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Ferdi Botha, Jen Snowball, Vivian de Klerk & Sarah Radloff

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Determinants of student satisfaction with campus residence life at a South African university

Ferdi Botha*, Jen Snowball†, Vivian de Klerk‡ & Sarah Radloff§

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Abstract

Although there are a number of studies on the determinants of general quality of life among university students, these occur mainly in developed countries and do not focus specifically on campus-based residence life. It has long been accepted that factors outside the classroom (“the other curriculum”) can contribute to academic success, as well as the achievement of other important outcomes such as the appreciation of human diversity. Striving towards equality of residence life satisfaction across different racial and gender groups, for example, is thus important for academic outcomes and for the development of well-functioning citizens. This study is based on the 2011 Quality of Residence Life (QoRL) Survey, conducted at a South African university, comprising roughly 2 000 respondents. Based on descriptive analyses and ordered probit regressions, the study investigates the association between satisfaction with QoRL and (i) residence milieu and characteristics, (ii) direct and indirect discrimination, (iii) perceptions of drug and alcohol issues in residence, (iv) safety, and (v) individual student characteristics. One of the main findings is that there are no significant differences in satisfaction with QoRL across racial and gender groups; a finding that suggests significant progress in university transformation and equity goals. The general atmosphere and characteristics of residences are also important predictors of QoRL satisfaction.

*Lecturer, Department of Economics and Economic History, Rhodes University, Grahamstown, South Africa. E-mail: f.botha@ru.ac.za

†Associate Professor, Department of Economics and Economic History, Rhodes University, Grahamstown, South Africa. E-mail: j.snowball@ru.ac.za

‡Dean of Students, Rhodes University, Grahamstown, South Africa. E-mail: v.deklerk@ru.ac.za

§Professor, Department of Statistics, Rhodes University, Grahamstown, South Africa. E-mail: s.radloff@ru.ac.za

1 Introduction

Campus-based student residences provide accommodation to many students every year as they pursue their academic studies. The quality of such accommodation and its environment are imperative in facilitating student learning and well-being. In a wider sense, the importance of residential characteristics in enhancing human well-being has been well documented. Rojo-Perez et al. (2001) and Prieto-Flores et al. (2011), for instance, have shown that residential satisfaction is an important predictor of elderly individuals' well-being, where being satisfied with the particular residence reduces negative emotions such as loneliness.

Despite the acknowledged importance of residence characteristics in fostering individual well-being, investigations into the predictors of student campus-based residence quality of life (QoL) are severely lacking. In South Africa, moreover, some reports have indicated certain campus-residence issues, though no study on South African universities has examined how factors experienced by students in residence are associated with their satisfaction with residence life. In general, research on QoL among South African university students is very scant. A study by Møller (1996) examined the dynamics of life satisfaction among University of KwaZulu-Natal students. However, the study only considered life satisfaction in general and not student satisfaction with campus residence life specifically.

The purpose of this paper is to add to the international and South African body of literature by investigating the correlates of student satisfaction with the quality of their campus residence life, drawing on a sample of students enrolled at small university in South Africa. Various possible predictors are examined under the following groups: (i) residence milieu and characteristics, (ii) direct and indirect discrimination, (iii) perceptions of drug and alcohol issues in residence, (iv) safety, and (v) individual student characteristics.

The remainder of this paper is structured as follows: Section 2 contains a literature review of QoL determinants among university students in general and also provides an overview of university residence life within the South African context. Section 3 discusses the university and residence context. Section 4 presents the data, while Section 5 contains the methods employed. Section 6 discusses the empirical results, and Section 7 concludes.

2 The determinants of quality of life for university students: A literature review

While there is a fair amount of literature investigating the determinants of QoL among university and college students (Chow, 2005; Sirgy et al., 2007; Zullig et al., 2009), it is mostly found in developed country contexts. In addition, while sometimes including campus-based residences, existing research seldom focuses specifically on *university* QoL, as opposed to QoL in general (Sirgy et al., 2007). This is despite the fact that it has long been accepted that activities and conditions outside the classroom (what Kuh (1995) called “the other curriculum”) can

contribute to academic success, as well as the achievement of other important outcomes, such as “social competence, autonomy, self-awareness, and appreciation of human diversity” (Kuh, 1995:124). In interviews with senior students from 12 US universities, it was found that increased humanitarianism (defined as concern for the welfare of others) was largely the result of interactions with peers and, to a lesser extent, leadership responsibilities, engaged in outside of the formal curriculum (Kuh, 1995). University residential systems are thus ideal environments in which to foster such extracurricular outcomes.

This argument is supported by a review of 141 empirical studies on the determinants of life satisfaction for children and adolescents (Proctor et al., 2009). The study showed that, in addition to the factors one might expect, such as personality, physical health and exercise, motivation, family relationships and so on, the physical environment, including environmental quality, living in a safe area and a having a well maintained home, had a significant positive association with QoL. Moreover, positive life satisfaction was associated with a better ability to deal with stress (Proctor et al., 2009).

Investigating the relationship between academic performance and QoL amongst students at a Midwestern university, Rode et al. (2005) used the “integrated life” model, which proposes that performance is a function of various life domain satisfaction levels, in this case, leisure, family, university and housing. “Housing satisfaction” had a positive, but not statistically significant impact on overall life satisfaction, but students with higher levels of life satisfaction generally did better academically. Rode et al. (2005:430) conclude that the implications of the integrated life model are that “the life-satisfied student is one who feels able to blend school and social life, as well as to maintain strong relationships with family and friends”. Similar findings on the positive relationship between QoL and academic achievement were reported by Chow (2005) in a Canadian study and Rodgers and Summers (2008), who investigated why black students who went to predominantly white higher educational institutions in the United States did less well than their white counterparts, even when they had higher school-level grade point averages.

A study of Canadian students included housing conditions, divided into “living environment” (defined as the physical condition of the residence) and “living arrangements” (defined as the people being lived with) as determinants of the life satisfaction of university students (Chow, 2005). Both factors were found to be positive and statistically significant determinants of QoL, but effects were much smaller than factors like self-esteem, relationship with “significant other”, and socioeconomic status.

The only other study to focus specifically on student satisfaction with campus housing was done by Amole (2009) at a Nigerian university. However, the study is not directly comparable with this one because it focused almost exclusively on functional variables related to the physical structure of the residences. For example, it was found that students living in a residence with a kitchenette and shorter corridors were more satisfied than students residing in residences without these amenities.

In South Africa, access and success in higher education institutions can be

an important and productive way of overcoming the racial discrimination of the past and the ongoing economic segregation of the present (CHE, 2010). Diversity can also have important social and educational outcomes, such as “greater learning, increased interpersonal competencies, greater self-confidence among students, fewer irrational prejudices, greater gains in critical thinking, and greater involvement in civic and community service” (Worthington et al., 2008:8). Gottfredson et al. (2008) report that both diversity in the classroom and more informal “contact diversity” in other campus activities were positively related to such factors as cognitive openness, positive attitudes towards equal opportunities and academic outcomes.

Models of the determinants of student QoL can include a wide variety of factors related to (i) *student attributes*, such as race, sex, sexual orientation, age, socioeconomic status, self-esteem, drug and alcohol use, learning style, academic achievement; and (ii) *institution attributes*, for example living or housing conditions, on-campus social spaces and leisure activities, racial/ethnic diversity, dominant culture and so on (Chow, 2005; Sirgy et al., 2007). An investigation of the QoL of students in university residences will tend to include items from both categories.

2.1 *Student diversity and QoL*

An important component of student satisfaction with Higher Education Institutions is a sense of being part of the community or of “belonging” (Worthington et al., 2008; Nunez, 2009). In addition to QoL studies, there has been an increasing use of “campus climate” surveys, particularly in identifying and understanding the experiences of students whose sexual orientation, race, or gender may have resulted in subtle forms of discrimination. The findings of both types of studies are reported here.

Miller and Sujitparapitaya (2010) compared campus climate surveys over time at a public university on the West Coast of the US to determine whether campus climate changed as the institution became more racially diverse. In 1994, the university had 40% white students, which had fallen to 28% by 2006. Among other questions, students were asked whether they had experienced or witnessed forms of insensitive behaviour (including incidents of “microaggression”). Contrary to expectations, they found that students answering “yes” to this question increased from 42% in 1994, to 45% in 1999 and 47% in 2006. The results may be partly explained by the increase in “minority” students, who were more likely to have experienced such discriminatory behaviour, but the researchers also suggest that increasing diversity can make people feel defensive and threatened, and thus more likely to become segregated and aggressive. The challenge in such situations is to create an environment that fosters cooperation and not competition, which is likely to require purposeful intervention, rather than the assumption that integration will happen automatically.

Vaccaro (2010) conducted a qualitative analysis of written responses to open-ended questions in a campus climate survey conducted at a predominantly white university. Her findings showed that, while the results of campus climate sur-

veys may appear to be mostly positive when based on closed-ended question responses, further analysis of written comments may reveal underlying prejudice and hostility. Despite official reports that described the climate as “positive” and “accepting” (Vaccaro, 2010:205), the research showed alarming amounts of racism and sexism, particularly amongst male students. Women and black students, as well as staff, reported feeling excluded (by the presence of a “good old boy” network), devalued, and even unsafe.

Zullig et al. (2009) reported that students at a largely white university in the mid-west USA generally reported good or high QoL. They found that average reported QoL did not differ significantly between gender, race or “year in school”, but that white students had a higher average than other groups. Similarly, a study of senior students from 17 research universities in the USA, with more than 14 000 responses, found that, overall, gender and race were not significant determinants of satisfaction. However, some differences across and between race groups were found: for example, Asian American women reported higher levels of satisfaction than did men from the same race group (Einarson and Matier, 2005). Also, while the Miller and Sujitparapitaya (2010) study did find evidence of a “chillier” campus climate for some groups, they did not find evidence that lower perceptions of campus climate were statistically significantly related to student performance or persistence.

2.2 *Health, drug use and alcohol*

In addition to student attributes, student behaviour has also been shown to have an impact on quality of life. Vaez and Laffamme (2003) investigated the relationship between the self-reported QoL and health (including lifestyle issues such as alcohol consumption, smoking and physical activity) amongst first year university students in Sweden. An interesting finding is that while male students rated their health lower on average than women, men still has a higher reported QoL mean score than women. The researchers explain the findings by demonstrating that psychological well-being is a more important determinant of QoL ratings than physical health (Vaez and Laffamme, 2003).

Despite the fact that many university students drink heavily, there have been few studies investigating the impact of alcohol use and student quality of life directly, and findings are often mixed (Murphy et al., 2005). For example, in a Canadian longitudinal study, greater alcohol use was associated with higher subjective well-being (Molnar et al., 2009). Murphy et al. (2005) found that men and white students reported drinking more heavily than women and students of other race groups, indicating gender and racial differences in consumption patterns. However, they also found that the relationship between life satisfaction and alcohol use (drinks per week) was quadratic, rather than linear, suggesting that moderate drinking improved life satisfaction, while complete abstinence and heavy drinking did not.

In terms of gender differences, heavy drinking episodes (up to 4 per week) increased the self-rated social quality of life satisfaction for men. For women, there was a negative relationship between drinking and general life satisfaction.

Alcohol related problems reduced life satisfaction across all groups (Murphy et al., 2005). This accords with the findings of Vaez and Laflamme (2003), who found that male students were more likely to engage in frequent drinking (more than 2-4 times a week) and high consumption (7-9 glasses) than female students. While a relatively small percentage of the Swedish students in the sample smoked (24%), smokers were much more likely to be men than women students.

2.3 Campus climate and university residence life in South Africa

In 2010, the South African Council on Higher Education (CHE) published a report on “Access and throughput in South African higher education” with three universities chosen as case studies. Among the issues discussed relating to student persistence and success was university residence life: the residence culture and resultant degree of social integration of students being seen as important factors either promoting or hindering academic success (CHE, 2010:108):

Residences build unity, a commonness of purpose. First-year students look up to their seniors, and find the support and encouragement that accrue from loyalty to the residence. Rural students find residences a crucial bridge to the complexities and uncertainties of a large research university.

The first case study was the University of Pretoria (UP), which is a historically Afrikaans university with approximately 50 000 students. The CHE (2010:108) report found that the dominance of Afrikaans culture in UP residences could alienate black students, although significant improvements have been made since the banning of initiation ceremonies. The growing number of black leaders amongst residence students and staff has also helped to make the residences more culturally inclusive. In terms of achieving academic success, the residence experience was found to be an extremely important factor.

The University of the Witwatersrand (Wits) is a large and historically white, research university. Although not specifically related to residences, the study found that there was a group of students who were open to, and accepting of, the “rules, codes, norms and standards” of Wits social and institutional life and who feel they “belong” (CHE, 2010:83). A second group were those who rejected these norms and traditions, emphasizing diversity and difference, while a third group felt displaced and alienated in the Wits environment. In addition, even for those students who feel they “belong”, there appeared to be ongoing issues of race, English-language ability, and xenophobia, although some spaces were seen as open and available to all (CHE, 2010:86).

The final case study was the University of the Western Cape (UWC), a formerly black university. Here, residence culture appears to be much more accommodating of social diversity, but equally important in shaping social relationships, since students living on campus reported socialising mainly with other students living in residence (CHE, 2010). Some residences also provided academic support in the form of mentoring programs and study groups. Problems experienced by students appeared to be largely related to communal living,

such as loud music and other noise, lack of recreational and shopping facilities on campus and hygiene in residences. However, an important additional concern was around safety, both at drinking establishments on campus (“the Barn”), as well as off-campus (Cape Town and surrounds). Perceptions of the lack of safety were of particular concern to women as was the violence related to homophobia and xenophobia. In conclusion, UWC residences seem to offer a much more open and friendly environment than those of UP, and, despite continuing evidence of segregation in student clubs and societies, have had some success in cutting across race, gender and class boundaries (CHE, 2010).

The University of Cape Town (UCT) campus climate survey (UCT, 2007) focused on staff perceptions, rather than those of students. Nevertheless, similar patterns were found, with white men giving the highest percentage of positive responses to questions relating to campus climate, followed by white women, while African and foreign women had the highest percentages of negative responses. The most frequently cited problems with working at UCT were lack of racial diversity amongst the staff and racial discrimination (UCT, 2007).

3 The Rhodes University context and residence system

Rhodes University is the smallest South African University by far, with approximately 7 400 students studying in six different Faculties. Approximately 25% of the student body is international, and 25% are postgraduate. Academic and support staff number 1 200. Founded in 1905, the University was formerly for whites only, a practice of racial segregation which was voluntary until 1959, when it was formally legislated. From the mid-70s black students were admitted in steadily increasing numbers, with a massive acceleration after 1994 and the end of apartheid. Today it is multicultural, multilingual and multi-ethnic in terms of student demographics, and faces the need for immense social transformation. Over 50% of all students at Rhodes live in one of the university’s 50 residences, including almost all of the first year students. Residences vary in size, with an average number of around 70 students per residence.

Students are housed on the basis of gender, and there are no co-ed residences. Each Residence has a live-in Warden, who (in addition to a full day job), is employed to ensure that both social and infrastructural needs are met, and that appropriate communal living standards and discipline prevail, in accordance with the University’s protocols. Wardens are assisted by subwardens, appointed from amongst the senior students in the residence, and elected House Committees also play an active leadership role on a voluntary basis.

Led by a new Vice Chancellor since 2006, the University has set transformation at the top of the agenda, and the Dean of Students Office has energetically pursued strategies to raise awareness about diversity-related issues, to change mindsets and recognise and celebrate the diversity of its community by encouraging respect for human dignity, human rights, equality, non-sexism and

non-racialism’, in order to become a “home for all”. This determination to encourage free speech, eschew violence, promote frank inquiry and tolerance and to reject discrimination of any kind is reiterated in the University’s new Equity Policy and described in its Mission Statement: Rhodes University undertakes to develop shared values that embrace basic human and civil rights; to acknowledge and be sensitive to the problems created by the legacy of apartheid, to reject all forms of unfair discrimination and to ensure that appropriate corrective measures are employed to redress past imbalances.

4 The data

The data originate from the 2011 Quality of Residence Life Survey conducted among students residing in campus residences at Rhodes University. Completed anonymously on paper by a representative sample of students from all 50 campus residences, this survey contains 50 questions on a 5-point Likert-type scale ranging from “strongly disagree” to “strongly agree” and is primarily aimed at ascertaining levels of general satisfaction with residence-life characteristics and identifying problem areas needing attention. For ease of interpretation in the regression analysis, the 5-point variables were re-coded to three categories each: “Strongly disagree” and “disagree” were collapsed as “disagree”, “neutral” remained as a category on its own, and “agree” and “strongly agree” were collapsed into “agree”. Such re-coding was also necessary since sample sizes in many categories of the 5-point variables were too small for reliable statistical inference. Apart from residential characteristics, the survey also records some demographic information regarding gender and race.

Although the survey has been conducted since 2007, the 2011 survey was the first to include a question on overall satisfaction with the quality of residence life, which asks students: “Using a scale of 1 to 10, where 1 is totally dissatisfied and 10 is totally satisfied, how satisfied are you with your quality of residence life?” For ease of interpretation in the descriptive analysis, a score of 1-3 was coded as “low”, 4-7 as “medium”, and 8-10 as “high”. The choice as to which questions to include as measures of residential characteristics and campus life were guided in part by the literature and knowledge of the local university context. Table 1 presents the sample summary statistics. The average reported level of residence-life satisfaction is 7.21, suggesting that students are on average very satisfied with the quality of the residence life conditions.

5 Econometric methods

This paper employs analysis of variance (ANOVA) as well as cross-tabulations between residence-life satisfaction and individual characteristics in the descriptive analysis. Student satisfaction with residence life is treated as ordinal and as such an ordered probit model is estimated to investigate the determinants of satisfaction with campus residence life. Student residence-life satisfaction for the

i th student is assumed to be a function of residence and campus characteristics and individual student characteristics. Formally:

$$y_i = f(X_i, P_i) \quad (1)$$

where y_i is the 10-point variable capturing satisfaction with quality of residence life, X_i is a ($k \times 1$) vector of residence and campus characteristics, and P_i denotes a ($k \times 1$) vector of individual student characteristics. The ordered probit model is specified as:

$$y_i = \delta X_i + \gamma P_i + \varepsilon_i \quad (2)$$

where δ and γ are vectors of unknown parameters and ε_i is a randomly distributed error term. From the ordered probit results, this paper predicts marginal effects for a satisfaction score of eight or higher. These marginal effects indicate the average probability of reporting a satisfaction level of eight or higher.

6 Results

Figure 1 plots mean levels of satisfaction across racial groups, with white students reporting the highest score and black students the lowest. However, according to ANOVA results, reported average satisfaction with residence life is not significantly different across racial groups ($F = 1.47$, $df = 3, 2146$, $p = 0.2207$). Figure 2 indicates that, relative to female students, satisfaction is higher among male students, and this difference is statistically significant ($F = 8.89$, $df = 1, 2220$, $p < 0.05$). Cross-tabulations between residence-life satisfaction and the individual traits of sex and race are presented in Table 2. Satisfaction across racial groups is relatively evenly spread across the various levels of satisfaction, and as noted, these differences are not statistically significant. Residence-life satisfaction is slightly higher among male students. For instance, about 52.5% of male students reported a high level of satisfaction compared to 45.5% of female students. This difference is statistically significant ($p < 0.01$).

Table 3 contains the ordered probit regression results with the purpose of examining the predictors of student residence life satisfaction. The Wald χ^2 statistic ($p < 0.001$) indicates that the explanatory variables as a whole are statistically significant in explaining student residence-life satisfaction, with the Pseudo R^2 being roughly 13.3%. Although this may seem low, such scores are common in cross-sectional studies. The remainder of this section discusses the regression findings by various sub-categories.

6.1 *Residence milieu and characteristics*

In general, the characteristics of a particular residence, as well as the overall ambience of residence life, are important factors associated with campus

residence-life satisfaction. Students who feel comfortable discussing personal problems with the residence Warden are more satisfied than those who do not ($p < 0.001$). The relationship is also quite strong: The former are 17.6% more likely to report a satisfaction level of eight or higher. In contrast, there is not much evidence to suggest that student satisfaction is related to the House Warden's ability to assist with any particular academic issue. Although the perception of whether academic achievements are valued is not significantly related to residence-life satisfaction, a peaceful or quiet residence matters greatly for student well-being. Satisfaction levels are higher among those who feel that their residence is quiet enough for studying or sleeping relative to those that do not agree that this is the case ($p < 0.001$).

Having witnessed a violent incident in residence is not significantly associated with satisfaction with residence life; the same is true regarding the efficacy of communication regarding various news and events. A well-functioning House Committee as well as a fair disciplinary system are, however, very important for healthy student well-being. For instance, those who feel that the House Committee makes a positive contribution in the residence are more satisfied as opposed to those who perceive this not to be the case, and this association is quite strong ($p < 0.01$). Similarly, a perception that the disciplinary system is fair raises the likelihood of reporting a satisfaction level of eight or higher by about 21.2% ($p < 0.001$). Both effective conflict resolution strategies within residence as well as mutual respect for students' individualism and differences are strongly associated with higher satisfaction with life in campus residence. For example, compared to students who do not feel that conflict resolution is adequate, those who reported satisfactory conflict resolution are 10.7% more likely to possess a satisfaction level of eight or greater ($p < 0.05$). Likewise, students are significantly more satisfied if they believe that individuality and differences are respected ($p < 0.05$).

A clean and hygienic residence is positively associated with residence-life satisfaction, as students who feel that their residence is sufficiently clean, for instance, report significantly higher levels of satisfaction relative to students whose residences are not deemed acceptably clean ($p < 0.001$). Students do not like waiting for their food: Having to queue for longer than ten minutes in the dining halls is negatively associated with student residence-life satisfaction ($p < 0.05$). Finally, the strongest relationship with residence satisfaction within the sub-category of residential characteristics is with maintenance. Students who feel that their residence is in good condition and well-maintained are 29.0% more likely to report a satisfaction score of eight or greater than those that perceive that maintenance of their residence is poor ($p < 0.001$). This finding is supported by that of Chow (2005), who found a positive association between the physical condition of Canadian students' residences and student well-being.

6.2 *Discrimination*

Being a witness to discriminatory incidents is more strongly related to student satisfaction than actually directly experiencing a form of discrimination. Having

witnessed incidents of sexism is positively associated with student well-being: Those having witnessed a sexist episode are 26.7% more likely to report a satisfaction score of eight or higher when compared to those who have not witnessed such an incident ($p < 0.01$). While the latter finding may seem counterintuitive, it can be explained within the Rhodes University context of anti-sexism policies and awareness programmes. The University regularly has dedicated awareness campaigns focused on the elimination of sexism, with students also being encouraged to report sexist incidents. If students witness a sexist episode and subsequently report it, they may experience feelings of empowerment and gratification that serve to increase their perceived satisfaction with their residence life.

The opposite association is present if someone witnessed a racist incident. Students who have witnessed a racist episode are significantly less satisfied with their residence life as compared to students who have not witnessed such incidents ($p < 0.05$). This finding suggests that students are sensitive toward race-related incidents, which is reasonable given South Africa's long history of racial segregation and discrimination. Moreover, racial tensions have been shown to affect student QoL in the US (Miller and Sujitparapitaya, 2010), for example, with race-related issues still being reported as problematic in South African universities (UCT, 2007; CHE, 2010) and this may also be the case in Rhodes University.

6.3 *Drugs and alcohol*

Perceptions of an alcohol problem in residence seem to be negatively associated with student well-being, but only the coefficient of the neutral response is statistically significant. The practical significance of this finding is supported by Murphy et al. (2005) in that alcohol related problems are detrimental to student well-being. In the present case, the well-being of students who feel that alcohol abuse is an issue in their particular residence may be negatively affected through the actions of other students who drink frequently and heavily. There is no significant difference in satisfaction between students who agree and are neutral as to whether an alcohol problem exists ($p = 0.562$). Those that are neutral to the question about whether a drug problem exists in residence are less satisfied with their quality of residence life relative to students who disagree with the presence of drug issues ($p < 0.05$). Furthermore, there are no significant well-being differences among those who are neutral and who agree with the presence of a drug problem ($p = 0.457$).

6.4 *Campus and residence safety*

Perceptions of the degree of individual safety seem relatively important for student well-being. Those that feel safe on campus or perceive safety precautions in residence as adequate seem in general more satisfied with their residence life than students who do not feel safe or view the safety precautions as adequate. The coefficients measuring satisfaction differences with walking on campus are

not statistically significant; the same is found for perceptions of safety precautions. However, post-estimation tests reveal that students who agree with feeling safe walking on campus are more satisfied than those who are neutral ($p < 0.05$). Also, those who lock their rooms when absent are significantly less satisfied compared to those that do not ($p < 0.10$), with the latter being about 6.2% more likely to report a satisfaction score of eight or greater. Thus, feeling threatened by the possibility of theft or vandalism of personal possessions matters more for well-being than feelings of general safety on campus and in residence.

6.5 *Individual characteristics*

The regression estimates indicate a significant non-linear relationship between the satisfaction with quality of residence life and the number of years living in residence. Student satisfaction with residence life does not differ significantly across either racial or sex groups. Further post-estimation equality of coefficient tests reveal no significant satisfaction differences between racial groups. The absence of such racial differences seem contrary to the environments at UP and UWC as noted earlier, where racial tensions often persist. These findings regarding sex and race in the present study are extremely encouraging, especially when viewed against the backdrop of the apartheid legacy and existing research.

Given the racial discrimination and historic marginalisation of women during the previous regime, we would expect to find substantial well-being differences between sex and racial groups. Furthermore, Ebrahim et al. (2013) find substantial discrepancies in well-being across racial and gender groups in a study of the broader South Africa. It would thus seem that although we still observe well-being differences in the wider South African society between sex and race groups, such differences do not exist within the university environment under investigation. The findings from the present study regarding the absence of significant well-being differences between gender as well as racial groups are in accordance with research at US universities (Einarson and Matier, 2005; Zullig et al., 2009).

7 Conclusion

The purpose of this study was to examine various correlates of student satisfaction with the quality of their campus residence life at South Africa's smallest university. Estimation of a basic ordered probit model reveals that student residence-life satisfaction is significantly associated with a range of direct and indirect factors, and as a whole emphasises the noted importance by previous research (Kuh, 1995; Chow, 2005) of campus residential factors in enhancing student well-being. A calm and serene residence environment is very important for high student satisfaction, in addition to well-maintained and clean residences. Important, especially within the context of South Africa's racially-divided past, is the absence of any substantial and statistically significant satisfaction dif-

ferences between racial groups. Students value fairness in the application of disciplinary processes and the efficient resolution of conflict, as well as scope for individuality within residences as fostering greater residence-life satisfaction.

Indirect forms of discrimination are more important predictors of student well-being than are direct events of hate speech. For example, being a witness to a racist incident is detrimental to student satisfaction, while being the actual victim such an incident is not. The overall results with respect to hate speech or discrimination, whether experienced or witnessed, emphasise the continuing importance of efforts aimed at curbing such behaviour and in empowering students by urging them to report and speak out against all forms of discrimination or hate speech.

There is also some evidence to suggest that drug-related problems are detrimental to student well-being, and that perhaps some students are reluctant to divulge information in this regard. Residence-life satisfaction is lower among students who feel that they have to lock their dorm rooms when they are not present, implying that a perception of threat to personal property (by means of damage or theft, for example) is detrimental to student well-being. Improvements of security measures within campus residences, such as installing security cameras in residence hallways, are likely to benefit well-being by providing students with greater peace of mind.

Some limitations of this study should be noted. The cross-sectional nature of the data implies that only an analysis of associations can be performed and not causation. This also precludes any conclusions regarding the efficacy of certain university policies on student residence-life satisfaction. Moreover, the residence and campus characteristics analysed are based on each individual student's perception rather than actual characteristics: Students may perceive the same residence characteristic in different ways. Nevertheless, the findings from this paper have shown that residence factors and overall campus environment are important factors in enhancing student well-being. Careful planning and emphasis by universities on the internal and external situation of campus-based residences would be necessary in fostering healthy student well-being.

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References

- [1] Amole, D. (2009). Residential satisfaction in students' housing. *Journal of Environmental Psychology*, 29, 76–85.
- [2] CHE. (2010). Access and throughput in South African Higher Education: Three Case Studies. South African Council on Higher Education [Online]

Available: www.che.ac.za/documents/d000206/ [Accessed: 21 November 2011].

- [3] Chow, H. (2005). Life satisfaction among university students in a Canadian prairie city: A multivariate analysis. *Social Indicators Research*, 70, 139–150.
- [4] Ebrahim, A., Botha, F. & Snowball, J. (2013). Determinants of life satisfaction among race groups in South Africa. *Development Southern Africa*, 30(2), 168–185.
- [5] Einarson, M.K. & Matier, M.W. (2005). Exploring race differences in correlates in seniors' satisfaction with undergraduate education. *Research in Higher Education*, 46(6), 641–676.
- [6] Gottfredson, N. C., Panter, A. T., Daye, C. E., Wightman, L. F., Allen, W. A., & Deo, M. E. (2008). Does diversity at undergraduate institutions influence student outcomes? *Journal of Diversity in Higher Education*, 1, 80–94.
- [7] Kuh, G. (1995). The other curriculum: Out-of-class experiences associated with student learning and personal development. *Journal of Higher Education*, 66 (2), 121–155.
- [8] Miller, B. & Sujitparapitaya, S. (2010). Campus climate in the twenty-first century: Estimating perceptions of discrimination at a racially mixed institution, 1994–2006. *New Directions for Institutional Research*, 145, 29–52.
- [9] Møller, V. (1996). Life satisfaction and expectations for the future in a sample of university students: A research note. *South African Journal of Sociology*, 27(1), 16–26.
- [10] Molner, D., Busseri, M., Perrier, C., & Sadava, S. (2009). A longitudinal examination of alcohol use and subjective well-being in an undergraduate sample. *Journal of Studies on Alcohol and Drugs*, 70(5), 704–713.
- [11] Murphy, J.G., McDevitt-Murphy, M.E., & Barnett, N.P. (2005). Drink and be merry? Gender, life satisfaction and alcohol consumption among college students. *Psychology of Addictive Behaviors*, 19(2), 184–191.
- [12] Nunez, A.M. (2009). A critical paradox? Predictors of Latino students' sense of belonging in college. *Journal of Diversity in Higher Education*, 2(1), 46–61.
- [13] Prieto-Flores, M-E., Fernandez-Majoralás, G., Forjaz, M.J., Rojo-Perez, F. & Martinez-Martin, P. (2011). Residential satisfaction, sense of belonging and loneliness among older adults living in the community and in care facilities. *Health and Place*, 17, 1183–1190.

- [14] Proctor, C., Linley, P., & Maltby, J. (2009). Youth life satisfaction: A review of the literature. *Journal of Happiness Studies*, 10, 583–630.
- [15] Rode, J., Arthuad-Day, M., Mooney, C., Near, J., Bladwin, T., Bommer, W., & Rubin, R. (2005). Life satisfaction and student performance. *Academy of Management Learning and Education*, 4(4), 421–433.
- [16] Rodgers, K.A. & Summers, J.J. (2008). African American students are predominantly white institutions: A motivational and self-systems approach to understanding retention. *Educational Psychology Review*, 20(2), 171–190.
- [17] Rojo-Perez, F., Fernandez-Majoral, G., Rivera, F.E.P. & Rojo-Abuin, J.M. (2001). Age in place: Predictors of the residential satisfaction of elderly. *Social Indicators Research*, 54, 173–208.
- [18] Sirgy, M., Grzeskowiak, S., & Rahtz, D. (2007). Quality of college life of students: Developing and validating a measure of well-being. *Social Indicators Research*, 80, 343–360.
- [19] UCT. (2007). University of Cape Town: Institutional Climate Survey Report 2007. [Online] Available: <http://www.uct.ac.za/downloads/uct.ac.za/about/introducing/transformation/reports/institclimatesurvey07.pdf> [Accessed: 24 November 2011].
- [20] Vaccaro, A. (2010). What lies beneath seemingly positive campus climate results: Institutional sexism, racism, and male hostility towards equity initiatives and liberal bias. *Equity and Excellence in Education*, 43(2), 202–215.
- [21] Vaez, M. & Laflamme, L. (2003). Health behaviors, self-rated health, and quality of life: A study among first-year Swedish university students. *Journal of American College Health*, 51(4), 156–162.
- [22] Worthington, R.L., Navarro, R.L., Loewy, M., & Hart, J. (2008). Color-blind racial attitudes, social dominance orientation, racial-ethnic group membership and college students' perceptions of campus climate. *Journal of Diversity in Higher Education*, 1(1), 8–19.
- [23] Zullig, K.J., Huebner, E.S., & Pun, S.M. (2009). Demographic correlates of domain-based life satisfaction reports of college students. *Journal of Happiness Studies*, 10(2), 229–238.

Table 1: Summary statistics

Variable	Mean	S.D.	Min	Max
Satisfaction with quality of residence life	7.21	1.64	1	10
Comfortable discussing personal issues with Warden	3.53	1.14	1	5
Residence is sufficiently quiet for study or sleep	3.56	1.10	1	5
Academic achievements are valued in residence	4.04	0.91	1	5
House Committee makes positive contribution to residence	3.93	0.89	1	5
Feel safe walking on campus at night	3.79	1.04	1	5
The disciplinary system is applied consistently and fairly	3.64	0.98	1	5
House Warden is able to assist in case of an academic problem	3.56	0.94	1	5
There is a drug problem in the residence	2.01	1.08	1	5
Experienced sexism	1.33	0.68	1	5
Experienced racism	1.50	0.88	1	5
Experienced a xenophobic incident	1.47	0.85	1	5
Clear and effective communication regarding events, safety and university news	3.80	0.84	1	5
There is an alcohol problem in the residence	2.47	1.18	1	5
Conflict in the residence is quickly and effectively resolved	3.64	0.91	1	5
Safety precautions in the residence are sufficient	3.85	0.83	1	5
Witnessed a violent incident in the residence	1.82	1.03	1	5
Satisfied with cleanliness of the residence	3.52	1.13	1	5
Always lock the room when not in it	3.78	1.21	1	5
Regularly have to queue in dining hall for longer than ten minutes	2.50	1.21	1	5
Students respect individuality and each other's differences in the residence	3.92	0.84	1	5
The residence is well-maintained	3.73	0.99	1	5
Witnessed an unpleasant incident in residence involving sexism	1.47	0.78	1	5
Witnessed an unpleasant incident in residence involving racism	1.59	0.92	1	5
Witnessed an unpleasant incident in residence involving xenophobia	1.51	0.81	1	5
Years in residence	1.88	0.99	1	9
Male	0.39	0.49	0	1
Black	0.52	0.50	0	1
Coloured	0.04	0.19	0	1
Asian	0.04	0.19	0	1
White	0.34	0.47	0	1

Table 2: Satisfaction with residence life, by personal characteristics

Characteristics	Satisfaction with quality of residence life			
	Low	Medium	High	Total
Race				
Black	7.36 (n=81)	46.55 (n=512)	46.09 (n=507)	100.0 (n=1100)
Asian	10.64 (n=10)	40.43 (n=38)	48.94 (n=46)	100.0 (n=94)
Coloured	3.45 (n=3)	47.13 (n=41)	49.43 (n=43)	100.0 (n=87)
White	5.98 (n=52)	43.61 (n=379)	50.40 (n=438)	100.0 (n=869)
Total	6.79 (n=146)	45.12 (n=970)	48.09 (n=1034)	100.0 (n=2150)
Pearson $\chi^2 = 8.24$ ($p = 0.221$)				
Gender				
Female	6.94 (n=94)	47.53 (n=644)	45.54 (n=617)	100.0 (n=1355)
Male	6.34 (n=55)	41.18 (n=357)	52.48 (n=455)	100.0 (n=867)
Total	6.71 (n=149)	45.05 (n=1001)	48.24 (n=1072)	100.0 (n=2222)
Pearson $\chi^2 = 10.30$ ($p < 0.01$)				

Note: "Low" denotes a satisfaction score of 1-4, "Medium" denotes a score of 5-7, and "High" denotes of score of 8-10.

Table 3: Ordered probit regression results

Dependent variable: Satisfaction with quality of residence life		
	Coefficient	M.E.
<i>Residence milieu and characteristics</i>		
Comfortable discussing personal issues with Warden		
Neutral	0.034 [0.092]	0.011
Agree	0.388 [0.090]***	0.176
Residence is sufficiently quiet for study or sleep		
Neutral	0.116 [0.086]	0.087
Agree	0.412 [0.080]***	0.184
Academic achievements are valued in residence		
Neutral	-0.001 [0.146]	0.015
Agree	0.014 [0.139]	0.041
House Committee makes positive contribution to residence		
Neutral	0.405 [0.157]***	0.184
Agree	0.557 [0.156]***	0.216
The disciplinary system is applied consistently and fairly		
Neutral	0.223 [0.106]**	0.126
Agree	0.428 [0.104]***	0.212
House Warden is able to assist in case of an academic problem		
Neutral	0.210 [0.118]*	0.107
Agree	0.189 [0.121]	0.098
Clear and effective communication regarding events, safety and university news		
Neutral	0.046 [0.124]	0.083
Agree	0.078 [0.117]	0.089
Conflict in the residence is quickly and effectively resolved		
Neutral	0.019 [0.121]	0.026
Agree	0.274 [0.128]**	0.107
Witnessed a violent incident in the residence		
Neutral	-0.127 [0.087]	-0.012
Agree	-0.018 [0.110]	0.001
Satisfied with cleanliness of the residence		
Neutral	0.274 [0.082]***	0.120
Agree	0.338 [0.075]***	0.140
Regularly have to queue in dining hall for longer than ten minutes		
Neutral	-0.146 [0.066]**	-0.034
Agree	-0.162 [0.072]**	-0.083
Students respect individuality and each others' differences in the residence		
Neutral	0.077 [0.148]	0.016
Agree	0.349 [0.144]**	0.121
The residence is well-maintained		
Neutral	0.440 [0.104]***	0.174
Agree	0.792 [0.105]***	0.290
<i>Discrimination</i>		
Experienced: Sexism		
Neutral	0.061 [0.211]	0.028
Agree	0.400 [0.294]	0.178
Experienced: Racism		
Neutral	0.075 [0.133]	0.040
Agree	-0.024 [0.191]	-0.017

Dependent variable: Satisfaction with quality of residence life		
	Coefficient	M.E.
Experienced: Xenophobia		
Neutral	0.066 [0.166]	-0.022
Agree	0.070 [0.215]	0.003
Witnessed: Sexism		
Neutral	-0.226 [0.169]	-0.059
Agree	0.572 [0.197]***	0.267
Witnessed: Racism		
Neutral	-0.061 [0.141]	-0.020
Agree	-0.302 [0.153]**	-0.130
Witnessed: Xenophobia		
Neutral	-0.059 [0.157]	-0.067
Agree	0.052 [0.196]	0.002
Drugs and alcohol		
There is a drug problem in the residence		
Neutral	-0.186 [0.078]**	-0.062
Agree	-0.090 [0.124]	-0.011
There is an alcohol problem in the residence		
Neutral	-0.079 [0.066]	-0.006
Agree	-0.026 [0.088]	0.025
Campus and residence safety		
Feel safe walking on campus at night		
Neutral	-0.019 [0.098]	0.012
Agree	0.123 [0.092]	0.067
Safety precautions in the residence are sufficient		
Neutral	0.077 [0.138]	-0.029
Agree	0.142 [0.129]	0.007
Always lock the room when not in it		
Neutral	-0.074 [0.094]	-0.045
Agree	-0.140 [0.070]**	-0.062
Individual characteristics		
Years in residence	-0.234 [0.104]**	-0.116
Years in residence squared	0.040 [0.021]*	0.021
Race		
Asian	0.073 [0.142]	-0.027
Coloured	0.010 [0.125]	0.046
White	0.005 [0.060]	0.027
Gender		
Male	0.025 [0.061]	-0.002
Pseudo R^2	0.1325	
Observations	1566	
Wald χ^2	728.7***	
Log pseudolikelihood	-2510.7	

Note: $p < 0.001$ ***, $p < 0.05$ ** , $p < 0.10$ *. Robust standard errors are reported in brackets. M.E. denotes the marginal effect that reflects the probability of reporting a satisfaction of eight or higher. For all answers ranging from “disagree” to “agree”, omitted category is “disagree”. For race, omitted group is “Black”; for gender, omitted group is “female”.

Figure 1

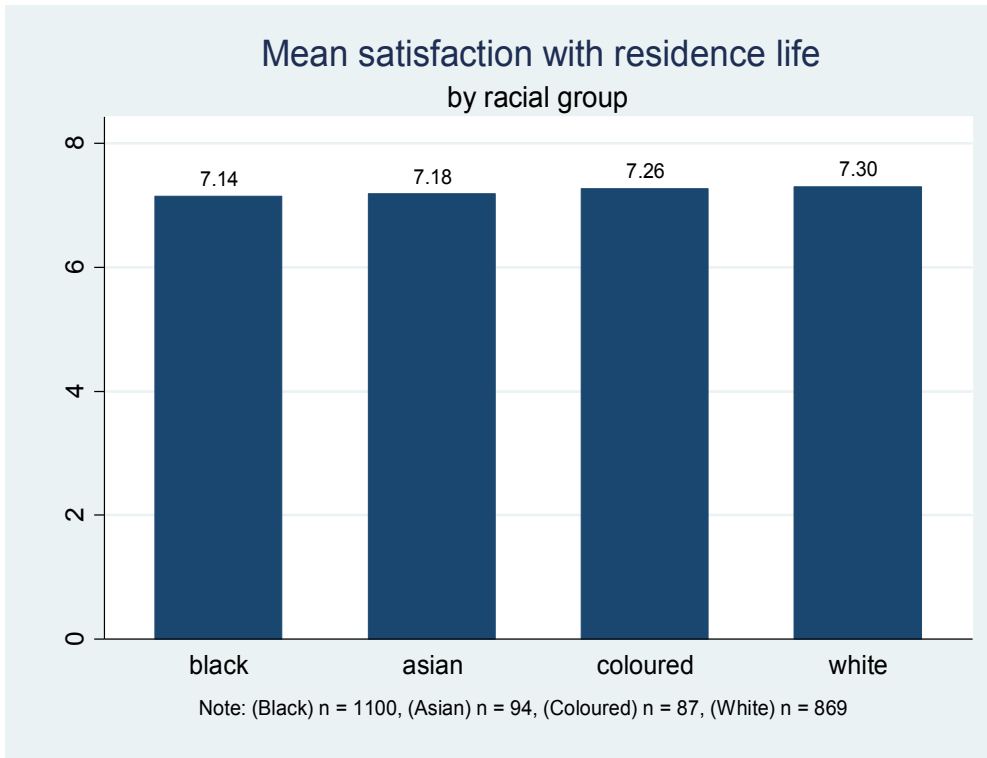


Figure 2

