Hit or miss – Does living in residential halls impact university students' development?

Abstract

Residential halls are an important component of college education, and the benefits for holistic personal development have been documented by previous research The majority of studies, however, have focused on Western universities. The current research therefore assessed the academic, social, and independent development of students attending universities in Hong Kong. A total of 1,904 students completed a self-report questionnaire measuring various aspects of their development. The students living in residential halls scored significantly higher than those not living in halls on five aspects of development – peer group interactions and communication skills, self-efficacy, problem-solving skills, self-control, and open-mindedness – but not on other aspects such as academic development. The results imply that improvements to students' residential hall experiences are needed to facilitate their personal development.

Keywords: college student, hall residence, academic development, social development, independent development

Introduction

One of the major aims of education is to foster intellectual development through classroom learning (Whitehead, 1967). Residential halls, in contrast, are the ideal place for college students to grow and develop practical knowledge, values, maturity, and citizenship (Blimling, 2014). These attributes echo Blimling's (2001) four communities of practice: student development, student learning, student administration, and student services. Residential halls are not only dormitories that provide space for sleeping; they are also major social and recreational spaces where students can learn and grow outside the classroom (Ong & Chu, 2020).

The long history of campus residency in Western countries and the concept of the residential university have become increasingly popular in Asia. In 1912, the University of Hong Kong established a residential-based university using the Oxbridge model as a reference. Each residential hall requires all full-time academic staff members to commit to resident development services, such as providing support for student learning beyond the classroom and organising activities that challenge students to take responsibility (Chen, 2017). In 2008, The National University of Singapore (NUS) promoted the nexus of living, learning, and working in residential colleges by creating a new University Town consisting of a cluster of both residential spaces and learning facilities (Chan & Ng, 2008). This system differs from conventional residential halls in Singapore, which generally contain minimal learning activities. Similarly, the University of Macau transformed itself into a residential college university in 2014, providing all undergraduate students with at least one year of residential experience.

In 2011, a partnership between Yale University and the NUS gave rise to Yale-NUS College. The college has incorporated Singaporean and South East Asian contexts into its curriculum. Importantly, the residential college system mirrors that of Yale and other leading universities in the United States, as it effectively infuses liberal arts and science education into residential living (Bailyn et al., 2012). The Yale-NUS College creates 'nested communities' that support lifelong learning in liberal arts and sciences by combining academic, intellectual, social, cultural, athletic, and artistic aspects of life. It encourages students to pursue a co-curricular life by participating in student government, clubs, and organisations to develop leadership, independence, agility, and strength of mind.

Despite the establishment of residential education in various universities, few studies have examined the outcomes of residential education for students. The majority of these studies have focused mainly on Western universities, and their findings are only generalisable to the specific residential hall cultures in these countries (Crisp & Turner, 2011; Graham et al., 2018; Pascarella, 1996). As suggested by Ting et al. (2016), the residential culture in Hong Kong is a mixture of Western and Chinese styles, which also encourages residential students to be fully involved in hall activities. Hall education in Hong Kong provides abundant opportunities, social and cultural activities, and career-oriented campaigns, but the specific benefits of the residential culture in Hong Kong are ill-defined. More research examining residential education in Hong Kong universities is needed to provide a complete perspective on the benefits and shortcomings of residential life.

Astin (1991) highlighted the importance of learning communities in student halls, stating that 'the potential for their success is significantly enhanced by making use of a location where a majority of freshman spend most of their time – the residence halls' (p. 21). It is clear that residential halls serve as a bridge for students to integrate their curricular and co-curricular experiences, which is how residential education takes place (Graham et al., 2018). Residential education is a term to describe education provided in a setting where students both live and learn outside their family homes and classrooms.

Some well-established models have demonstrated many positive educational outcomes of living in residential halls (Kuh et al., 2006; Pascarella & Terenzini, 2005). For example, the *model of multiple intelligences* by Gardner (2000) suggests that living in halls contributes most directly to intrapersonal and existential development (collectively referred to as independent development) and interpersonal development (referred to as social development). Another example is Astin's (1984) *involvement theory*. Students living in residential halls learn and develop actively through an intermediate system involving interactions with other hall residents, social rendezvous, deliberate and inadvertent experiences, and opportunities to explore their interests (Blimling, 2014). These models suggest that it is worthwhile to scrutinise the unique influence of residential halls on student development in terms of three significant aspects of development: academic, social, and independent.

Academic development includes striving for excellence in academic studies, enthusiasm for further learning, higher academic achievement, intellectual stimulation, and analytical skills (Chu et al., 2019). Studies have shown that compared with those with no hall experience, students who live in residential halls learn more, are less likely to drop out, and are more likely to graduate from college (Gellin, 2003; Schudde, 2011). However, in studies that controlled for previous academic performance and socioeconomic variables, students who lived in halls had similar academic performance to students not living in halls (Blimling, 2014; Pascarella & Terenzini, 2005). Social development may include peer group interactions and communication skills, cultural exchanges, and global/social awareness and empathy. Apart from better comprehension and interpretation of others' emotions, hall experience has been found to be beneficial to students as they encounter others with diverse ethnic, racial, and cultural backgrounds, which contributes to diversity awareness and openness to experience (Crisp & Turner, 2011; Pascarella, 1996).

Through trial and error, students living in halls self-monitor by learning what to disclose and what not to disclose to articulate their self-image, even when they are compelled to disclose (Kuh et al., 2006; Pascarella et al., 1994). Thus, students living in halls acquire self-control skills. Moreover, students living in halls have been found to engage in intellectual discussions or even debates on moral, ethical, sociopolitical, and religious issues, as well as topics related to the purpose and meaning of life and their personal missions as they advance their epistemological judgement and metacognitive skills (Blakemore, 2012; Cullum & Harton, 2007).

Aims and Objectives

This study explore the specific benefits of residential hall culture in Hong Kong and compared the academic, social, and independent development of students living in versus not living in residential halls. Given the outcomes reported in the literature, it was hypothesised that students living in residential halls would outperform students not living in halls in all aspects of development.

Methodology

Participants

The research team recruited 1,904 participants from four Hong Kong universities to participate in the study; of these, 1,359 were female (71.4%), and 545 were male (28.6%). The four universities have been anonymized as BU, CU, EU, and HU. There were 762 (40.0%) students from HU, 270 (14.2%) from CU, 441 (23.2%) from BU, and 431 (22.6%) from EU. In terms of the students' cultural background, 73.0% were local (n = 1390) and 26.5% were non-local (n = 504). The majority of the participants were undergraduates (n = 1635), and the majority were currently residing in halls (n= 1,128; 59.24%). The mean duration of living in halls was 12.3 months. To be included, the participants a) had to be enrolled as full-time students in the university at the time of the recruitment and b) to be categorized as hall residents, participants had to be undergraduate or postgraduate students having lived in a residential hall for at least one semester.

Table 3. Participants' demographic information (N = 1904)

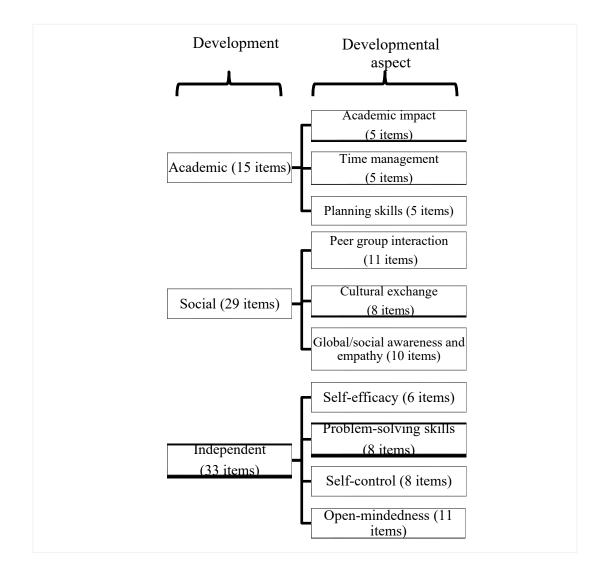
Demographics of study participants		
N = 1904	Number	%

Gender	Male	545	28.6
	Female	1359	71.4
Cultural background	Local	1390	73.0
	Non-local	504	26.5
	Unknown	10	0.5
	1	570	20.4
Year of study	1	579	30.4
	2	432	22.7
	3	413	21.7
	4	381	20.0
	5	75	3.9
	6 or above	11	6.0
	Alumni	13	0.7
Hall residents	Yes	1128	59.24
	No	776	40.76
	Undergraduate	1635	85.9
	Postgraduate	262	13.8
	Unknown	7	0.4
University	BU	441	23.2
	CU	270	14.2
	EU	431	22.6
	HU	762	40.0

Measures

The participants completed an online questionnaire consisting of demographic information and 77 self-report items that measured three aspects of students' development – academic, social, and independent – to assess the impact of hall experience (see Figure 1 for the sub-categories and number of items for each aspect). The items were evaluated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The questions about academic aspects were adapted from a recent study conducted by Chu et al. (2019), and questions about time management and planning skills were adapted from the Behavior Rating Inventory of Executive Function – Adult Version (Isquith et al., 2006). All of the questions were selected, with the wording of items and language remained unchanged. Higher scores indicated higher proficiencies. In this sample, the internal consistencies of the scales measuring the three aspects were good (Cronbach's α s > .8).

Figure 1 shows the number of items used to measure each aspect of development (77 self-report items).



The impact of hall experience on the students' social development was evaluated on a 7point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Questions on peer group interactions and communication skills were adapted from The Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) and a revised version of the Institutional Integration Scale (Pascarella & Terenzini, 1980), with 8 items focusing on cultural exchanges and 10 items focusing on global/social awareness and empathy. In this sample, the internal consistencies of the three scales were excellent (Cronbach's α s > .9). Higher scores indicated higher proficiencies.

The impact of hall experience on students' independent development was evaluated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Questions on selfefficacy were adapted from the Generalized Self-Efficacy Scale (Schwarzer & Jerusalen, 1995), questions on problem-solving skills and self-control were adapted from the Behavior Rating Inventory of Executive Function – Adult Version (Isquith et al., 2006), and questions on openmindedness were adapted from The Big-Five Inventory (John & Srivastava, 1999). The internal consistencies of the four scales were acceptable (Cronbach's α s > .7). Higher scores indicated higher proficiencies.

Procedures

All students from four local universities were invited to participate in the study in exchange for a drink coupon of small monetary value (HK\$20). Mass emails were sent to the students by the administrator in the Faculty of Education of each university. Additional mass emails were also sent to all hall residents by the warden and hall manager of each university.

Results

Compared to non-hall-living students, hall residents have reported significantly higher level of impact on five aspects of development: peer group interactions and communication skills, self-efficacy, problem-solving skills, self-control, and open-mindedness. However, there was greater academic impact among non-hall residents as revealed by their higher scores. To test these apparent effects, the data were analysed using independent-samples t-tests, and the results are presented in Tables 1, 2, and 3.

Academic Development

The students living in halls reported significantly lower levels of academic impact than the students not living in halls, t (1879) = -2.371, p = .018. However, there was no significant difference between them in terms of time management, t (1878) = 1.381, p = .167, or planning, t (1877) = 1.535, p = .125.

	Hall re	sidents	Non-hall residents				
	M	SD	M	SD	t	P	Cohen's d
1. Academic impact	4.62	1.02	4.76	1.03	-2.37	.018*	14
2. Time management	4.89	1.05	4.81	1.08	1.38	.167	.08
3. Planning	4.94	1.02	4.84	1.12	1.54	.125	.09
* <i>p</i> < .05.							

Table 1. Impact of Hall Experience on the Students' Academic Development

Social Development

The students living in halls reported significantly better peer group interactions and communication skills, t(1832) = 2.50, p = .012, and had slightly more cultural exchanges, t(1832) = 1.92, p = .055, than those not living in halls. However, there was no significant difference in the students' global/social awareness and empathy, t(1832) = 1.44, p = .148.

	Hall residents		Non-hall residents				
	М	SD	М	SD	t	Р	Cohen's d
4. Peer group interactions and communication skills	4.97	1.02	4.82	1.06	2.51	.012*	.15
5. Cultural exchanges	4.92	1.05	4.80	1.08	1.92	.055†	.11
6. Global/social awareness and empathy	5.01	0.98	4.92	1.02	1.44	.148	.09
* $p < .05. \dagger p < .10.$							

Table 2 Impact of Hall Experience on the Students' Social Development

Independent Development

As shown in Table 3, the hall residents scored significantly higher on self-efficacy, t (1785) = 2.348, p = .019, problem-solving skills t (1784) = 2.510, p = .012, and self-control, t (1902) = 3.437, p = .001, than those not living in halls. Furthermore, the hall residents reported greater openmindedness than the non-hall residents, t (1785) = 3.560, p < .001. However, the difference was quite small, meeting the minimum threshold (Cohen's d = .2) for a small effect size, d = .209.

Table 3 Impact of	Hall Experience o	n the Students'	Independent	Development
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	Hall residents		Non-hall residents				
	M	SD	M	SD	t	Р	Cohen's d
7. Self-efficacy	4.91	0.97	4.77	1.07	2.35	.019*	.14
8. Problem- solving skills	5.00	0.96	4.85	1.14	2.51	.012*	.14
9. Self-control	4.17	1.25	3.90	1.61	3.43	.001**	.18
10. Open- mindedness	4.90	0.89	4.70	0.98	3.56	<.001***	.21

* p < .05. ** p < .01. *** p < .001.

To further examine the effects of hall experience, multiple regression was used to examine the effects of two variables – level of participation in hall events and activities, and time spent living in halls – on each developmental aspect. The assumption of normality was met, as assessed by a histogram and the P-P plot. The multiple regression model significantly predicted all three aspects of the students' development, F (3,742) = 129.50, p < .001, adj. R² = .66, and explained 66% of the total variance (a large effect size). Both variables made statistically significant contributions to the prediction, p < .001.

Discussion

Given the limited research assessing the academic, social, and independent development of students living in residential halls, this study examined how various aspects of development differed between students living in and not living in halls.

Academic Development

Students living in and not living in residential halls reported similar time management and planning skills. Living in halls did not seem to have any significant impact on academic development overall. A possible reason for this is that all university students may need to deal with competing priorities (e.g., family and employment issues), but students living in halls are also required to effectively manage their time and arrange their schedules for hall-related activities such as organising ball games, cultural events, and inter-hall events, which may challenge their time management by taking up their out-of-class time (Clark, 2005; Dusselier et al., 2005; Kaufman, 2010). Despite their additional engagement, they may not have sufficient advanced planning skills

to arrange and deal with hall and campus affairs (Lezak, 1995; Meltzer, 2018), which may in turn affect their academic development.

Previous studies (Crisp & Turner, 2011; Graham et al., 2018; Pascarella, 1996) have reported non-significant differences in academic performance between students living in and not living in residential halls. One explanation is that currently, residential education emphasises nonacademic skills, particularly social and affective skills, rather than academic skills (Savitz-Romer et al., 2015). Students living in residential halls are more likely to face hall-specific stressors (e.g., arguing with floormates, studying in noisy apartments) that might indirectly affect their academic achievements (Graham et al., 2018; Renn & Arnold, 2003).

Social Development

Three aspects of social development were measured in this study: peer group interactions and communication skills, cultural exchanges, and global/social awareness and empathy. The students living in halls scored better only on peer group interactions and communication skills. It is evident that this aspect was advanced by the residential halls' emphasis on interpersonal cooperation, manifested in various group-based activities. For example, daily interactions with different parties, including roommates, floormates, and teammates of various ages and with people of different nationalities, ethnic origins, and cultural backgrounds, enhance students' interpersonal communication skills such as active listening, affect recognition, verbal and nonverbal communication, emotion regulation and expression, and conflict resolution (McKay et al., 2009). Moreover, although university students, regardless of their living experience, are exposed to daily interactions with a diverse range of people, physical proximity is a crucial factor that significantly predicts students' social interactions (Cullum & Harton, 2007). A previous study

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found that students living in residential halls tended to interact with their fellow hall mates faceto-face and shared similar attitudes to those living closest to them (Cullum & Harton, 2007). It has been argued that roommates and other peers in halls play a significant role in students' social group and event-related decision-making (Eisenberg et al., 2014; Foster, 2006). Furthermore, peer and social group attachment allows for emotional bonding between students living in halls, which encourages them to explore their larger college communities.

Global awareness and global citizenship have become formal educational and learning outcomes of colleges in the face of sociopolitical, economic, cultural, and technological globalisation (Werner & Case, 1997). Ideally, students living in halls should have more opportunities to expand their global awareness, as they are in close proximity with people from other cultures. However, the results of this study showed no differences in global/social awareness and empathy between the students living and not living in halls. Although some local residents may be exposed to current foreign affairs through their interactions with their non-local counterparts, other local residents might be more confined by their indigenous social circles and thus have little motive to learn more about current world issues from non-local residents in hall settings. Flaherty (2009) claimed that intercultural communication competence entails being flexible and respectful when interacting with people with different cultural backgrounds, behaviours, values, and opinions. Conflicts between residents from other countries may arise from a lack of competence in intercultural communication, but being exposed to such experiences and the challenges of hall living may help students to improve on this aspect of cultural exchange.

Independent Development

Of the three aspects of development, independent development was the most enhanced among students living in halls. Students living in halls had higher scores for self-efficacy, problemsolving skills, self-control, and open-mindedness than students not living in halls.

The findings support those of Zimmerman (2000), who found that students living in halls were more likely to have confidence in their own abilities and perceive themselves as more self-efficacious than students not living in halls. Students living in halls may gain mastery experience through goal-directed persistence and overcoming difficulties while participating in hall activities (e.g., drama competitions, mass dances, swimming galas), which might not be available to non-hall students. Moreover, students in halls may learn vicariously by shadowing and modelling their peers, and thus improve their self-efficacy (Bandura, 1977; Bandura, 1982). Strong networking between hall residents also provides students with mentoring and coaching opportunities through which they can learn from their peers and thereby enhance their self-efficacy.

During the transition into a new living environment, students are expected to resolve their own problems (e.g., adjustment issues, daily chores, financial and interpersonal problems), and family members are not always available to provide parental control and support (Mattanah et al., 2004). Encountering and resolving such problems without family support helps students to improve their problem-solving skills and self-control, which may include better emotional regulation and impulse control in the face of desires and temptations. Baer et al. (1991) explained that self-control enables students living in halls to self-monitor, oversee their own desires and impulses, evaluate alternative behaviours, and avoid engaging in aggressive behaviours such as bullying, fighting, arguing, and drinking. Students living in halls are also able to use their willpower to exert self-discipline (Terenzini et al., 1994), perhaps in part because they are under constant psychosocial evaluation by their peers during daily hall life and in post-event evaluation hall meetings, which encourages them to develop self-control over their own behaviour to make a good impression on others (Tangney et al., 2018). Another possible explanation is that news and information about individuals' behaviour can spread rapidly and extensively. Students living in halls must therefore act reasonably and conform to the hall norms. They also need to apply self-control during critical times (e.g., finals week) so that they can balance their academic and non-academic lives (Trope & Fishbach, 2000).

Living in residential halls may enhance open-mindedness, as it provides opportunities for students with diverse backgrounds to interact, which may not occur regularly elsewhere on campus. This argument is supported by both the current findings and those of previous studies in which students living in halls were more aware of their own biases and heuristics and more tolerant of different opinions and ideas than non-hall residents (Hare, 1993). With more positive interactions with diverse peers of different races, nationalities, and ethnicities, students living in halls have more opportunities to become open-minded toward new experiences and diverse opinions than students not living in halls (Antonio, 2004; Laird, 2005).

Limitations and Future Directions

This study is one of the largest quantitative studies on various aspects of university students' development in Hong Kong. Because of the large scale of data collection and the length of the questionnaire, students' previous academic performance and socioeconomic factors were not included as control variables. Further replication research might take these factors into consideration to investigate whether the differences reported here still exist. Although some of the results showed significant differences between students living in and not living in halls, it is noteworthy that most of the differences had very small effect sizes (< 0.3).

Although these findings provide useful information regarding the areas of development that need to be strengthened in students, a mixed-methods approach may help to reveal the underlying mechanisms by which residential hall education affects development by exploring how students interact in halls and their perceptions of their overall development of communication skills, self-efficacy, problem-solving skills, self-control, and open-mindedness during their hall lives.

The current findings on students' planning abilities suggest that it is necessary to strengthen hall residents' time management and planning skills. Future hall education could focus more on training and planning by organically incorporating life planning into the training curricula. The life planning curriculum could include coaching for students living in halls, helping them to prioritise what is important to themselves, figure out where they see themselves in the future, and discover how to organise, self-monitor, self-regulate, and reflect on their progress to make adjustments. Coaches could be professionally trained mentors, hall alumni, or hall tutors. Hopefully, learning planning skills in coaching programmes would help students living in halls to engage in life planning in accordance with their passions, missions, professions, and vocations (Miralles & Garcia, 2017). Hall tutors could also teach time management strategies to residents' thus, by applying the strategies they are likely to enhance their sense of competence through enactive mastery experience.

To provide students living in residential halls with positive and beneficial cultural exchanges during hall life, evidenced-based psychoeducational programmes (e.g., imagined intergroup contact) could be implemented in addition to inter-cultural activities to celebrate and embrace diversity, facilitate the acceptance of differences, and encourage students to take an active role in befriending each other (Vezzali et al., 2015). Similarly, to enhance global awareness, social

inclusion programmes could be implemented in halls to help students grasp the construct of empathy and harness their skills to strengthen empathetic and pro-social behaviours throughout their hall life.

Conclusion

This study provides a comprehensive analysis of the impact of hall education on college students' academic, social, and independent development. The results only partially support the study's hypothesis, as the students living in halls outperformed those not living in halls in only five aspects of development: peer group interactions and communication skills, self-efficacy, problem-solving skills, self-control, and open-mindedness. The students living in halls did not significantly outperform their non-hall-living counterparts in four aspects: time management, planning, cultural exchanges, and global/social awareness and empathy. The only aspect for which the non-hall students outperformed their hall-living counterparts on academic impact. The data were collected using various quantitative and qualitative methods, namely self-report questionnaires, thus laying the groundwork for future research.

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