that Asian students often have the lowest frequency and perceived quality of interaction with faculty among all ethnic groups (Cole & Griffin, 2013). For example, Kim, Chang, and Park (2009) found that Asian American students were less likely than other ethnic groups to report that faculty provided them with respect, emotional support and encouragement, advice, honest feedback, intellectual challenge and stimulation, and personal interest (Cole & Griffin, 2013). The research also showed that Asian American students often report lower levels of satisfaction with faculty contact compared with white students (Kim & Sax, 2009; Kim, 2010). Cole and Griffin (2013) concluded that, despite the low quality and sometimes negative interactions Asian American students have with faculty, research has found that they are still likely to persist, perform well academically, and succeed in college. It was suggested that "such contradiction has raised new avenues for future research" (p. 581).

Studies (e.g., Bean & Kuh, 1984) that focus on the tendency of particular students to seek out faculty members, and of faculty initiating contact with high-performing students suggested the following. Students who are more intellectually and personally stimulated by what happens in their formal academic program (i.e., classroom) may seek additional interaction with faculty members as means of further enhancing the personal satisfaction or stimulation they gain in the classroom (Hurtado et al., 2011); students who perceived faculty as being concerned about their well-being will often seek to develop close relationships with faculty and will subsequently report the most academic growth (Cole, 2010a, 2010b). Better academically prepared students tend to devote more

effort to their studies and interact more with faculty members (Kuh & Hu, 2001). Other factors that increase the likelihood of SFI include students having similar interests and aspirations as faculty and students in search of faculty members who can help them develop professionally (Cole, 1999; Pascarella, 1980).

Methodology and Instrumentation

This study employed a quantitative method and data was gathered at a major university in southwest China. This university is the only “211 Project” university in its province, and was ranked 59th in the country by China University Evaluation Report in 2016 (China Universities Alumni Association, 2016). As a comprehensive university, it is comprised of 23 colleges and institutions in humanities, social sciences, and natural sciences. According to the enrollment policies set up by the Ministry of Education, it receives undergraduate students from most provinces and regions in China except for Beijing, Shanghai, and Guangdong, the two most developed cities and province, and Tibet, Ningxia, and Gansu, the two least developed regions and province (Wu & Parkay, 2011, p. 33).

The total student population was almost 30,000 in 2011, and the number of undergraduate students was about 13,125, with the others being graduate students. With the assistance of the NSSE-China research team and the Academic Affairs Office of the university, 1,600 students were selected from the total undergraduate population by running an SPSS random sampling tool. Four hundred students were selected from each year group from first to fourth year. Of the 1,600 paper-based surveys distributed to students by mail, a total of 1,219 students responded, making a response rate of 76 %. Among those who did not respond, 246 or 65 % of them were fourth year students. The data was gathered in May 2011, which was graduation month for these college students. It was assumed that most of the fourth (final) year students were not on campus to respond to the survey, since many of them would have been looking for a job and doing internships at the time. The survey used the instrument from NSSE-China, the National Survey of Student Engagement, China.

As explained above, the NSSE measures five indicators of student engagement: Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), Student–Faculty Interaction (SFI), Enriching Educational Experience (EEE), and

Supportive Campus Environment (SCE). The validity and reliability of the instruments used in the Chinese context were tested and discussed in each of four consecutive year studies. Their validity and reliability were considered to be at a good and acceptable level (Shi, 2014, May).

In this study, out of 1,219 responses, 245 were from ethnic minority students, accounting for 21.2 % of the total sample. These students were from 17 different ethnicities (see Fig. 1), namely Yi, Bai, Hui, Naxi, Hani, Tujia, Zhuang, Man, Dai, Zang, Bulang, Lahu, Meng, Li, Nu, Wa, and Yao. Among the ethnic minority students, 42.3 % were male and 57.7 % were female. Students aged between 19 and 22 years old accounted for 84.3 % of the sample. About 63 % of them were from rural areas and 37 % from urban areas. The researchers used SPSS 17.0 to analyze the data. Specifically, the study examined the reliability of the instruments used in this study; compared the academic performance, i.e., grade average, class ranking, and the number of failed courses of the Han majority students and the ethnic minority students; examined and compared the five indicators, i.e., Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), Student–Faculty Interaction (SFI), Enriching Educational Experience (EEE), and Supportive Campus Environment (SCE) for the Han majority and the ethnic minorities; and finally, explored the relationships between academic performance and student engagement indicators.

Fig. 1 Number of Students by Ethnic Minority Group

The following specific research questions provided the primary focus of this study:

1. Are there differences between Han majority students and ethnic minority students in terms of academic performance, specifically average grades, class ranking, and whether or not they failed a course during the previous semester? If there are differences, what are they?
2. Are there differences between Han and ethnic minority students in terms of student engagement indicators, i.e., the Level of Academic Challenge (LAC), the Active and Collaborative Learning (ACL), the Student–Faculty Interaction (SFI), the Enriching Educational Experience (EEE), and the Supportive Campus Environment (SCE)? If there are differences, what are they?
3. What are the relationships between academic performance and student engagement indicators that are found to be significantly different for Han and ethnic minority students?

Results

With reference to a study on *The Development of NSSE-China: Cultural Adaptation, Reliability, and Validity* (Luo, Ross, & Cen, 2009), in which the reliability of the NSSE-Chinese questionnaire was examined and found to be as stable as the original version used in the US, the researchers determined that the instruments used in this study were statistically reliable and appropriate. The study found that ethnic minority and Han students are significantly different in terms of average grades, class ranking, and whether or not they failed a course during their undergraduate studies. Additionally, student–faculty interaction scores for minority students were found to be significantly lower than those of Han students. For the other four student engagement indicators, a significant difference between ethnic minority and Han students was not found. Lastly, average grades and class ranking were significantly correlated with student–faculty interaction. The following sections explain each of the findings in detail.

1. The NSSE-China survey was statistically reliable

Cronbach's Alphas for the five scales (LAC, ACL, SFI, EEE, and SCE) were all above .60; two scales were higher than .70, and one was .80. These results indicated that the five scales were at acceptable levels of reliability and were

appropriate for this study (see Table 1).

Table 1 Reliability of the NSSE-China Survey

Scales	<i>N</i>	Cronbach's Alpha	No. of Items
Level of Academic Challenge (LAC)	1,189	.69	11
Active and Collaborative Learning (ACL)	1,207	.71	6
Student–Faculty Interaction (SFI)	1,200	.80	7
Enriching Educational Experience (EEE)	1,194	.62	14
Supportive Campus Environment (SCE)	1,197	.78	8

2. There were significant differences between minority and Han students in terms of average grades, class ranking, and whether or not they failed a course during the previous semester

A t-test was used to compare minority and Han students in terms of self-reported average grades and class ranking. The results indicated that minority students have significantly lower average grades ($M = 77.33$, $SD = 8.76$) than Han students ($M = 78.66$, $SD = 8.18$), $t(991) = 2.046$, $p = .041$.

A chi-square test was performed to compare minority and Han students in terms of class ranking and whether or not they had failed a course earlier. The two tests revealed significant differences between minority and Han students.

For class ranking, a greater percentage of Han students ranked in the top 5 % than minority students; on the other hand, a greater percentage of minority students ranked between 50 % and 80 % and in the bottom 20 % of their class than Han students. The suggested that more Han students were ranked in the top 5 % and more minority students were ranked in the bottom 20 % and 50 % to 80 %. Table 2 shows that 14 % of Han students and 7.6 % of minority students ranked in the top 5 %; 19.7 % of Han students and 22.7 % of minority students ranked in the top 50 % to 80 %; and 8.3 % of Han students and 12.6 % of minority students ranked in the bottom 20 % ($X^2[4, N = 1,168] = 11.14$, $p = .025$). Fig. 2 shows a bar graph comparison of class ranking for Han and minority students.

Table 2 Class Ranking for Han and Minority Students

		Han	Minority	Total
Top 5 %	No. of Responses	130	18	148
	%	14.0 %	7.6 %	12.7 %
Top 5 %-20 %	No. of Responses	259	62	321
	%	27.8 %	26.1 %	27.5 %
Top 20 %-50 %	No. of Responses	281	74	355
	%	30.2 %	31.1 %	30.4 %
50 %-80 %	No. of Responses	183	54	237
	%	19.7 %	22.7 %	20.3 %
Last 20 %	No. of Responses	77	30	107
	%	8.3 %	12.6 %	9.2 %
Total	No. of Responses	930	238	1,168
	%	100.0 %	100.0 %	100.0 %

Fig. 2 Han and Minority Students' Class Ranking

Regarding course failure, minority students reported more failed courses than Han students. Table 3 shows that 67.3 % of Han students and 59.8 % of minority students had no course failures; however, 32.7 % of Han students and 40.2 % of

minority students had failed one or more courses, and the differences were significant ($X^2[1, N = 1,187] = 4.85, p = .028$). Fig. 3 presents a bar graph comparison of course failure for Han and minority group students.

Table 3 Course Failure by Han and Minority Students

Question: Have you failed one or more courses during your undergraduate study?				
		Han	Minority	Total
No	No. of responses	635	146	781
	%	67.3 %	59.8 %	65.8 %
Yes	No. of responses	308	98	406
	%	32.7 %	40.2 %	34.2 %
Total	No. of responses	943	244	1,187
	%	100.0 %	100.0 %	100.0 %

Fig. 3 Course Failure for Han and Minority Students

3. Student–faculty interaction for ethnic minority students was significantly lower than for Han students

A t-test was used to compare Han and minority students in terms of Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), Student–Faculty Interaction (SFI), Enriching Educational Experience (EEE), and Supportive Campus Environment (SCE). The results revealed that there were

significant differences between Han ($M = 25.34$, $SD = 17.60$) and minority students ($M = 22.01$, $SD = 16.77$) in terms of SFI ($t[1,196] = 2.67$, $p = .008$). Further analysis revealed that ethnic minority students were less likely to have “discussed grades or assignments with an instructor” and less likely to have “received prompt written or oral feedback from faculty on [their] academic performance” than their Han peers. There was no evidence of differences between Han and minority students in terms of the other four areas.

4. Overall average grades and class ranking are significantly correlated with student–faculty interaction for all students

A correlation analysis tested the relationships among average grades, class rankings, and student–faculty interaction for the whole sample comprising both Han majority and minority groups. The results ($r = .18$, $p < .001$) suggest that average grades are significantly and positively correlated with student–faculty interaction. The strength of this relationship, however, was statistically weak; only 3 % of the variance ($r^2 = .03$) in average grades was related to student–faculty interaction. Additional evidence suggests that class ranking is significantly correlated with student–faculty interaction ($r = -0.24$, $p < .001$). This relationship was found to be negative, indicating that more frequent student–faculty interaction is related to higher class ranking. Again, the strength of this finding was weak; only 6 % of the variance ($r^2 = .06$) in class rankings was related to student–faculty interaction (see Table 4).

Table 4 Correlations between Average Grades, Course Failure, Class Ranking, and Student–Faculty Interaction for All Students

		Average Overall Coursework Grades	Course(s) Failure	Class Ranking	Student–Faculty Interaction
Average overall coursework grades	Pearson correlation	1	-	-	-
	Sig.(2-tailed)		-	-	-
	<i>N</i>	1,004	-	-	-
Course(s) failure	Pearson correlation	-.378**	1	-	-
	Sig.(2-tailed)	.000		-	-
	<i>N</i>	997	1,203	-	-

(To be continued)

(Continued)

		Average Overall Coursework Grades	Course(s) Failure	Class Ranking	Student–Faculty Interaction
Class Ranking	Pearson correlation	–.612**	.418**	1	-
	Sig.(2-tailed)	.000	.000		-
	<i>N</i>	993	1,169	1,180	-
Student–Faculty Interaction	Pearson correlation	.184**	.037	–.235**	1
	Sig.(2-tailed)	.000	.194	.000	
	<i>N</i>	1,004	1,203	1,180	1,219

Note.*Correlation significant at the .05 level (2-tailed). **Correlation significant at the .01 level (2-tailed).

5. Further analysis suggests that average overall grades and class ranking are significantly correlated with student–faculty interaction for ethnic minority students

To examine whether the above findings regarding relationships exist for minority students, a correlation analysis was conducted for minority student samples only. It was found that student–faculty interaction is significantly correlated to overall course work grades in average ($r = .255, p < .001$), implying that the higher the level of student–faculty interaction, the higher the average overall coursework grades. It was also found that student–faculty interaction is negatively correlated to class ranking ($r = -.282, p < .001$). Since class ranking was coded in SPSS from lowest to highest, i.e., the top 5 % was coded 1, the top 5 % to 20 % was coded 2, the top 20 % to 50 % was coded 3, the top 50 % to 80 % was coded 4, and the bottom 20 % was coded 5, and the negative correlation suggests that the higher student–faculty interaction, the higher the class ranking. The analysis also suggests that class ranking is negatively correlated with average overall work grades, which means the higher the average overall course work grades, the higher the class ranking ($r = -.622, p < .001$) (see Table 5).

A simple linear regression analysis further examined the relationship between student–faculty interaction and average overall grades for minority students. In this analysis, average overall grades were treated as the dependent variable, and student–faculty interaction was treated as a predictor. The results indicate that a significant regression equation was found ($F(1,186) = 12.75, p < .001$), with an r^2

Table 5 Correlation between Average Grades, Course Failure, Class Ranking, and Student–Faculty Interaction for Ethnic Minority Students

		Average Overall Coursework grades	Failed Course(s)	Class Ranking	Student-Faculty Interaction
Average Overall Coursework Grades	Pearson correlation	1	-	-	-
	Sig.(2-tailed)		-	-	-
	<i>N</i>	189	-	-	-
Failed Course(s)	Pearson correlation	-.434**	1	-	-
	Sig.(2-tailed)	.000		-	-
	<i>N</i>	189	224	-	-
Class Ranking	Pearson correlation	-.622**	.358**	1	-
	Sig.(2-tailed)	.000	.000		-
	<i>N</i>	187	217	217	-
Student–Faculty Interaction	Pearson correlation	.255**	.044	-.282**	1
	Sig.(2-tailed)	.000	.513	.000	
	<i>N</i>	188	223	216	223

Note.*Correlation significant at the .05 level (2-tailed). **Correlation significant at the .01 level (2-tailed).

of .06, which suggests 6 % of the variance in the overall grades in average can be explained by student–faculty interaction. Participants’ predicted average overall grades were equal to $74.219 + .133$ (student–faculty interaction) scores where student–faculty interaction is measured in scores (see Table 6).

Table 6 Simple Linear Regression Modeling Analysis

ANOVA ^b						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	963.779	1	963.779	12.747	.000 ^a
	Residual	14063.022	186	75.608		
	Total	15026.800	187			

a Predictor: (Constant), Student–Faculty Interaction

b Dependent Variable: Overall Average Grades

Coefficients^a

Model	r	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74.219	1.021		72.715	.000
	Student–Faculty Interaction	.133	.037	.253	3.57	.000

a. Dependent Variable: Average Overall Grades

Model Summary

Model	r	r Square	Adjusted r Square	Std. Error of the Estimate
1	.253 ^a	.064	.059	8.695

a. Predictor: (Constant), Student–Faculty Interaction

Fig. 4 demonstrates the positive relationship between average overall grades and student–faculty interaction, with r^2 of .064. By making a comparison with the total sample, the relationship between average overall grades and student–faculty interaction is stronger among ethnic minority students.

Fig. 4 The Relationship between Average Overall Grades and Student–Faculty Interaction

Conclusion and Discussion

This study of student engagement at a major university located in southwest China, a region with a high concentration of ethnic minorities, suggests that less frequent student–faculty interaction may partially explain the lower academic performance of ethnic minority students compared with Han majority students. By comparing five indicators of student engagement, it was found that the only significant difference was in Student–Faculty Interaction (SFI). No significant difference was found in the other four indicators, namely Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), Enriching Educational Experience (EEE), and Supportive Campus Environment (SCE). Specifically, ethnic minority students are less likely to have “discussed grades or assignments with an instructor” and less likely to have “received prompt written or oral feedback from faculty on [their] academic performance” than their Han peers. In general, it has been suggested that Chinese students are less likely to discuss grades with an instructor because “they think grading is the ‘right’ of the teacher and not supposed to be discussed” (Luo, Shi, & Tu, 2009). This study, however, indicates that the tendency is stronger among ethnic minority students than among Han majority students. In addition, study results indicate that minority-group students have significantly lower grades, lower class ranking, and will have failed more courses than majority-group Han students during their undergraduate studies. The study also suggests that average scores in coursework and student ranking in their cohorts are significantly correlated with student–faculty interaction. However, the strength of the correlation between academic achievement of students and student–faculty interaction is very weak. For example, only 3 % to 6 % of the variance in average grades and class ranking is explained by student–faculty interaction for all participants. Within the minority students’ sample, it was found that about 6 % to 8 % of the variance in average grades and class ranking is explained by student–faculty interaction, stronger than for the overall students’ sample.

Based on the literature review findings, we should argue whether or not the lower level of student–faculty interaction actually caused lower academic achievement or if the lower academic achievement caused lower student–faculty interaction. As Bean and Kuh (1984) concluded, students who have good

academic performance in the classroom (Hurtado et al., 2011), students who perceive faculty as concerned about their well-being (Cole, 2010a, 2010b), and students who are better academically prepared (Kuh & Hu, 2001) tend to devote more effort to their studies and interact more with faculty members. In other words, it may be true that academically poorly performing students tend not to seek interaction with faculty. For this study, the fact that ethnic minority students have significantly lower academic achievement might explain why they have significantly lower levels of interaction with faculty.

Based on our previous study of the social and academic adjustment of minority students, we found that a collegiate psychological sense of community i.e., a sense of belonging has a strong, positive influence on students' social and academic levels of achievement. From a cultural perspective, Museus and Quaye explain the importance of cultural agents in college environments in the following:

Cultural agents validate students' cultural backgrounds and promote opportunities for them to meaningfully engage in the campus community. Faculty can serve meaningful roles as cultural agents, promoting student persistence by serving as important sources of support and creating bridges between students' home and institutional cultures.

Socialization frames acknowledge that faculty can transmit information to students, introducing them to the norms and values of the institution, their professions, and academy (Bragg, 1976), connecting faculty interaction to important student outcomes, perhaps most notable, persistence and academic achievement. (as cited in Cole & Griffin, 2013, p. 575)

It was suggested that faculty members play an important role in helping students to integrate on campus academically and socially. Interacting with faculty could help ethnic minority students adjust to the college community.

Finally, we conclude that student–faculty interaction may have little direct influence on a student's academic achievement, but may have a direct connection with campus integration, which would help students increase their sense of belonging and a collegiate psychological sense of community, supporting factors that help ethnic minority students to achieve social adjustment and academic success.

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