International students experience of a western medical school. A mixed methods study, exploring the impact of the clinical years of the programme in the context of adjustment to the Irish health care system.

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A thesis submitted to the School of Postgraduate Studies, Faculty of Medicine and Health Sciences, Royal College of Surgeons in Ireland, in fulfilment of the degree of MSc

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                     Dr Elaine Byrne

April 2018
Candidate Thesis Declaration

I declare that this thesis, which I submit to RCSI for examination in consideration of the award of a higher degree Masters of Science by Research is my own personal effort. Where any of the content presented is the result of input or data from a related collaborative research programme, this is duly acknowledged in the text such that it is possible to ascertain how much of the work is my own. I have not already obtained a degree in RCSI or elsewhere on the basis of this work. Furthermore, I took reasonable care to ensure that the work is original, and, to the best of my knowledge, does not breach copyright law, and has not been taken from other sources except where such work has been cited and acknowledged within the text.

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List of Abbreviations
AAMC – Association of American Medical Colleges
RCSI – Royal College of Surgeons in Ireland
GEM – Graduate Entry Medicine
FGD – Focus Group Discussions
ITT – Institute of Technology, Tralee
MCP Tralee – Medical Commencement Programme Tralee
FY – Foundation Year
EU – Europe
NA – North America
SC1 – Senior Cycle 1
SC2 – Senior Cycle 2
REC – Research and Ethics Committee
NDA – Non-disclosure Agreement
SU – Student’s Union
ABC – Affective Behaviour Cognitive
ELT – Education and Life Transitions
QOL – Quality of Life
OSCE – Objective Structured Clinical Examination
PBL – Problem Based Learning
OT – Operating Theatre
MCQ – Multiple-choice Question
SAQ – Short Answer Question
MCAT – Medical College Admissions Test
TAMS – Technion American Medical Students Program
PURCSI – Perdana University-Royal College of Surgeons in Ireland School of Medicine
PUMC – Peking Union Medical College
JHLES – Johns Hopkins Learning Environment Scale
SACQ – Student Adaptation to College Questionnaire
SIQ – The Social Integration Questionnaire
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Summary

Due to improvements in technology, transportation, and ease of access, we live in an era of unprecedented globalization and ever-increasing diversity in tertiary institutions. Internationality and multiculturalism confer numerous benefits for students, institutions, and nations. Nevertheless, it is reported that international students face challenges when adjusting to a new culture. These acculturative challenges could drastically add to the numerous challenges that students in medical school already face. This study aims to address two questions:

1. How do cultural backgrounds impact the challenges and coping mechanisms faced by sojourning medical students in their clinical years and how do these differ from that of the host medical students in the same year?

2. How, and to what extent, do sojourning medical students in their clinical years adjust to the new environment?

The study was carried out in the medical school of The Royal College of Surgeons in Ireland. Students were grouped into five regions based on their country of origin: Ireland, North America, Far East, Middle East, and Others. A mixed methods sequential study was carried out to answer the research questions. This entailed interviews with key informants, and peer interviews and a focus group discussion with final year medical students. Following thematic analysis of the interviews and the focus group discussion, items were developed and combined with validated tools in a questionnaire which was piloted and then published to final year medical students. The response rate was 50.3% (144/286). Data analysis revealed that students from Ireland (host students) were the most socially adjusted followed by students from North America and the Far East. Students from the Middle East were the least socially adjusted. Factors that affected adjustment were challenges with communication and language, consumption of alcohol at social events, befriending members of the opposite sex, cultural pressures from students belonging to the same culture, and discrimination. Based on these findings, recommendations are made in order to enhance support structures throughout the clinical years for international students studying in a western medical school.
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Peer interviewers (SC2 students, and 2016 graduates of the medical programme).

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Dedications
First and foremost, I dedicate this work to my parents and brother for their kindness, devotion, and unfailing support in all areas of my life.

Secondly, to the GEM class of 2020 – especially those that supported me throughout the writing of this thesis. Your friendship, love, and compassion will never be forgotten. Thank you for making this a truly memorable year.
Chapter 1 – Introduction
This introductory chapter begins by providing the reader with a background to the research topic, and an overview of the medical school in which the study was conducted. It then states the aims of the research, the study design used to fulfil these aims, and ethics approval. This chapter concludes by introducing the author and provides an outline for the thesis.

1.1 Globalisation and Higher Education
Our civilization is in an era of unprecedented globalization due to the ever-increasing advancements in technology, ease of transportation, and the constant reiteration of policies in aid of foreign travel (1). The number of students travelling abroad for higher education is ever increasing and has more than doubled between 2000 to 2014 – from 1.6 million to 3.3 million per annum (2). International students benefit the host country by providing highly skilled labourers, establishing direct links with the students’ countries of origin, and by contributing to the host country’s economy through tuition fees (2-4). As of 2017, the international education sector in Ireland was worth €1.58 billion, of which the higher education sector contributes €819 million (4). In 2014, 33,118 international students were enrolled in Irish higher education institutions (4). The Irish government hopes to increase both domains by 33% (4), totalling €2.1 billion and 44,000 enrolled students, before 2020.

The number of students applying to medical school is also increasing. The Association of American Medical Colleges (AAMC) expects a 30% increase in students matriculating into American medical schools from 2015 to 2019 (5), and, Medical schools in England are also increasing enrolment by 25% starting in 2018 (6). The enrolling student body is also increasingly diverse as a result of access policies which endeavour to create social equality and ensure that students who attend and graduate from medical school are representative of the demographic they serve (7, 8). The increase in students travelling abroad for higher education and enrolling in medical school and these widening access policies implies increased cultural diversity in medical schools. Numerous
studies outline the benefits of diversity in medical school and provide strategies to improve the enrolment and retention of ethnically diverse students (9-11).

Travelling abroad for education also benefits the sojourner. The Oxford English Dictionary defines ‘sojourn’ as ‘a temporary stay’ (12), and as such, for the purpose of this research, students that temporarily move to another country are viewed as sojourners. By travelling abroad, international students gain access to higher quality education, experience independence, obtain invaluable life experience and report increased self-confidence (13). Travelling abroad for education has also been shown to increase a student’s creativity (14). Lee et al. (14) reported that students who studied abroad outperformed students who did not study abroad on both the general and culture-specific measures of creative thinking. In order for sojourners to maximise these benefits, it is essential that they adjust and transition to the new setting in a supportive manner.

Both sojourners and long-term migrants come from a multitude of different countries and are influenced by various ethnicities, traditions, languages, and religions. A long-term migrant is a person who moves to a country for at least a year, and it effectively becomes their new country of residence (15). As a result, long-term migrants have more time and desire to adjust and adapt to the host culture. The temporary nature of sojourners is different, and this impacts how they adjust and transition to different cultural and academic settings (16-18). A report by the Royal College of Psychiatrists stated that, in higher education, sojourners face the same challenges as students from the host culture such as adjusting to the academic environment, moving out of the family home, and living alone for the first time (19). However, sojourners have to cope with these challenges with limited weekend or vacation access to their usual support structures such as family and friends back home (19). This is due to financial constraints and the logistics involved with travel. Most sojourners (50-75%) fund their education either themselves or with the help of their families (19, 20). Numerous studies on long-term migrants and sojourners in higher education show that they are less academically and socially integrated and perform worse academically than host students (21-24). It is well documented that medical students experience high levels of stress and burnout during their education
(25-27) and these emotions could be further magnified on Sojourners. It is important that appropriate support structures are in place to help international medical students with their specific challenges in transitioning and adapting to both their educational environment and the host culture.

However, there are very few studies that explore the challenges and cultural adjustment specific to sojourning medical students. McGarvey et al. (16, 17) explored the cultural challenges and adjustment of medical students via a mixed exploratory sequential study at the Royal College of Surgeons in Ireland (RCSI). RCSI graduates roughly 280 students from the medical programme every year and ‘more than 60 countries are represented in RCSI’s international student body’ (http://www.rcsi.ie/about). Internal statistics report that host (Irish) students only account for around a third of the student body in the RCSI medical programme (Figure 1.1).

![Figure 1.1: Regional distribution of SC2 (graduating class of 2017)
Based on their nationality, students were grouped into five regions.](image)

However, McGarvey et al. (17) only focused on students in the pre-clinical\(^1\) years of their education. This Master’s research will build on the McGarvey et al. (17) study by exploring the impact of cultural backgrounds on sojourners during the clinical years of their education, with the overall aim of providing an evidence base to education institutions recruiting international students. Based on these findings, support structures will be recommended that can aid

\(^1\) Medical school is generally divided into pre-clinical years and clinical years. Pre-clinical years comprise primarily of lecture based learning, and the clinical years comprise of learning via patient interaction.
international students as they transition into the final phase of their medical education.
1.2 RCSI Medical Programme

Due to its large student body and diversity, RCSI offers a unique setting to explore the cultural challenges faced by sojourners and their adjustment to the host culture. There are three paths of entry into the medical programme at RCSI—The 6-year programme, the 5-year programme, and the 4-year Graduate Entry Medicine (GEM) programme. The 6-year and the 5-year programme accept students who gained entry based on the results of their second-level education, whereas, a prerequisite for the GEM programme is the completion of a graduate degree. In 2010, RCSI partnered with the Institute of Technology, Tralee (ITT) to develop a bespoke pathway Medical Commencement Programme (MCP Tralee) for overseas students – designed to bridge mainly a science knowledge gap and to develop language skills. This programme dove-tails into RCSI programmes, including medicine. Middle Eastern students predominantly can gain entry into the 6-Year programme after completing the MCP Tralee programme. MCP Tralee ‘takes particular regard for the need to provide an adequate foundation [in medicine] for students from non-English speaking environments’ (28). The only difference between the 6-year and the 5-year programme is the inclusion of a Foundation Year (FY) in the 6-year programme. The FY covers courses in basic science that students may not have taken in their second-level education. Upon completion of the FY, students in the 6-year programme merge with the new 5-year programme students. When students in the GEM programme complete the first two years of their programme they merge with students in the 5-year and the 6-year programme forming a single class for the last two years. Therefore, the final two years of the medical programme in RCSI comprises a single class with students from the 6-year programme, the 5-year programme, and the 4-year GEM programme (Figure 1.2).

![Figure 1.2: Different modes of entry into RCSI Medicine programme](image-url)
The main differences between the GEM programme and the 5-year programme are:

1. Students in the GEM programme are generally older than the students in the 5-year programme and the 6-year programme since they already completed a third level degree.
2. Students in the GEM programme are in smaller class sizes for the first two years (around 70 as opposed to 280 in the 5-year programme).
3. Students in the GEM programme are mainly from Ireland, Europe (EU), and North America (NA) and therefore the GEM programme is less culturally diverse than the 5-year and the 6-year programme for the first 2 years.
4. Students in the GEM programme complete their classroom and lecture-based courses in the first two years of the programme, whereas students in the 5-year programme have three years to complete the same courses.

Senior Cycle 1 (SC1) is the penultimate year (year 3, 4, or 5 depending on the programme of entry) of the RCSI medical programme and it mainly comprises seven-weeks of clinical teaching in each of the following disciplines: Obstetrics and Gynaecology, Paediatrics, Family Medicine, Psychiatry, Medicine and Surgery. Students are required to pass every component of SC1 prior to commencing Senior Cycle 2 (SC2) – the final year of the RCSI medical programme. The 7-month-long SC2 year comprises five months of clinical attachments, and two months of lecture style teaching are culminating in examinations which are predominately clinical based.

This research study focused exclusively on SC2 students as these students have the most exposure to and knowledgeable about matters pertaining to the clinical years. Of note, the study conducted by McGarvey et al. (17) did not include students in the GEM programme. One of the ways this study differentiates itself from McGarvey et al.’s (17) study is the inclusion of students in the GEM programme. There were three reasons for the inclusion of students in the GEM programme.
1. Due to the merging of students in the GEM programme with students in the 5-year programme, it would have been logistically more complicated to differentiate between the two groups while recruiting students to partake in the research.
2. It was theorized that students in the GEM programme would offer a unique insight into the acculturative challenges of international students given their age, maturity, and life experience.
3. The inclusion of the GEM students would increase the total number of students eligible to participate in the research.

1.3 Aim and objectives of the research
The following research questions were addressed to understand more about the adjustment of sojourning medical students and the cultural challenges they face in the clinical environment:

1. How do cultural backgrounds impact the challenges and coping mechanisms faced by sojourning medical students in their clinical years and how do these differ from that of the host medical students in the same year?
2. How, and to what extent, do sojourning medical students in their clinical years adjust to the new environment?

Answering these research questions will help shed light on possible support structures that can be incorporated to aid in a student in transitioning into clinical environment and adjusting to the host culture.
1.4 Study Design

Mixed methods research is a methodology that combines both qualitative and quantitative means. The use of mixed methods research has many benefits (29, 30):

1. It improves validity and the reliability of a single study.
2. By combining different methodologies, the strengths specific to each can be enhanced, and their weakness diminished.
3. It allows for one methodology to inform the other.
4. The specific phenomenon can be examined in multiple ways and from different vantage points providing a more complete and comprehensive understanding of the topics.
5. It helps explain findings or gives strength to certain findings.

In mixed methods research, either the qualitative or the quantitative phase of the research can be conducted first. If the researcher intends to gain initial insight into a topic to inform items on a questionnaire, then the qualitative arm may be conducted first. Conversely, the researcher could conduct a survey first (quantitative) and then interview the participants to give meaning to the results (qualitative) (29).

McGarvey et al. (17) conducted the qualitative phase of the study first (using peer interviews and FGD (FGD)) and then the quantitative phase (questionnaire). The qualitative phase was used to gain more insight into the topic – cultural challenges sojourners face in the preclinical years of their medical education – and develop themes that would inform the quantitative phase (questionnaire). As with the McGarvey et al. (17) study, this study initially used qualitative means (interviews, and an FGD) to explore the cultural challenges sojourners face in the clinical years of their medical education followed by quantitative means (questionnaire). The qualitative phase informed the quantitative phase of the study. More detail on the methodology is provided in chapter 3.
1.5 Ethics
This research was approved by the RCSI Research and Ethics Committee (REC) approval number 566b. Students’ anonymity in participation and confidentiality regarding themes that arose during interviews were guaranteed by the author and the supervisors. Students and graduates that participated as interviewers were asked to sign a Non-Disclosure Agreement (NDA) (Appendix A) prior to their involvement in the study. A consent form was signed before and after all interviews and the FGD by both the interviewer and the interviewee(s) (Appendix B). Both interviewers and interviewees were made as comfortable as possible during peer interviews, and contacts for support structures were provided after the interviews if needed. As was mentioned and agreed to by all study participants, interviews and the FGD were audio recorded and transcribed. The recordings were transcribed by a professional third party who had no stakes in student education at RCSI. Participants also had the opportunity to review their transcripts to check for accuracy. The audio recordings were destroyed following transcription; however, all transcripts will be held for seven years on secure RCSI servers.

1.6 Role of the researcher
This study was conducted by the author, DK, who graduated from the RCSI medical programme in 2016 under the supervision of AMcG and EB, both of whom were intimately involved in conducting the McGarvey et al. study. DK was born in Oman, to Indian parents, and moved to Canada at the age of 11 years. During his time in Canada, he frequently moved – from big cities to small villages – adjusting to and integrating into different environments and educational institutions. At the age of 18, DK moved to Ireland to attend medical school in RCSI. Through his travels, DK experienced first-hand the challenges students face as they integrate and adjust to a new culture. This put DK in a unique position to profoundly and thoroughly research the different challenges students from various cultures would face as they sojourned in Ireland. In addition, DK has an appreciation of the nuances of the medical programme specific to this institution; hence terminology and specific teaching and assessment procedures specific to RCSI were not a challenge to understand.
1.7 Thesis structure

This thesis contains seven chapters (Figure 1.3). The first chapter, the introduction, provides the reader with some background and gives context to the research. The second chapter, the literature review, explores current research on the topic and is broken down into three different parts:

1. General models and theories used to describe the adjustment of sojourners.
2. Challenges faced by and coping strategies used by medical students.
3. Methods used to measure adjustment in medical students.

The third chapter, methodology, outlines how the three phases of this study were conducted. The fourth and fifth chapter presents the results from the qualitative and the quantitative arm of the study respectively. The sixth chapter discusses these findings in relation to their convergence and divergence with the literature reviewed in chapter 2, and limitations of the research. Chapter 7, conclusion, addresses the research questions, accompanied by recommendations based on the results and suggested areas for further research.
Chapter 2 – Literature Review

2.1 Theories and framing the lit review

As a means of framing the literature review, and study that follows, it is appropriate to outline some theories underpinning acculturation. The Affective-behavioural-cognitive (ABC) is widely used as an overarching model to frame different responses to cultural changes (18), and Jindal-Snapes’ Education and Life Transitions (ELT) is used to explore daily life and academic transitions of students in an academic environment (31). Both of these are described briefly.

2.1.1 Affective-behavioural-cognitive (ABC) model

The ABC model (18) is derived from a combination of three theories which explores an individual’s response to a different culture:

1. Stress and coping (affect)
2. Culture learning (behaviour)

As discussed by Jindal-Snape and Rienties (32), the stress and coping (affect) theory state that life changes, such as moving internationally for higher education, are inherently stressful and individuals need to develop appropriate coping mechanisms for these stressors. An individual’s adjustment to the new culture is dependent on personal factors, such as personality, and situational factors, such as social support. The culture learning (behaviour) theory suggests that individuals need to adapt to the norms of the new culture by learning appropriate, and culturally relevant, social skills to survive and thrive in the new culture. Prior knowledge of the host culture, competence in the language of the host culture, and cultural distance between the home and the host country play a role in adjustment. The social identification (cognitive) theories suggest that ‘adjustment is affected by knowledge of the host culture, mutual attitudes of hosts and sojourners, cultural similarity, and cultural identity’ (p.6).

The strength of the ABC model lies in its comprehensiveness and its view of acculturation being an active process that occurs over time (18). Additionally,
the ABC model does not focus solely on a person’s attributes – it examines both the person and the situation. However, there are four drawbacks to the ABC model:

1. The complexity of the model leads to difficulty in separating out the relative effects of its components on the individual, i.e., how much do stress and coping, culture learning, and social identification individually affect the student?
2. Students from different cultural backgrounds face different challenges (16, 17). However, the ABC model does not differentiate between the cultural backgrounds of the sojourners (18).
3. Although the ABC model acknowledges the role of environmental factors, the focus is placed on an individual’s ability to adapt rather than environmental changes that can be made to suit the needs of the student (32).
4. This theory does not talk about the impact of education, which is of vital importance to medical students, and acculturation.

2.1.2 Education and life transitions (ELT) model
The ELT model (31) looks at the relationship between a student’s academic transition and their daily life transition when integrating into a new environment. Academic transitions include areas such as performing well academically, and daily life transitions include areas such as obtaining food and discrimination. The ELT model proposes that transitions in these domains can be either positive or negative and this can affect their overall impact on the sojourners. Positive transitions, such as performing well academically, can act as a buffer to negative transitions such as being unable to source ethnic food. However, if the negative transitions are too overpowering and difficult to cope with, for example being unable to find suitable accommodation, then students will not even feel the effects of a positive transition and might even side-line their academics. (Figure 2.1).
It was hypothesized that these transitions would evolve as sojourners journey through medical school, particularly between the pre-clinical and the clinical years of their education. Challenges pre-clinical students face would include sourcing specific food, finding spaces to practice religion, and adjusting to a new learning styles; and, clinical students might face different challenges which include being unable to communicate appropriately with patients from the host culture, transportation to and from peripheral sites, and being unable to have a social life due to the high workload. As in preclinical years, cultivating and enhancing positive transitions can buffer the effect of the negative transitions on students.

In the knowledge that medical students are transitioning into preclinical education initially and then again into the clinical environment, the ELT model seems a better fit to frame this study when compared to the ABC model. Thus, the literature reviewed is categorised into daily life transitions and academic challenges. Coping strategies are summarised after this discussion.

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During their medical education, students are required to travel to different hospitals and clinicals in rural areas or cities. These rotations are called peripherals as they often occur in locations outside the city of education.
Two separate literature reviews were conducted for this study, and each of these reviews is presented in separately in the following sections. The first literature review explored the challenges and coping strategies of sojourners during medical school (Section 2.2) and the second literature review explored the adjustment of sojourning medical students to the host culture (Section 2.3).

2.2 Cultural challenges and coping mechanisms in medical school

2.2.1 Search Strategy

In reviewing the published literature on this topic, the author used the following search terms: (international* OR acculturation* OR diversity* OR foreign* OR sojourn*) AND (challenge* OR hardship* OR coping*) AND (clinical teach* OR clinical placement OR clerkship* OR apprenticeship*) AND (medical school* OR medical student*). Three databases, PubMed, Embase, and Web of Science were searched. Articles from all years were included, and only articles not written in English were excluded. This search yielded 118 articles which were exported to EndnoteX7. Only 83 articles remained after duplicates were deleted. The abstracts of these articles were read through and prioritised based on relevance to the topic. Out of these 83 articles, only three articles remained that were specific to the clinical years.

Figure 2.2: Cultural Challenges and Coping Mechanisms Search Strategy

The top line denotes the initial search strategy. Red circle denotes the actual search terms used in the literature review.

3 This does not represent unique articles.
4 EndnoteX7 is a reference managing software.
However, upon further investigation of the abstracts, it was noted that articles often did not make it explicit whether the studies pertained to medical students in their pre-clinical year or their clinical year. Therefore, to broaden the search, the author omitted the search term (clinical teach* OR clinical placement OR clerkship* OR apprenticeship*) from the search. This resulted in 1253\(^3\) articles (Figure 2.2). A detailed list of search terms and entries found in each database can be found in Appendix A. 765 articles remained after duplicates were deleted. The abstracts of these articles were read through and prioritised based on relevance to the topic. Eight articles were found which explored the challenges international medical students face. Articles that cited these articles and references in these articles were also reviewed, however, no additional articles were retrieved through this additional process.

Using the ELT framework, this literature review will address the challenges and coping strategies experienced by sojourning medical students in three subsections:

1. Daily life transitions
2. Academic challenges
3. Coping strategies.

2.2.2 Challenges in Daily Life Transitions
2.2.2.1 Homesickness

FGDs conducted by Treloar et al. (33) on mainstream (non-indigenous Australian, non-international) medical students at The University of Newcastle, Australia found that international students living and studying abroad experienced a sense of instability.

‘… as they had “given up everything” to live and study in a “totally different environment” (I2). Consequently, a large proportion of their time and energy was focused on “surviving” during the first few years away from home.’ (p.713).

This sense of instability compounded with the geographical distance between the international students and their home countries and families caused ‘all
international participants experienced homesickness’ (p.712). The sense of homesickness was further magnified during holiday re-sits for students that failed exams as students are expected to study in isolation in the host country with a lack of peer support. International students found this both demoralising and some claimed that it was a difficult time to study. This 'shattered their expectation of the holiday season, something they looked forward to throughout the whole year' (p.712).

McGarvey et al. (17) also found that ‘most of the [international] students interviewed missed home at some stage of their time in Ireland’ (p.5), and, some students got more homesick the longer they stayed. Nevertheless, a few of the students did not experience homesickness or, if they did, they experienced a decrease in homesickness over time. The number of students that belong to a cultural group could impact homesickness. The institute at which Treloar et al. (33) conducted their study had a small number of international students – only 16 international students attended the second or subsequent years of candidature in the medical programme at the time of their study, and these students felt less homesick. The institute where McGarvey et al. (17) conducted their study (RCSI), has a large pool of international students – roughly 200 students per year.

2.2.2.2 Country’s services, finding accommodation and food, and weather
A mixed method sequential study, which involved a questionnaire, FGDs, and individual interviews, conducted by Malau-Aduli (34) at the University of Tasmania, Australia found that a lack of understanding, by the international students, of the ‘objectives and functions of available social services and the host culture’s healthcare system slowed down their adaptation to the Australian [host] culture’ (p.4). Additionally, international students from the same study expressed difficulty in finding accommodation while concordantly being expected to keep up with the medical course load which involved attending class and allocating time to self-study.

A study conducted by Henning et al. (20) in New Zealand found that host students from different ethnic backgrounds experienced a higher quality of life
scores when compared to international students from the same ethnic background. This study was conducted in the form of a Quality of Life (QoL) questionnaire administered to 548 clinical year medical students during two different time periods (20). With respect to quality of life, international students experience lower physical safety and security (4.00 out of 5 vs 4.25 out of 5 p<0.01), lived in less healthy environments (3.75 vs 3.96 p<0.05), were less able to access information relevant to their day-to-day living (3.61 vs 3.84 p<0.05), had less opportunities for recreation and leisure (3.15 vs 3.36 p<0.05), were less satisfied with their home environment (3.76 vs 4.06 p<0.05), were less satisfied with access to health services (3.37 vs 3.95 p<0.01), and were less satisfied with access to transport (3.35 vs 3.81 p<0.01) when compared to domestic students. The authors attribute this decreased environmental quality of life to the challenges sojourners face with accommodation and transportation problems. The authors also noted that domestic (long-term migrants) Asian students experienced a higher environmental quality of life than sojourning Asian students (3.81, SD = 0.57 vs 3.58 SD = 0.49 p-value not given). Sojourners experienced more pain and discomfort (3.85 vs 4.02 P<0.05, a lower score is worse), had reduced mobility in terms of physical activity (4.03 vs 4.43 p<0.01) and less positive feelings (3.65 vs 3.95 p<0.05).

The dietary restrictions of international students from different cultural backgrounds was also another factor that influenced transitioning. Malau-Aduli (34) found that Muslim students who only ate Halal foods had a hard time finding and sourcing familiar foods. Additionally, international students found that the geographical conditions of the host country are drastically different from their home country. as most of the students that participated in the study moved from a region with a hot climate (Malaysia) to a region with relatively cold winters (Tasmania, Australia).
2.2.2.3 Financial Pressures

Treloar et al. (33) found that both mainstream Australian students and international students indicated that there was a ‘high level of hidden expenses such as professional clothing, equipment, textbooks, travel and parking fees’ (p.712) which created financial pressures. In the same study, international students felt an additional financial burden due to the high tuition fees they pay and the financial sacrifice their families make to fund their education. Additionally, international students are further disadvantaged when compared to host students since host students, on occasion, have the option to reside with their parents or guardians rent free. Nevertheless, Henning et al. (20) found that ‘domestic students rated financial resources lower (3.28 vs 3.57 p<0.05) than their international peers’ (p.136). They hypothesized that this was due to two reasons. Firstly, domestic students generally relied on student loans and acquired a massive student debt by the end of their education. This is in addition to the costs associated with day to day living. Secondly, even though international students have to pay more fees than domestic students, the international students generally tend to come from more affluent backgrounds, and some might even have scholarships.

Nevertheless, both Treloar et al. (33) and Malau-Aduli (34) found that most international students feel a tremendous pressure to succeed in their education and secure a job due to their financial situation. An international student from one of the FGDs held by Malau-Aduli (34) admitted that ‘failing and repeating a year in the medical school would cause [their families] great emotional and financial distress’ (p.6).

Additionally, due to the high fees international students were paying compared to host students, some of the international students in Malau-Aduli’s (34) study felt that they should have more ‘lecturer-student interface sessions to maximise learning in both lectures and clinical settings’ (p.5). These students also felt entitled to ‘more support structures from the school and university’ (p.8) due to the amount of money they paid.
2.2.2.4 Integrating with host students

Treloar et al. (33) found that, compared to host students, international students felt isolated since students from the host culture ‘did their own thing’ (p.712) and the international students were expected to join in. In certain cultures, many of the host students’ social activities involve the consumption of large quantities of alcohol, which, due to religious and cultural reasons international students from certain backgrounds are less inclined to attend (34). McGarvey et al. (17) reported that one of the students in their study was called “boring” for declining to go to a club. This was reported to limit friendships and social relations in the classroom (34).

Treloar et al. (33) found that the international students felt as though the host students did not want to befriend them in spite of them wanting to befriend host students. Malau-Aduli (34). also reported the same and an international student in his study stated, ‘making friends with local Australians was not an easy task as either they already had their own clique of friends... or they simply were not interested in making Asian friends’ (p.5). McGarvey et al.(17) also reported that ‘some of the international students felt that it was easier to make friends with other international students as there was a common bond in transitioning’ (p.5). These international students also stated that students from the host culture could not understand the international students’ need for more intense relationships because the host students already had established social networks which they did not have to leave behind. Henning et al. (20). found that ‘domestic students rated personal relations more positively than their international peers (3.83 out 5 for host students and 3.47 out of 5 for international students p<0.05)’ (p.135). Henning et al. (20) also found that international students experienced lower levels of social support when compared to domestic students (3.76 vs 3.98 p<0.05). FGDs conducted by Huhn et al. (35) on first-year international students studying medicine in Germany found that some international students felt that they had a hard time integrating with students from the host culture because of the language barrier, and unfamiliarity with cultural scripts for specific situations. Some international students also felt that the host students might be ‘prejudiced towards them due to their migration background’ (p.6). This same study also found that the host
students were reserved and set in their ways, and the onus was placed on international students to foster friendships with host students. Interviews conducted by Selleger et al. (36) found that both host students international students did not socialize with each other as much as they could. Both groups blamed the other for their lack of accessibility and did not expect the members belonging to the other group to desire contact. However, Selleger et al.’s (36) study was on immigrants as opposed to sojourners.

International students in the study conducted by Malau-Aduli (34) stated that ‘they could not interact effectively with their domestic peers because they lacked discussion topics and due to their different social lifestyles’ (p.8). FGDs conducted by O’Reilly et al. (37) uncovered similar findings and reported that relationships between culturally diverse students and their peers were affected by language issues and established social networks. Malau-Aduli (34) stated that this led to International students feeling that there was evident, probably unintentional, ‘segregation between international and domestic students, with very little support from their domestic peers’ (p.5). Selleger et al. (36) also reported that ‘although students mostly valued their mixed student community, they did not seem to learn from each other. This missed opportunity may partly be explained by the lack of contact’ (p.147).

Integrating with students from the host culture is a problem reported across all institutions irrespective of the ratio of international students to host students. About 10-26% of the medical students in the intuitions at which Treloar et al. (33), Selleger et al. (36), Malau-Aduli (34), Henning et al. (20), O’Reilly et al. (37), and Huhn et al. (35) conducted their studies were international, and 70% of the students in the institution at which McGarvey et al.(17) conducted their study was international.

The challenge of integrating into the host culture extends beyond just fostering friendships, and international students might be jeopardized when it comes to learning in large groups. Stegers-Jager et al. (22) found that in preparing for an
exam, ‘a group of fellow students is essential as well since the sheer number of differential diagnosis\(^5\) possibilities is much too large for a single student to manage’ (p.1034). Selleger et al. (36) also found that most of the minority students had one or more study friends that belonged to the host culture, and students that belonged to the host culture studied only amongst themselves. The reason for this was probably because the number of host students in Selleger et al.’s study (36) substantially outnumbered (74%) the number of minority students (26%). This is most likely not an issue the institution of this study (RCSI) faces as the majority of students come from different ethnic backgrounds and students belonging to the host culture make up the minority. Conversely, when students from the host culture are the minority, they might be inclined to keep to themselves, further decreasing integration. Treloar et al. (33) concluded that several international participants experienced an increased level of happiness and motivation to learn once they began meeting and engaging in social activities with host students.

### 2.2.2.5 Discrimination

An anonymous questionnaire distributed to first-year medical students at the Erasmus Medical Centre, Rotterdam found that although students from western and non-western countries expected more benefits than host student’s due to their culture, they also expected more challenges (36). Western students were classified as originating from Europe (except Turkey), North America, Japan, Oceania, or Indonesia and non-western students as originating from other countries. Additionally, Protestant and Muslim students expected more obstacles because of their religion than students that did not practice any religion (p<0.05) (36). Both western and non-western students felt that educators preferred students from the host culture and felt educators did less for them than host students. This study had a sample size of 277 (90% participation) consisting of 204 hosts (Dutch) students, 23 students with a western origin, and 50 students with a non-western origin.

\(^5\) Differential diagnosis is the process of differentiating between conditions that have similar symptoms.
One and a half years later, Selleger et al. (36) interviewed nine host students and eight non-western students from the same cohort of students to ascertain the 'main positive or negative cross-cultural experiences of students in the curriculum, and in contacts between peers' (p.143). Three students of the eight non-western students could recount an instance where they felt discriminated against in the clinical environment by their supervisors. Nevertheless, the vast majority of those interviewed felt that all students were treated equally. Treloar et al. (33) found that both international students and host students felt that discrimination by faculty members was directed towards those with poor English fluency and those that did not have a western accent. Racism ‘was perceived to be one of the major determinants of how alienated [students] felt’ (p.713), as it lowered their confidence and their participation in social and learning activities. Conversely, targeted racism towards certain international students strengthened their resolve. Many students also claimed that members of the faculty were covertly racist since they realise that ‘it is not polite to show [racism]’ (p.713).

In terms of discrimination students experienced from patients, one student in the study conducted by Selleger et al.(36). was afraid they might be refused patient contact because of their headscarf and ethnicity. Students from the Treloar et al. (33) study also stated that patients demonstrated racism towards international students when they refused to be examined by international students. Physical examinations are a vital part of the doctor-patient interaction, and it involves the doctor (or medical student) performing various examinations, such as feeling the stomach or listening to the patient's lungs. However, their intentions may have been misinterpreted since many patients refuse examination by medical students for a variety of reasons such as being tired, having already been seen by students that day, and receiving a poor diagnosis, or being in too much discomfort.

In some studies, international students felt discriminated against by their peers. In the FGDs conducted by Treloar et al.(33) one of the international students felt that the students from the host culture were prejudiced towards them because the host students believed the international students were forced into medicine and fell short of the host students’ expectations of a medical student. This really
bothered one of the international students and ‘resulted in a conscious effort to isolate [themselves]’ (p.713).

FGDs conducted by Odom et al. (38) with 43 ethnic minority students in the United States found minority students felt discriminated against by classmates, doctors, faculty, and patients. However, these students also stated that due to the ambiguous nature of their experiences, it was hard to attribute the lack of support they received to racism. Although this study was conducted on individuals that were first or second generation American, parallels regarding discrimination can be drawn between these long-term migrants and students sojourning in a new culture for a few years to complete their education.

Discrimination in public setting
International students also faced discrimination from the public. The study conducted by Malau-Aduli (34) found that students, while they did not feel discriminated against in the teaching environment, faced varying degrees of discrimination from the public which affected their integration into the host culture. McGarvey et al. (17) reported similar findings where students did not experience discrimination in college but could recount instances where their international peers had been discriminated against in public. Instances of discrimination ‘included not being treated well in restaurants, comments made or being shouted at on the street, bad experience of physical confrontation on the city centre streets at night’ (p.6).

2.2.3 Academic Challenges
2.2.3.1 Learning styles
Treloar et al. (33) found that regardless of the students’ cultural group, a correlation exists between negative experiences and a student’s academic progression. This is because the challenges that students face can reduce confidence and motivation, decrease participation, and can cause them to feel isolated and alienated. Due to their feelings of isolation and alienation, students subsequently lacked a sense of belonging to the community and the medical school. As a result, these students withdrew from group activities and learning
opportunities. Treloar et al. (33) suggested that by reducing feelings of isolation and alienation, and by cultivating a sense of belonging, a student’s propensity to partake in learning opportunities might be strengthened.

International students in the Malau-Aduli (34) study identified the ‘heavy workload [and the] overwhelming academic demands of the medical course’ (p.4) as factors that hindered their adaptation to the host (Australian) culture. This study lacked a control group (host medical students enrolled in the same university). However, it can be hypothesized that host students are also negatively affected by the academic demands of medical school. These challenges obviously would not affect host students’ adaption to the host culture, but it could cause host students to adapt to tertiary education improperly.

Malau-Aduli (34) also found that students from certain cultures indicated that they come from a learning background where ‘the teacher cannot be questioned, and rote learning is prevalent’ (p.6). They found it difficult to adopt a western learning style which revolved around self-inquiry and application of knowledge. In fact, for certain students, the impact of embracing a new learning style was only realised after they failed one or two exams. These students were disappointed by ‘the lack of assistance from the school in explaining ... the western learning style’ (p.6). Nevertheless, some students only used their new learning style for Objective Structured Clinical Examinations (OSCEs)\(^6\) and continued to use their old learning styles for written exams. Mohanna (39) also reported that postgraduate students (who graduated from medical school) from certain cultural backgrounds had a hard time adjusting to a different learning style. A student from Iraq stated that in their prior learning environment they

\(^6\) OSCEs - OSCEs are one of the main ways in which the clinical competence of a student in various disciplines such as medicine, physical therapy, midwifery, podiatry, dentistry, etc. is assessed. OSCEs are designed in a way to test performance and competence in clinical skills such as physical examination, obtaining information, counselling, medical procedures, and prescription writing to name a few. OSCEs provide a hands-on approach that test examinees in real-world scenarios. By design, OSCEs require students to not only have a thorough understanding of the subject material, students are also required to communicate clearly and concisely. Therefore, students that are not well versed in the cultural norms and the language of the host culture have a harder time excelling when compared to students who are well versed in the cultural norms and language of the host culture.
'were never asked [their] opinion or [to] analyse information. So, when I started here, I was able to memorise facts, but not give an opinion or analyse in a critical way' (p.1055). FGDs conducted by O’Reilly et al. (37) arrived at the same conclusion and found that both students and their supervisors reported that students that did not belong to the host culture might not be prepared for the clinical learning environment. They implicated the difference in learning styles and stated that these students ‘may have well-developed rote learning strategies, and the expectation of ‘learning on the run’ can be fundamentally challenging’ (p.6).

Members of the FGD conducted by O’Reilly et al. (37) stated that international students also experienced difficulties with ‘asking questions, giving peer feedback, undertaking self-directed learning, and reflective practice’ (p.6). 92% of the students were Asian (Chinese, Chinese Malaysian, Chinese Singaporean, Japanese, Malaysian and Singaporean) and 8% were European (Norwegian). This study had a small sample size of 13 students, and most of the students and supervisors were mainly from two health care professional backgrounds – nursing and dietetics.

2.2.3.2 Group learning

Problem-based learning (PBL)⁷, a pedagogically employed teaching method in medical schools based on small group tutorials and self-directed learning, can be viewed as a double-edged sword causing challenges for both host and international students. The PBL environment facilitates the acquisition and development of lifelong learning skills, such as independent and integrated learning, critical thought, motivation to study, and active learning habits (33, 34).

⁷ In PBL scenarios, a new problem is introduced to the student for the first time in the learning environment. Then, in small groups, the students discuss the clarify facts and details of the case, and describe the problem. Based on a prior understanding of related systems, the students brainstorm knowledge gaps preventing them from solving the problem and explore potential avenues on how to address the problem. They conclude their initial session by developing an action plan and assigning each individual in the group an area of the problem to work on. Following their initial session, students individually work on their assigned areas using a variety of resources including databases, libraries, and resource websites. Finally, with their new-found knowledge, students return to their small groups and attempt to solve the problem by sharing information and peer teaching. Upon conclusion of their second session, they review what they learned by working on the problem, and all students will have engaged in productive group and self-study.
Treloar et al. (33) found that many students were displeased by the lack of guidance, structure, time spent on peripheral material, and not knowing how in-depth to learn a given material. The PBL environment can also beget anxiety due to poor team dynamics, inefficient learning, and reinforcement of incorrect information.

Treloar et al. (33) found that these challenges are further compounded for international students who may experience ‘difficulties with the mainstream use of English, social interaction, and general study and writing skills’ (p.709). Additionally, students that participated in the FGD conducted by Treloar et al. (33) also implicated the fact that communication and discussion are much easier between students that ‘have the same sort of background, the same way they think, the same cultural values, the same language, [and] the same environment’ (p.710). Nevertheless, both international students and students from the host culture felt dominated by certain members of the group. This can lead to international students, and host students are feeling isolated and ‘avoiding or dreading group learning sessions’ (p.710). Selleger et al. (36) reported that physical examination training provided a challenge for students from certain religions. Some of the female Muslim students ‘were hesitant to participate in the mutual training in the physical examination in groups of mixed gender’ (p.143).

2.2.3.3 Clinical Environment
The FGDs conducted by Treloar et al. (33) found that both host and international students report increased levels of motivation during the clinical teaching attributed to ‘getting a taste for clinical work’ (p.711), and for experiencing and becoming comfortable with patient interaction. Nevertheless, the clinical environment engendered anxiety and feelings of frustration in both groups of students since they were acutely aware of the lack of knowledge and a sense of insecurity when speaking to patients. Too many of the students, this acted as a catalyst for further learning. However, the feelings of anxiety, frustration, and insecurity were amplified by some faculty members as they ‘played on students’ inability to answer questions during ward rounds’ (p.712).
### 2.2.3.4 Exam performance

Both international and host students that partook in the FGD conducted by Treloar et al. (33) resonated the fact that oral assessments are ‘staggeringly unstandardized and blatantly unfair’ (p.711) because of different personalities and expectations amongst the examiners. This would affect international students more than host students as examiners tend to be from the host culture. In fact, Stegers-Jager et al. (22), who quoted Massey et al. (40) theorize that examination methods in clinical training is more subjective than pre-clinical examinations and ‘the role of cultural capital (i.e. knowledge of the norms, styles, conventions, and tastes that pervade specific social settings and allow individuals to navigate them in ways that increase their odds of success) is more prominent during clinical that during preclinical training’ (p.1035). In line with this, Malau-Aduli (34) found that students from different cultural backgrounds had a harder time with OSCEs, written (short answer question) examinations, oral presentations, and essays.

When comparing the performance of international students on various examinations, Malau-Aduli (34) found that there was a ‘high congruence between students’ perceptions of the difficulty level of various assessment instruments and their actual performance in the examinations’ (p.6). Students performed significantly better on multiple choice questions (MCQs) (70.29%) when compared to OSCEs (61.72%) and short answer questions (SAQs)8 (49.71%) (p<0.001) (34). Malau-Aduli (34) suggested a few reasons for the underperformance of international students in OSCEs and SAQs compared to MCQs: (i) ‘many of the international students found it difficult to ascertain what was required and expected for OSCEs’ (p.6) (ii) students felt that they were inadequately prepared for the OSCEs in terms of ‘cultural expectations in relation to communication skills’ (p.6) (iii) due to the nature of OSCEs and SAQs, poor grammar, and a limited vocabulary would prevent the examinee from eloquently conveying their thoughts via writing or speaking, formulating questions, and understanding informal colloquial language. Students also

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8 Short answer questions require students to write out answers to a given question. This is different from an MCQ where students have to pick an answer from multiple options.
claimed that they had to translate ‘the meaning of words in [their] heads before expressing them’ (p.6) – an arduous task made even harder under stressful circumstances. However, Malau-Aduli’s study (34) did not have a control group of medical students from the host culture. Had this cohort of students were included in the study, it is entirely possible that they would have also underperformed in the OSCEs and SAQs compared to the MCQs due to the increased complexity of OSCEs and SAQs. In spite of their poor performance on the OSCEs, Malau-Aduli (34) found that the international students performed better (no numbers or p-value was included in the study) on the subsequent OSCE, suggesting that ‘assessment drives learning’ (p.9) and ‘it would be better if they (the international students) received more specific and meaningful feedback on their assessments’ (p.5).

Woolf et al. conducted a meta-analysis ‘to determine whether the ethnicity of UK trained doctors and medical students is related to their academic performance’ (p.1). However, they did not differentiate between ethnic students that were UK immigrants, and ethnic students that were sojourning in the UK and included both groups of students in their meta-analysis. This meta-analysis, which included 23 studies and 36 data sets (the largest having over 2000 candidates and the smallest having 53), stated that 22 of the studies (n=23,742) showed that candidates from ‘non-white’ (p.1) ethnicities underperformed when compared to ‘white ethnicities’ (p.1) (Cohen’s $d = -0.42$ p>0.001). This effect was of medium magnitude. To give some perspective to this number, it is stated that ‘on a typical exam with a mean score of white candidates of 60, an effect size of $d = -0.42$ would mean that non-white candidates would score on average 57.9’ (p.9). This trend held true in both the postgraduate and the undergraduate setting and across various types of examinations. ‘Effects in the same direction and of similar magnitude were found in meta-analyses of undergraduate assessments only ($d = -0.42$; p<0.001), postgraduate assessments only ($d = -0.38$; p<0.001), machine marked written assessments only ($d = -0.35$; p<0.001), practical clinical assessments only ($d = -0.42$; p<0.001), [and] assessments with pass/fail outcomes only ($d = -0.59$; p>0.001)’ (p.1). Of the 36 data sets, 35 showed a negative effect of which 25 were statistically significant. One of the data sets showed no effect when comparing white to non-white ethnicities and
none of the studies showed a positive effect. Since this meta-analysis included postgraduate candidates as well, and it shows that the disparity between ‘white and non-white’ ethnicities is not just limited to medical school, but also extends to practising physicians.

2.2.3.5 Language and Communication
The ability to communicate proficiently and clearly is a vital skill in medicine due to a large number of patient interviews the physician conducts over the course of their career. Appropriate and efficient communication can improve patient outcomes, whereas improper or ineffective communication can worsen patient outcomes, increase medication errors, and are associated with malpractice claims and suits (41, 42). According to Malau-Aduli (34) , competence in the host country’s language is ‘at the centre of the acculturation process’ (p.8). as it enables for successful communication which is vital to integration and adaptation (43). However, a study, conducted in New Zealand by Henning et al. (20), which outlined that international students had a worse quality of life when compared to domestic students, did not attribute the reduction in quality of life to language. The authors hypothesised that language is unlikely to be a major problem for the international students given the high level of language competency required to be in a position to study medicine. However, the study did not test how language affected the quality of life.

Conversely, FGDs conducted by Treloar et al. (33) also found that even though international students felt that they were proficient in their use of English, they had difficulty understanding and synthesizing spoken English. While this did not affect all international students, it caused some of the international students to ‘decrease their participation in discussions, case presentations and lectures’ (p.711). This difficulty with language and grammar also caused international students to invest more time into written work and completing written examinations took longer due to a slower rate of language processing (33, 34). Malau-Aduli (34) found that international students claimed to be proficient in English prior to commencing the course. However, as with Treloar et al. (34), these students also found it difficult to interpret the host citizen’s accents causing them to request people from the host culture to repeat themselves.
These students also stated that the problems were magnified in the classroom setting when lecturers spoke too fast and did not use the microphone. These language difficulties can serve as a communication barrier for international students with some international students attributing their poor command of conversational English to the fact that students from the host culture did not want to befriend them.

The difficulties that international students face with language should not come as a surprise. Huhn et al. (35) explored the expectations and worries of first-year international medical students studying in Germany using FGDs at the beginning of their medical education and found that challenges with their studies, because of language deficits, were reported to be the most prominent concern. These language difficulties lead to the students investing more time into studies than domestic students and feelings of failure and uncertainty around exams. These first-year students were also fearful of inevitable patient contact and patients talking in a dialect or using colloquial language that they have never heard before. Additionally, they felt that their lack of mastery of the language would lead to problems with integration into the host culture as they had a hard time understanding the host students. Huhn et al. (35) concluded that these communication problems and the increased workload that international students face due to the lack of mastery of the host language could lead to social withdrawal.

Fernandez et al. conducted a study on 135 third-year medical students at the University of California which examined the ‘impact of student ethnicity and primary childhood language on [a] communication skill assessment in a clinical performance examination’ (p.1155). Although this study was not conducted on sojourners, parallels, such as non-English primary mother tongue, can be drawn between sojourners and minority students. All students from non-white backgrounds – Asian (67.4 p<0.05), black (64.4 p<0.05), and Latino (67.9 p=0.28) – scored lower than students from a white (69.4) background on the communication portion of the examination. The relation between ethnicity and communication score persisted in Asian and black students after adjusting for age and gender. The relationship between ethnicity and communication score
remained significant for Asian students even after adjusting for Medical College Admissions Test (MCAT)\(^9\) verbal scores. However, the relationship was insignificant when adjusting for primary childhood language. Students whose primary childhood language was not English scored lower (67.0 \(p=0.002\)) on the communication portion of the examination when compared to students whose primary childhood language was English (69.0). One explanation for these findings would be that these students lack fluency in English which hampered their communication scores. However, this was not the case because all students in the study were ‘fluent in English, with mean MCAT verbal scores above the 80\(^{th}\) percentile of MCAT examinees’ (p.1159). This caused Fernandez et al. (44) to theorize that primary childhood language causes cultural differences in communication which leads to issues in nonverbal communication that cannot appropriately be captured in a written setting. Another explanation could be that the communication portion of the exam ‘inadvertently codified cultural norms specific to the dominant culture’ (p.1159) such as ‘active listening’ or ‘establishing personal rapport’. Other aspects of the exam could have indirectly affected the score such as the physical distance between participants, avoidance of uncertainty, or use of time. A study conducted by Hauer et al. (45) found that students from different cultural backgrounds demonstrate less of a patient-centred approach which leads to lower scores in the communication part of a clinical performance exam. The ethnic minority students scored higher on impersonal attitude integrate less of the patients’ background and perspective into history taking. Even prior to commencing clinical training, international medical students are acutely aware of the potential difficulties they will face when communicating with patients from the host culture (35).

To support learners who are studying or training using a second language, Mohanna (39) conducted semi-structured interviews with 13 international medical graduates whose first language was not English, that underwent a

\(^9\) The MCAT is a multiple-choice question based standardized exam taken by all students hoping to gain acceptance into medical school. The MCAT tests various components including verbal reasoning and problem solving.
master’s programme in medical education at Staffordshire University, UK. Participants in her study stated that there is more to language and communication than just understanding the host language.

‘It’s more than the spoken language it’s about the secret language. The reference that they make to cultural things, TV programme and famous people. That takes longer to learn’ (p.1055).

Additionally, O’Reilly et al. (37) found that culturally diverse students faced a lot of challenges with communication when working in a clinical setting due to the social nature of the work. Specific aspects identified were: the student’s understanding and engagement in professional interactions, differences in personal space interpretation, challenges in being assertive or interacting with groups and displaying emotions. The way rapport is established, and the concept of personal space is culturally variable and can impact patient interactions. A study (46) conducted on Irish students studying in Japan arrived at the same conclusion and stated that ‘interpreting nonverbal behaviour and the underlying communication rules, based on cultural values and cultural logic, was the most challenging problems’ faced (p.38).
2.2.4 Summary of findings in the Literature Review based on ELT

In summary, we can categorise the above discussion using the ELT model (Figure 2.3) where mainly challenges faced in the Daily Life and Academic Transitions are reported.

**Figure 2.3: ELT Framework for Literature Review**

<table>
<thead>
<tr>
<th>Academic Transitions +</th>
<th>Daily Life Transitions +</th>
</tr>
</thead>
<tbody>
<tr>
<td>None in literature review</td>
<td>1. Being able to form friendships with other international students.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Daily life transitions -</th>
<th>Academic Transitions -</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Homesickness</td>
<td>1. Discrimination from patients, staff and peers</td>
</tr>
<tr>
<td>2. Country's public services</td>
<td>2. Heavy workload</td>
</tr>
<tr>
<td>3. Finding Accommodation</td>
<td>3. Difference in learning styles</td>
</tr>
<tr>
<td>4. Transport</td>
<td>1. Cannot question teacher</td>
</tr>
<tr>
<td>5. Sourcing ethnic foods</td>
<td>2. Problem Based Learning</td>
</tr>
<tr>
<td>6. Weather</td>
<td>4. Lack of knowledge</td>
</tr>
<tr>
<td>7. Financial pressures</td>
<td>5. Speaking to patients in clinical environments</td>
</tr>
<tr>
<td>8. Integrating with host students</td>
<td>6. Difficulty with social English</td>
</tr>
<tr>
<td>9. Discrimination from Public</td>
<td></td>
</tr>
</tbody>
</table>

2.2.5 Coping mechanisms

In addition to identifying challenges faced by students, a number of coping strategies were also discussed in the reviewed literature. There are various factors that aid international students when they try to adjust to a new educational environment and adapt to a different culture. FGDs and individual interviews conducted by Malau-Aduli (34) found that students who attended boarding school were able to quickly adapt to the host culture since they were used to living away from home.

In terms of support structures revolving around medical school, Malaysian students in the Malau-Aduli (34) study claimed that their most prominent support structure was other international students from the same cultural background. Sharing a similar cultural background created a platform that enabled students to share their experiences and create formidable friendships. Additionally, the senior medical students were able to advise the younger
students. Students from the same cultural background also got together ‘to read, cook, practice OSCEs and share experiences’ (p.6). They also supported each other academically by setting goals as a group and rewarding whoever got the best result. Additionally, an FGD conducted by Huhn et al. (35) which addressed the expectations and worries of foreign medical students at the beginning of their education in Germany found that the international students considered their study-related contacts as well as relations with other international students to be of vital importance. This could be because of the commonality of being foreigners abroad or due to the role that common preliminary courses for international students played in fostering these connections. Malau-Aduli (34) also found that family members provided tremendous support for international students and aided them both morally and financially. The family members also provided encouragement and advice to the students.

Due to the hardships, stress and workload related, the international students in the Malau-Aduli (34) study considered withdrawing from the pursuit of a medical degree. Since this study did not involve a host medical student control group, these findings might not be limited to international students. One of the international students from the same study claimed that withdrawal from the course is not an option because of the shame and unhappiness it would cause their family members. Students overcome these challenges due to the high sense of responsibility towards family, their focus on the goal of graduating as doctors and support received from senior international medical students and international peers. Additionally, when students set personal goals, they were motivated to persist with their studies and overcome barriers to academic success. Due to the enrolment nature of international students into Australian tertiary schools, the vast majority of the students in the Malau-Aduli (34) study were of Asian background (25/26, 96%) and most of them were from Malaysia (17/25, 68%). It can be hypothesized that students from different cultural backgrounds would be affected differently by these challenges, and students might have more support should they decide to discontinue their medical education.
The benefits of peer support extend beyond just students from the same cultural background. International students claimed that staying with host students made the transition into the host culture easier (34). Once the international students befriended and engaged in social activities with host students, they experienced an increased level of happiness and increased motivation to learn (33). Students that interacted more with peers from the host culture found it easier to seek assistance and felt they were progressing well with their studies (34). A study conducted on Asian students attending a university in America found that students that engaged more with their learning environment, i.e., their peers and lecturers, found it easier to seek help and progressed well with their academics (47).

Kuo (48) states that integrating into the new environment would be more comfortable for students who share similar values and beliefs with the host culture and students. This is because acculturation, satisfaction, and achievement of the host cultures expectation enhance adjustment. Additionally, Malau-Aduli (34) found that students who had English, the host language of the respective study, as their mother tongue felt they were able to better interact with their peers and people in the community which helped them adapt faster to the host culture. Host language proficiency has been empirically implicated in determining successful cross-cultural adaptation and is at the heart of the acculturation process (43).

Treloar et al. (33) found that international students felt disappointed by the lack of program support unique to international students and it further reinforced their perception that all the Faculty wanted was their money. Malau-Aduli (34) also found that students claimed that the school did not offer much help in assisting them with the integration process. Some students argued that even in the presence of support services, it was difficult to avail of these services due to being unable to identify the right person to talk to about their issues, heavy workloads, and geographical proximity to these services. International students also felt entitled to culturally appropriate support structures because of the amount of money they pay. Students that participated in FGD conducted by Malau-Aduli (34) stated that they found support structures offered by the
university to be beneficial when international students were able to avail of these support structures appropriately. They stated that the support structures were present in times of need until they were able to stand on their feet again. Students from the same study called for the school, faculty, and university to adopt a more proactive approach in providing support services to students in stressful periods. Malau-Aduli (34) outlines that in certain cultures, help is offered to people without them asking for it, which is unlike the Western culture where one be given assistance when it is requested. Additionally, during stressful times, a student might find it difficult to seek out these support structures especially if they are not aware of its existence.
2.3 Adjustment of international medical students

2.3.1 Search Strategy
The second review of literature specifically focused on medical students in their clinical years. The following search terms were used: (international* OR acculturation* OR diversity* OR foreign OR sojourn*) AND (adjust*) were used to find out more about this topic. Three databases, PubMed, Embase, and Web of Science were searched. This returned 78,242³ articles. When the term AND (clinical teach* OR clinical placement OR clerkship* OR apprenticeship*) was added to the search, the number of articles dropped to 161³. Adding the term AND (medical school* OR medical student*) dropped the total number of articles found to just 14³ (Figure 2.4). None of these articles had any relevance to the topic of interest. Therefore, to the best of the author’s knowledge, there are currently no studies that measure the adjustment of international medical students in their clinical years to the host culture.

Figure 2.4: Adjustment of Medical Students Search Strategy
The top line denotes the initial search strategy. Red circle denotes the actual search terms used in the literature review

When the term AND (clinical teach* OR clinical placement OR clerkship* OR apprenticeship*) was dropped from the search, 375³ articles were found (Figure 2.4). A detailed list of search terms and entries found in each database can be found in Appendix A. Articles from all years were included and only articles not written in English were excluded. Citation alerts were set up for each database and were reviewed weekly until September 14, 2017.
Since the topic of interest pertains to the adjustment of medical students in their clinical years, it was decided that students in their clinical years, no matter the discipline of study (i.e. nursing, physiotherapy, pharmacy) would adjust similarly when compared to medical students that have not yet entered the clinical years. In light of this, the author decided to explore the adjustment of international students in the clinical years of their education, from any discipline to the host culture. 161† articles found using the search terms (international* OR acculturation* OR diversity* OR foreign OR sojourn*) AND (adjust*) AND (clinical teach* OR clinical placement OR clerkship* OR apprenticeship*) and were exported to EndnoteX7. 147 articles remained after the duplicates were deleted. The abstracts of these articles were read through and prioritised based on relevance to the topic. Out of these 147 articles, four articles remained. One systematic review (49) and one article (50) looked at challenges international medical graduates (IMGs) 10 and medical students on a clinical placement faced from the perspective of their educators. The two remaining articles looked at the perceived challenges of international medical students during their clinical placement (51), and acculturation, language and learning experiences of international nursing students (52). None of these studies measured the adjustment of international students in the clinical years of their study to the host culture. Therefore, to the best of the author’s knowledge, there are currently no studies that measure the adjustment of international students in the clinical years of their study, to the host culture.

Since there was no measure of the adjustment of international students in the clinical years to the host culture, the author decided to explore the adjustment of international medical students to the host culture. 375† articles were found using the search terms (international* OR acculturation* OR diversity* OR foreign OR sojourn*) AND (adjust*) AND (medical school* OR medical student*) and were exported to EndnoteX7. After duplicates were deleted, 229 articles remained. The abstracts of these articles were read through and prioritised based on

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10 International medical graduates are doctors that graduated from medical school in a different country than their current country of employment.
relevance to the topic. Out of these 229 articles, three articles were relevant. These studies are now described.

The first study was conducted by Kovatz et al. (53) on American and Israeli medical students attending medical school in Israel. The students from Israel were local residents with families and support systems. The students spoke the local language and were familiar with local customs; the American students had no cultural ties to Israel. The study questioned whether the perceived level of distress experienced during the time of a terror attack was related to the cultural background of the student. To our interest, Kovatz et al. (53) also explored if there was a correlation between the sense of belonging to the host nation, Israel in this case, and perceived level of distress. The sense of belonging to a nation was measured by a scale developed by Bavely T (54) which contains 9 items about belonging to Israeli society and Israel as a country (e.g. pride in living there), and asks questions about the respondent’s intended future in the community (e.g. intention to remain living there). The use of this scale found that the sense of belonging was higher amongst the host students, Israelis (2.857), when compared to students from another nationality, Americans (2.37), p<0.05. This study found a negative correlation between a sense of belonging to the host nation or nationality and perceived level of distress in two domains – somatic symptoms and depressive symptoms. Nevertheless, the negative correlation between belonging to the host nation and perceived level of distress in the two domains only reached significance in Israeli students, \( r = -0.44, P < 0.01 \) and \( r = -0.52, P < 0.001 \) correspondingly. This study had a sample size of 40 host students (61% of total host students) and 26 American students (39% of total American students).

The second study was conducted by Tackett et al. (55) on medical students in three different schools – Technion American Medical Students Program (TAMS) in Israel, Perdana University-Royal College of Surgeons in Ireland School of Medicine (PURCSI) in Malaysia, and Peking Union Medical College (PUMC) in China. This study had a sample size of 400 students (64.3% response rate) and endeavoured to investigate the associations between medical students’ perceptions of their learning environments and their reported quality of life,
burnout and empathy using standardised measures for each construct. The Johns Hopkins Learning Environment Scale (JHLES)\(^\text{56}\) was used to measure their perception of the learning environment. It has 28 items across seven domains: a community of peers, faculty relationships, academic climate, meaningful engagement, mentorship, inclusion, and safety and physical space. Each is scored 1-5. Therefore, the JHLES can range from 28 to 140 with higher scores indicating a more positive perception of the learning environment (55). This study found a positive trend with JHLES scores \((p = 0.01)\) and quality of life \((p = 0.03)\). Additionally, the “community of peers” was the only JHLES factor to be independently associated with better quality of life \((\text{OR}, 2.3; 95\% \text{ CI}, 1.4-4.0; p = 0.002)\) as well as less emotional exhaustion \((\text{OR}, 0.36; 95\% \text{ CI}, 0.22-0.60; p < 0.001)\) and depersonalisation \((\text{OR}, 0.43; 95\% \text{ CI}, 0.24-0.76; p = 0.004)\). The study concluded that an effective intervention to address quality of life and burnout amongst medical students might be to focus on improving relationships amongst peers. The case can be made that the more adjusted a student is to the host culture, the better peer relationships they will have.

The third study was conducted by McGarvey et al. \(^\text{17}\) at the Royal College of Surgeons in Ireland (RCSI). This was a mixed exploratory sequential study on medical students in the preclinical component of a five-year undergraduate programme and included 467 participants from various nationalities (Irish, Malaysian, Middle Eastern, Canadian/US, and Other). This study aimed to complete two objectives: (i) to understand the cultural challenges international medical students face in the pre-clinical years and (ii) objectively measure the adjustment of international medical students. The first objective was carried out using in-depth individual interviews and FGDs. The second objective was carried out via an online survey that comprised of three elements:

- The Student Adaptation to College Questionnaire (SACQ)\(^\text{11}\) which is a 67-item questionnaire that aims to calculate the adaptation of

\(^\text{11}\) To keep the survey short, McGarvey et al. did not included all components of the SACQ and the SIQ.
college students using four scales: academic adjustment, social adjustment, personal-emotional adjustment and attachment (57, 58).

- The Social Integration Questionnaire (SIQ)\textsuperscript{11} which is a 15-item questionnaire that aims to calculate social integration of college students using four scales: perception of faculty, study support, students’ satisfaction with social life, and financial support (59).

- Items developed from themes that arose from the individual interviews and FGDs.

McGarvey et al. (17) found that social adjustment was lower in Malaysian (p<0.001) students, Middle Eastern students (p<0.001), and students from other regions (p=0.013) when compared to host (Irish) students. Canadian/US students experienced similar levels of social adjustment as the host students, although, this value did not reach significance (p=0.645). All groups experienced similar levels of career support from family and friends. Not surprisingly, Irish students experienced the lowest level of social alienation when compared to all other groups. Approximately 75% of students from other countries felt a level of social alienation that would have been experienced by only the most alienated 25% of the Irish students. The same values were reproduced in scales that looked at cultural alienation with three-quarters of Irish students falling below the 25\textsuperscript{th} percentile of scores for Malaysians or Middle-Eastern students.

In summary, the degree of adjustment of medical students has been measured to date using three instruments.– (i) the scale created by Bavely T(54), (ii) the JHLES(56), and (iii) the SACQ(57, 58) and the SIQ(59). The nine-question scale created by Bavely T(54) is unique to Israeli residents it only explores their sense of belonging to the community. It does not quantify a student’s engagement with their education. The JHES mainly focuses on just the learning environment and does not explore adaptation or adjustment as directly or deeply as the SACQ and the SIQ. To be consistent with the study conducted at
by McGarvey et al. (17) a modified version\textsuperscript{12} of their questionnaire was used to measure adjustment.

\subsection*{2.4 Limitations and gaps in current research}
Most of the studies that looked at the acculturation stress of international students in a higher level education, especially medical, were conducted in either Australia or New Zealand (20, 33, 34, 37). Students from Asia make up the majority of international students in Australian schools and therefore studies carried out in Australia are challenged to produce a sample that is truly “multicultural”. For studies conducted in Australia and New Zealand, the population of “Asian” referred mainly to students with a Malaysian background. However, the term “Asian” was used by Woolf et al. (24) to denote people from an Indian, Pakistani, and Bangladeshi background.

The qualitative study conducted by Treloar et al. (33) at The University of Newcastle, Australia comprising of FGDs with mainstream (non-Indigenous Australian, non-international) Australian students and international students (full fee-paying students) had a small sample size of international students. Only 16 international students attended the second or subsequent years of candidature in the medical programme. Of those 16 international students, who were individually reached out to by members of the research team to partake in the study, only ten (63\%) students decided to participate. The study also had a poor gender representation with nine of the participants being male and remaining one being female. As stated above the authors aggregated all the data from the FGDs involving international students due to the low number of participants and to preserve participant anonymity. However, the authors did state that 70\% (seven out of the ten students that participated in the study) were of Asian (Malaysian) background.

Although Malau-Aduli (34) conducted a sequential mixed method study on clinical year international medical students at the University of Tasmania, \textsuperscript{12} The questionnaire used by McGarvey et al. was modified using themes that arose in the literature review, and the qualitative arm of the current study.
Australia involving a questionnaire, FGDs, and individual interviews, the study was limited by small sample size. Only 26 students completed the initial questionnaire. The questionnaire was used to develop questions for the FGDs, and the interviews were used to establish the themes that arose from the FGD. Of these 26 students, 16 were third-year students (84% of total third-year international medical students), and 10 were fourth-year students (33% of total fourth-year international medical students). The medicine programme that these students were involved in was four years long. Two FGDs, one involving eight third-year international medical students, and one involving four fourth-year international medical students were conducted. Finally, only two interviews were conducted – one with a third-year international medical student and one with a fourth-year international medical student. Additionally, almost all (25/26, 96%) of the students were from East Asia, with the majority (17/25, 68%) coming from Malaysia.

O’Reilly et al. (37) conducted a study on culturally and linguistically diverse students from different disciplines, but they managed to recruit students from two health care professions – nursing and dietetics. This study only had 13 students, and only one of them was male. Nevertheless, parallels can be drawn between the different disciplines, since most of the problems identified revolved around language and cultural interactions.

While the Quality of Life (QoL) survey used by Henning et al. (20) was conducted on 548 medical students from two different time periods (2009 and 2011), nearly all (80%) of the international students in their study were classified as Asian or other. Henning et al. (20) also noted that unpublished departmental statistics demonstrate that the majority of international students enrolled were Malaysian (78% in 2009 and 75% in 2011).

One of the major limitations in a lot of the studies is that the populations were grouped in a dichotomous manner. I.e., they host nationality was one group and the all other nationalities, despite their differences, were grouped into a single category. This was due to the small sample size of international students in the studies, leading to a lack of variance between different cultural groups. This
makes it hard, if not impossible, to distinguish between challenges unique to certain cultures (35). Woolf et al. (24) also ran into the same obstacle when conducting their meta-analysis outlining that the number of candidates from certain minority ethnic groups was too small to be of statistical value. Therefore, the ‘white group’ (17,172) was compared with all other ‘non-white’ groups combined (6,570). Stegers-Jager et al. (22) conducted a longitudinal study with a large sample size (n=2432) which allowed for the analysis to extend beyond just “a white/non-white” comparison. However, their study did not clarify whether the disparities between different ethnic groups resulted from bias or from an actual difference in the ability of the student. A similar issue with sample size can be found in Fernandez et al. (44). Although they were able to show statically significant trends when comparing white populations to different non-white populations, one of their cultural groups (black students) only had a sample size of 4 (~3%).
Chapter 3 – Methodology

This chapter explores the study design, and the provides details on the various phases used in this research. This chapter then talks about the various aspects involved in the qualitative data collection and analysis and the way in which the questionnaire was designed. This chapter then states the different ways in which the questionnaire was administered and how the results were analysed.
3.1 Study Design

A mixed method exploratory sequential study was conducted at the Royal College of Surgeons in Ireland (RCSI) to address the research questions as set out in chapter 1. RCSI provided a suitable setting for the study since its medical programme includes, as noted in the introductory chapter (Figure 1.1), students from 60 different nationalities (http://www.rcsi.ie/about) and has a class size of roughly 280 students. Additionally, this study builds on previous work carried out on preclinical students by McGarvey et al. (16, 17). The current MSc study aimed to build on this study and compare the challenges faced by clinical students to preclinical students using three phases (Figure 3.1):

- Phase 1: Data collection and analysis from (qualitative phase):
  a. Stakeholders via interviews
  b. SC2 students via peer interviews
  c. SC2 students via an FGD
- Phase 2: Questionnaire Design (quantitative phase).
- Phase 3: Questionnaire administration and analysis (quantitative phase)

![Figure 3.1: A mixed methods exploratory sequential study illustrating the different phases - diagram, modified from Creswell (2014) (57)](image)

This approach facilitated the use of qualitative data collection and analysis to determine if the challenges faced by international and host medical students during their clinical years reflected those stated by existing literature. It also
allowed for the identification of new challenges students may face as they transition from the preclinical years to the clinical years.

Following thematic analysis, items were developed and added to a modified version the questionnaire used by McGarvey et al. (17). The new questionnaire aimed to explore the prevalence of these challenges amongst students from various cultural groups, and the degree to which these students adjust to the host culture and clinical environment. Similar to the study conducted by McGarvey et al. (17), the adjustment was calculated using components of the SIQ (59) and SACQ (57, 58). Following its development, the questionnaire was piloted with five students that graduated from the RCSI medical programme in 2016. Minor adjustments were made to the questionnaire based on their feedback. The survey was then administered to the SC2 students (graduating class of 2017).

3.2 Phase 1: Qualitative data collection and Analysis

3.2.1 Data collection

Phase one of the study revolved around ascertaining the thoughts and opinions of key informants (Phase 1a) and SC2 students (Phase 1b and 1c) regarding:

1. The challenges international students and host students face in the clinical environment.
2. How these challenges differ from challenges encountered in the preclinical years
3. Potential support structures that could be implemented by RCSI.

Key informants were individuals who are able to comment on the aforementioned topics due to their involvement in teaching or counselling SC2 students, i.e., the key informants were selected via purposive sampling. Key informants included tutors that were intimately involved in the clinical teaching of RCSI students at different sites, long-standing professors at RCSI who were involved in teaching SC2 students, Student Welfare Officers, and members of the Student Services Office.

Due to the exploratory nature of the initial phase (qualitative) of the study, semi-structured interviews and FGDs were used to identify and explore themes.
Semi-structured interviews are those in-depth interviews where the respondents respond to pre-set open-ended questions and thus are widely used by different healthcare professionals in research (60). According to DiCicco-Bloom and Crabtree, (61) Interviews are generally the ‘sole data source for a qualitative research project’ (p.315) and are considered the most suitable method for exploratory research (62). These interviews are generally only conducted once with an interviewee and tend to last between 30 minutes to several hours (61). Semi-structured interviews follow a designed semi-structured guide that includes topics or questions that need to be explored by the interviewer. By following a prepared guide, the interviewer can conduct interviews more consistently and systematically. These interviews are usually scheduled in advance at an agreed time and location.

Key informant interviews (Phase 1a) were carried out by the author and the interviews with the SC2 students (Phase 1b) were carried out by other SC2 students (peer interviews), students that graduated in 2016, and the author (Table 3.1). In all cases, peer doesn’t necessarily mean being of a similar age, although this usually is the case, but more specifically refer to being part of a significant social network (63). According to Byrne et al. (63), peer interviews pose numerous benefits:

1. Due to the increased number of potential interviewers, a larger number of interviews can be conducted in a shorter period of time.
2. The peer interviewers, during the training session, can assist with the designing and redesigning of the interview guide.
3. Some students might not feel comfortable discussing certain topics with an “authoritative” figure.
4. The peer interviews stand to benefit as well, and some of them claimed that being a peer interviewer increased their self-confidence and helped them develop new skills, new social networks, and new insights into community interviews.

FGDs with SC2 students (Phase 1c) were used to explore in greater detail some of the themes that arose during the individual interviews (Table 3.1). Focus groups capitalise on communication between research participants in
order to generate data. Focus groups explicitly use group interaction as part of the method. This means that instead of the facilitator asking each person to respond to a question in turn, people are encouraged to talk to one another: asking questions, exchanging anecdotes and commenting on each other’s experiences and points of view (64). Each FGD is considered a single entity within a sample of groups, i.e. an FGD cannot be regarded as distinct interviews being conducted with multiple individuals at the same time (61). Similar to individual interviews, FGDs can last anywhere from 30 minutes to several hours.

Interviews and FGDs are generally recorded to aid in capturing the data efficiently. Recordings are superior to handwritten notes as it allows the interviewer or the focus group facilitator to focus on the ongoing interview or FGD and pay attention to physical and verbal cues produced by the interviewee or members of the focus group. Additionally, handwritten notes are relatively unreliable whereas the recordings allow for the interview or FGD to be transcribed verbatim (61).

Table 3.1: Members of quantitative analysis

<table>
<thead>
<tr>
<th>Phase</th>
<th>Participant</th>
<th>Type of data collection</th>
<th>Conducted by</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Key informants</td>
<td>Semi-structured interviews</td>
<td>Author</td>
<td>5</td>
</tr>
<tr>
<td>1b</td>
<td>SC2 students</td>
<td>Semi-structured interviews</td>
<td>SC2 Students (peer), 2016 graduates, Author</td>
<td>31</td>
</tr>
<tr>
<td>1c</td>
<td>SC2 students</td>
<td>FGD</td>
<td>Author</td>
<td>1 (5 Students)</td>
</tr>
</tbody>
</table>
3.2.1.1 Recruitment of participants

**Key informants**

Key informants were as those integrally involved with teaching or supporting SC2 students. These individuals were emailed by the author. A total of five key informants participated in the study. The email contained information about the project and requested that the key informant be willing to be recorded in anonymity.

**Student interviewers**

A presentation was given to the SC2 class as part of the orientation day induction programme by the author to recruit students into the study. Only two-thirds of the SC2 class attended the orientation because the remaining students were involved in clinical commitments. Students were asked to email the author to demonstrate their interest in participating in the study as either an interviewer or an interviewee. In the three weeks that followed the presentation, only seven interviewees and no interviewers emailed the author to partake in the study.

Four strategies were used to recruit more participants:

1. An email which described the study was crafted by the author and sent to the entire SC2 class by a faculty member.
2. A clinical tutor, intimately involved in teaching the SC2 students, invited students to participate in the study at the end of a teaching session.
3. The author requested SC2 students to participate in the study face-to-face.
4. Recent graduates (2016) of the medical programme at RCSI were invited to partake in the study as interviewers. As such, the author participated in the study as an interviewer. Students that graduated in 2016 and the author would be considered peer interviewers due to their proximity to these students.

Language fluency was not a major criterion in student recruitment as they had been studying and living in an English-speaking environment for at least four years. The demographics of the interviewers closely resembled the diversity in
RCSI. A breakdown of the ethnicity, sex, number of interviews conducted, and nationalities of the interviewees of the interviewers can be found in (Table 3.2). The number of interviews conducted by each interviewer ranged from 0 – 9. The mean number of interviews conducted by male interviewers was 2.7, and the number of interviews conducted by female interviewers was 3.

<table>
<thead>
<tr>
<th>Interviewer No.</th>
<th>Interviewer Sex</th>
<th>Graduate or Student</th>
<th># of people interviewed</th>
<th>Interviewer nationality</th>
<th>Nationality of individuals interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Female</td>
<td>Student</td>
<td>2</td>
<td>Sri Lanka</td>
<td>Canada (1), India (1)</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>Student</td>
<td>2</td>
<td>Malaysia</td>
<td>Malaysia (1)</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>Student</td>
<td>2</td>
<td>Malaysia</td>
<td>Malaysia (2)</td>
</tr>
<tr>
<td>4</td>
<td>Male</td>
<td>Student</td>
<td>0</td>
<td>Saudi Arabia</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>Student</td>
<td>2</td>
<td>Ireland</td>
<td>Ireland (1), Saudi Arabia (1)</td>
</tr>
<tr>
<td>6</td>
<td>Female</td>
<td>Graduate</td>
<td>5</td>
<td>America</td>
<td>Ireland (5)</td>
</tr>
<tr>
<td>7</td>
<td>Female</td>
<td>Graduate</td>
<td>4</td>
<td>Barbados</td>
<td>Trinidad and Tobago (3), Syrian (1)</td>
</tr>
<tr>
<td>8</td>
<td>Male</td>
<td>Student</td>
<td>9</td>
<td>America</td>
<td>Ireland (2), UAE (1), France (1), Iran (1), Turkey (1), Jordan (1), Kuwait (2)</td>
</tr>
<tr>
<td>9</td>
<td>Male</td>
<td>Student</td>
<td>2</td>
<td>Canada</td>
<td>Trinidad and Tobago (1), Libya (1)</td>
</tr>
<tr>
<td>10</td>
<td>Male</td>
<td>Author</td>
<td>1</td>
<td>Canada</td>
<td>Saudi Arabia (1)</td>
</tr>
<tr>
<td>11</td>
<td>Female</td>
<td>Student</td>
<td>2</td>
<td>UAE</td>
<td>Bahrain (1), Saudi Arabia (1)</td>
</tr>
</tbody>
</table>

**Training student interviewers**

The interviewers were trained over two separate training sessions. This allowed for a period of practice in between the sessions. Two separate training sessions were used to train the first four interviewers. Prior to commencing training, all interviewers were asked to sign a non-disclosure agreement (NDA). A copy of the NDA can be found in Appendix B.

In the first training session, which lasted approximately one hour, the trainee interviewers were informed about the project and the themes around which they should structure their interviews. These topics were developed based on published literature, the previous preclinical study(16, 17), the experience of the
author and the supervisors, and themes that arose from the key informant interviews. The interviewers were trained in the art of interviewing, how to appropriately obtain consent, and how to use the recorder. In the first training session, the trainees practised partial mock interviews with each other to get a feel for the general structure of the theme sheet and to ascertain the volume at which they had to speak to be heard by the recorder. In the week following the first training session, the trainee interviewers were asked to practice full-length mock interviews with their friends or family members (not including students in SC2) with the intention of finding misunderstandings and inconsistencies in the themes. Due to time constraints and the heavy workload of SC2 students, only two out of the four interviewers were able to practice interviews.

During the second training session, it became apparent that the full-length practice interviews did not benefit the students, and they found no misunderstandings and inconsistencies in the themes. They attributed this to the fact that conducting the interview was very similar to taking a medical history from a patient – an area in which all medical students receive copious amounts of training, assessment, and feedback. This contradicts the findings from the pre-clinical study (16, 17) where the interviewers felt that interviewing and taking medical histories were very different and required very different skills. However, it can be reasoned that preclinical students arrived at this conclusion because, at that time in the programme, they did not have much experience or practice with taking patient histories. Following this training session, it was agreed that students only needed to be trained over one session which revolved around discussing the themes of the interview, structure of the interview, and how to work the recorder. The rest of the interviewers were trained in this manner. Overall a total of 10 interviewers were recruited and trained.

Student interviewees
Due to the low response rates of interviewees the onus was placed on the interviewers to recruit interviewees. The only limitation placed on the interviewers was that the interviewees needed to belong to the same-sex as the interviewer. However, interviewers were requested, if possible, also to interview
students from a similar cultural background. Byrne et al. (63) found that students would feel more at ease when discussing matters pertaining to culture with those that shared the same cultural background as them and belonged to the same-sex.

A potential limitation of interviewers seeking out the interviewees themselves is that both of them could be confined to the same social network. Since SC2 is a relatively small group who have been together for a number of years (up to 6 years in some cases), it is likely that there would be some degree of familiarity regardless of how the interviewees were recruited – especially when matching for both sex and culture. In total, the 11 unique interviewers interviewed 31 unique interviewees. Demographics of the interviewees can be found in (Table 3.3). One of the interviewers, a male from Saudi Arabia, did not conduct any interviews as he was too overwhelmed with the demands of SC2. Barring this exception, all interviewers completed at least one peer interview.

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>India</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Ireland</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Syria</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>French</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Turkey</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Libya</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>UAE</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Iran</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Jordan</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Kuwait</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Bahrain</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>15</strong></td>
<td><strong>31</strong></td>
</tr>
</tbody>
</table>

**FGD**

Further clarity was required on a few themes that arose during the interviews. To further explore these areas and to find out whether these issues impacted
other students, one FGD (FGD) was conducted. One FGD adequately addressed these issues. A copy of the topics that were to be explored during the FGD can be found in Appendix C. Students that participated as either an interviewer or an interviewee in the peer-to-peer interviews were not invited to partake in the FGD since they were already familiar with the project and had discussed the topics before. Therefore, these students would have had more time to reflect on their responses than students who were exposed to the questions for the first time.

Students were invited on a face-to-face basis, by the author, to participate in the FGD and were selected with the aim of being representative of the diversity in the college. Some of the students that agreed to partake in the FGD had previously known the author since they attended the same course at the same college for a few years. Students were recruited on this convenience basis since their final year exams were just a month away. Internal studies conducted at RCSI showed that there was limited participation by SC2 students in any activities that did not involve learning course material during this time. All the students that partook in the FGD understood that it was for the completion of the author’s Master’s project and to guide the college in implementing appropriate support structures. A total of five, four female and one male, SC2 students from various cultural backgrounds took part in the FGD – the breakdown of the demographics can be found in Table 3.4.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Nationality</th>
<th>Born/Raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Irish</td>
<td>UAE</td>
</tr>
<tr>
<td>Female</td>
<td>Irish</td>
<td>Ireland</td>
</tr>
<tr>
<td>Female</td>
<td>Kuwait</td>
<td>Kuwait</td>
</tr>
<tr>
<td>Female</td>
<td>Trinidad and Tobago</td>
<td>Trinidad and Tobago</td>
</tr>
<tr>
<td>Male</td>
<td>Middle Eastern</td>
<td>Canada</td>
</tr>
</tbody>
</table>
3.2.1.2 Designing and testing the data collection instrument

Key informants
For the key informant interviews, a theme sheet was generated based on prior research (16, 17) conducted by the around the challenges and adjustment of preclinical students at RCSI, a review of published literature related to the impact of cultural backgrounds on medical students, and discussions with the supervisors. The interviews were conducted in a semi-structured manner with the theme sheet forming the backbone of the interview. Since there was a limited number of key informants, and to preserve the total number of informants, the theme sheet was not tested prior to conducting the interviews. It was decided that if issues arose during an interview, the theme sheet would be adjusted accordingly for the following interview(s) as it was the author alone who conducted all the interviews. No problems or ambiguities arose as a result of the theme sheet during the course of the interviews due to the exploratory nature of the study and the depth to which the interviewer understood the topic. A copy of the theme sheet used to guide the key informant interviews can be found in Appendix D.

Student interviews
The theme sheet for the student interviews was generated based on prior research (16, 17) conducted by the around the challenges and adjustment of preclinical students at RCSI, a review of published literature related to the impact of cultural backgrounds on medical students, discussions with the supervisors, and input from SC2 students during the first training session. The theme sheet was piloted by two of the interviewers on friends (students not in SC2) and family members – they had no revisions to make. A copy of the theme sheet used to guide the student interviews can be found in Appendix E.

FGD
A list of topics and potential questions were developed by the author with the aid of the supervisors, using themes that arose in the key informant interviews and the student interviews. A copy of questions explored during the FGD can be found in Appendix C.
3.2.1.3 Conducting the interviews/discussion

Key informants

Prior to commencing the interview with the key informants, the aims and methodology of the project were explained using an information sheet given to the key informant, and a consent form was signed by both the key informant and the author. A copy of the research information sheet and the consent form can be found in Appendix F and G respectively. All key informant interviews were conducted by the author in person in English at a location convenient to the key informant – in all cases their place of work – and only the interviewer and the interviewee were present during the interviews. The interviews were recorded via audio tape.

Upon conclusion of the interview, the consent sheet was signed again to ensure that the informant was still willing to have their interview form part of the research data. A double consenting practice was carried out since, on occasion, the informant is only aware of what information is going to be revealed after the interview has taken place. Although they would have been broadly aware of the research study from the information sheet, they were probably unaware of the specific interview topics. Consenting after the interview has taken place ensured that the informant was acutely aware of what information they are consenting to share. All participants that were interviewed decided to partake in the study. Upon commencement of the interview, prior findings and potential future themes that arose during the interview were discussed with the interviewees. The key informants were invited to review a copy of the transcript to check for accuracy before the data were thematically analysed. None of the key informants availed of this option. Each key informant was interviewed once, and there were no field notes taken during or after the interview. The interviews lasted on average about one hour. Data saturation was reached within the first three interviews, i.e., no themes arose after these interviews.

Student Interviews

The interviewers interviewed students of the same sex, and, when possible, interviewed students that shared similar cultural backgrounds with them. Due to the busy schedule of SC2 students and the complicated logistics of booking a
venue in close proximity to the students, interviewers were asked to perform the interviews in a location where both parties – the interviewer and the interviewee – felt comfortable. Interviews were conducted in various settings including coffee shops, the student centre, between lectures, and over the phone to name a few. Because of the different venues in which these interviews were conducted, some of the interviews were not held privately, could have lacked confidentiality, and were prone to external interference/disruption. Irrespective of the setting in which the interview was conducted both the interviewers and the interviewees felt comfortable.

The peer interviews were conducted in the same manner as the key informant interviews – providing the interviewee with an information sheet, obtaining consenting before and after the interview, recording the interview, and allowing the interviewee the option to check the transcript for accuracy. A copy of the research information sheet and the consent form can be found in Appendix F and G respectively. Only two students availed of this option and made minor changes to their corresponding transcripts. On occasion, the interviewers took notes during the interview too, but these notes revolved around names that the interviewees wanted to have left out during transcription. Irrespective of this, all names and identifying features were left out during transcription. The interviews lasted between 20 minutes to 57 minutes in length and data saturation was hit before all 31 interviews were completed.

**FGDs**
The FGD was recorded and transcribed, and field notes were taken by one of the supervisors during the interview. These notes were used to aid in the development of themes and were then subsequently destroyed. The FGD lasted 55 minutes which allowed for adequate discussion of all topics. Although transcripts were made available to the students, none of them chose to edit the transcripts.

The FGD was held in a secluded group study room in the RCSI library, and no one else was present besides the author, one of the supervisors, and the participants. Prior to the commencing the FGD, the aims and methodology of
the project were explained in an information sheet given to each participant of the FGD, and consent forms were signed by members of the FGD and the author. A copy of the research information sheet and the consent form can be found in Appendix F and G respectively. Similar to the key informant interviews, and the peer-to-peer interviews a double consenting practice was employed and the FGD was recorded and transcribed. Upon completion of the FGD, none of the participants of the FGD chose to check the transcription for accuracy.

The FGD was facilitated by the author (male) with one of the supervisors (female) taking notes. Neither the author nor the supervisor, who is a senior member of RCSI faculty, were involved in teaching, marking, or supporting the SC2 students. Therefore, it was felt that the students would be free to discuss issues freely without feeling that there could be potential repercussions on their studies. The author had no formal training in facilitation an FGD, but due to his deep understanding of the challenges, prior experience with peer interviews having just completed the SC2 program, faced by students and his familiarity with the students, the FGD ran smoothly, and all topics were explored thoroughly in English.

3.2.2 Data Analysis
3.2.2.1 Coding the interviews

Key informant interviews
A total of five key informants were interviewed before saturation was reached, i.e., the last two interviews did not offer any new information and the first three interviews largely reiterated the same points. Due to the repetitive nature of the interviews, only one of the key informant interviews was thematically analysed and coded independently by author and the supervisors using NVivo11. A consensus on the codes was reached, and the rest of the key informant interviews were coded by the author. Some of these themes were identified prior to the interviews, and some of the themes were derived from the interviews. Based on the themes that arose from the key informant interviews, a theme sheet for the peer-to-peer semi-structured interviews was created by all members of the research team.
Student interviews
Data saturation was reached well before the completion of all 31 interviews. However, as the interviews were being conducted by a group of interviewers all 31 interviews were conducted before this was discovered. Similar to the key informant interviews, only one of the student interviews were thematically analysed and coded independently by author and the supervisors using NVivo11. After a consensus on the codes was reached the rest of the student interviews were coded by the author. Some of the themes were derived prior to thematic analysis of the interviews. After the themes were coded by the author, they were checked by one of the supervisors.

FGD
The themes that arose were discussed by the author and the supervisor present at the FGD, and a consensus was reached on regarding coding. The FGD was then coded by the author using NVivo11. Most of the themes were identified in advance of the FGD.

3.2.2.2 Coding methodology
Thematic analysis of the data was conducted under the guideline provided by Braun et al. (65). They suggest five phases to complete the data analysis: (i) familiarising yourself with the data, (ii) generating initial codes, (iii) searching for themes, (iv) reviewing themes, (v) defining and naming themes

Familiarising yourself with the data
The author had ample opportunity to familiarise himself with the data. He performed all the key informant interviews, one of the peer interviews and facilitated the FGD. In addition, once the interviews and the FGDs were transcribed, the author checked all the transcription against the recording for accuracy. This allowed adequate exposure and familiarization with the data set.

Generating initial codes
The author then began producing initial codes from the data inductively. Braun et al. (65) identifies a code as a feature of the data that appears interesting to the analyst and refers to the most basic segment, or element, of the raw data or
information that can be assessed in a meaningful way regarding the phenomenon. All coding was performed via NVivo 11. In NVivo 11, a code is classified as a “node”. It is of note that codes are different from themes. Themes are where the interpretative analysis of the data occurs.

**Searching for themes**

Once all the data was coded, overarching themes were developed. Similar or related codes were grouped together to form themes. In NVivo 11, many nodes can be grouped together under a single node. This forms a hierarchy of nodes with the parent node representing the theme, and the child node representing the code. Codes were grouped into themes derived from the ELT model and informed by the literature review. Thematic analysis was initially performed by the author and his supervisors but completed by the author.

**Reviewing themes**

Once all the codes were grouped together under themes, the author reviewed each individual raw data entry in each code to ensure it was a correct fit. On occasion, raw data was uncoded from a node and coded under a new node and codes were rearranged under new themes.
Defining and naming themes

Once the author felt that the data was satisfactorily analysed, the themes were again discussed in a supervisory meeting and further refined in relation to the entire interview and/or FGD (in grounded theory this approach is termed ‘constant comparative method’ (66) (Figure 3.2).

![Figure 3.2: List of themes](image)

3.3 Phase 2: Designing the questionnaire

Once these qualitative themes were developed and analysed, they were added to a modified version the questionnaire created by McGarvey et al. (17). As in their study, adjustment was calculated using parts of the SIQ (59) and SACQ (57, 58). The items in the questionnaire were clustered into the following groups: Demographics, Transition into the clinical years, challenges in the clinical years, support structures and coping, and culture and adaptation. General questions about a topic were asked first followed by more specific questions to encourage honesty and cooperation. Once the first draft of the questionnaire was in reasonably good order, it was discussed critically between the author and the supervisors. The supervisors are knowledgeable about the
construction of questionnaires and familiar with the personal content of the survey. The questionnaire was also clerically reviewed for grammatical errors. In total, the questionnaire contained 57 new questions, and 30 questions were removed or rephrased based on relevance to the clinical year.

Following its development, the questionnaire was piloted on four RCSI graduates from the 2016 medical programme to identify mistakes and ambiguities. This group of graduates attended RCSI and hence they were aware of the cultural issues, challenges and logistics of the college. This made them an appropriate group to be part of the pilot. The survey was revised as per their recommendations. An online version of the survey was created with the aid of the RCSI Quality Enhancement Office. A copy of the modified survey can be found in Appendix H. The survey was then launched to SC2 graduating class of 2017.

3.4 Phase 3: Quantitative Data Collection and Analysis

3.4.1 Data Collection
Conscious that students were invited to participate in many studies with a risk of survey fatigue, a short video which included some of the students from the current SC2 class, members of the Student's Union (SU), and the author was shot. The video endeavoured to improve student participation in the questionnaire by describing the study and its importance. It then proceeded to thank the students for participating in the survey. A link to the video can be found on https://www.youtube.com/watch?v=U1L9H9To710. Additionally, this study had the full support of the faculty and members of the Students Union.

The survey was launched to the SC2 class by the Quality and Enhancement Office (QEO) in RCSI via individualized email. The email was created by the author and included a link to the aforementioned video. An introductory note was added to the email. This was given due consideration in the knowledge that it would be honest and encouraged the student to participate in the survey. A brief note on the length of time required to complete the survey was added here. Consent to partake in the study was implied if a student attempted the survey.
Despite the survey being open for a month, the response rate was only 16% (46/288). A public link to the survey was made available by the QEO to improve response rates. This link was then forwarded, by two well-respected clinical tutors via e-mail, to the entire SC2 class. This improved the response rate to 50% (144/288) over the following three weeks. In total, the survey was open for little over seven weeks. This was a considerably good response rate since many surveys conducted internally in RCSI have response rates of 30%.

3.4.2 Data Analysis
When the survey closed, a compilation of the data was sent to the author by the Quality Enhancement Office in RCSI in the form of an Excel spreadsheet. Data was anonymized at source by the Quality Enhancement Office as required by the REC. The author then cleaned and imported the data into STATA to view trends and compare the adjustment across various groups. Survey data used descriptive statistics to quantify responses within categories and report estimates of central tendency and variance. Differences between groups were investigated using Mann–Whitney U test, ordered logistic regression, and t-test as appropriate.

3.5 Author and reflexivity
The author is male and graduated from the 6-year medicine programme at RCSI in 2016. At the time of the study, the author was a full-time Master’s student at RCSI. The author was trained informally in interviewing by supervisors; additional training was unnecessary since the author graduated from RCSI in 2016 and was well-versed in interviewing patients and research methodology.

The author’s position as a recent graduate brought many advantages to the study. Having gone through the programme the previous year, the author was very familiar with and could easily converse about topics revolving around the challenges students might face in SC2. Familiarity with the key informants and students from the current SC2 also aided the author in securing appointments.
with key informants, as well as recruiting data collectors and interviewees into the study.

However, it was noted that having recently gone through the course, the author could have been familiar with the course taking some of its challenges for granted and did not pursue them further during the interviews. Additionally, current SC2 students would have felt obligated to participate due to their friendship with the author. However, to eliminate bias, the study was approached in a systematic manner, and information obtained from key informants and interviewees were validated using FGDs and the survey tool. Additionally, the author ensured that the study design for the qualitative arm of the study was rigorous by using the COREQ guidelines. The Consolidated criteria for reporting qualitative research (COREQ) is a 32-item checklist developed ‘for explicit and comprehensive reporting of qualitative studies (in-depth interviews and focus groups)’ (p.351). Themes identified were also tested by developing items that were included in the anonymised survey tool.
Chapter 4 – Qualitative Results

31 interviews and one FGD were recorded, transcribed and thematically analysed. This analysis is presented in the following chapter.

Items that arose during the interviews and FGD were coded (Figure 3.2), and grouped according to the ELT model:

1. Daily life challenges
2. Academic challenges
3. Coping strategies and support structures

Items that were representative of the group and those that offered unique and interesting perspectives are stated below. Each item is followed by a tagline, ex: PI#20, Male, Kuwait, which denotes the subject being quoted, their sex, and when applicable, their region of origin.

4.1 Daily life challenges
This section describes the daily life (non-academic) challenges international students face in the clinical years of their education. The ELT model states that negative life transitions can negatively affect a student's academics. However, if the student is performing well academically, then that will buffer the harmful effects of daily living challenges. Conversely, if these life challenges are too great, students might not be able to focus on their academics until these challenges have been resolved. Nevertheless, this study did not aim to measure the impact of daily life challenges on academic performance, and, as a result, did not obtain any information on a student’s academic performance. Life challenges that arose during the thematic analysis of the interviews and FGD were grouped into the following categories:

1. Cultural integration
2. Discrimination
3. Lack of motivation to become a doctor
4. Poor transportation
4.1.1. Cultural integration

Due to their cultural backgrounds, students from certain cultures can face challenges trying to adapt, assimilate, and integrate into the host culture. This is due to reasons such as their initial and current friend groups, their current living situation, socializing venues, and settings in which out of school interactions occurred.

"I don’t have much of a social life here. It doesn’t bother me because I don’t find it fun doing things Irish people would deem fun… I hate alcohol… I feel like to have fun here you need to be intoxicated… (PI#06, Female, Trinidad and Tobago)

A lot of the Middle Eastern or Malaysian students who come to RCSI would have come with previous family members having been here and the first people who they will know once they get here tend to be people from their own communities. I think that’s one element. The second element is they often end up living together, and that can be to do with religious reasons where females will only want to live with other females and males will only want to live with other males... That will propagate the idea that you stay within your own community. The third thing is that you will find Malaysian students tend to be much more passive and deferential than the other groups. I think they can find it quite intimidating to be around students from other groups. The Middle Eastern students I don’t think are intimidated but they obviously have very common interests … And probably another thing is the socialising. An awful lot of the socialising that goes on in college tends to be around pubs and places that serve alcohol. These are usually not that comfortable a place for Middle Eastern or Malaysians to go due to religious reasons or just cultural differences. (KI#3, Female)

Some students claimed that the communication difficulties they faced prevented them from integrating with their peers from the host culture. These difficulties arose from being unable to understand accents, word choice, the content of conversation material, or one culture dominating the makeup of the group.

“… if you are in Irish group they will converse on subjects that you aren’t really aware of culturally, something like that. I won’t know the name of artists in this country so sometimes I lose the conversations. The problem if you are alone in a big group of same nationalities, there will be a problem. Whereas if you are in a big group with mixed nationalities there won’t be a problem so you can speak. (PI#05, Male, Malaysia)
… the Irish people, what would be awkward would be if you were with only Irish people and you’re the only international person then it’s awkward because everyone is home and is comfortable and they have their Irish slang and humour and I’m like, I don’t know what’s going on and everyone is laughing and you’re like, I don’t get the joke. (PI#06, Female, Trinidad and Tobago)

Key informants noted that students from certain cultural backgrounds are pressured by peers from the same cultural background, family members, and members of their government not to integrate into the host culture. This is because members of the host culture have viewpoints, partake in activities, and have customs that are frowned upon or even considered illegal in certain cultures. An example of this would be stereotypical over consumption of alcohol in the Irish culture vs alcohol being prohibited for individuals that practice Islam. This denies students from certain cultures opportunities for assimilating into the host culture even if they were not going to partake in a prohibited activity. For example, it would be frowned upon, by the aforementioned parties, if a student who practices Islam was seen in a bar even if they were not consuming alcohol.

… If they’re from a very conservative society, they’ve been told [by family members and members of their government] there’s all these horrendous evils that will corrupt your mind with heinous ideas of politics or whatever in the western world in general. Sex or politics or whatever, something that people don’t want their students to be thinking about. Some I believe have been warned away from participating in the broader aspects of life and are told to just sort of focus on their exams and studies and don’t be getting involved with cultural life outside. (KI#2, Male)

One of the key informants went on to mention that if students partake in activities that are frowned upon by their culture, they can be ostracized by family members and peers from the same cultural group.

I’ve seen a number of students ostracised by their cultural group as a result because they’re seen as maybe not conforming. You know there have been really awful situations for students where their parents have been contacted anonymously. Friends, family members back home have been contacted by email. Also, situations where the cultural bureaus have been contacted. Again, behind peoples’ backs… almost policing each other and sometimes in a really awful way. It happens every year. There will be students totally ostracised and life will be made very difficult for them. (KI#3, Female)
This has serious implications because students that do want to participate in these activities will do so behind closed doors. This is unsafe, especially if the students decide to partake in high risk-taking behaviours.

Unfortunately, within this as well there can be a counterculture going on behind closed doors. Because there’s all of this reporting happening what can often happen is like-minded students will get together behind closed doors, nobody is going to know, and things can get out of hand in terms of drinking, drug taking, certain risk-taking behaviours. But that’s done out of fear, and it’s done because life could be made really hard for them if this got out. (KI#3, Female)

4.1.2 Discrimination
In addition to the discrimination faced by students in the clinical setting (reported under academic challenges in section 4.2.2), both students and key informants talked about discrimination that occurred in the public setting.

I feel like in general Ireland is a very discriminatory country. I don’t think Irish people are incredibly open-minded people. I wouldn’t want to live here as a foreign citizen... (PI#12, Male, Turkey)

RCSI, as I said really, does its best to try and create a warm, welcoming environment for all groups but, once they get outside the college, that’s much less so. I think a lot of them are exposed to casual racism, and that can be just on the streets when they’re walking around but it can be in the hospital too. (KI#4, Female)

4.1.3 Lack of motivation to become a doctor
Key informants noted that some students in medical school have not fully committed to the lifestyle required to be a doctor. Students may have decided to attend medical school due to family expectations, or a scholarship and not due to personal motivation. These students may lack the motivation needed to complete the medical programme as they are unable to push themselves to put in the long hours of study required to be a doctor.

I think one that probably influences it is who decided you were going to go to med school in the first place. Was it a personal decision, a family decision, the fact that a government scholarship came available? What was it? There are very few people here from western society who are
here for any reason other than that they wanted to become doctors themselves. From conversations with a lot of other students they make it clear that this was not a personal decision and that while they weren’t necessarily against the idea, they certainly weren’t massively motivated to be here. (KI#4 Female)

4.1.4 Poor transportation

Teaching sessions, such as lectures and tutorials, and clinical placements can occur in various hospitals around Dublin, Ireland during the clinical years in RCSI. Due to the way public transportation works, students that do not have a car find it hard to commute to different hospitals in the same week.

I mean because like back in Malaysia I have my own car so I can drive anywhere. That is the most challenging part for me. And over here everything is based on the names of the road so sometimes the way I pronounce it is not the way the local people pronounce it so there’ll be some sort of confusion over that. (PI#01, Male, Malaysia)

If you live in Dublin and you don’t have a car, you are at a disadvantage because our public transport system aims to get you into the city centre, but if you want to go anywhere else around the city you walk… there’s no public transport that will bring you from A to B. You have to do at least some walking. If you don’t have a car and have to go to Beaumont one day and Connolly13 the next day your level of absenteeism might be higher. (KI#4 Female)

4.2 Academic challenges

In addition to the challenges with daily living, international students faced a myriad of academic challenges when transitioning into the clinical environment.

These challenges were grouped into the following sections:

1. Ability to practice religious beliefs
2. Discrimination
3. Communication challenges
4. Competition among peers
5. Hospital culture
6. Peripheral rotations

13 Beaumont and Connolly are two of the many teaching hospitals used by RCSI. These hospitals are 1 – 1.5 hour apart via public transport depending on traffic and bus/train schedules.
7. Large student body and lack of structure
8. Learning styles and time management.

4.2.1 Ability to practice religious beliefs
Religion and spirituality are of great importance to some RCSI students. Some religions require students to pray multiple times per day and students find that it is difficult to fit that into their busy schedule in the clinical years.


eyou wake up in the morning and could spend 5-10 minutes praying and then you’re like, I’ve to rush to get dressed and rush off to school. And at the weekend you’re like, oh I didn’t pray this week. So definitely it’s been a challenge. (PI#06, Female, Trinidad and Tobago)

Nevertheless, some students found that the members of their clinical team and friends were very accommodating when it came to facilitating their religious practices. In some cases, it even taught the student proper time management and allowed an opportunity for them to practice their discipline.

Yes, it is our responsibility as Muslims to pray five times a day. Sometimes I find a situation where clinic time is so long, and I don’t have any time to go for prayer, but then the best thing that I experience in Ireland is they are very, very considerate. The consultants, any other doctors or health care professionals, they are very considerate. If I speak to them that I need to go to pray they allow me to go for five or ten minutes and they don’t have any problem with that. In terms of my friends, they are very understanding... I think it also my responsibility to take care of my time wisely... it teaches me to be more disciplined for me to fulfil my requirement... (PI#02, Female Malaysia)

Some students were distressed when it came to certain practices for hygiene and infection control. Nevertheless, within different religions some leeway in terms of professional requirements is given and, over time, many of these students were able to accept and adopt a different point of view.

When I go to theatre I’m not allowed to wear my headscarf but thankfully here in Ireland, the hospital is very considerate, and they give me a head cover which I can cover my head and neck for example. (PI#02, Female Malaysia)
And where I need to bear a bit of elbow especially in the ward, in the beginning, I find it uncomfortable and I’m not used to it, where we need to expose our skin up to elbow and I’ve been scold by nurses because I’m not baring elbow. As time goes by I more understand why they ask me to bare to the elbow because we avoid infections, so I am used to it to bare a bit of elbow. (PI#03, Female, Malaysia)

They may have been taught that if you show off your wrists something terrible might happen to you but, as you know, that’s the rule for Irish healthcare, so there isn’t really much negotiation around that. It’s just straightforward. If you want to be in an Irish healthcare environment, you have to get bare below the elbow, and that’s our rule. If you don’t like that, you’re definitely in the wrong place. (KI#2, Male)

4.2.2 Discrimination
In the clinical environment, there were a number of situations where students felt that they were or potentially could be discriminated against.

But I feel like if I was wearing a headscarf, I feel I would be much more stereotyped. I feel like I would feel more uncomfortable in certain situations. (PI#30, Female, Bahrain)

Other students claim that a student’s lack of mastery over the English language is what leads to the discrimination of the students by the staff members.

I feel there are some unspoken biases that manifest in the way that staff speak to some of my peers. But, having said that, I feel the better you are able to communicate, and the better your language is, then the less likely you see that. There’s this unspoken rule that you’re all right, we can speak freely to you. (PI#09, Male, UAE)

There was one incident where a guy I knew really well, a really nice gentleman from Saudi, was trying to explain something and his English wasn’t so good, and he was made a laugh of… he asked me afterwards what did they mean, but it was very obvious to me they were making fun of him, and he was really confused. (PI#19, Female, Ireland)

Discrimination was also directed towards the students by patients. Students hypothesized that patients did not want to open up to students that were not Irish because they thought those students were just here to get a medical education. Students claimed that belonging to the host culture, even partly,
greatly aided in communication with patients. Conversely, mentioning a cultural background that was different from that of the patients, put the patient on guard.

Sometimes I do notice with older people especially; you know the way they're not used to people of different culture. I noticed on one of my rotations there was three of us together, two Irish girls and one Muslim girl... A lot of time I just noticed that they didn’t speak to her or didn’t speak to her the way they spoke to us which was a bit sad. (PI#15, Female, Ireland)

I feel like a lot of the time; they start treating you differently once you say you’re half Irish… even with patients, you feel they might be a little bit uncomfortable talking to you first until they ask you where you’re from. And I always want to make them comfortable, so I tell them I’m half Irish… It helps definitely. Sometimes I just say Bahrain, and sometimes their reaction is a little bit, they're not as open, or their facial expression will be like they’re trying to withdraw. (PI#30, Female, Bahrain)

However, some students who were discriminated against approached the situation from a different angle and did not want to place the blame on discrimination. Some students viewed them as isolated instances of discrimination, since they occurred rarely, or attributed them to misunderstandings.

There have been a few incidents, but I cannot say it’s definitely due to discrimination. There’s no way you can go inside someone’s mind to make sure of that. Some of the incidents make you think, why did I get this mark here and the other student got that mark, and I did better than him. (PI#27, Male, Saudi Arabia)

I think because they [the students] know it’s just an isolated incident they wouldn’t make a big deal out of it, they would just move on and ignore it… I would rather not get myself into a big ordeal about it. Plus, I wouldn’t know, it might be just my misinterpretation of a situation, so I don’t want to point fingers if I don’t have the exact knowledge or what the reasons are. (PI#21, Male, Kuwait)

I’ve tried to be more positive. My approach is just; it’s not trying to change how they treat me, it’s just trying to change my mentality and thinking that it’s not always going to be like this. (PI#30, Female, Bahrain)
4.2.3 Communication Challenges

A medical student’s education revolves around more than just the acquisition of knowledge. During the clinical years, students are also expected to communicate in a professional manner with patients and other healthcare professionals. Both key informants and students agreed that communication skills are vital in the medical profession. Some students struggle with communication, and interviewees claimed that those who spoke English as their second language struggle the most.

Language is everything because you could have a shared bond or connection with somebody and if you are unable to express the thoughts in your head adequately you will inevitably be misunderstood, one way or another. So being able to phrase things correctly and clear things up and being able to have a conversation is very important… It always helps if you can have a little bit of banter between yourself and them and having a good level of conversational English is very important to that as opposed to just having academic English… that is what builds up rapport with the patients. (PI#14, Male, Saudi Arabia)

… a lot of the students that English is not their first language struggle in the clinical years… When it comes to clinical years you have the encounter with and interaction with the patients so patients kind of lead on the whole thing. And as we know, patients are quite diverse and varied… The clinical years aren’t just about knowing your knowledge; it’s about knowing your knowledge as well as communicating with everybody possible, doctors, nurses, allied health professionals. There is that. In clinical years, you are building your identity as a doctor as well as actually knowing the knowledge. Pre-clinical years are just about knowing the knowledge… You turn up to college, and you be present, your attendance is regular and all of that. Whereas with a senior cycle student it’s completely different. So, yes, you have to do all of that in addition to interacting with these other health care professionals and align that to your learning as well. (KI#1, Female)

Medicine is a talking business. You’re talking to patients, to your peers, your colleagues. If you hope to have any function as a doctor, you’re going to have to talk. I just say that this inability to speak is not something that they will be able to successfully sustain for the next 2-3 years. They are absolutely going to have to address that and get over it if they’re going to succeed, not just in medical school, but in life, as a doctor… Unless the people have a high level and mastery of English it’s very difficult to be a good student… The students that go into clinical years without good mastery of language will really struggle. (KI#2, Male)
I feel like in a group when you have one person who is Malaysian or Arab you can see the difference between them and the rest of the students who have English as their first language. Even if they’re from Trinidad or America, you can see the difference because you can see those who have English as a first language versus those who have it as a second. (FGD, Female, Trinidad and Tobago)

Students stated that difficulties with communication arose because they had trouble deciphering a staff or patient’s accent and diction or vice versa. This caused the students to ask patients and members of staff to repeat or rephrase themselves over and over to the point of annoyance. Some students had to slow down their speech and work on their pronunciation to be better understood. Additional difficulties with communication were attributed to the frequent use of colloquial terms by patients. These communication difficulties caused students to feel self-conscious and made the already difficult transition into the clinical environment even harder.

I’ve been to Dundalk and Waterford. I would say that in Dundalk the accent is different compared to Dublin and Waterford. I think it takes a minute to understand their accent. It takes me a while to understand what they are talking about. Most of the time I would ask them to rephrase what they are saying. (PI#01, Male, Malaysia)

...you become a lot more conscious of your accent, and it becomes awkward hearing yourself talk when everyone else sounds different. You have to consciously say things slower or speak clearer so people will understand you. That is annoying at times. (PI#06, Female, Trinidad and Tobago)

When I’m speaking to a consultant or team or a patient I would have to slow down and pronounce each word carefully... (PI#07, Female, Trinidad and Tobago)

When you go to rural areas, it becomes harder to talk to people as a foreigner as well. People are less open-minded in rural Ireland. (PI#12, Male, Turkey)

I felt, for example, Irish patients don’t usually describe fever, they describe it as a temperature. Also, they usually describe vomiting as sickness, feeling sick. (PI#20, Male, Kuwait)
You could have a patient with a Dublin accent versus a patient with a Galway accent or whatever and I think students that don’t have English as their first language struggle with that because it’s not just learning the medical lingo, it’s learning that and the native lingo here and the slangs that go with that. (KI#1, Female)

I think that often comes down to comprehension and language difficulties. If people are struggling at that level then it’s compounded by dialect and, people who live in a local country environment here in Ireland can speak very differently to people who are from a city background. They can be hard to understand, even for local, Irish native people. So, you can only imagine how much more difficult it is for somebody from Malaysia or Saudi Arabia, sitting in that environment they will have difficulties definitely. (KI#5, Male)

Once, I didn’t understand what the midwife was saying, and I asked her to repeat three times, and she seemed kind of annoyed (FGD, Female, Kuwait)

I just switch my accent, well I just downplay it a little bit, articulate a bit more, and they understand me, and I understand them. Unless they come from real far out where the accent is very, very thick and you have to strain to decipher every single word. (FGD, Female, Trinidad and Tobago)

Nevertheless, some students claimed that their incomplete mastery of English helped them find some common ground with patients who also did not have a complete mastery of English. Some students stated that they felt more comfortable communicating with patients than with staff. This was often because they were more comfortable asking the patients to repeat themselves since patients were generally not as busy as doctors.

Sometimes we achieve a common ground because he knew that I was not that good at English and I knew that he or she was not that good at English. So, we can tolerate each other. Because some Irish patients, if I make a mistake in terms of the language, some of them might be annoyed with me. But foreign patients, if they couldn’t understand me very well, they can tolerate because they know they’re not very good at English. (PI#05, Male, Malaysia)

I find it more challenging communicating with staff as opposed to patients. Just because I can ask patients to elaborate because they would love to speak and they would love to tell you more, but staff are usually very busy. (FGD, Female, Kuwait)
Another facet that affected communication was the language in which a student thought. Students whose first language was not English thought in their mother tongue, and this affected the way in which they communicated. When having a conversation in English, these students would translate the English they heard to their native language, think of a response in their native language, translate that into English and reply. This could affect students in both the academic and social settings. In the academic setting, students would have to divide their mental resources between answering questions and translating to and from their mother tongue. In the social setting, it would cause an unnatural break in the conversation as students would need time to translate. Additionally, certain intricacies that revolve around language could be lost when translating from one language to another. This could damage rapport with the patient.

Based on my own experience I think my biggest cultural challenge that I face is language because, as I said before, English is my second language… It is not the language that I use to think so sometimes when somebody asks me questions during tutorials or classes or during clinics; I need some time to think, to construct the sentence and then to give the answer... I’m more comfortable in the academic or medical setting. However, when it goes beyond that, that’s when I’m not comfortable… sometimes it’s hard for me to understand what they try to deliver or sometimes they make jokes and I couldn’t understand what they are talking about so I just sit there and smile because I don’t understand. (PI#02, Female, Malaysia)

Usually for academic purpose in class or when I meet my doctors or team I usually speak in English without thinking in Malay first because I am getting used to the medics. (PI#03, Female, Malaysia)

Sometimes expressions betray me, and I do think in Arabic and just literally translate it to English, and the meaning is lost. (PI#09, Male, UAE)

When we’re having a tutorial or even in written exams, they can actually do very well. Medicine is a different language, and everyone started from zero… You would mainly see the difference in social communication. I can pick it up with my Arab friends because obviously I’m Arab, I can hear a direct translation and how off it sounds when it’s translated into English direct. I know which words they’re using in Arabic… (FGD Female, UAE)
…just the way she phrased the question. It’s been answered – yes, but not exactly. We know what she’s trying to get from the patient but, at the same time, the patient doesn’t know what to give you unless you ask them exactly. Just the way she phrases the question it kind of throws it off a little bit… It’s not even her grasp of English so much as the way she phrases things; it just doesn’t extract the same answer as if I was to go and tweak one word for another. (FGD, Female, Trinidad and Tobago)

International students also experience difficulties in the unspoken aspects communication. Due to the communication norms of certain cultures, students from these cultures may be ill perceived despite their best intentions. This causes communication difficulties with patients and staff and places a strain on these relationships.

The GP brought in a patient, and we were supposed to interview her. One Saudi guy was taking the history before I was, and I think guys from the Middle East, ..., people would misinterpret it as being rude or very direct, but they actually deal with everything like that. He was sitting in front of the patient, and it was very confrontational... He had a very strong Middle Eastern accent, and he was asking questions like “what did you do?!” ... I noticed that the patient was actually getting irritated with the student and she was answering “yes, no, yes, no.” I noticed that and stepped in to do my part of the history, and I was trying to change that mood. I was smiling and all that. Her facial expressions immediately changed and she was smiling and was giving me answers in full sentences, she was elaborating without me even asking her anything. Words like please, thank you, ok, just linking words that maybe people wouldn’t really use that much in the Middle East. (FGD, Female, Kuwait)

... where the cultural differences come in is how mannerisms come across… Sometimes I would say something in one context in my head, and it comes out, and it’s interpreted in a different way as though I’m trying to be standoffish about it. I honestly think it’s just my mannerisms… I don’t think I’m the first Trinidadian to have that experience… So, I suppose in that way it’s not necessarily to do with language so much as the unspoken word and communication which would be different from culture to culture. (FGD, Female, Trinidad and Tobago)

Students from some cultural backgrounds experience difficulty in exchanging greetings as per the customs of the host culture. In such situations, a key informant stated that it is important for the student to find another appropriate way to greet the patients.
What’s important is that the women who decide not to shake hands find another greeting, another physical greeting that they are comfortable with that shows the other person that they are greeting them. If you do not greet people, you will not build relationships… it doesn’t have to be a handshake, but you have to find a way of greeting people. Not greeting people will cause huge permanent damage to that relationship. (KI#2, Male)

Students that are not from the host culture are more inclined to make presumptions about the host culture based on their own cultural background. Students from certain cultural backgrounds also found it difficult to ask patients about intimate details relating to their sexual health, pregnancy, drug use or mental health. These presumptions and uneasiness around certain topics can cause a rift between the patient and the student.

Not knowing about certain things, smoking or drinking, makes it difficult for us to understand the perspective because we don’t experience that back home it’s difficult to ask about it (PI#09, Male, UAE)

I think in the beginning it would be a little difficult to ask about more awkward things like sexual health, intercourse, whether they had any STIs in their background, anything like that. (PI#13, Male, Jordan)

Then there are little things like cultural presumptions. You will hear a student ask a woman who has brought in her child, what about the father or your husband, so there’s a presumption that there is a husband when there isn’t actually any. By making that kind of presumption that sounds like an off the cuff remark you can totally disengage your patient. Those things actually have quite a big effect. In other countries where some of our students come from abortion is legal so the presumptions that they make around what care a patient would want can be different around that also. I think there’s a lot of cultural aspects that come into it as opposed to just pure language barriers. (KI#4, Female)

I think sometimes with Obs Gynae for religious reasons it can be quite difficult for some of the male students to be comfortable with taking the medical histories, doing the exams. Also in psychiatry too, in some cultures, mental health maybe isn’t something that’s talked about openly and as a result that can make things very difficult for students that are faced all of a sudden with maybe working in a setting where people are acutely unwell. (KI#3, Female)
The variation in communication style extends beyond just interpersonal interactions. They even occur during communications with the staff via email.

*Just that I think there’s definitely a difference between how people from different cultures interact with the academic staff. So, say the Canadian US students tend to interact with us in a more casual way than the other students... So, you’ll have them sending emails where they don’t address people by their title, or writing a formal salutation. You’ll have emails where they tell you what they’re going to do as opposed to request permission for things... Sometimes the wording can be so off-putting that it can mean that you actually have to cite this person for unprofessionalism. Then the emails that you get from the Middle Eastern students tend to be excessively detailed about personal issues, the idea of confidentiality or personal privacy is definitely a smaller issue to them than it would be to someone who is Irish... Again, the ones who tend to hit the most appropriate note, in general, tend to be Irish trained, Irish born and I think that’s just, again, cultural assimilation. The Malaysian students very rarely email you or try to engage with you. The level of deference is huge.* (KI#3, Female)

4.2.4 Competition among peers

Students stated their distaste for competition, and how competition among their peers caused challenges in the clinical environment. Students from North America and Ireland were considered to be the most competitive. In addition, there was a perception that students from the host culture outperformed international students even though both parties had the same level of knowledge.

*RCSI is a very competitive school. All the North American students... [are] very competitive and goal orientated. I think that in itself is stressful because you’re with people who are unnecessarily competitive and then everyone is super intense doing steps\(^4\), competitions or medical things.* (PI#06, Female, Trinidad and Tobago)

*I think sometimes students have the right idea and they just aren’t able to convey it sometimes. I feel there is a substantial amount of marks lost just due to that factor and not lack of knowledge, and I feel that’s unfairly accentuated.* (PI#09, Male, UAE)

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\(^4\) Steps are standardised exams students sit to gain employment in America.
If you were Irish you could probably get by with knowing less than if you were a foreign student. You see the extremes in, for example between Malaysian and Irish students where Malaysian students don’t have great English, and Irish students can just talk their way through things and express themselves better. They have the home advantage. They have the natural advantage that maybe American students can also get close to but in terms of evaluation that probably adds a bit of injustice to the system because it’s basically an oral exam which is basically show business. There’s a knowledge element to it, but most of it is show business, so someone who has lived there for years is naturally going to do better. (PI#12, Male, Turkey)

The last thing I hate in the world is this sense of competition. I don’t think I have that with the Middle Eastern students that I’m friends with but I feel like, whenever I’m around Irish students there’s a big sense of competition, and they’re trying to compete with you and do better than you and trying to give a better impression to the consultant, and they’re trying to be there earlier than you, so the consultant likes them more. They’re trying to do more work and stay later and things like that which I also hate. (PI#30, Female, Bahrain)

Students who are Irish or have lived here for a long period of time certainly are at an advantage in the clinical years for a variety of different reasons. The main reasons are they know how to interact with all the ancillary staff on the wards so they are less likely to offend people or say something that someone else mightn’t like... you can see how someone who hasn’t got much knowledge but is Irish can take a decent history versus someone who has the same level of competence but has English as a second language. They’re going to score lower. I think there is a bit of frustration around the cultural differences around academic achievement in clinical exams... I think those who come from countries where they have spoken English as their first language are less disadvantaged than those who speak English as a second language because they’re able to adapt to those kinds of things faster. (KI#4, Female)

Some international students felt that Irish students were more advantaged because they got more attention from members of the clinical team. The perception was that Irish students were more likely to continue their careers as doctors in Ireland and the clinical staff were less likely to invest time in international students since these students were likely to return to their home country after they completed their education. With a few exceptions, international students generally return to their home countries following their medical education in Ireland. This is because it is highly unlikely for a student that is not Irish or European to gain employment in Ireland. Employment in
Ireland is offered based on the centile ranking of a student, and Irish and European students are given priority over students from other regions. There is a limited number of spots available. After these spots are filled by Irish and European students, the few remaining spots are offered to the highest-ranking students from other regions – making it highly unlikely for the average student to gain a job in Ireland.

I've probably witnessed other people being discriminated against a little bit. Just maybe their English wasn’t up to scratch, or they weren’t from Ireland so we get a little preferential treatment being Irish and I think that’s rooted in the fact that we’ll end up working here. I don’t think there’s anything behind it, just the fact there’s more to invest in the Irish or the people who will remain in Ireland. (PI#16, Female, Ireland)

Because they know they’re not seeing us again in the future, they don’t want to invest in us. (PI#20, Male, Kuwait)

I think people are probably less involved with some of the students from the Middle East on the basis that they think they’re not interested which mightn’t necessarily be the case but it’s something that has come up before. That’s my impression. I think when I come up as an Irish person I think the staff will focus more on me and leave the other person out and not maybe explain what’s going on as well. (PI#25, Male, Ireland)

The trend in final med goes towards achievement at final med level plus employment prospects afterwards… I think the fact that you are much less likely to achieve employment in this country is psychologically very difficult for people when they’ve put so much effort into working here, and they’ve contributed a lot to patient care here over the years. I think psychologically it’s a bit of a slap in the face. But secondly, it causes an additional financial burden for people who have to be flying here and there to do exams in different countries, get interviews in different countries or get electives in other countries. (KI#4, Female)

4.2.5 Hospital culture

Hospital culture refers to the spoken and unspoken rules that revolve around hospital etiquette. International students had a hard time with the hierarchy of the clinical team, the lack of attention they received from members of their clinical teams, and the ridicule they felt as medical students.
In Ireland, the hierarchy of doctors has a clear structure: Intern (new medical graduate; this post lasts for 12 months), Senior House Officer (SHO)\textsuperscript{15}, Registrar (REG)\textsuperscript{16}, Specialist Registrar (SpR)\textsuperscript{17} and finally Consultant\textsuperscript{18}. Students felt that doctors higher up the ladder belittle those underneath them and the essence of a team is lost. As a consequence, students felt that they were unable to argue with the consultants or disagree with their points of view. This prevented students from engaging in professional conversations with consultants and put a strain on their relationship.

You say something that you know is right, because you’ve done a particular study or something, and the consultant disagrees with you. We’ve been taught to not argue back even though you might be right because you’re arguing with someone more senior than you. That could be seen as something that’s rude even though you might be right and it might be better for the patient… In terms of exams, when talking to a senior you just have to take their feedback even though you might not agree with a certain part of it, or it’s something you might want to discuss with them further. (PI#13, Male, Jordan)

This idea of hierarchy – that the consultant is better than the Reg, who is better than the SHO, who is better than the intern who is better than you… You see the intern being intimidated by the Reg… It’s one of the main reasons why I don’t want to work in healthcare in Ireland. I feel like that’s very prominent and it makes it very hard for me to be able to attend a hospital to study… It’s one of the main reasons why I’m not very happy or passionate about medicine at the moment. I feel like it impacted me a lot this year. (PI#30, Female, Bahrain)

I think it’s a cultural thing maybe here. Let’s be honest the consultant is untouchable. The consultant has the suit and stethoscope, and then you’ve got the Reg and SHOs. It’s a hierarchy. It’s the culture here. If I went up to a doctor and said, “Dr. X what do you think about this? Should we look at that?” He’s going to look at me as if, “what are you saying?” (FGD, Female, Trinidad and Tobago)

\footnotesize
\textsuperscript{15} SHO - a doctor than finished their internship, usually lasts 2 years.
\textsuperscript{16} REG - a doctor who completed their post as a Senior House Officer (SHO), usually lasts anywhere from 4-7 years.
\textsuperscript{17} SpR – a doctor who is receiving advanced training to eventually become a consultant.
\textsuperscript{18} Consultant - the highest position attainable as a doctor in the Irish healthcare system; synonymous to an Attending in America.
During the clinical years, students complete placements in various countries including America, Canada, and the UK. During electives in those countries, students get a more hands-on learning experience. This is not the case in Ireland, and students take on more of an observatory role. Key informants felt that students need to be aware of these differences and manage their expectations when undergoing clinical placements in Ireland.

… there can be an expectation from some groups of students like for example, some of the students from the States and Canada would have very high expectations of the level of support and input they would get in the clinical setting, and that’s not the case. It is very much about seizing the opportunity for yourself and making the best of things… their expectation may be that they’re going to get a massive amount of attention or that there’s going to be huge availability from team members when that’s not actually the case. (KI#2, Male)

Nevertheless, students perceived this behaviour and tradition as a lack of interest from the clinical staff and without being given enough responsibility and making meaningful contributions to the team a number of students felt as though they are a burden or a nuisance a lot of the time.

… everyone who is teaching are more or less doctors so everyone is busy so I just don’t like being an annoyance or burden. (PI#06, Female, Trinidad and Tobago)

I think right now students are for the most part a hindrance to the work of the team. (PI#11, Male, Iran)

In Ireland when you go into the hospitals, you’re a wallflower. In Enniskillen and America… they get you to do jobs. You are part of the team… Here nobody really wants to take responsibility for you, so you end up asking the intern because they are the most sympathetic. The consultant, if they’re in a good mood or they have some time, you’re lucky to have some teaching from them, but they don’t take responsibility for the medical student. It’s kind of very wishy-washy here. Who do you ask? Who do you talk to? It’s more difficult here. In America or Enniskillen (United Kingdom) you’re learning all the time on rotation because you’re always involved. (FGD, Female, Ireland)

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19 Enniskillen is a town in Northern Ireland where RCSI students who hold a European passport occasionally undergo placement.
Students sometimes feel disrespected by staff and felt that they got scolded inappropriately due to their lack of clinical knowledge. Students did not want to work or learn in a setting that propagated this mentality. However, one of the key informants stated that this is a manner of engagement and is ultimately for the students benefit. When students do not know the answer, they should admit to it and then proceed to find the answer.

I feel like if somebody were to treat you like that, they would have to be miserable. I feel like I don’t want to work in a clinical setting where I’m miserable. I don’t think anybody does. I’m not saying it’s like that everywhere or with all teams, but I feel like, especially in Beaumont, and I have heard that from many people who worked there before and work there now, it’s a setting that’s like that, and a lot of people are very unhappy. I’m not willing to sacrifice my happiness for medicine. (Pl#30, Female, Bahrain)

…it’s really to learn… if you don’t have the answer tell them that’s all right, you’ll find the answer. It’s a little bit as well, another thing that comes up, maybe a desire at times on ward rounds too, if you don’t have the answer, maybe to just say something and obviously people can get pulled up by the consultant or the clinicians on the team. That can be difficult as well. Sometimes I think it’s to get the message that it’s ok to say I don’t have the answer, but I will find that out. (Kl#3, Female)

4.2.6 Peripheral Rotations
As part of the clinical experience in RCSI, students attend placements in peripheral sites for weeks at a time. The students spend five days (Monday – Friday) attending their placements, return home (usually Dublin) during the weekends, and then return back to the peripheral site on Sunday night to
resume their placement. The peripheral sites are located throughout Ireland. Peripheral placements pose unique challenges as well. However, some students felt that the peripheral rotations helped them foster new friends since students bonded together on peripheral rotations.

I have more people when I’m in peripherals because we tend to stick together more when we’re there and we’re always around each other. I would actually feel lonelier when I’m in Dublin than when I’m on peripherals. (PI#31, Female, Saudi Arabia)

At the moment, something that seems to be quite a challenge is going on rotation outside of Dublin. That seems to be quite a challenge. And a really, really strong desire in SC1 very much to be with friends, as opposed to maybe using it as an opportunity to get to know other people outside your group. And in SC2 it seems to be down to wanting to be in Dublin, the closer that the final exams are. (KI#3, Female)

4.2.7 Large student body and lack of structure
A problem specific to RCSI was the number of students enrolled in the medical programme. With such a high level of enrolment, it was perceived that supervisors were unable to fulfil their duties, and students did not get the intimate teaching they needed to succeed. A lack of structure also led to students claiming that their education become less standardized and the challenges associated with cultural differences were exaggerated.

I think the biggest contributing factor is the large number of students. It makes it harder for people in charge to keep in line. (PI#11, Male, Iran)

...there is a lot of disorganisation. Also, I think the biggest problem with the education in RCSI is there is no standard in education... Some people get more tutorials. Some people get less tutorials. Just because of the fact that they have to accommodate more students than the current capacity allows actually makes the RCSI send people to off sites, especially in SC1, where the experience might be completely lacking... The more structure you have, the more resources you have and the more standard you have. But I think the lack of structure, lack of proper standards and lack of organisation is actually what exacerbates the cultural barriers. It could actually be eased by putting more structure, having more standards. (PI#12, Male, Turkey)

The only thing I didn’t like about the clinical environment was that you didn’t really have a schedule for what you had to do or for the things that
you need to accomplish by the end of the day. I think that was a little annoying because we were very used to having classes... we had our exact timetable for the first few years and then moving to a clinical environment I found it very difficult to integrate into this new environment where things are a little bit messier than they were before. (PI#20, Male, Kuwait)

4.2.8 Learning styles and time management

In a multicultural environment, it is not surprising that students from different backgrounds interacted with their teachers and lectures in different manners. Students from the Far East tend to be quieter, not ask questions, speak only when spoken to, and answered questions directly and to the point. This was unlike their western counterparts who were loud, outspoken, and expected a conversation-type relationship with their professors and lecturers. In fact, students from various cultures had different expectations and in-class relationships with their professors. This posed a challenge for the instructors/lecturers who needed to adapt their teaching style based on experience and perception of the groups learning style.

I only answer as much as the question given, and sometimes they want me to elaborate and that’s something that I kind of miss out sometimes. (PI#09, Male, UAE)

Well I suppose again if we’re in a lecture, North Americans are very keen to ask questions, they will stick their hand up. I think Middle Eastern people tend to just answer, they just shout whatever’s going on in their head which can be disruptive... And then I think European people, on the whole, tend to be quiet... I think there might be a small proportion of every group that’s not getting best represented because there’s either someone shouting over them or someone is cutting across them to ask a question. (PI#25, Male, Irish)

That can be quite challenging because it’s very difficult to know if they’re coming along with you when you’re teaching them or even if they have problems because they just don’t tell you about them and I think there’s a level of not wanting to disturb the authority. I think they have a really major sense of authority and of not wanting to, in any way, impede the status quo. (KI#3, Female)

Learning is different here whereas over in the Eastern world [where] learning is pretty much what the teacher says, and you don’t really question or try and engage. Their word is gospel... People who are
American, Canadian, Irish tend to participate more than the Middle Eastern and Malaysian students... Sometimes you’d see a group coming towards you, and they’re all from the same ethnic background, just by looking at them, and you think ok this group is going to be very interactive. And then another group from a different background and you think I’m going to have to do a lot of work here; I probably won’t get many answers from them. (KI#4, Male)

An educational challenge that supersedes cultural differences is the switch from a didactic learning style to a self-directed learning style. Compounded with the increased workload and hospital commitments in the clinical years, students had a hard time adapting to the new learning style. Not surprisingly, as students progressed through their careers as doctors, their workload increased, and students faced difficulties with time management.

I guess another thing was going from didactic teaching to an environment where you had to learn kind of on your own, more self-directed learning I guess. That also kind of exposes a great challenge in terms of finding new avenues where you can learn more… Some of my colleagues probably faced a big challenge in the clinical setting to just know how to divide their time. (PI#11, Male, Iran)

4.3 Summary of findings in the Qualitative analysis based on ELT

The findings in the Qualitative analysis can be categorised as per the ELT model (Figure 4.1). This study found that majority of the academic and daily life transitions reported were negative. This is discussed further in Chapter 6.
4.4 Coping strategies and support structures

Students employed various coping mechanisms and support strategies to deal with the aforementioned challenges. Students mainly relied on friends and family from the same cultural group and family for support. Additionally, some international students befriended Irish people and watched Irish television to improve their communication with host nationals. Some claimed that the programme upon entry affected the impact of challenges on students. It was reported that students did not widely use the support structures offered by the college.

4.4.1 Reliance on friends and family from the same cultural group

Generally speaking, students sought support from members of the same cultural group in numerous areas. These areas include, the provision of friends, overcoming language challenges by practising with each other, and even seeking help from senior medical students that belonged to their culture.

I think it's important for us to practice delivering information. Because English is not our first language and the problem is not understanding the context but delivering the context… it's a good idea if in the study groups
we practice with each other on how to describe certain situations... I think that’s one of the best ways to try to improve the language problem that we have because I think that is the main thing that we experience. (PI#02, Female, Malaysia)

Even at the weekend, I will meet my Malaysian friends, so I don’t have a problem with loneliness. My housemate is Malaysian, so if I have some problems, I will talk to them. (PI#03, Female, Malaysia)

I think with students from certain backgrounds there’s definitely more of a community spirit between those ones, for example, Malaysian students in particular. They tend to help each other out. They study a lot together. They often have what they consider their Seniors from previous years who give them a lot of mentoring advice and study strategy. That works very well for them. (KI#4, Female)

Some students are able to find support from members of their culture who are not students. In some cases, students seek help from members of their clinical team or tutors who belong to the same cultural background as them. For others, their family is the strongest support they have.

On a professional level, I found if I see Malaysian doctors we become very close. I find it’s comfortable for me to ask the questions, to learn from them. I just find it comfortable to build relationships with them… [With] Malaysian doctors… we found a common ground… I think communication plays an important role. It’s very easy to communicate with Malaysian doctors… I can ask in Malay (PI#05, Male, Malaysia)

My family is the strongest support system that I have. My mum is very supportive; she is really understanding… and my father is my source of inspiration. So, they are very important to give me support because medicine is not something that is easy, so a lot of people think medicine is so difficult that you need a strong family support to succeed. That’s what I think about my family. (PI#02, Female, Malaysia)

4.4.2 Improving communication skill

Some students watched Irish TV and befriended Irish people to familiarize themselves with the word choice of Irish people.

I think they watch Irish TV to try to be more knowledgeable about it [word choice] and I think some of them make friends with Irish people, plain and simple. I think some of that is just because they want to be friends.
with Irish people but it certainly has the added bonus of making it easier when you’re going to see patients on the wards. (KI#4, Female)

4.4.3 Programme upon entry

Age and programme upon entry were reported by both key informants and students as being closely related to the challenges students faced. Generally speaking, the students in the GEM programme are older than students in the direct entry programme since GEM students only begin medical school after completing a graduate degree. These extra years of education prior to commencing medical school provided the GEM students with more developed communication skills which helped them interact better with patients. In addition, living an extra few years of life also means they were likely to develop better coping skills. A key informant also claimed that the maturity that GEM students possess allowed them to mix better with students from different cultures and help them better overcome obstacles. Additionally, GEM students are arguably more focused and motivated than students in the direct entry programme. Students in the GEM programme also begin attending placements from the first year.

…in graduate entry we have been exposed since first year, even just the Wednesday afternoons clinics just watching consultations and, in first year, spending a month at the end trying to take histories. So, throughout our first two years, we had been exposed to the clinical experience whereas the IC3s have only had the three months at the end. (PI#10, Male France)

The graduate entry students… they’re not any better than the other students, but they tend to be much more socially sophisticated. They’re five years older, suddenly talking about sex, drugs and rock and roll, and re-organising a conversation back to topic, they’re much more comfortable with that because they’re older and they’re better communicators. In my view, it’s age and life experience. Time spent talking to others in complex situations as an adult is where you learn how to redirect conversations is the key thing. I’m not sure it’s based on nationality or ethnicity, a lot of it’s based on language skills. (KI#2, Male)

They’re mature students on entry into college, so maybe they have more life experience and are much more open to the idea of mixing with people who aren’t necessarily ethnically homogenised with themselves. So, you see that, and that’s quite obvious… If you came in through graduate entry then the likelihood is you are very motivated to be here,
you already had a qualification and may also have had an occupation, so you are probably sacrificing time and certainly financial gain by being here so those people tend not to be absent. (KI#4, Female)

4.4.4 RCSI support structures

Support structures are available through RCSI. However students rarely used them for a variety of reasons. Students stated that they were unsure about all the support structures in place and that they were not readily available. Even when used, students reported not finding them beneficial. Other students did not want to discuss their personal matters with the college since they did not feel like the college was on their side.

I know, but I never seek support from them because the support is far away. If you are in Drogheda, the support will be in Stephen’s Green so you won’t contact them to ask any support. (PI#05, Male, Malaysia)

I never used them personally. I don’t know of many people who have. I think most people would talk about it with their friends and maybe ask a few other people in the class or maybe go to the class reps. Some of them would like to keep those issues personal. Otherwise, I don’t think people use support services or student services or anything they might just complain directly to the SARA office or someone in charge, but I don’t think it’s through the official routes because I don’t think they’re very well clear to everyone. (PI#10, Male, France)

No. I think you would have to feel a real need to go seeking these services. They’re not readily available. They’re not easily accessed. (PI#12, Male, Turkey)

I tried the formal services, but they turned out to be useless… Student welfare… they tried to help, but they didn’t turn out to be fruitful. (PI#29, Male, India)

I was recommended to go to Student services, but I feel like I’m not comfortable with things related to the college… I feel like they’re out to get me! Especially the SARA office. (PI#30, Female, Trinidad and Tobago)

In spite of all these various mechanisms and strategies, one student felt that they were unable to cope with the stresses of medical school and could not wait to graduate.
I still don’t deal with it well, that’s why I can’t wait to leave medical school. (PI#30, Female, Bahrain)
Chapter 5 – Quantitative Results

This chapter presents the results of the analysis from the quantitative arm of the study. It first talks about the demographics of participants. It then states how these demographics had varying levels of social adjustment, the perception of faculty scores, and support from friends and family. Following that, this chapter presents findings from items in the questionnaire that were informed by the qualitative arm of the study. This chapter concludes by providing a summary of findings from the quantitative analysis.

5.1 Demographics

144 students attempted the questionnaire; however, not all of the students completed it. Partially completed questionnaires were included in the analysis with all incomplete questions marked as missing data. In cases where very few items were answered, that participant was removed. Therefore, items in certain categories might not always add up to 144.

In relation to the responses received 41% of the students were male and 59% of the students were female (Figure 5.1). This varies slightly from the demographic of students in SC2 which comprises of 53% male students and 47% female students.

The age of the students ranged from 21 years – 34 years with a mean age of 25.2 years (95% CI: 24.7 years – 25.6 years) (Figure 5.2). This is similar to the age distribution of SC2 students.
A student’s nationality was discerned using the citizenship they currently possess or have previously possessed. The question “what nationality do you belong to?” was not asked since the definition of nationality could be open to misinterpretation. For example, a student who is of Indian ethnicity but was born and brought up in Canada might be unsure how to answer this question.

To keep in line with the study conducted by McGarvey et al. (17) students were grouped into five categories based on their region of origin (nationality) – Ireland, North America (Canada and America), Far East (Malaysia, China, and Singapore), Middle East (Saudi Arabia, Jordan, UAE, Kuwait) or Other (Sri Lanka, Australia, Trinidad and Tobago, and various European countries). 19 of the 144 students currently held or held in the past, citizenships from more than one country. Investigative analysis was carried out on these students to discern what region they originated from. Parameters taken into account were father’s and mother’s mother tongue, the culture they most identified with, and location of secondary school they attended. Based on this 28% of the students were from Ireland, 28% from the Middle East, 20% from North America, 12% from the Far East, and 12% from other regions (Figure 5.3). This was representative of the student demographic found in the 2017 graduating class (Figure 1.1).
Religion was grouped into four categories: Christianity, Islam, Other (Hinduism and Buddhism) and None (Atheism, Agnosticism, and students that practised no religion). The Religion with the highest followers was Islam (42%), followed by Christianity (34%), then by students that did not practice any religion (20%), and finally by students that practice Hinduism or Buddhism (4.9%) (Figure 5.4).

All of the students from the Middle East (100%), and most of the students from the Far East (75%) practised Islam. Of the Irish students, most practice Christianity (59%), followed by students that did not practice religion (33%), and then by students that practice Islam (7.7%). North America had a more even distribution between Christianity (39%), students that did not practice religion (39%), Islam and other religions (31%), and (Figure 5.5).
Students were grouped into four language categories based on their mother tongue: English, Arabic, Malay, and Other. Students that spoke English (57%) and Arabic (26%) formed the majority of the students. The rest of the students were split between Malay (8.4%) and other languages (8.4%) (Figure 5.6).

Most of the students had their second level education through English (80%) and primarily spoke English growing up (63%).
5.2 Adjustment Scales
Four scales were used to calculate a student’s adjustment:
1. Perception of faculty scale
2. Support of family and friends
3. Social life
4. Social adjustment

The Wilcoxon signed rank (Mann Whitney U) test was used to test for statistically significant differences in scales between groups. Linear and ordinal logistic regression was used to test any assumptions, adjusting for language of second level education, religion, nationality and gender. STATA (version 15) was used for statistical analysis.

5.2.1 Perception of faculty scale
Rienties et al. (59) theorize that the perception of faculty (the perceived reputation of the faculty/institute by family, friends, the general public and future employers) will influence the social integration of students. Similar to Rienties et al. (59), the perception of faculty was calculated using a three-item scale that revolved around a student’s view of how others (friends, public, and future employers) perceived RCSI and its teaching staff. Students were asked to rate their level of agreement with a statement on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). A “not applicable” (N/A) option was provided for students who felt they could not appropriately rate these statements.

Female students had a higher perception of faculty than male students (7.5 vs 6.5 p=0.0016). Additionally, students in the GEM programme (6.5 p=0.005), and students that entered RCSI via MCP Tralee (6.5 p=0.015) had a lower perception of faculty than students in the 5-year programme (Table 5.1).
### Table 5.1: Perception of Faculty by Variable

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<th>Perception of faculty</th>
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</tbody>
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<sup>a</sup> – denotes values that were statistically significant. Statistical significance calculated using Ordered logistic regression and Wilcoxon rank sum test.
5.2.2 Support of family and friends

Based on past research, Rienties et al. (59) hypothesized that the support and encouragement a student receives from family and friends correlated with a student’s academic performance. Support of family and friends was calculated using a three-item scale that explored the encouragement and approval a student received from family and friends regarding their choice of college. Students were asked to rate their level of agreement with a statement on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). A “not applicable” (N/A) option was provided for students who could not appropriately rate these statements.

Students from the Middle East (7.0 p = 0.010) and the Far East (7.3 p = 0.043) had lower levels of support from their family and friends when compared to Irish students. Additionally, students who attended a second level school in English also received higher support from their family and friends compared to students who attended a second level school in another language (7.7 vs 6.7 p = 0.021) (Table 5.2)
Table 5.2: Support of Family and Friends by Variable

<table>
<thead>
<tr>
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<td>p-Value</td>
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</tr>
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<td></td>
<td></td>
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<td>6.5 – 7.7</td>
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</tr>
<tr>
<td>Year</td>
<td></td>
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<td>7.4 – 8.2</td>
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<td>6.2 – 8.0</td>
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<td>Ireland</td>
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<td>North America</td>
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<td>6.6 – 8.0</td>
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<td>Other</td>
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</tr>
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<td>7.1 – 8.0</td>
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</tr>
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<td>English</td>
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<td>0.021a</td>
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<td>Non-English</td>
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<td>Yes</td>
<td>7.4</td>
<td>7.0 – 7.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* — denotes values that were statistically significant. Statistical significance calculated using Ordered logistic regression and Wilcoxon rank sum test.
5.2.3 Social life

Rienties et al. (59) outlined that social life outside of the academic environment will strongly influence academic integration. In accordance with McGarvey et al. (16, 17), social life was calculated using a four-item scale which revolved around social contacts with friends (from their own and different cultural backgrounds), and general life satisfaction outside class. Students were asked to rate their level of agreement with a statement on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). A “not applicable” (N/A) option was provided for students who could not appropriately rate these statements.

Female students (7.1 vs 6.7 p=0.0617) and North American (7.5 vs 6.8 p=0.0382) students had the highest ratings of social life (Table 5.3).

<table>
<thead>
<tr>
<th>Variable being analysed</th>
<th>Social life</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6.7</td>
<td>6.3 – 7.1</td>
</tr>
<tr>
<td>Female</td>
<td>7.1</td>
<td>6.7 – 7.5</td>
</tr>
<tr>
<td>Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-Year</td>
<td>6.8</td>
<td>6.3 – 7.3</td>
</tr>
<tr>
<td>6- Year</td>
<td>7.0</td>
<td>6.2 – 7.8</td>
</tr>
<tr>
<td>GEM</td>
<td>7.2</td>
<td>6.8 – 7.6</td>
</tr>
<tr>
<td>MCP Tralee</td>
<td>6.5</td>
<td>5.8 – 7.3</td>
</tr>
<tr>
<td>Region of Origin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>6.7</td>
<td>6.1 – 7.3</td>
</tr>
<tr>
<td>North America</td>
<td>7.5</td>
<td>6.8 – 8.2</td>
</tr>
<tr>
<td>Middle East</td>
<td>6.5</td>
<td>5.8 – 7.2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>6.9</td>
<td>6.3 – 7.5</td>
</tr>
<tr>
<td>Other</td>
<td>7.3</td>
<td>6.7 – 7.9</td>
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<td>Mother tongue</td>
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<td>English</td>
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<td>5.7 – 7.1</td>
</tr>
<tr>
<td>Malay</td>
<td>7.1</td>
<td>6.3 – 7.9</td>
</tr>
<tr>
<td>Other</td>
<td>6.9</td>
<td>6.0 – 7.7</td>
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<tr>
<td>Language growing up</td>
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</tr>
<tr>
<td>English</td>
<td>7.1</td>
<td>6.8 – 7.4</td>
</tr>
<tr>
<td>Non-English</td>
<td>6.6</td>
<td>6.0 – 7.1</td>
</tr>
<tr>
<td>Language off campus</td>
<td></td>
<td></td>
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<tr>
<td>English</td>
<td>7.1</td>
<td>6.8 – 7.4</td>
</tr>
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<td>Non-English</td>
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<td>5.9 – 7.1</td>
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<tr>
<td>Language of second level</td>
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<td></td>
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<tr>
<td>English</td>
<td>7.0</td>
<td>6.6 – 7.3</td>
</tr>
<tr>
<td>Non-English</td>
<td>6.5</td>
<td>5.9 – 7.1</td>
</tr>
<tr>
<td>Previous multi-cultural environment</td>
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<td></td>
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<td>No</td>
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<td>6.2 – 7.3</td>
</tr>
<tr>
<td>Yes</td>
<td>7.0</td>
<td>6.6 – 7.3</td>
</tr>
</tbody>
</table>

<sup>a</sup> – denotes values that were statistically significant. Statistical significance calculated using Ordered logistic regression and Wilcoxon rank sum test.
5.2.4 Social Adjustment

As explained by Rienties et al. (59) social adjustment describes how well students deal with the interpersonal demands, such as making friends, being part of social activities or being able to work in groups. To calculate social adjustment, Baker and Siryk (57, 58) used a 20-item questionnaire. McGarvey et al. (17) used a variation\(^{20}\), with the same number of items, of that to calculate social adjustment in their study. The current study used an 18-item scale to calculate social adjustment since two of the items were irrelevant. These items were “I enjoy living in my present accommodation” and “I have not been able to mix too well with the opposite sex lately.” After their first few years in Ireland, students rarely change accommodation and have been exposed to numerous coeducational situations. Therefore, it was theorized that inclusion of these items would artificially inflate the social adjustment scores. Students were asked to rate their level of agreement with a statement on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). A “not applicable” (N/A) option was provided for students who could not appropriately rate the item. The remaining items on the scale revolved around involvement in social activities, having close ties in RCSI, similarity to other students, and satisfaction with social life.

Students in the 6-Year programme (5.5 vs 6.7 p=0.0017) and students that entered RCSI via MCP Tralee (5.6 vs 6.6 p=0.0255) had lower levels of social adjustment when compared to the rest of the class. Students from Ireland were the most socially adjusted when compared to all other nationalities (7.1 vs 6.2 p=0.0016). When compared to Irish students independently, students from North America (6.4 p=0.023), the Middle East (5.6 p<0.0001), and the Far East (6.2 p=0.011) had lower levels of social adjustment. Middle Eastern students had the lowest level of social adjustment when compared to all other nationalities (5.6 vs 6.7 p<0.0001). In terms of language, students that spoke Arabic as a first language had lower levels of social adjustment than students that spoke English as a first language (5.5 vs 6.8 p<0.0001). Additionally,

\(^{20}\) The SIQ and SACQ were edited by McGarvey et al. to make them relevant to RCSI students.
students that did not speak English growing up (5.8 vs 6.8 p<0.001), that did not attend a second level school in English (5.5 vs 6.7 p=0.0002), and that spoke a language other than English most of the time off campus (5.9 vs 6.7 p=0.0014) had lower levels of social adjustment than their English-speaking counterparts (Table 5.4).

Table 5.4: Social Adjustment by Variable

<table>
<thead>
<tr>
<th>Variable being analysed</th>
<th>Mean</th>
<th>95% CI</th>
<th>p-Value</th>
</tr>
</thead>
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<td><strong>Gender</strong></td>
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<td></td>
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<tr>
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<td>6.3</td>
<td>5.9 – 6.7</td>
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</tr>
<tr>
<td>Female</td>
<td>6.6</td>
<td>6.2 – 6.9</td>
<td></td>
</tr>
<tr>
<td><strong>Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-Year</td>
<td>6.9</td>
<td>6.5 – 7.3</td>
<td></td>
</tr>
<tr>
<td>6- Year</td>
<td>5.5</td>
<td>4.9 – 6.2</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>GEM</td>
<td>6.7</td>
<td>6.3 – 7.2</td>
<td>0.434</td>
</tr>
<tr>
<td>MCP Tralee</td>
<td>5.6</td>
<td>4.7 – 6.4</td>
<td>0.002</td>
</tr>
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<td><strong>Region of Origin</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>7.1</td>
<td>6.5 – 7.6</td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td>6.4</td>
<td>5.8 – 7.0</td>
<td>0.023</td>
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<td>Middle East</td>
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<td>5.1 – 6.1</td>
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<td>6.5 – 7.2</td>
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<td>5.5</td>
<td>5.1 – 6.0</td>
<td>&lt;0.0001</td>
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<td>6.5 – 7.2</td>
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<td>5.4 – 6.2</td>
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<td>6.4 – 7.0</td>
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<td>5.9</td>
<td>5.5 – 6.3</td>
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<td>English</td>
<td>6.7</td>
<td>6.4 – 7.0</td>
<td>0.0002</td>
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<td>Non-English</td>
<td>5.5</td>
<td>5.0 – 6.0</td>
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<td><strong>Previous multi-cultural environment</strong></td>
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<td>5.9 – 7.0</td>
<td>0.840</td>
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<tr>
<td>Yes</td>
<td>6.5</td>
<td>6.1 – 6.8</td>
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</tr>
</tbody>
</table>

<sup>a</sup> – denotes statistically significant values. Statistical significance calculated using Ordered logistic regression and Wilcoxon rank sum test.
5.3 Themes from qualitative (Phase 1a, 1b, and 1c) analysis

Questions were developed and included in the questionnaire revolving around themes that arose from the qualitative analysis. This was done to explore if themes that arose from the qualitative analysis were representative of the larger group of students in their final year. Using the ELT model, this section firstly investigates daily life challenges, then academic challenges, and finally coping strategies.

5.3.1 Daily life challenges

Various themes revolving around daily life challenges were generated from the qualitative arm of the study. The ones explored further in the quantitative study were integration between international and host students, cultural pressures international students face from members of their own culture, and motivation to be a doctor.

5.3.1.1 Unable to integrate with peers

During the qualitative analysis, students and key informants hypothesized that the poor social adjustment of international students related to the use of alcohol and the setting in which it was consumed. Students claimed they were uncomfortable with the overconsumption of alcohol, and some stated they would not attend an event if there was alcohol present. To investigate this theme, two items on a scale from 1 (Strongly Disagree) – 9 (Strongly Agree) were created: “Over consumption of alcohol by my friends makes me uncomfortable when I am out with them” and “I will not attend an even if there is alcohol present in the same venue). These items were measured against a student’s region of origin and religion.

Students from Ireland were less uncomfortable with the overconsumption of alcohol by their friends (2.1 vs 4.4 p=0.0042) than students from North America, Middle East, and the Far East (Table 5.5). Additionally, students from the Middle East (3.2 p=0.003) and Malaysia (3.2 p=0.003) were the most likely groups not attend an event if there was alcohol present (Table 5.5).
In terms of religion, students that practised Islam were the most uncomfortable with their friends overconsuming alcohol (5.4 vs 2.8 p=0.001) and were most likely not to attend an event if there was alcohol present (3.1 vs 1.5 p<0.0001) (Table 5.5)

Table 5.5: Feelings towards alcohol by Region of Origin and Religion

<table>
<thead>
<tr>
<th>Variable being examined</th>
<th>Overconsumption of alcohol makes me uncomfortable</th>
<th>I will not attend an event if there is alcohol present</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region of Origin</strong></td>
<td>Mean</td>
<td>p Value</td>
</tr>
<tr>
<td>Ireland</td>
<td>2.1</td>
<td>Base</td>
</tr>
<tr>
<td>North America</td>
<td>5.0</td>
<td>0.002a</td>
</tr>
<tr>
<td>Middle East</td>
<td>5.5</td>
<td>&lt;0.001a</td>
</tr>
<tr>
<td>Far East</td>
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<td>0.007a</td>
</tr>
<tr>
<td>Other</td>
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<td>0.578</td>
</tr>
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<td><strong>Religion</strong></td>
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<td></td>
</tr>
<tr>
<td>Christianity</td>
<td>3.4</td>
<td>Base</td>
</tr>
<tr>
<td>Islam</td>
<td>5.4</td>
<td>0.005</td>
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<td>2.3</td>
<td>0.626</td>
</tr>
<tr>
<td>None</td>
<td>2.05</td>
<td>0.305</td>
</tr>
</tbody>
</table>

a – denotes statistically significant values. Statistical significance calculated using Ordered logistic regression.

5.3.1.2 Cultural peer pressure

Some of the key informants theorized that the reason for the low social adjustment of Middle Eastern students was due to the pressure they faced from members of their own cultural group to not assimilate into the host culture. To ascertain the degree to which students were affected by cultural peer pressure, they were asked to rate the following statements on a scale from 1 (Strongly Disagree) – 9 (Strongly Agree): “I would prefer if there were fewer of my own nationality in the class” and “It is against my culture to mix/be friends with the opposite sex.” These items were measured against a student’s region of origin and religion.

Students from the Middle East preferred fewer of their own nationality in the class compared to students from all other regions (4.4 vs 2.9 p=0.0162). These students also stated that it was against their culture to mix or be friends with people of the opposite sex (3.7 vs 1.7 p<0.0001). The same trend can be seen with students who practised Islam (4.3 vs 2.6 p<0.0018 and 3.2 vs 1.5 p<0.0001.
respectively) (Table 5.1). Students from the Far East also stated they could not mix/be friends with the opposite sex. However, this only reached statistical significance when compared to Irish students and did not reach statistical significance when compared to students from all regions.
Table 5.6: Cultural peer pressure by Region of Origin and Religion

<table>
<thead>
<tr>
<th>Variable being explored</th>
<th>Prefer fewer of my own nationality in class</th>
<th>Against my culture to mix/befriends with opposite sex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region of Origin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>2.2  Base</td>
<td>1.5  Base</td>
</tr>
<tr>
<td>North America</td>
<td>4.0  0.096</td>
<td>1.5  0.911</td>
</tr>
<tr>
<td>Middle East</td>
<td>4.4  0.017(^a)</td>
<td>3.7  0.001(^a)</td>
</tr>
<tr>
<td>Far East</td>
<td>4.1  0.070</td>
<td>2.5  0.017(^a)</td>
</tr>
<tr>
<td>Other</td>
<td>1.7  0.145</td>
<td>1.4  0.748</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christianity</td>
<td>2.3  Base</td>
<td>1.9  Base</td>
</tr>
<tr>
<td>Islam</td>
<td>4.3  &lt;0.001(^a)</td>
<td>3.2  0.004(^a)</td>
</tr>
<tr>
<td>Other</td>
<td>2.3  0.900</td>
<td>1.0  0.995</td>
</tr>
<tr>
<td>None</td>
<td>3.1  0.119</td>
<td>1.0  0.991</td>
</tr>
</tbody>
</table>

\(^a\) – denotes statistically significant values. Statistical significance calculated using Ordered logistic regression.
5.3.1.3 Lack of motivation to become a doctor

In the qualitative arm of the study, key informants stated that students who lacked the motivation to become a doctor struggled the most. To ascertain a student’s motivation to become a doctor, a four-item scale was created that revolved around the importance and value of a medical degree, their motivation to study, and their feelings regarding their decision to go to medical school. Students were asked to rate their level of agreement with a statement on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). A “not applicable” (N/A) option was provided for students who could not appropriately answer the question. This scale was calculated against region of origin. Irish students had the highest levels of motivation to become a doctor (7.3 vs 6.6 p=0.0047) (Figure 5.7). Although Middle Eastern students were the least motivated of all the groups, this value only reached statistical significance when they were compared to Irish students (6.7 vs 7.3 p=0.005), and did not reach statistical significance when compared to students from all regions.

![Figure 5.7: Motivation levels by Region of Origin](image_url)
5.3.2 Academic challenges

Various themes revolving around academic challenges were generated from the qualitative arm of the study. The ones explored further in the quantitative study were: a student’s ability to practice their religious beliefs, discrimination, communication challenges, and issues with peripheral rotations.

5.3.2.1 Ability to practice religious beliefs

To understand more about a student’s ability to practice their religion, they were asked to rate four-items on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). These items revolved around the degree to which RCSI facilitated the practice of their religion, facilities available for the practice of their religion, and how comfortable they were with their choice of clothing in the operating theatre (OT) and the wards. These items were compared between students that practised Islam and students that practised all other religions.

Students that practised Islam felt that they were better facilitated by RCSI in the practice of their religion than students that practised other religions (7.7 vs 6.8 p=0.2407). However this was not statistically significant (Table 5.7). Of statistical significance, students who practised Islam felt less comfortable about the clothing requirements in the operating theatre (7.6 vs 8.6 p<0.0001) and on the wards (8.0 vs 8.7 p=0.002) compared to students who practice other religions (Table 5.7).

<table>
<thead>
<tr>
<th>Table 5.7: Ability to practice religious beliefs - Islam vs Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Islam</strong> (Mean)</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>RCSI facilitates practice</td>
</tr>
<tr>
<td>Facilities are available</td>
</tr>
<tr>
<td>Comfortable with OT attire</td>
</tr>
<tr>
<td>Comfortable with Ward attire</td>
</tr>
</tbody>
</table>

\(^a\) – denotes statistically significant values. Statistical significance calculated using ranksum.
5.3.2.2 Discrimination

In the qualitative arm of this study, students talked about their experiences with discrimination and the various settings in which they were discriminated against. Students mainly focused on the discrimination they faced in the academic setting and its impact on their academics. However, the quantitative arm of this study only explored whether or not a student was discriminated against and did not explore the setting in which the discrimination occurred. The author felt that trying to ascertain the setting in which the discrimination occurred would have unnecessarily complicated the item in the questionnaire and would not have yielded any useful data. To quantify the number of students that were discriminated against, the following item was included in the questionnaire: During your time in Ireland, have you been discriminated against?

While students from all groups felt that they were discriminated against at some point during their time in Ireland, students from the Middle East and the Far East experienced the most discrimination (Figure 5.8). Additionally, the social adjustment of students that were discriminated against was lower than students that were not discriminated against (6.01 vs 6.72; p<0.0201)

![Figure 5.8: Discrimination during their time in Ireland](image)
5.3.2.3 Communication Challenges

A dominant theme that arose from the quantitative analysis was communication difficulties students faced in the clinical setting. To explore this theme, a student’s perceived difficulty in communication was calculated using five items which revolved around their confidence in using English in the academic and social setting, their unfamiliarity with Irish culture and slang, and whether or not they felt confident asking patient or staff to rephrase themselves. Students were asked to rate their level of agreement with these statements on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). A “not applicable” (N/A) option was provided for students who could not appropriately answer the question.

Students that spoke Arabic or Malay spoke a language other than English most of the time growing up, attended a second level school, not in English, and spoke a language other than English most of the time off campus, reported lower levels across all domains (Table 5.8).

![Table 5.8: Communication challenges by use of language](image)

<table>
<thead>
<tr>
<th>Variable being Analyzed</th>
<th>Confidence with Academic English</th>
<th>Confidence with Social English</th>
<th>Confident asking patients to rephrase</th>
<th>Confident asking staff to rephrase</th>
<th>Communication trouble because of culture and slang</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>p</td>
<td>Mean</td>
<td>p</td>
<td>Mean</td>
</tr>
<tr>
<td>Mother tongue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>9.0</td>
<td>Base</td>
<td>9.0</td>
<td>Base</td>
<td>8.6</td>
</tr>
<tr>
<td>Arabic</td>
<td>8.0</td>
<td>0.988</td>
<td>7.7</td>
<td>&lt;0.001*</td>
<td>8.0</td>
</tr>
<tr>
<td>Malay</td>
<td>7.9</td>
<td>0.987</td>
<td>7.7</td>
<td>&lt;0.001*</td>
<td>7.8</td>
</tr>
<tr>
<td>Other</td>
<td>8.0</td>
<td>0.989</td>
<td>8.3</td>
<td>0.153</td>
<td>7.9</td>
</tr>
<tr>
<td>Language growing up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>8.9</td>
<td>&lt;0.001*</td>
<td>8.9</td>
<td>&lt;0.001*</td>
<td>8.6</td>
</tr>
<tr>
<td>Non-English</td>
<td>8.0</td>
<td>7.7</td>
<td>7.9</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Language of second level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>8.8</td>
<td>&lt;0.001*</td>
<td>8.8</td>
<td>&lt;0.001*</td>
<td>8.4</td>
</tr>
<tr>
<td>Non-English</td>
<td>7.8</td>
<td>7.3</td>
<td>7.9</td>
<td>6.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Language off campus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>8.5</td>
<td>&lt;0.001*</td>
<td>8.6</td>
<td>&lt;0.001*</td>
<td>8.4</td>
</tr>
<tr>
<td>Non-English</td>
<td>8.0</td>
<td>8.2</td>
<td>8.1</td>
<td>7.1</td>
<td>7.1</td>
</tr>
</tbody>
</table>

* – denotes statistically significant values. Statistical significance calculated using Ordered logistic regression and Wilcoxon rank sum test.
Another theme that arose from the quantitative analysis regarding communication challenges was a student’s lack of comfort with shaking hands with and examining patients of the opposite sex. This theme was explored by asking students to rate these two items on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). A “not applicable” (N/A) option was provided for students who could not appropriately answer the question.

Students that practised Islam felt less comfortable shaking hands with (8.1 vs 8.9 p=0.027) and examining patients of the opposite sex (7.9 vs 8.7 p=0.021).

Table 5.9: Comfortable shaking hands and examining patients of the opposite sex by Religion

<table>
<thead>
<tr>
<th>Religion</th>
<th>Comfortable shaking hands with patients of opposite sex</th>
<th>Comfortable examining patients of opposite sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christianity</td>
<td>Mean 8.9, 95% CI 8.8 – 9.0, pValue Baseline</td>
<td>Mean 8.8, 95% CI 8.6 – 8.9, pValue Baseline</td>
</tr>
<tr>
<td>Islam</td>
<td>Mean 8.1, 95% CI 7.6 – 8.6, pValue 0.027&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Mean 7.9, 95% CI 7.4 – 8.4, pValue 0.021&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Other</td>
<td>Mean 9.0, 95% CI 9.0 – 9.0, pValue 0.990</td>
<td>Mean 8.6, 95% CI 7.7 – 9.4, pValue 0.832</td>
</tr>
<tr>
<td>None</td>
<td>Mean 8.6, 95% CI 7.9 – 9.3, pValue 0.944</td>
<td>Mean 8.2, 95% CI 7.5 – 9.0, pValue 0.321</td>
</tr>
</tbody>
</table>

<sup>a</sup> – denotes statistically significant values. Statistical significance calculated using Ordered logistic regression.
5.3.2.4 Peripherals
Students claimed that one of the most challenging aspects of their education involved peripheral rotations. Students were asked to rate on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree) how positively they were affected by various aspects of peripheral rotations such as new travel partners, B&B living arrangements, transport to peripheral sites, and access to food of their choice. This was calculated against nationality, mother tongue, and medical programme the student started in.

The factors that students rated the least positive are access to food (4.6 out of 9; 95% CI: 4.1 – 5.2) and travel to the peripheral site (4.7 out of 9; 95% CI: 4.1 – 5.2). Having new travel partners had the best positive effect (5.7 out of 9; 95% CI: 5.2 – 6.2). However, students from North America (4.3 vs 6.0 p=0.0217), and the Far East (4.3 vs 5.9 p=0.0278) rated new travel partners significantly lower than students from other regions. Students in the GEM programme were the least positively affected by travelling to peripheral sites when compared to students from all other programmes (3.1 vs 5.2 p=0.0019)
Table 5.10: Challenges with Peripherals by Religion, Mother Tongue, and Starting Programme

<table>
<thead>
<tr>
<th>Variable</th>
<th>New travel partners</th>
<th>B&amp;B living arrangements</th>
<th>Travel to peripheral site</th>
<th>Access to food</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td>6.2 Base 5.6 Base</td>
<td>4.5 Base 4.8 Base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada/US</td>
<td>4.3 0.013&lt;sup&gt;a&lt;/sup&gt; 4.6 0.295</td>
<td>3.8 0.381 3.6 0.141</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>6.5 0.996 5.0 0.458</td>
<td>5.5 0.210 4.6 0.782</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>4.3 0.019&lt;sup&gt;a&lt;/sup&gt; 5.4 0.848</td>
<td>5.6 0.278 5.2 0.662</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>6.3 0.904 5.9 0.874</td>
<td>3.9 0.603 5.5 0.459</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mother tongue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>5.7 Base 5.3 Base</td>
<td>4.1 Base 4.3 Base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arabic</td>
<td>6.3 0.449 5.1 0.677</td>
<td>5.5 0.037&lt;sup&gt;a&lt;/sup&gt; 4.6 0.703</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>4.5 0.177 5.9 0.555</td>
<td>6.4 0.020&lt;sup&gt;a&lt;/sup&gt; 6.4 0.035</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>5.4 0.716 4.4 0.321</td>
<td>3.4 0.445 4.2 0.834</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Starting programme</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-Year</td>
<td>6.0 Base 5.7 Base</td>
<td>5.3 Base 4.8 Base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-Year</td>
<td>5.4 0.361 4.4 0.092&lt;sup&gt;a&lt;/sup&gt; 4.4 0.245</td>
<td>3.9 0.201</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEM</td>
<td>4.8 0.076&lt;sup&gt;a&lt;/sup&gt; 4.8 0.190</td>
<td>3.1 0.002&lt;sup&gt;a&lt;/sup&gt; 4.7 0.832</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCP (Tralee)</td>
<td>6.8 0.378 6.1 0.643</td>
<td>6.0 0.270 5.2 0.686</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5.7 (5.2 – 6.2) 5.2 (4.7 – 5.8)</td>
<td>4.7 (4.1 – 5.2) 4.6 (4.1 – 5.2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> – denotes statistically significant values. Statistical significance calculated using Ordered logistic regression.
5.3.2.5 Other findings in academic challenges of interest.

To discern the effects the large student body had on a student’s education, they were asked to rate four items on a scale of 1 (Strongly Disagree) – 9 (Strongly Agree). The mean rating for these items was as follows: clear expectations from each rotation 4.9 (4.4 – 5.4), positively affected by student volume 5.0 (4.5 – 5.5), clinical years well-structured 5.3 (4.8 – 5.8), adequate feedback received 5.6 (5.2 – 6.2).

A number of other qualitative findings were explored in the quantitative analysis, but these largely were not found to be statistically significant. There was no statistically significant difference between the groups when it came to public transportation and attention received from the clinical staff. All groups found public transport to be challenging, giving it a mean score of about 5.5 (95%CI: 4.9 – 6.1) and all students rated the attention they received from clinical staff as 4.8 (95% CI: 4.3 – 5.3) implying that students do not get much attention from the clinical staff.
5.3.4 Coping

A common theme that arose from the qualitative discussion was that RCSI support structures were poorly utilised, and when they were, they were poorly regarded. To understand more about students’ perception of RCSI support structures, they were asked whether or not they heard of a support structure. If they heard of a support structure, they were asked whether or not they used it, and if they did to rate it on a scale from 1 (Very dissatisfied) – 9 (Very satisfied).

The support structures that scored the lowest were Career Advice (5; 95%CI: 3.8 – 6.2) followed by the Student Academic and Regulatory Affairs (SARA) office in Beaumont (5.1; 95%CI: 4.6 – 5.7), and then the Student Welfare Officers (5.2; 95%CI: 4.2 – 6.3) (Table 5.11). There was no statistically significant difference between students from different nationalities.

Table 5.11: Use and Rating of RCSI Support Structures

<table>
<thead>
<tr>
<th>RCSI Support Structure</th>
<th>Number of students used/number of students heard</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Success Officer</td>
<td>1/5</td>
<td>9</td>
<td>9 – 9</td>
</tr>
<tr>
<td>Accommodation service</td>
<td>33/48</td>
<td>6.6</td>
<td>5.9 – 7.3</td>
</tr>
<tr>
<td>Chaplaincy</td>
<td>9/48</td>
<td>5.9</td>
<td>3.4 – 8.4</td>
</tr>
<tr>
<td>College counselling service</td>
<td>14/47</td>
<td>6.1</td>
<td>4.4 – 7.9</td>
</tr>
<tr>
<td>Niteline</td>
<td>4/69</td>
<td>7</td>
<td>4.4 – 9.6</td>
</tr>
<tr>
<td>Online Support material</td>
<td>19/35</td>
<td>6.5</td>
<td>5.5 – 7.5</td>
</tr>
<tr>
<td>Psychiatric service</td>
<td>9/17</td>
<td>7.3</td>
<td>6.3 – 8.3</td>
</tr>
<tr>
<td>SARA SSG</td>
<td>77/83</td>
<td>6.0</td>
<td>5.6 – 6.4</td>
</tr>
<tr>
<td>SARA Beaumont</td>
<td>81/83</td>
<td>5.1</td>
<td>4.6 – 5.7</td>
</tr>
<tr>
<td>Mercer Medical Centre</td>
<td>83/84</td>
<td>7.2</td>
<td>6.8 – 7.6</td>
</tr>
<tr>
<td>Career Advice</td>
<td>19/39</td>
<td>5</td>
<td>3.8 – 6.2</td>
</tr>
<tr>
<td>Student Engagement office</td>
<td>2/11</td>
<td>5.5</td>
<td>5 – 6</td>
</tr>
<tr>
<td>Student Services</td>
<td>64/80</td>
<td>6.3</td>
<td>5.9 – 6.8</td>
</tr>
<tr>
<td>Student Welfare Officers</td>
<td>31/67</td>
<td>5.2</td>
<td>4.2 – 6.3</td>
</tr>
</tbody>
</table>
5.4 Summary of findings

Students from the Middle East (p = 0.010), the Far East (p = 0.043), those who attended a second level school in another language (p = 0.021) had lower levels of support from their family and friends. North American students (p=0.0382) had the highest ratings of social life and students from Ireland (p=0.0016) were the most socially adjusted. Middle Eastern students had the lowest level of social adjustment (p<0.0001). Students that spoke Arabic (p<0.0001) as a first language, that did not speak English growing up (p<0.001), that did not attend a second level school in English (p=0.0002), and that spoke a language other than English most of the time off campus (p=0.0014) had lower levels of social adjustment than their English-speaking counterparts.

Students from Ireland were the least uncomfortable with the overconsumption of alcohol by their friends (p=0.0042, and, students from the Middle East (p=0.003) and Malaysia (p=0.003) were the most likely groups not to attend an event if there was alcohol present. Students from the Middle East preferred fewer of their own nationality in the class (p=0.0162) and also stated that it was against their culture to mix or be friends with people from the opposite sex (p<0.0001). The same trend can be seen in students who practised Islam (p<0.0018 and p<0.0001 respectively). Students who practised Islam also felt less comfortable about the clothing requirements in the operating theatre (p<0.0001) and on the wards (p=0.002) and felt less comfortable shaking hands with (p=0.027) and examining patients of the opposite sex (p=0.021).

Regarding challenges with communication, students that spoke Arabic or Malay, spoke a language other than English most of the time growing up, attended a second level school, not in English, and spoke a language other than English most of the time off campus, reported lower levels across all domains.

Regarding travel to peripheral sites, North American students (p=0.0217), and students from the Far East (p=0.0278) rated new travel partners significantly lower than students from other regions.
Chapter 6 – Discussion

Numerous studies show that students who travel abroad for higher level education have difficulty transitioning into and adjusting to the host culture and a new academic environment (16, 17, 21, 23, 59). However, there is a dearth of information on the adjustment of sojourning medical students, especially those in the clinical years of their education, to the host culture. A study by McGarvey et al. (16, 17) in the Royal College of Surgeons in Ireland (RCSI) explored the cultural challenges and adjustment of international medical students during the preclinical years, i.e. classroom and lecture-based, years of their education. As educational institutions work to ensure appropriate supports, both academic and pastoral, for international students, it is essential that we understand the challenges faced by these students. It was hypothesized that cultural challenges would evolve as students transitioned from the preclinical programme into the clinical programme, and, likewise, their adjustment to the host culture and the academic environment will be impacted. This study built on McGarvey et al.’s (16, 17) research by conducting a similar study on RCSI students in the clinical years of their education. It endeavoured to explore the challenges students face when transitioning into the clinical environment and to make recommendations on potential support structures.

This chapter will discuss the findings of the qualitative and the quantitative arms of the study and how they relate to the findings in the literature review. The topics of discussion are:

1. Transition experiences being largely negative
2. Social adjustment and factors that affect it
3. Communication challenges in the clinical setting
4. Peripheral rotations
5. Motivation to become a doctor
6. ELT model
6.1 Transition experiences being largely negative

Interviewees and members of the focus group discussion reported that students had more negative daily life transitions than positives ones (Figure 4.1). Some of the negative daily life transitions arose as a result of the clinical year. Since clinical rotations occur in various hospitals all over Ireland, students had to travel to peripheral sites where they were unable to understand the accent and slang of the locals. The logistics of travelling to and from the different hospitals also occurred as a result of the clinical years. Other negative daily life transitions, such as the lack of integration with host students and discrimination, would occur whether a not a student was in their clinical year.

One reason why all the daily life transitions reported were negative could be because students were interviewed during their final year of medical school. Final year students are under stress all year round as they try to juggle their busy clinical schedules, study for exams, decide on future jobs and pack up to leave to Ireland. Therefore, students may have been more likely to report only the negatives of their daily living. Additionally, due to the topic of the study, the questions asked by the interviewers, and the way in which the interview was conducted may have lead the interviewees to focus only on negative life transitions.

6.2 Social Adjustment and factors that affect it

This study found that students from Ireland were the most socially adjusted (p=0.0016), and students from the Middle East were the least socially adjusted (p<0.0001). McGarvey et al.’s (17) study on preclinical students in RCSI also found that Middle Eastern students were the least social adjusted (p<0.001) group. Additionally, students from the Far East were significantly less socially adjusted than students from Ireland (p<0.011), but, they were better adjusted than Middle Eastern students. Students that were from a culture that shared cultural similarities with the Irish culture (North American students) were the second highest socially adjusted group. This gives credence to the behaviour arm of the ABC model, which states that prior knowledge of the host culture, competence in the language of the host culture, and cultural distance between
the home and the host country play a role in the adjustment of students to the host culture (18).

Additionally, despite spending longer in Ireland, students in the 6-year programme (p=0.0017) and those that entered RCSI via the MCP Tralee route (p=0.0255) had lower levels of social adjustment when compared to students in the 5-year programme and the GEM programme. The social adjustment of MCP Tralee students can be explained by their regional distribution since 100% (15/15) of them are from the Middle East. However, the social adjustment of students in the 6-year programme was significantly lower (p=0.0046) than students from all other programmes even when accounting for region of origin. The reason for the low social adjustment amongst students in the 6-year program warrants further investigation as it appears to be independent of cultural backgrounds.

An important aspect to consider when explaining these social adjustment findings is religion. It is often hard to distinguish between culture and religion as the line that separates the two is not well demarcated in certain cultures. This intimate relationship between culture and religion can be seen in our study – all of the students from the Middle East practised Islam. Students that practised Islam were the least socially adjusted compared to students that practised all other religions, or that did not practice any religion at all (p=0.0001). Although the literature does not speak specifically about the challenges of Middle Eastern students or students that practised Islam, it does inform us of challenges faced by international students, which helps us shed light on possible reasons for the low social adjustment of Middle Eastern students.

6.1.1 Challenges with integrating into the host culture
One explanation for the low levels of social adjustment students could be due to the challenges with integrating into the host culture. Huhn et al. (35) reported that host students placed the onus on international students to foster friendships with host students, and Selleger et al.(36) also reported similar findings where members of both groups (host students and international students) blamed the other group for their lack of accessibility. Treloar et al. (33) found that
international students felt isolated and had a hard time integrating into the host
culture since students from the host culture ‘did their own thing’ (p.712), Malau-Aduli (34) stated that international students might not want to attend social
activities of the host culture since it frequently involves the consumption of large
quantities of alcohol, and, one of the students in McGarvey et al.’s (17) study
was called boring for not going to a club. These findings were resonated in the
quantitative arm of this study which found that students from the Middle East
(p<0.001) and the Far East (p=0.007) were the most likely not to attend an
event if there was alcohol present. All of the students from the Middle East
(100%) and most of the students from the Far East (75%) practised Islam.
Students that practised Islam were the most uncomfortable with their friends
overconsuming alcohol (p=0.001), and, were also the most likely not to attend
an event if there was alcohol present (p<0.0001). Therefore, this negative
disposition towards alcohol – shared by students from all regions except Ireland
– likely has cultural undertones, and, the practice of Islam can be implicated as
a reason for the lack of attendance by certain cultural groups during social
events. The inability to partake in these types of social activity could explain the
low levels of social adjustment seen in Middle Eastern and Far Eastern
students.

Nevertheless, even though students that practiced Islam were less likely to
attend events that served alcohol, these students disagreed more than they
agreed with the statement “I will not attend an event if there is alcohol present”
(3.1 [1 – Strongly Disagree to 9 – Strongly Agree]; 95%CI:2.3 – 3.9). Therefore,
while there was a statistically significant difference between students that
practised Islam and students that practised other religions or no religion at all,
the impact of alcohol on preventing students that practised Islam from attending
events should be considered. Additionally, Middle Eastern students and
students that practised Islam stated that it was against their culture to mix or be
friends with people from the opposite sex (p<0.0001). These cultural beliefs
would make cultural integration in Ireland more challenging.

As was stated in interviews with key informants, students from conservative
cultural backgrounds do not integrate into the host culture as they fear the
possible repercussions – which may include being ostracized by members of their community. Therefore, it is hypothesized that students from these cultural and religious backgrounds would be able to better integrate into the host culture if there were fewer students in the class that shared their cultural background. In the quantitative arm of this study, students from the Middle East (p=0.0162) and students that practised Islam (p<0.0018) preferred fewer of their own nationality in the class compared to students from all other regions, and that practised all other religions. Nevertheless, the reason for this finding needs to be explored further.

6.1.2 Discrimination

Discrimination against students from certain cultural backgrounds could explain the low levels of social adjustment. Students reported experiencing discrimination from the members of staff, patients, peers, and the general public.

Staff

Selleger et al. (36) found that both western and non-western students felt that educators preferred students that belonged to the host culture and felt educators did less for them than they did for the host students. Treloar et al. (33) found that both international students and host students felt that discrimination by faculty members was directed towards those with poor English fluency and those that did not have a western accent. Students in the qualitative arm of the study reported that discrimination by staff members was targeted towards students that had a poor command of English and were not as warm to students from different cultural backgrounds. In the quantitative arm of this study, students rated the warmness of staff to students that were from different cultural backgrounds a 5.6 out of 9 (95%CI: 5.1 – 6.0). However, this value should be interpreted with caution as students were not asked about the perceived disposition of staff towards students that belong to the host culture. It is likely that staff are also not warm to students from the host culture because, as stated in the qualitative analysis, the hierarchy of the medical system in Ireland results in the students experiencing a lack of attention from the clinical staff, and ridicule from the clinical staff. This was confirmed in the quantitative
findings in which students rated the level of interest expressed by staff a 4.8 out of 9 (95% CI: 4.3 – 5.3). Additionally, the qualitative analysis concluded that this issue is limited to Ireland, stating that the hospital structure in Ireland calls for medical students to adopt a more observatory role

**Patients**

Students in Treloar et al.’s (33) study stated that patients demonstrated racism towards international students when they refused to be examined by international students. In the qualitative arm of the study, students felt that patients discriminated against international students. Students hypothesized that patients did not want to open up to students that were not Irish because they thought that these students were just here to get a medical education. In the quantitative arm of this study, students rated the warmness of patients to students that were from different cultural backgrounds a 6.0 (95%CI:5.6 – 6.4). As with the staff, this value should be interpreted with caution as students were not asked about the perceived disposition of patients towards students that belong to the host culture.

**Peers**

One of the international students in Treloar et al.’s study (33) felt that the students from the host culture were prejudiced towards them because the host students believed that international students were forced into medicine and fell short of the host students’ expectations of a medical student. This really bothered one of the international students and ‘resulted in a conscious effort to isolate [themselves]’ (p.713). Huhn et al. (35) also found that host students might be ‘prejudiced towards them due to their migration background’ (p.6). Nevertheless, these themes did not arise in the qualitative arm of this study and were consequently not explored in the quantitative arm of this study.

**Public**

Discrimination also occurred outside the hospital and clinical setting. Malau-Aduli (34) found that students, while they did not feel discriminated against in the teaching environment, faced varying degrees of discrimination from the public which affected their integration into the host culture. McGarvey et al. (17)
reported similar findings where students did not experience discrimination in college but could recount instances where their international peers had been discriminated against in public. In the qualitative arm of the study, a student from Bahrain felt that she would have been discriminated against in certain situations if she adhered to cultural norms by wearing a headscarf. This was explored further in the quantitative arm of this study. Most of the students from the Middle East (59%) and the Far East (71%) were discriminated against at some point during their time in Ireland. Interestingly, students that were discriminated against were less social adjusted than students that were not discriminated against (p<0.0201).

6.1.3 Challenges with Language
According to Malau-Aduli (34) competence in the host country’s language is ‘at the centre of the acculturation process’ (p.8). as it enables successful communication which is vital to integration and adaptation. Huhn et al.(35) and O’Reilly et al.(37) found that some international students felt that they had a hard time integrating with students from the host culture because of the language barrier, and unfamiliarity with cultural scripts for specific situations. Treloar et al. (33) and Malau-Aduli (34) found that even though international students felt that they were proficient in their use of English, they had difficulty understanding and synthesizing spoken English and had difficulty interpreting the host citizen’s accents. Malau-Aduli (34) and Huhn et al. (35) concluded that these language difficulties could serve as a communication barrier for international students with some international students attributing their poor command of conversational English to the fact that students from the host culture did not want to befriend them. Huhn et al. (35) further stated that these communication problems and the increased workload that international students face due to the lack of mastery of the host language could lead to social withdrawal. Contrary to the aforementioned studies, Henning et al. (20) hypothesized that the lower quality of life of international students in their study was not attributable to language. However, it is of note that this was just a hypothesize as these authors did not explore this relationship.
In the qualitative arm of the study, international students from Malaysia and Trinidad and Tobago reported that they had a hard time integrating into the host culture because they were unable to understand accents, word choice, and content of conversation material. These themes were further explored in the quantitative arm of the study which found that students that spoke Arabic (p<0.0001), spoke a language other than English growing up (p<0.001), spoke a language other than English most of the time off campus (p=0.0014), and who did not attend a second level school in English had lower levels of social adjustment than their English-speaking counterparts. 97% (36/37) of students that spoke Arabic, 57% (31/54) of the students that spoke a language other than English growing up, 56% (27/48) of the students that spoke a language other than English most of the time off campus, and 73% (19/26) of students that did not attend a second level school in English were from the Middle East.

6.3 Communication challenges in the clinical setting
A student's mastery of English can have implications beyond just social adjustment. O'Reilly et al. (37) found that culturally diverse students faced a lot of challenges with communication when working in a clinical setting due to the social nature of the work. In the qualitative arm of the study, key informants that were interviewed identified the infrequent use of English for being the main cause of the communication challenges. The FGD confirmed findings in the qualitative arm of the study where students stated that they had a hard time using social English but felt proficient in their use of academic English.

In the quantitative arm of this study, students whose mother tongue was either Arabic or Malay had less confidence in their use of English in the social setting (p<0.001) when compared to students whose mother tongue was English. Students that spoke a language other than English at home growing up (p<0.001), attended a second level school that was not in English (p<0.001), and spoke a language other than English most of the time off campus (p<0.001) reported less confidence in their use of both academic and social English. Additionally, of significance, students whose mother tongue was not English, spoke a language other than English at home growing up, attended a second level school that was not in English, and spoke a language other than English
most of the time off campus also reported less confidence asking both staff and patients to rephrase themselves, and faced more communication difficulties attributed to a lack of understanding of the host culture and slang (p values shown in Figure 5.8).

As stated by one of the key informants in the qualitative arm of the study, students from some cultural backgrounds experience difficulty in exchanging greetings as per the customs of the host culture. The quantitative arm of the study found that Students who practice Islam felt less comfortable shaking hands with (p=0.027) and examining patients (p=0.021) of the opposite sex than students that practised Christianity. Even though this difference was statistically significant, there was only a marginal difference between students that practiced Islam and those that practiced Christianity and both domains were highly rated by students that practiced Islam (Shaking hands: 8.1 [95%CI: 7.6 – 8.6], Examining patients: 7.9 [95%CI: 7.4 – 8.4]). The effects of religion on students expand beyond just patient communication; it also affects clothing styles of students from certain cultural backgrounds.

One of the key informants stated that challenges students that practised Islam faced in the clinical environment related to clothing restrictions imposed on medical students, doctors, and all other healthcare staff. For infection control and disease prevention reasons, all hospitals in Ireland employ a bare below the elbow rule while on the wards. Clothing restrictions extend to the operating theatre (OT), where students are not allowed to wear head scarfs. However, these students were provided with an alternative headgear in the OT. Due to the customs of students that practice Islam, that require them to cover their arms and hair at all times, these students felt less comfortable with their choice of clothing on the wards (p=0.002) and in the OT (p<0.0001) when compared to students that practiced other religions or no religion at all. Students who practised Islam would have felt comfortable with the clothing requirements of an Irish hospital given the time they spent in the operating theatre or on wards at this stage (~ two years) in their education. As with the impact of alcohol on attending social events, although there was a statistically significant difference
between practitioners of different religions, students that practised Islam still rated these domains highly (OT: 7.6 [95%CI: 7.0 – 8.2]; Ward: 8.0 [7.6 – 8.5]).

6.4 Peripheral rotations
Overall, students rated the various aspects of their clinical placements outside of the primary teaching hospitals in the capital city (peripheral placement) fairly low. Of significance, students from North America (p=0.0217), and the Far East (4.3 vs 5.9 p=0.0278) rated having new travel partners significantly lower when compared to students from other regions. This is probably because students from North America and the Far East are a fairly close-knit group, and have already formed study groups. Since these students prioritize their academics, it is likely they prefer being able to choose their travel partners. To facilitate inter-student communication, RCSI does not allow students to pick their partners for peripheral rotations.

In terms of the logistics involved in travelling to peripherals, GEM students rated this lower than students from all other programmes (p=0.0019). Majority of the GEM students come from North America, are older and likely had access to a car while they resided in their home country. Due to the high insurance rates for international students, it becomes financially impractical to own a car. Therefore, it can be argued that GEM students have a harder time with travelling to the peripheral location because they do not have access to the convenience they are used to.

6.5 Motivation to become a doctor
In the qualitative arm of the study, key informants stated that students who lacked the motivation to become a doctor struggled the most. Irish students had the highest levels of motivation to become a doctor (p=0.0047). Middle Eastern students were the least motivated to become a doctor when compared to Irish students (p=0.005). Anecdotes state that being a doctor in Ireland is not as highly regarded, prestigious, or lucrative as it is in other parts of the world. As such, Irish students that enter medical school would more likely do so to become doctors as opposed to gain prestige or money. However, the decreased motivation to become a doctor can also be due to low social
adjustment. Treloar et al. (33) concluded that several international participants experienced an increased level of happiness and motivation to learn once they began meeting and engaging in social activities with host students. Based on this, it is likely that students from the Middle East from all cultures in general, would experience high motivation to become a doctor if they were better socially adjusted.

6.6 ELT Model
The ELT model looks at the relationship between a student’s academic transition and their daily life transition when integrating into a new environment. The ELT model proposes that transitions in these domains can be either positive or negative and this can affect their overall impact on the sojourners. Positive transitions can act as a buffer to negative transitions. However, if the negative transitions are too overpowering and difficult to cope with, the students will not even feel the effects of a positive transition and might even side-line their academics (31).

It was hypothesized that these transitions would evolve as sojourners journey through medical school, particularly between the pre-clinical and the clinical years of their education. Challenges pre-clinical students face would include sourcing specific food, finding spaces to practice religion, and adjusting to a new learning styles; and, clinical students might face different challenges which include being unable to communicate appropriately with patients from the host culture, transportation to and from peripheral sites21, and being unable to have a social life due to the high workload. As in the preclinical years, cultivating and enhancing positive transitions can buffer the effect of the negative transitions on students.

21 During their medical education, students are required to travel to different hospitals and clinicals in rural areas or cities. These rotations are called peripherals as they often occur in locations outside the city of education.
Most of the transitions students faced as they entered the clinical environment appear to revolve around negative academic transitions. Themes that arose were discrimination from staff and patients, language difficulties, trouble with communication in the clinical setting, and travelling to peripheral sites. The only positive academic transition that appeared in the qualitative arm of this study was that students felt that clinical staff facilitated the practice of their religion. Further to this, students also felt a lot of negative daily life transitions. In the qualitative arm of the study, daily life transitions included a lack of integration with the host students, discrimination from the public, and use of English in the social setting. This was slightly different from the daily life transitions that were uncovered in the literature review which revolved around finding accommodation, sourcing ethnic foods, accessing the countries public services and trouble with weather in addition to integrating with host students and discrimination. At this stage in their education, some students will have been in Ireland for up to seven years (students that entered via the MCP Tralee route) and would have likely adapted to the various challenges that revolve around daily life transitions. The only positive daily life transition was that international students were able to find common ground and foster friendships with other international students.

The reason most of the findings are centred around negative academic transitions is that, as stated in the qualitative arm of the study by one of the key informants, students in this stage of their education are mainly concerned with their academic achievement and securing a job after graduation. As stated by Jindal-Snape and Ingram (31) ‘if daily life problems are major… it might distract a student from studying effectively and lead to a downward spiral’ (p.21). For this reason, it is important that the main negative daily life transitions—integrating with host students, discrimination, and challenges with English – be addressed.
Chapter 7 – Conclusion
The final chapter of this thesis will answer the research questions and explore the limitations of this study. It will also talk about the practical and methodological contributions of this research and makes recommendations for changes to the support structures. This chapter concludes by exploring avenues for future research.

7.1 Answering Research Questions
Research Question #1: How do cultural backgrounds impact the challenges and coping mechanisms faced by sojourning medical students in their clinical years and how do these differ from that of the host medical students in the same year?

The main challenges that affect sojourning medical students pertain to integrating with the host students, discrimination, difficulties with language, communication challenges in the clinical setting, challenges with peripheral rotations, and motivation to become a doctor. International students from certain cultural background face challenges when integrating with host students due to the consumption of alcohol during certain social events, befriending members of the opposite sex, and pressure from members of their own culture to not assimilate into the host culture. The challenges that revolve around language and communication mainly stem from an incomplete mastery of English and unfamiliarity with the communication nuances unique to the host culture. Additionally, students that practised Islam were also more uncomfortable shaking hands with and examining patients of the opposite sex. Clothing restrictions imposed by some religions prevent women from exposing their arms, and hair and some of these restrictions cannot be catered for in the hospital setting.

Research Question #2: How, and to what extent, do sojourning medical students in their clinical years adjust to the new environment?

Students that belonged to the host culture (Irish students) were the best socially adjusted, and Middle Eastern students were the least socially adjusted. North American students were the second highest socially adjusted group of students. Additionally, students that spoke Arabic as a first language, that did not speak
English growing up, that did not attend a second level school in English, and that spoke a language other than English most of the time off campus had lower levels of social adjustment than their English-speaking counterparts.

7.2 Limitations of the research
One of the limitations of this study was the use of multiple interviewers. Some of the interviewers explored some topics in detail and extracted plenty of information from the interviewees; others conducted shorter to-the-point interviews. This fits well with the exploratory nature of the qualitative arm of the study, but there was no standardization between the interviews. Since all the same questions were not asked at every interview, the author decided that attempting to analyze the qualitative data quantitatively would not have been a complete or appropriate representation of the student body. Had all the interviewers been instructed to follow a script and ask the same questions, then the information could have been quantitatively analyzed.

Another limitation of the study is that interviewers were asked to recruit interviewees. This was done to improve participation in the qualitative arm of the study. Interviewers were asked to only interview students of the same sex, and, when possible, students who also shared the same cultural background as them. This inevitably leads to interviewers interviewing students in similar social circles. However, even if the interviewers and the interviewees were randomized, it is highly likely that the interviewer and the interviewee would have been in similar friend circles especially when trying to matching for sex and culture. This is because, by this stage in their education, students would have been in the same class as their peers for as long as six years. This familiarity may have prevented students from opening up and sharing information due to the possible impact it might have on their friendships. However, given the nature of the questions and themes the interviewers were asked to explore, it is more likely that the interviewees would have felt more comfortable discussing these topics with friends.
To increase the number of students that completed the questionnaire, a public link to the questionnaire was made available. Prior to this, only 16% of the students attempted the questionnaire despite it being open for three weeks. The link was emailed to the students by a tutor that the SC2 students held in high esteem. This increased the participation in the questionnaire to slightly over 50%. However, this statistic should be interpreted with caution. Since it was not an individualized link, students could have completed the questionnaire multiple times; although this was probably unlikely given the size of the questionnaire and the nature of individuals who would not be inclined to undertake such a survey more than once. Additionally, students could not pause the questionnaire. If they began the questionnaire, stopped halfway through, and wanted to continue at a later time, they would have to start another questionnaire from the beginning. This could possibly have artificially inflated student participation. The questionnaire was extremely long, and it took some students nearly 25 minutes to complete. The questionnaire had a very thorough demographic section (marital status, children, childcare etc.), however, certain demographics were also very too small to yield any statistically significant data. Future studies should aim to have a shorter questionnaire, which would have probably improved student participation.

Most of the limitations pertained to improving student participation. SC2 students tend to focus heavily on their academics, and surveys conducted on SC2 students generally have low response rates (30%). Additionally, the time of year should also be considered. The questionnaire was released one month before SC2 final exams, and there were a few other surveys conducted at the same time on SC2 students.

7.3 Research Contributions
This study employed the use of mixed methodology by initially conducting a qualitative analysis which helped inform the quantitative arm of the study. Findings in the qualitative arm of the study were then confirmed by using a questionnaire (quantitative). Part of the qualitative analysis was obtained using peer interviews. It was hypothesized that peer interviews would put the
participants at ease and would help facilitate a more open discussion surrounding the themes.

The main findings that related to the social adjustment of students in the clinical setting related to integration into the host culture, discrimination faced by staff, patients, and members of the public, mastery of the English language, communication challenges, travel to peripheral sites, and motivation to become a doctor. It is theorized that by addressing these challenges, students will be able to better adjust to the host culture.

7.4 Recommendations
As the research suggests, medical school is a challenging time for host and international students alike. The objective of this research was to assist in the development of possible support structures that can aid students transitioning into clinical environment and adjusting to the host culture. Based on findings in the literature review, the qualitative arm of the study, and the quantitative arm of the study, the following recommendations are being made:

- More proactive support service structure: due to the challenging nature of medical school, it can be assumed that most students will face challenges at some stage in their education. Therefore, as suggested by Treloar et al. (33) the faculty should adopt a more proactive approach to deploying support structures as opposed to a reactive one in which students seek out help in times of need.

- Communication skills development: Students would greatly benefit from help with their communication skills and learning styles. Mandatory communications courses should be added at an early stage of the programme and run as a vertical theme throughout the curriculum, incorporating individual feedback. These courses should also not be limited to international students or those that do not have English as their mother tongue since students from all nationalities would benefit from these courses. Currently, communication skills are taught in the
Foundation Year. These support structures in RCSI are remedial for the remaining years of the medical programme, i.e. students only receive training in communication skills if they fail the communication component of an exam or if they are identified by members of the clinical team as needing help in communication.

- Host more events that cater to students from different cultural backgrounds: To aid with social adjustment, more events that cater to students from all nationalities should be held. This suggestion has been offered in the past with but had little success. There are two reasons for this:
  - Due to the time requirements required to complete the medical programme, only a small portion of students attend social events.
  - Generally speaking, events that do not have alcohol generally do not have a huge turnout.

To aid with student participation, attendance could be made mandatory at social events as part of a communication program. It is up to the SU and designated class rep to host events that cater to all students.

- Making clubs and societies more accessible: Another potential way to improve the social adjustment of sojourning students would be to improve their participation in the clubs and societies of RCSI by making them more accessible to all students. Currently, students are informed of all the clubs and societies in RCSI during “clubs and societies sign up day”. This is a daylong event that occurs on the Wednesday of orientation day, and there are a few problems with this current setup:
  - Orientation week is quite hectic for students from all programs, as some students are still trying to find accommodation while managing the logistics of attending class. As a result, students might not attend clubs and societies sign up day – the only time they have to talk to members and gain information about a club or society.
Currently, members of the different clubs and societies set up booths in the exam hall\textsuperscript{22} in RCSI, and only one member of the club or society is required to be stationed at the booth. Generally speaking, the president and the vice president of the clubs and societies are upper year students who do not man the booths because they are busy with curricular commitments. As a result, often times first-year students and students that are new to the club or society are stationed at these booths.

To improve attendance, clubs and societies sign up day should occur during a time where students have no curricular commitments. This will improve both the attendance of new students. Additionally, the highest-ranking member of each club and society should be in attendance. Prior to starting the day, students should receive a general overview of the different types of clubs and societies offered in RCSI and what to expect by participating. Attendance during this day should also be made mandatory, and all the students should be encouraged to join at least one club or society.

\subsection*{7.5 Future research}

Future research could aim to answer some of the quantitative findings in this study. Mainly, why is the adjustment of students in the 6-year programme lower than students from all other programmes even when accounting for nationality, and why do Middle Eastern students and students that practice Islam want fewer students from their own nationality and practice their religion in the programme?

Another avenue to explore would be the impact of social adjustment on a student’s academic achievement. It is hypothesized that the more socially adjusted a student is, the higher their academic achievement.

\footnotetext[22]{The exam hall is an large room in the RCSI where exams are held.}
References

17. McGarvey A, Brugh R, Conroy RM, Clarke E, Byrne E. International students' experience of a western medical school: a mixed methods study exploring the early years in the context of cultural and social adjustment compared to students from the host country. BMC medical education. 2015;15:13.
Appendix

Appendix A – Search Strategy

1. **Search Terms:**
   1. international* OR acculturation* OR diversity* OR foreign* OR sojourn*
   2. adjust*
   3. challenge* OR hardship* OR coping*
   4. higher education
   5. medical school* OR medical student*
   6. clinical teach* OR clinical placement OR clerkship* OR apprenticeship*

2. **Databases:**

   A. PubMed (Title/Abstract):
      1. – (international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]) – 506616
      2. – adjust*[Title/Abstract] – 470637
      1.+2. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND adjust*[Title/Abstract] – 24970
      3. – ((Challenge*[Title/Abstract] OR Hardship*[Title/Abstract] OR Coping*[Title/Abstract]) – 540021
      1.+3. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND (((Challenge*[Title/Abstract] OR Hardship*[Title/Abstract] OR Coping*[Title/Abstract]))) AND higher education [Title/Abstract] – 24348
      4. – higher education [Title/Abstract] – 9439
      1.+2.+4. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND (((Challenge*[Title/Abstract] OR Hardship*[Title/Abstract] OR Coping*[Title/Abstract]))) AND higher education [Title/Abstract] – 2513
      5. – (medical school*[Title/Abstract]) OR medical student*[Title/Abstract] – 53388
      1.+2.+5. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND adjust*[Title/Abstract] AND (((medical school*[Title/Abstract]) OR medical student*[Title/Abstract])) – 83
      1.+3.+5. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND (((challenge*[Title/Abstract] OR Hardship*[Title/Abstract] OR Coping*[Title/Abstract]))) AND (((medical school*[Title/Abstract]) OR medical student*[Title/Abstract])) – 297
      6. – (clinical teach*[Title/Abstract] OR clinical placement*[Title/Abstract] OR clerkship*[Title/Abstract] OR Apprenticeship*[Title/Abstract]) – 8296
      1.+2.+6. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND adjust*[Title/Abstract] AND (((clinical teach*[Title/Abstract] OR clinical placement*[Title/Abstract] OR clerkship*[Title/Abstract] OR apprenticeship*[Title/Abstract])) – 7
      1.+2.+6.+5. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND
adjust*[Title/Abstract]) AND ((clinical teach*[Title/Abstract] OR clinical placement*[Title/Abstract] OR clerkship*[Title/Abstract] OR apprenticeship*[Title/Abstract])) AND (((medical school*[Title/Abstract]) OR medical student*[Title/Abstract]) – 3
1.+3.+6. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND (((challenge*[Title/Abstract] OR Hardship*[Title/Abstract] OR coping*[Title/Abstract])) AND ((clinical teach*[Title/Abstract] OR clinical placement*[Title/Abstract] OR clerkship*[Title/Abstract] OR Apprenticeship*[Title/Abstract])) – 49
1.+3.+6.+5. – (((international*[Title/Abstract] OR acculturation*[Title/Abstract] OR diversity*[Title/Abstract] OR foreign*[Title/Abstract] OR sojourn*[Title/Abstract]))) AND (((Challenge*[Title/Abstract] OR Hardship*[Title/Abstract] OR Coping*[Title/Abstract]))) AND ((clinical teach*[Title/Abstract] OR clinical placement*[Title/Abstract] OR clerkship*[Title/Abstract] OR Apprenticeship*[Title/Abstract])) AND (((medical school*[Title/Abstract]) OR medical student*[Title/Abstract]) – 18

B. Embase (Title or Abstract):
1. – ‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw – 740851
2. – ‘adjust*’:ti,ab,kw – 649685
1.+2. – (‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw) AND ‘adjust*’:ti,ab,kw – 30014
3. – ‘challenge*’:ti,ab,kw OR ‘hardship*’:ti,ab,kw OR ‘coping*’:ti,ab,kw – 663384
1.+3. – (‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw) AND (‘challenge*’:ti,ab,kw OR ‘hardship*’:ti,ab,kw OR ‘coping*’:ti,ab,kw) – 33715
4. – ‘higher education’:ti,ab,kw – 12245
1.+2.+4. – (‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw) AND (‘adjust*’:ti,ab,kw) AND (‘higher education’:ti,ab,kw) – 82686
1.+3.+4. – (‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw) AND (‘adjust*’:ti,ab,kw) AND (‘higher education’:ti,ab,kw) – 69986
5. – ‘medical school*’:ti,ab,kw OR ‘medical student*’:ti,ab,kw – 66617
1.+2.+5. – (‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw) AND (‘adjust*’:ti,ab,kw) AND (‘medical school*’:ti,ab,kw OR ‘medical student*’:ti,ab,kw) – 112
1.+3.+5. – (‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw) AND (‘challenge*’:ti,ab,kw OR ‘hardship*’:ti,ab,kw OR ‘coping*’:ti,ab,kw) AND (‘medical school*’:ti,ab,kw OR ‘medical student*’:ti,ab,kw) – 425
6. – ‘clinical teach*’:ti,ab,kw OR ‘clinical placement*’:ti,ab,kw OR ‘apprenticeship*’:ti,ab,kw – 10541
1.+2.+6. – (‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw) AND (‘adjust*’:ti,ab,kw) AND (‘clinical teach*’:ti,ab,kw OR ‘clinical placement*’:ti,ab,kw OR ‘apprenticeship*’:ti,ab,kw) – 14
1.+2.+6.+5. – (‘international*’:ti,ab,kw OR ‘acculturation*’:ti,ab,kw OR ‘diversity*’:ti,ab,kw OR ‘foreign*’:ti,ab,kw OR ‘sojourn*’:ti,ab,kw) AND (‘adjust*’:ti,ab,kw) AND (‘clinical teach*’:ti,ab,kw OR ‘clinical placement*’:ti,ab,kw OR ‘apprenticeship*’:ti,ab,kw) AND (‘medical school*’:ti,ab,kw OR ‘medical student*’:ti,ab,kw) – 3
C. Web of Science (Topic + English)

1. – ((TS=(international* OR acculturation* OR diversity* OR foreign* OR sojourn*))) AND LANGUAGE: (English) – 1276802
2. – ((TS=(adjust*))) AND LANGUAGE: (English) – 713375
3. – (TS=(challenge* OR hardship* OR coping*)) AND LANGUAGE: (English) – 975110
4. – (TS=(higher education)) AND LANGUAGE: (English) – 189645
5. – (TS=(medical school* OR medical student*)) AND LANGUAGE: (English) – 72872
6. – (TS=(clinical teach* OR clinical placement OR clerkship* OR apprenticeship*)) AND LANGUAGE: (English) – 63894
7. – (TS=(international* OR acculturation* OR diversity* OR foreign* OR sojourn*)) AND (TS=(adjust*)) AND (TS=(clinical teach* OR clinical placement OR clerkship* OR apprenticeship*)) AND LANGUAGE: (English) – 290
8. – (TS=(international* OR acculturation* OR diversity* OR foreign* OR sojourn*)) AND (TS=(challenge* OR hardship* OR coping*)) AND (TS=(medical school* OR medical student*)) AND LANGUAGE: (English) – 67
Appendix B - NDA

Non-Disclosure Agreement

Discloser: Royal College of Surgeons in Ireland

Effective Date:

Participant:

In order to protect certain confidential information that may be disclosed by the "Discloser" above to the "Participant" above, they agree that:

1. The confidential information disclosed under this Agreement is described as: any information, know-how, or any materials relating to research carried out by the Discloser.

2. The Participant shall use the confidential information received under this Agreement for the purpose of: assessing risk and assuring quality

3. The Participant shall protect the disclosed confidential information by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized use, dissemination, or publication of the confidential information as the Participant uses to protect its own confidential information of a like nature.

4. The Participant shall have a duty to protect only that confidential information which is (a) disclosed by the Discloser in writing and marked as confidential at the time of disclosure, or which is (b) disclosed by the Discloser in any other manner and is identified as confidential at the time of the disclosure and is also summarized and designated as confidential in a written memorandum delivered to the Participant within 5 days of the disclosure.

5. This Agreement imposes no obligation upon the Participant with respect to confidential information that becomes a matter of public knowledge through no fault of the Participant.

6. The Participant does not acquire intellectual property rights under this Agreement except the limited right of use set out in paragraph 2 above.

7. The Discloser makes no representation or warranty that any product or business plan disclosed to the Participant will be marketed or carried out as disclosed, or at all. Any actions taken by the Participant in response to the disclosure of confidential information by the Discloser shall be solely at its risk.

8. The Participant acknowledges and agrees that the confidential information is provided on an AS IS basis, THE DISCLOSER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE CONFIDENTIAL INFORMATION AND HEREBY EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL DISCLOSER BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE PERFORMANCE OR USE OF ANY PORTION OF THE CONFIDENTIAL INFORMATION.

9. Upon the Discloser’s written request, the Participant shall return to the Discloser or destroy all written material or electronic media and the Participant shall deliver to the Discloser a written statement signed by the Participant certifying same within 5 days.

10. The parties do not intend that any agency or partnership relationship be created between them by this Agreement.

11. All additions or modifications to this Agreement must be made in writing and must be signed by both parties.

12. This Agreement is made under and shall be construed according to the laws of the Republic of Ireland.

THE DISCLOSER

Authorized Signature

Name: Paola Della Porta
Title: Associate Director of Research, RCSI

PARTICIPANT

Authorized Signature

Name:
Appendix C – FGD discussion topics

Introduction:
Thank you for participating in this focus group discussion; you are all very welcome. We are studying cultural diversity and its impact on you, the students, during your final years at RCSI. We have already conducted 30 interviews with your classmates, and we have identified certain themes.

Questions
1. How would you describe your interaction with local Irish speakers (staff, patients, or students)?
   a. How does it compare to communicating with someone from your own culture?
   b. Do you understand what they are saying to you?
      i. Language or accent?
         1. Language
            a. Do you understand the language they use “my chest is at me”, etc.
            b. Do you understand Irish slang? How did you learn it?
         2. Accent
            a. Do the Irish students have a hard time understanding accents from other parts of Ireland?
            b. How about other local English speakers?

2. Do you have any difficulty relating to staff, patients, or other students?
   a. Do you understand Irish culture? How did you learn it?
      i. Do you have any Irish friends?
   b. Can you relate to Irish culture? How do you get on with local Irish people?
   c. Are you able to communicate your thoughts freely with confidence?
      i. Why not?
   d. Do you feel that having to speak in English limits your personality?
   e. Do you understand Irish humour? Can you joke with them?

3. Do you feel like you belong in Ireland?

4. Do you notice any discrimination in the clinical setting? From either staff, patients, or students?
   a. Ask the Irish person: What is your take on this? Have you noticed anything in particular?

5. What are your thoughts on how invested the staff are in your education?

6. How do you cope with these challenges?
   a. Why do you use those support structures?

7. What are potential support structures you would like to see implemented?
Appendix D – Key informant theme sheet

Theme 1 – Studying in a multicultural environment:
- How do cultural backgrounds impact students studying in a multicultural environment?
- How does teaching/working in a multicultural setting differ from any other settings?

Theme 2 – Transitioning to the clinical environment
- How do students transition into the clinical environment?
  - What goes well?
  - What goes poorly?
- Any particular characteristics that help or hinder students in the transition?
  - Any particular cohort of students that can be identified with these characteristics?

Theme 3 – student Interaction:
- How do students interact with others during the hospital attachment?
  - Peers
  - Members of the team
  - Nurses
  - Patients

Theme 4 – involvement/teaching
- How actively involved are international students in teaching sessions (tutorials, bedside teaching, etc.)
  - Are there any groups identified as being more involved?
    - Does this affect the participation of other students?
    - Do you think some students prefer this?
  - Does this affect attendance rate?
- How do international students overcome these challenges?
  - Have the students changed themselves / modified behaviour?
- Have the challenges changed over the years?
- Are they any policies in place to help international students?
  - Have you had any training in providing support for a student? (Flynn 2016)
  - What type of training do you think would be useful?

Theme 5 – the impact of culture
- How has this impacted students? (discussed in theme 4)
  - Emotionally
  - Socially
  - Mentally/Physically
- Do you know of any coping strategies students use? (discussed in theme 4)
- Do you know of any support structures currently in place for medical students? (discussed in theme 4)
  - Not just for academics, but for:
    - Mental health
    - Fitness
    - Social outings
Appendix E – Student theme sheet

Theme 1 – Studying in a multicultural environment:
- How do cultural backgrounds impact students studying in a multicultural environment?
- How does teaching/working in a multicultural setting differ from any other settings?

Theme 2 – Transitioning to the clinical environment
- How do students transition into the clinical environment?
  - What goes well?
  - What goes poorly?
- Any particular characteristics that help or hinder students in the transition?
  - Any particular cohort of students that can be identified with these characteristics?

Theme 3 – student Interaction:
- How do students interact with others during the hospital attachment?
  - Peers
  - Members of the team
  - Nurses
  - Patients

Theme 4 – involvement/teaching
- How actively involved are international students in teaching sessions (tutorials, bedside teaching, etc.)
  - Are there any groups identified as being more involved?
    - Does this affect the participation of other students?
    - Do you think some students prefer this?
  - Does this affect attendance rate?
- How do international students overcome these challenges?
  - Have the students changed themselves / modified behaviour?
- Have the challenges changed over the years?
- Are they any policies in place to help international students?
  - Have you had any training in providing support for a student? (Flynn 2016)
  - What type of training do you think would be useful?

Theme 5 – the impact of culture
- How has this impacted students? (discussed in theme 4)
  - Emotionally
  - Socially
  - Mentally/Physically
- Do you know of any coping strategies students use? (discussed in theme 4)
- Do you know of any support structures currently in place for medical students? (discussed in theme 4)
  - Not just for academics, but for:
    - Mental health

□ Any specific ones for international students?
□ Do students avail of these support structures?
- Fitness
- Social outings

- Any specific ones for international students?
- Do students avail of these support structures?
STUDY TITLE: MAKING THE MOST OF CULTURAL DIVERSITY AT RCSI

Before you decide whether or not you wish to take part in this study, you should carefully read the information provided below.

PURPOSE AND FOCUS OF THE RESEARCH

Overseas students moving from home to study medicine at RCSI experience the adjustment to the new culture and new life differently. For many, it is their first time to live in a different culture to their own and for some, Dublin and Ireland is a very different cultural experience to what they are used to. As well as having to come to terms with a new culture, starting to study Medicine – often when English is not your first language - there is a huge transition, especially for those who have come straight from school. The impact of living away from families and friends in a different culture, as well as starting to study in a medical school that has a huge diversity of students with different ways of behaving and communicating should not be underestimated. The experiences of medical students, both positive and negative, will undoubtedly have major effects on what and how they learn; and thereby on their knowledge, skills and attitudes as doctors. As they progress through their years of study more adjustments need to be made. One of the major adjustments is the transition to the clinical setting.

This phase of the study explores the adjustment (positive and negative) of RCSI students during the clinical years of medical school from the perspective of SC2 students and how this impacts their social, personal and emotional adjustment. We are particularly interested in how the students’ different cultural background impacts this experience.

The objectives of this study are:

- To identify and clarify challenges facing cohorts of students at all stages of the medical school programme and build on existing supportive mechanisms.
- To assist the College in further development of student welfare policies and provision of support to address identified student needs to optimise the RCSI experience for students.
- To further inform staff training.

Specifically, this phase of the study is looking at the transition of RCSI medical students to the clinical environment of the medical programme.

It is anticipated that the research will positively influence student induction programmes and teaching strategies for future RCSI students, but no definitive claims can be made in that regard, particularly at this early stage of the research process.

WHO IS ORGANISING AND FUNDING THE STUDY?

Senior staff from the Institute of Leadership and Faculty of Medicine and Health Sciences wish to work with interested students to undertake research in 2016/2017 to better understand the issues that arise due to cultural diversity in the RCSI student body. The study is being
conducted as part of a MSc study by a researcher (Dr Deepak Karivelil) in the Faculty of Medicine and Health Sciences at the Royal College of Surgeons in Ireland (RCSI), under the supervision of Dr Alice McGarvey (Faculty of Medicine and Health Sciences) and Dr Elaine Byrne (Institute of Leadership).

WHAT WILL THIS INVOLVE FOR YOU?
This study will take place between September 2016 and June 2017. Students and key informants from RCSI from different cultural backgrounds will be interviewed. We are asking you to participate in this research by answering some questions in an individual interview conducted by a trained RCSI medical student, which will last up to one hour, depending on your availability. This could be face-to-face or over the phone, depending on what is most convenient for you. We are interested to learn about your personal experience of studying at RCSI and working in Ireland in a clinical setting. Learning about your experiences of orientation and adaptation and your ongoing experiences of studying in Ireland, working in a Western European clinical setting, will be an important dimension of this research. Please carefully note the following:

- Your decision to participate is strictly voluntary, and you may decline to participate without giving any reasons at any time during the interview.
- If you are having difficulty in terms of language it can be arranged for the interview to take place in your mother tongue and translated to English at a later date.
- You are free to withdraw at any time, without providing a reason. Non-participation or withdrawal will be treated as a confidential action with no consequence for you.
- The interview will be audio-recorded and transcribed if you allow us to do so. All research notes will be kept confidential and information relating to your identity will not be linked to the transcripts.
- You are not waiving any legal claims or rights because of your participation in this study.
- You will not receive payment for your participation in the research.
- At the end of the interview we will ask you if we can contact you again should we need to seek clarification or to build upon points raised in the interview.

You have the right to review the transcript at a later date for clarification, to add to the transcript, or to indicate that part or all of it should not be used. If you wish to avail of this option, please tell me at the end of the interview, and your transcript will be made personally available to you.

Once the interviews have been transcribed and approval received from you if requested, the recording will be destroyed and the transcripts will be pseudonymised and stored securely for seven years before being destroyed. All information held by us will be protected by EU data protection and data handling laws and guidelines. This study has been approved by the Royal College of Surgeons in Ireland Research Ethics Committee.

CONTACTS AND QUESTIONS
Should you have any questions relating to the research, please contact us:
Elaine Byrne: Tel: +353-1-402 2183; Email: elainebyrne2@rcsi.ie
Alice Garvey: Tel: +353-1-402 2342; Email: amcgarvey@rcsi.ie
Deepak Karivelil: Tel: +353-1-(0)833253060; Email: deepakkarivelil@rcsi.ie

Thank you for your time and your interest in the study

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Appendix G – Consent Form

PARTICIPANT CONSENT FORM

Study title: Making the Most of Cultural Diversity at RCSI

PLEASE TICK THE APPROPRIATE ANSWER

Have you read the Research Information Sheet? Yes  No

Do you understand that this interview may be used as data in publications and subsequent research? Yes  No

Do you understand that your identity will remain confidential at all times? Yes  No

Do you agree that the interview will be recorded and transcribed? Yes  No

Do you understand that you will have an opportunity to receive a copy of your transcript, and that you can add to it or to request that some or all of it is not used in the analysis? Yes  No

Do you understand that the recording of the interview will be destroyed after transcription and that the transcripts will be securely stored for 5 years and then destroyed? Yes  No

Do you understand that you are free to withdraw from the study?
• At any time Yes  No
• Without giving a reason for withdrawing Yes  No
• Without personal consequence Yes  No

Have you had an opportunity to ask questions and discuss the study? Yes  No

Have you received satisfactory answers to all your questions? Yes  No

Do you understand all the information provided? Yes  No

Have you been given a copy of the Study Information Sheet and Consent Form for your records? Yes  No

Do you agree to take part in the study? Yes  No

Participant ___________________________ ___________________________

Signature and dated Name in block capitals
To be signed after the interview

Do you agree to still agree to take part in the study? Yes No

Participant ___________________________ ___________________________

Signature and dated Name in block capitals

To be completed by the researcher:

I the undersigned, have taken the time to fully explain to the above participant the nature and purpose of this study in a manner that (s)he could understand. I have invited the participant to ask questions on any aspect of the study that concerned them.

__________________                          ___________________                          ___________________
Signature Name in block capitals Date

Study contact details

Elaine Byrne: Tel: +353-1-402 2183; Email: elainebyrne2@rcsi.ie
Alice Garvey: Tel: +353-1-402 2342; Email: amcgarvey@rcsi.ie
Deepak Karivelil: Tel: +353-1- (0)833253060; Email: deepakkarivelil@rcsi.ie
Appendix H - Survey
Cultural Diversity Research Survey

Demographics

1. What is your mother’s mother tongue?
   - English
   - Irish
   - Cantonese
   - Hindi
   - Arabic
   - Other (Please specify)

2. What is your father’s mother tongue?
   - English
   - Irish
   - Cantonese
   - Hindi
   - Arabic
   - Other (Please specify)

3. What is your own mother tongue?
   - English
   - Irish
   - Cantonese
   - Hindi
   - Arabic
   - Other (Please specify)
4. What other language(s) are you fluent in? (Please select all that apply)

☐ English  ☐ Tamil
☐ Irish  ☐ Malay
☐ Cantonese  ☐ Iban
☐ Hindi  ☐ Kadazan
☐ Arabic
☐ Other (Please specify)

5. Did you speak mainly English at home when growing up?

☐ Yes
☐ No

6. Do you speak a language other than English most of the time off-campus?

☐ Yes
☐ No

7. Please indicate which countries' citizenships you currently possess or have ever possessed (Please select all that apply).

☐ American  ☐ Iranian
☐ Australian  ☐ Iraqi
☐ Bahraini  ☐ Irish
☐ British  ☐ Kuwaiti
☐ Canadian  ☐ Malaysian
☐ Chinese  ☐ Qatari
☐ Indonesian  ☐ Saudi
☐ Other (Please specify)

8. What cultural ethnic group do you most identify with?

9. What was your age in years on 1 February, 2017?


10. What is your marital status?
- Single
- Married or single with partner
- Divorced or separated
- Partner deceased

* 11. Do you have children?
- Yes
- No
12. How many children do you have?

* 13. Are any of your children living with you in Ireland?
   - Yes
   - No
14. How difficult or easy has it been to obtain satisfactory child care?

- Extremely difficult
- Quite difficult
- Fairly easy
- Quite easy
- N/A

15. Are you using the RCSI childcare support offered?

- Yes
- No
16. Before studying at RCSI have you lived in a multi-cultural environment (mixing with more than one nationality)?

- Yes
- No

17. With respect to religious beliefs which group if any, would you be most associated with?

- Christianity
- Islam
- Hinduism
- Buddhism
- Judaism
- Atheism
- Agnosticism
- None
- Other (Please specify)

18. What are your current living arrangements?

- Live alone
- Live with friend(s) who are not RCSI students
- Live with family member(s)
- Live with friend(s) who are RCSI students
- Live with partner
- Other (Please specify)
19. Please rate your level of agreement with the following statement:

(1 being Strongly Disagree and 9 being Strongly Agree)

I am getting along very well with my roommate / house mate.
20. What is your sex?

- Male
- Female

21. What program did you start in?

- MCP (Tralee)
- 6 Year
- 5 year
- GEM

22. Did you complete a graduate course (after high school) before starting RCSI?

- Yes
- No

23. Did you work full-time (40h/week, 46weeks/year) before starting at RCSI?

- Yes
- No

24. How many days per week do you communicate with your family members?

- Less than 1
- 1
- 2 - 3
- Almost every day
- N/A

25. Please rate your level of agreement with the following statement:
(1 being Strongly Disagree and 9 being Strongly Agree)

I agree that RCSI facilitates me in the practice of my religious beliefs.
26. Please rate your level of agreement with the following statement:

(1 being Strongly Disagree and 9 being Strongly Agree)

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<td>I practice my religion regularly.</td>
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27. In relation to communication, please rate your level of agreement with the following statements:

(1 being Strongly Disagree and 9 being Strongly Agree)

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<td>In between classes I usually speak to other students in my mother tongue (includes English)</td>
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<td>In between classes I usually speak to other students in English.</td>
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<td>I feel confident using English in an academic setting.</td>
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<td>I feel confident using English in a social setting.</td>
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<td>I feel confident asking a patient to rephrase what they said when I do not understand them.</td>
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<td>I feel inhibited when speaking English with staff.</td>
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<td>I feel confident asking staff (consultant, reg, SHO, intern, clinical tutor) to rephrase what they said when I do not understand them.</td>
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<td>I feel competent with “non-verbal communication” (body language) with members of my host country.</td>
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28. When speaking in English do you translate it to another language in your head?

- [ ] Never
- [ ] Only for academic English
- [ ] Only for social English
- [ ] All the time
29. What kind of second level school(s) did you attend? (Please select all that apply)

- Boarding school
- Day school
- English education school (IBs / A levels)
- Irish School (Leaving Certificate)
- Public / government school (with own national language)
- Private school (with own national language)
- North American school (SATs, MCATS)
- Same sex
- Coed
- Other (Please specify)

30. What country(ies) did you attend second level school in? (Please select all that apply)

- America
- Australia
- Bahrain
- United Kingdom
- Canada
- China
- Indonesia
- Iran
- Iraq
- Ireland
- Kuwait
- Malaysia
- Qatar
- Saudi Arabia
- Other (Please specify)

31. Was your second level education through English?

- Yes
- No

32. Please rate your level of agreement with the following statements:

(1 being Strongly Disagree and 9 being Strongly Agree)

Upon entering RCSI, my friend circle was culturally diverse.

Currently, in RCSI, my friend circle is culturally diverse.
33. In relation to the transition into the clinical year, please rate your level of agreement with the following statements:

(1 being Strongly Disagree and 9 being Strongly Agree)

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<th>Statement</th>
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<th>N/A</th>
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<tbody>
<tr>
<td>I have a hard time communicating with patients because I don't understand Irish culture and slang.</td>
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<tr>
<td>I feel that staff are not as warm to students who do not share the same cultural background as them.</td>
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<tr>
<td>I feel that patients are not as warm to students who do not share the same cultural background as them.</td>
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<td>I feel as though I am graded fairly in practical evaluations when compared to Irish students.</td>
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<td>I feel as though I am graded fairly in the WRITTEN component of exams when compared to Irish students.</td>
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Cultural Diversity Research Survey

34. Please rate your level of agreement with the following statements:

General

(1 being Strongly Disagree and 9 being Strongly Agree)

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<th>Statement</th>
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<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>I know why I am in the RCSI and what I want out of it.</td>
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<tr>
<td>I have adjusted well at RCSI.</td>
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<tr>
<td>I am pleased about my decision to go to medical school.</td>
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<tr>
<td>I am pleased about my decision to come to this medical school in particular.</td>
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<td>Getting a medical degree is important for me now.</td>
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<tr>
<td>Lately I have been having doubts about the value of a degree in medicine.</td>
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<tr>
<td>I have been lonely a lot at RCSI lately.</td>
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<tr>
<td>I feel I am very different to other students at RCSI in ways that I do not like.</td>
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<tr>
<td>Most of the things I am interested in are not related to any of my course work at RCSI.</td>
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<tr>
<td>It is of value to maintain my own cultural values and characteristics while studying at RCSI.</td>
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<td>Homesickness is a source of difficulty to me now.</td>
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<td>I previously suffered from homesickness.</td>
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<tr>
<td>I am happy with the way I adjusted to living in Ireland.</td>
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<td>On balance, I would rather be at home than here.</td>
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<tr>
<td>Other people’s clothing styles disturb me.</td>
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</table>
35. Please rate your level of agreement with the following statements:

**Academic**

(1 being Strongly Disagree and 9 being Strongly Agree)

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</thead>
<tbody>
<tr>
<td>I have been keeping up to date with my academic work.</td>
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<td>I am finding academic work at RCSI difficult.</td>
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<td>I have not been functioning well during exams.</td>
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<td>I am satisfied with the level I am performing at clinically.</td>
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<tr>
<td>I am satisfied with the level I am performing at academically.</td>
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<tr>
<td>I am working as hard as I should at my course work.</td>
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<tr>
<td>My academic goals and purposes are well defined.</td>
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<td>I am not really smart enough for the academic work I am expected to do now.</td>
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<tr>
<td>I have not been very efficient in the use of my study time lately.</td>
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<td>I have not had much motivation to study lately.</td>
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<td>I am not doing well enough academically for the amount of work I put in.</td>
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<td>I attend ward rounds and clinics regularly.</td>
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<tr>
<td>I attend clinical teaching regularly.</td>
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<td>I am enjoying academic work at RCSI.</td>
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<td>I am satisfied with my rotations until now.</td>
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<td>I am satisfied with the teachers I have in my courses.</td>
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<tr>
<td>I am quite satisfied with my academic situation at RCSI.</td>
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<td>I am happy with the training I have received in communication skills.</td>
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<tr>
<td>I am happy with the training I have received in communication skills for cultural competence.</td>
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<tr>
<td>I have received adequate feedback for communication skills.</td>
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</table>
Recently I have had trouble concentrating when I try to study.

I am comfortable shaking hands with patients of the opposite sex.

I am comfortable examining patients of the opposite sex.
36. Please rate your level of agreement with the following statements:

Social

(1 being Strongly Disagree and 9 being Strongly Agree)

<table>
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<tr>
<th>Statement</th>
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<tbody>
<tr>
<td>I feel that I fit in well as part of the RCSI environment.</td>
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<tr>
<td>I am meeting as many people and making as many friends as I would like at RCSI.</td>
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<tr>
<td>I am very involved with social activities at RCSI.</td>
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<td>I have had informal personal contacts with RCSI staff.</td>
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<td>I have several close ties at RCSI.</td>
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<td>I am satisfied with the extracurricular activates available at RCSI.</td>
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<tr>
<td>I am satisfied with the extent to which I am participating in social activities at RCSI.</td>
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<tr>
<td>I am quite satisfied with my social life at RCSI.</td>
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<tr>
<td>I am quite satisfied with my social life outside of class.</td>
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<tr>
<td>I feel like I have enough social skills to get along in the RCSI setting.</td>
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<tr>
<td>I am having difficulties feeling at ease with other people at RCSI.</td>
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<tr>
<td>I have some good friends at RCSI with whom I can talk about any problems I may have.</td>
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<td>I am a member of RCSI clubs/societies.</td>
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<tr>
<td>It is of value to develop relationships with students of other cultural backgrounds while studying at RCSI.</td>
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<td>I would prefer if there were fewer of my own nationality in the class.</td>
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<tr>
<td>I find Irish people friendly and approachable.</td>
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<td>Over consumption of alcohol by my friends makes me uncomfortable when I am out with them.</td>
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<td>During college breaks it is difficult for me to contact other students.</td>
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</table>
Outside of clinical teaching (wards, clinics, lectures, tutorials) I have regular social contacts with students from my own cultural background.

Outside of clinical teaching (wards, clinics, lectures, tutorials) I have regular social contacts with students from backgrounds other than my own.

Outside class I have regular contacts with students who are not from Ireland.

I am satisfied with life outside class.

I am comfortable with people of the opposite sex sitting close to me.

It is against my culture to mix/be friends with the opposite sex.

I am comfortable shaking hands with people (staff, friends, public) of the opposite sex.

I will not attend an event if there is alcohol present in the same venue.

I will only attend a social event if there is alcohol present.

I would prefer women only or men only events.

I feel as though people judge me based on my appearance.

From a cultural perspective, I am comfortable with my attire in the operating theatre.

From a cultural perspective, I am comfortable with my attire on the wards.
37. Please rate your level of agreement with the following statements:

Perception

(1 being Strongly Disagree and 9 being Strongly Agree)

<table>
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<tr>
<th>Perception</th>
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<tbody>
<tr>
<td>I think that my acquaintances/friends have a good perception/image of the RCSI teaching staff.</td>
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<td>I think that the general public has a good perception of the RCSI teaching staff.</td>
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<td>I think that the employers have a good perception of RCSI.</td>
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<tr>
<td>I would recommend RCSI to friends and acquaintances.</td>
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<td>My close friends encourage me to stay at RCSI.</td>
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<td>My family encourages me to stay at RCSI.</td>
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<tr>
<td>My family approves of my attendance at RCSI.</td>
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38. In relation to challenges in clinical years, please rate your level of agreement with the following statements:

(1 being Strongly Disagree and 9 being Strongly Agree)

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<th>Statement</th>
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<th>N/A</th>
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<tbody>
<tr>
<td>I am very familiar with the Irish healthcare system (ex: medcards, private/public healthcare, etc.) when interacting with patients and staff.</td>
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<td>I feel as though the large student volume has a positive effect on the quality of my education.</td>
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<td>I feel as though I get enough attention from clinical staff (Intern, SHO, reg, consultant) in terms of teaching.</td>
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<td>Facilities are available to allow me to practice my religion on clinical rotations.</td>
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<td>I find the clinical years at RCSI to be very well structured.</td>
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<td>It is made very clear to me what is expected from each rotation.</td>
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<td>I am able to appropriately balance my time between wards, clinics, teaching sessions, and personal study time.</td>
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<td>I find self-directed learning during the clinical years to be more challenging than lecture style teaching during the first few years.</td>
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<td>I find travel within Dublin via public transport to be challenging.</td>
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<td>I get lonely as a result of the amount of work I have to do during the clinical years.</td>
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</table>
39. Please rate you level of agreement with the following:

I am positively affected by the following when away on peripheral rotation:

(1 being Strongly Disagree and 9 being Strongly Agree)

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<th>7</th>
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<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>New travel partners</td>
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<td>B&amp;B living arrangements</td>
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<td>Transport to peripheral sites</td>
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<td>Access to food of my choice</td>
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</table>
Cultural Diversity Research Survey

Going through the clinical years
40. In relation to going through the clinical years, please rate your level of agreement with the following statements:

(1 being Strongly Disagree and 9 being Strongly Agree)

<table>
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<th>1</th>
<th>2</th>
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<th>9</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has improved my professionalism.</td>
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<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has made me more resilient.</td>
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<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has made me more culturally aware.</td>
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<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has improved my use of the English language in a social sense.</td>
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<tr>
<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has improved my use of the English language in an academic sense.</td>
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<tr>
<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has improved my self-directed learning.</td>
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<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has improved my social and communication skills with Staff (Inter, SHO, reg, consultant).</td>
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<tr>
<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has improved my social and communication skills with patients.</td>
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<tr>
<td>Going through the clinical program (IC3/SC1/SC2) at RCSI has improved my social and communication skills with peers.</td>
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<td>I feel comfortable approaching patients to take their histories.</td>
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<td>I feel as though the members of the team (Intern, SHO, Reg, Consultant) are invested in my education.</td>
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<td>I feel as though consultants and members of the team listen to and appreciate my opinions regarding patient ddx, investigations, and management.</td>
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<td>I am readily able to contact the members of my team (Intern, SHO, Reg, Consultant).</td>
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</table>
41. Please choose one of the following options from the statement below:

I learn best from:

- [ ] Tutorials (SHO/Reg led)
- [ ] Tutorials (Peer led)
- [ ] Lectures
- [ ] Other (Please specify)
* 42. For each of the following college support structures, please select the ones that you have heard of:

- [ ] Academic Success Officer
- [ ] Accommodation service
- [ ] Chaplaincy
- [ ] College counselling service
- [ ] Nightline
- [ ] Online Support Materials (found on RCSI website)
- [ ] RCSI psychiatry services
- [ ] SARA (SSG)
- [ ] SARA Beaumont
- [ ] Mercer Medical Centre
- [ ] Career advice
- [ ] Student engagement and development office
- [ ] Student services
- [ ] Student welfare officers
43. For each of the following support structures, please rate your level of satisfaction with the service:

(1 being Very Dissatisfied and 9 being Very Satisfied)

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<thead>
<tr>
<th>Support Structure</th>
<th>Never used the service</th>
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<td>Academic Success Officer</td>
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<td>Accommodation service</td>
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<td>Chaplaincy</td>
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<td>College counselling service</td>
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<td>Online Support Materials (found on RCSI website)</td>
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<td>RCSI psychiatry services</td>
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<td>SARA (SSG)</td>
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<td>SARA Beaumont</td>
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<td>Mercer Medical Centre</td>
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<td>Student engagement and development office</td>
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<td>Student welfare officers</td>
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44. To cope with challenges which support structure do you use? (Please select all that apply)

- [ ] RCSI Support structures
- [ ] RCSI Students from the same year
- [ ] Self
- [ ] Family/Friends (outside of RCSI)
- [ ] RCSI Students from the same cultural background
- [ ] Other RCSI students
* 45. During your time in Ireland, have you been discriminated against?

- Yes
- No
46. How upsetting was this for you?

- Extremely Upset
- Very Upset
- Somewhat Upset
- Slightly Upset
- Not at all

47. How would you describe the discrimination? (Please select all that apply)

- Physical
- Verbal
- Racial
- Sexual
- Other (Please specify)
* 48. Have you secured a job at this point?

[ ] Yes
[ ] No
49. Are you concerned about securing a job next year?

- [ ] Yes
- [ ] No