Exploring factors that motivate and influence medical students to attend medical school

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Abstract

Introduction: This study explored motivation among a cohort of New Zealand medical students from The University of Auckland. The research questions were: 1) What motivates students to attend medical school? 2) What are the values, beliefs or cultural practices that influence students’ decisions to go to medical school? 3) How do students’ families influence their decisions to go to medical school?

Methods: Twenty medical students from The University of Auckland in Years Two and Five of a Bachelor of Medicine and Bachelor of Surgery (MBChB) degree participated in semi-structured focus group interviews. Two cohorts of medical students were involved, Māori and Pacific Admission Scheme (MAPAS) students, and non-MAPAS students. An interpretive methodology was used, and data analysed using thematic analysis.

Findings: This study found both MAPAS and non-MAPAS students have intrinsic and extrinsic motivation to attend and continue medical school. However, the non-MAPAS students had more individualised motivations to study medicine whereas the MAPAS students were more motivated by collectivism. Family and cultural customs influenced MAPAS students’ motivation to study medicine. Non-MAPAS students were influenced by positive school experiences. Common to both cohorts was the significant influence of family. Non-MAPAS students specified family members’ professions and educational support as influencing factors. In contrast, MAPAS students identified being motivated to study medicine to improve the financial and health situations of their families.

Conclusion: All students have different motivations for attending medical school which is influenced by their culture and environment. Culture encompasses the individual and their family, inclusive of ethnicity, beliefs, values and behaviours. Family plays a crucial role in motivating and influencing students to pursue medicine.

Keywords: Motivation, Medical Students, Culture, Indigenous, Ethnic Minority

Practice Highlights

- Māori and Pacific ethnic groups are underrepresented in the medical workforce in New Zealand.
- Motivation among medical students is influenced by their socio-cultural environment which is inclusive of family, ethnicity, beliefs and values.
- Māori and Pacific, and non-Māori and Pacific, medical students’ motivation is intrinsic that is, out of interest or enjoyment of learning medicine. On the other hand, their motivation is also extrinsic – out of concern for future financial prospects, prestige, and helping others.
- Family and cultural values have an influence on Māori and Pacific students’ motivation and career choice. This may have influenced these students to take on a more collectivist approach in their motivation to pursue a career in medicine.

1. INTRODUCTION

In New Zealand, a great disparity exists between the population requiring health care and the population providing health care. Māori (indigenous New Zealanders) and Pacific minority ethnic groups are grossly over-represented in poor health outcomes across
life expectancy, morbidity, and mortality (Ministry of Health, 2014; Robson & Harris, 2007). The current underrepresentation of Māori and Pacific professionals within the health workforce continues to contribute to these disparities and undermines the efforts of achieving health equity. According to Curtis, Townsend and Airini (2012), Māori make up 15% of the New Zealand population but only 2.6% of doctors, while Pacific people are 7% of the New Zealand population but only 1.6% of doctors. The underrepresentation of indigenous and ethnic minority group health professionals has implications for diversity of health care delivery (Health Workforce Advisory Committee [HWAC], 2006), the processes and outcomes of health care (Smedley, Sith, & Nelson, 2003) and addressing the future health needs of these communities (HWAC, 2006).

The shortage of indigenous and ethnic minority health professionals is not specific to the New Zealand context but is mirrored across the world. Addressing this shortage remains a challenge as the causes are multifactorial and associated with a range of social, cultural, financial, demographic, and academic barriers that can impact on the recruitment and retention of students (Acosta & Olsen, 2006; Curtis & Reid, 2013; Hollow, Davis, Patterson, Olsen, & Baldwin, 2006; Omeri & Ahern, 1999; Thompson, Miller, Thomson, & Dresden, 1993; Zuzelo, 2005). Therefore, to increase the number of Māori and Pacific students studying medicine it is essential to support them in two ways: 1) when they are preparing to enter university and, 2) when they are accepted into medical school. It is critical that they are provided with recruitment, teaching and learning initiatives that are culturally appropriate, provide culturally safe learning environments, and encourage cohort cohesiveness (Curtis et al., 2012). It is also important to better understand what motivates students to study medicine, so we can educate families, schools, and communities on how best to encourage and support each student to achieve their goals, to become a doctor.

Motivation is a concept that provides insights into what leads people to engage in tasks and can vary in level (i.e., how much motivation) and in orientation (i.e., the type of motivation). Self-determination theory is specifically concerned with examining values, intrinsic motivation, development, motivation across cultures, individual differences, and psychological well-being (Reeve, Ryan, & Deci, 2018). Motivation toward learning can range from a motivation through various forms of extrinsic motivation up to intrinsic motivation, which is a preferred motivational orientation for learning. Orientation in motivation involves the core attitudes and goals that contribute to why an individual participates in an activity (Deci & Ryan, 2000a). It is beneficial to have an awareness of these motivational levels and orientations as it can provide valuable insights and explanations into qualitative aspects of how humans function (Deci, 1992), including an individual’s desire to pursue a particular course of learning or profession such as medicine.

Few studies have examined motivational differences across ethnic groups, in particular at a tertiary level and in medical education (Pintrich & Zusho, 2007; Woolf, Cave, Greenhalgh, & Dacre, 2008). Ethnic-based academic achievement differences have been reported in a medical education context, yet exactly how these ethnic groups differ in motivation is rarely investigated (McMannis, Richards, Winder, & Sproston, 1996; Woolf, Haq, McManus, Higham, & Dacre, 2008). In a review of the literature, Kusurkar, Ten Cate, van Asperen and Croiset (2011) noted motivation among medical students may be influenced by underlying sociodemographic influences. These influences include; age, gender, ethnicity, personality traits, teacher, and parent support. The study acknowledged the significance of the respective cultures and contexts that can influence medical student motivation.

However, research on motivation among medical students remains sparse, with many aspects yet to be further explored – in particular, the ethnic and cultural influences on motivation. Further investigations into this would be beneficial as medical student demographic statistics nationally and internationally have demonstrated wide diversity in ethnic affiliation (Fitzjohn, Wilkinson, Denzil, & Mulder, 2003; Hauer et al., 2008; Woolf, Haq, et al., 2008).

The current study is qualitative and aims to investigate this gap within a New Zealand context by exploring the factors that motivate and influence Māori and Pacific students and how these may differ from non-Māori and Pacific students to attend medical school. Identifying potential differences in motivation may have implications for the recruitment and retention of medical students, curriculum development, teaching and learning methods, and student support services (Lyndon, 2016). The specific research questions were: 1) What motivates students to attend medical school? 2) What are the values, beliefs or cultural practices that influence students’ motivation to attend medical school?

II. METHODS

A. Study Design
This study employed a qualitative approach to research because it focused on participants’ personal perspectives and gathered information on their motivation, values,
and influences with regards to studying medicine. In addition, an interpretive methodology was used to examine the insights, experiences, and opinions of participants (Smith & Osborn, 2004).

The study was primarily concerned with collecting rich, descriptive data from medical students at The University of Auckland (UOA). These students expressed their personal perspectives through words and feelings (Cohen, Manion, & Morrison, 2011) regarding what motivated and influenced them to attend medical school.

B. Study Setting

This study was conducted at UOA which offers a Bachelor of Medicine and a Bachelor of Surgery (MBChB) as a six-year undergraduate programme within the Faculty of Medical and Health Sciences. The medical curriculum consists of five years of study that follow on from a premedical year of health sciences or biomedical sciences. The first phase (Years 2 and 3) is considered the ‘pre-clinical’ phase and has a focus on science within clinical medicine; this is followed by the second phase, which is clinically oriented (Years 4 and 5), and the third phase, which prepares the student for the medical workforce (Year 6).

The Faculty of Medical and Health Sciences developed the Māori and Pacific Admission Scheme (MAPAS) initiative which was specifically designed to increase recruitment and retention of Māori and Pacific students to study in health-related fields (Curtis & Reid, 2013). MAPAS provides preferential admission and academic and pastoral support for students of Māori and Pacific ethnicity wanting to pursue careers in health. Data is collected via a data collection agency working within the University system in accordance with confidential protocols and this data is discussed internally amongst senior University staff. Furthermore, MAPAS supports the transition and retention of MAPAS students through their cultural and educational journey to successfully complete and graduate (The University of Auckland, 2016).

C. Study Participants and Procedures

The participants were medical students at UOA, in Years 2 and 5 of the medical programme and were organised into two groups: MAPAS and non-MAPAS. These year levels were specifically selected to gather a range of perspectives from different phases of the medical school programme: the pre-clinical phase (Year 2) and the clinically oriented phase (Year 5).

Year 2 students were notified via email, an online learning portal, and after a lecture or teaching session over a two-week period in October 2013. Year 5 students were notified through their university email over a one-week period in April 2014. Furthermore, snowball sampling was instigated, and this involved recruiting potential participants from among their acquaintances (Walter, 2006). Twenty students in total volunteered to participate in this study.

Participating students were allocated into focus groups based on their admissions criteria and year of study to distinguish the different groups’ perspectives. Four focus groups were conducted: Students were allocated into MAPAS focus groups (Years 2 and 5), while students entering through all other admission pathways were allocated into non-MAPAS focus groups (Years 2 and 5). The non-MAPAS focus groups included participants of New Zealand, European, Indian, and Sri Lankan ethnic groups.

Focus groups took place at UOA and Middlemore Hospital in a neutral, non-threatening area familiar to the students to ensure they felt comfortable (Drever, 1995). Each focus group interview lasted approximately 60 to 90 minutes.

D. Data Collection Methods

Data were collected through a semi-structured focus group interview process in which the researcher had a set of guiding questions but was flexible with the order they were presented. This allowed the interviewees to speak in more depth on the issues raised (Denscombe, 2014) and enabled interesting and unexpected data to emerge (OLeary, 2014). The focus group interviews in the current study were conducted by study investigators (ML and MH) in a semi-formal manner to build rapport between the researcher and participants (OLeary, 2014) over a light meal. Before starting participants were given a copy of the questions to be used during the focus group. They were asked to work individually and record personal responses to each question. The rationale was to start at an individual level, to “frontload” participants and give them time to think and share individual experiences free from influence or interruption.

Core activities during the focus group were brainstorming, reflection and exchange of ideas and experiences. During the focus groups, the facilitators encouraged participants to talk freely and to discuss the matters with each other to create an open atmosphere, to foster the exchange of individual experiences and thoughts, and to allow questioning and reconsideration through interaction. All focus group discussions were audiotaped and transcribed for analysis.
E. Data Analysis

The primary source of data was the focus group transcripts, which were transcribed by an independent research assistant for analysis.

The interview transcripts were analysed in NVivo in line with a general inductive approach (Thomas, 2006). The purpose of using the general inductive approach was to condense the textual data into summary findings and to establish the links between the research questions and the summary findings. The researcher, and an independent researcher, read through all the data to obtain a general sense of the information and to reflect on its meaning (Creswell, 2014). This was followed by detailed analysis and a coding process where data was organised into nodes (Rossman & Rallis, 2012) then organised under parent nodes. This involved the researchers re-reading through the transcripts, identifying emerging ideas, and extracting and filing segments of text into the appropriate node groups. This process was completed for each transcript, the initial nodes were used to code data, then additional nodes were added when necessary. Finally, all node groups were examined, refined, and grouped into categories then into subsequent themes. Each theme was organised and reported according to two cohorts: students who identify as MAPAS and students who identify with any other ethnic background (non-MAPAS).

The qualitative reliability procedures undertaken in this study involved checking transcripts against audio recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Member checking procedures with focus group recordings to ensure accuracy, cross-checking codes developed by a fellow researcher, and comparing results developed independently (Gibbs, 2007). A final summative check between researchers was performed to verify the trustworthiness of the themes (Creswell, 2014). Other participants reported the challenging nature of studying medicine. One participant discussed how the study of medicine had been “hard work” but the educational process had been rewarding. Another shared a similar sentiment, describing medical school as his “biggest challenge yet”. Participants were also drawn to the academically stimulating nature of medicine; one participant highlighted that “you won’t get bored; you’re always learning... because you’re always going to stretch your mind, there’s always more things to know”.

Both cohorts were motivated by the challenges of medical school and found this engaging. MAPAS students were motivated both intrinsically and extrinsically gaining satisfaction from the challenge of medical school. Studying something academically demanding allowed them to demonstrate their interest in a challenge, pursuit of meaning, and the value of hard work. They were also attracted to the academic nature of medical school and the opportunities it provided. On the other hand, challenge for some non-MAPAS students was extrinsic and likened to a competition to gain qualifications. Similarly, non-MAPAS students liked the exploratory challenges presented and uncovering the unknown. MAPAS students’ comments alluded to intrinsic ideals such as enjoying opportunities to learn, whereas non-MAPAS students discussed extrinsic rewards and tangible outcomes. These findings highlighted the influence cultural and class experiences had on their motivation to go to medical school. MAPAS students stated that they strived for a career, which kept their minds engaged. In contrast, non-MAPAS students were interested in the process of acquisition: knowledge, rewards, grades, achievements, community involvement, and progress, suggesting they strived for tangible rewards they could achieve or attain.

II. RESULTS

Four themes emerged from the transcripts about their motivation. These themes are outlined below according to this study’s research questions.

A. Question One: What Motivates Students to Attend Medical School?

The themes that emerged within question one of this study were 1) stimulation, engagement and interest, and 2) opportunity.

1) Stimulation, engagement and interest: This theme has links with motivational engagement (Valle et al., 2003). Participants uniformly reported an interest in the sciences and the human body, opportunities for continuous learning, the challenging nature of learning medicine and academic stimulation as reasons for attending medical school.

One participant reported that they hoped “to pursue a career that excited me” while others shared that they “wanted to do something interesting” and studying medicine would “fit well with my interests regarding science and health”. Other participants reported the challenging nature of studying medicine. One participant discussed how the study of medicine had been “hard work” but the educational process had been rewarding. Another shared a similar sentiment, describing medical school as his “biggest challenge yet”. Participants were also drawn to the academically stimulating nature of medicine; one participant highlighted that “you won’t get bored; you’re always learning... because you’re always going to stretch your mind, there’s always more things to know”.

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2) Opportunity: This theme considers the potential for learning as an augmentation process influencing career goals and life skills (Billett, 2003). Participants described their thoughts about prospects after medical school, especially their need for employment and financial security. One participant voiced that by becoming a doctor, “you have always got job security, and you have
positive personal implications of this. These findings interested in the financial aspects of medicine and the

Comments included "I know what lack feels like, doing med school will hopefully secure a stable career with good income so I can provide for those around me"; "you can go to any country in the world and it is completely translatable". Along with the flexibility, there is a wide scope for specialisation, including “radiology”, “surgery”, “emergency medicine” and “general practice”.

MAPAS students noted the opportunity medicine provided to look after loved ones and provide security for their families. Many MAPAS students had experienced “going without” material resources and saw the long-term benefits of having a doctor in the family, including the transition towards financial security. They wanted to ensure security for others – most importantly their family. Various students explained their perspectives. Comments included "I know what lack feels like, doing med school will hopefully secure a stable career with good income so I can provide for those around me"; “One of my major motivations was to have a great job that I would enjoy doing the rest of my life that would support my wife and future family” and “It has... been always built into me that it is my job to look after my... younger siblings... I have always felt responsible for them. This is a way that I can look after my family!” It appeared that the MAPAS students’ efforts to be socially responsive and responsible led to more motivation and commitment to completing their qualification successfully.

Both cohorts were motivated by the options, flexibility, and security attending medical school could provide. MAPAS students appreciated the options, freedom of choice, and how a career in medicine would enable them to look after family and provide security for them. Non-MAPAS students appreciated job and financial security. All students liked that they would not have trouble finding work, debt, or making money. MAPAS students were focused on how medicine would allow them to look after others whereas non-MAPAS students were interested in the financial aspects of medicine and the positive personal implications of this. These findings highlight how cultural and class experiences can influence motivation to pursue medical school. They suggest that MAPAS will do what is necessary to provide for their family, whereas non-MAPAS individuals were motivated by striving for accolades in return for their hard work and effort.

B. Question Two: What Are the Values, Beliefs or Cultural Practices That Influence Students’ Decisions to Go to Medical School?

The themes that emerged within question two of this study were 1) values, beliefs and cultural practices, and 2) prestige.

1) Values, beliefs and cultural practices: Participants reported that attending medical school was personally meaningful and congruent with their personal value systems and beliefs. This included making a difference in people’s lives through service and helping others. However, differences in responses were noted by admission criteria. It was primarily MAPAS students that discussed their aspirations surrounding wanting to provide support for their whānau (family). This desire developed from MAPAS students’ personal experiences observing family members either requiring or providing healthcare assistance. For example, one participant stated, “Definitely it was a good motivator, like, helping other people. Helping your own whānau, I didn’t really see it much before I started – but I see it more now, how bad the health issues are within the whānau... So that is quite a big motivator for me”.

For many MAPAS students, the beliefs and values regarding helping others, especially family, also stemmed from culture and upbringing. One student stated, “In my culture, family is a very important foundation. Growing up in a large family I learnt very quickly about servant leadership as well as caring for others”. Another participant spoke of cultural values, saying “Values can be tied in with a lot of tikanga (customs) I learnt as a kid. Things such as manākitanga (care for others), aroha (compassion), were well ingrained by older generations. Me having a big whānau also helped develop responsibility towards helping others”.

Non-MAPAS participants also placed an emphasis on helping people based on their own beliefs and values: “My own belief that it is important to earn skills which benefits others”. Another participant discussed, “I wanted to do something to help people – to have a big impact on their lives as a career”. It is evident that motivation to succeed, and the pursuit of socially
responsible goals, do not function in isolation from each other.

2) Prestige: Another motivating factor, common to both MAPAS and non-MAPAS participants, was the perceived prestige of the medical profession. There was general agreement among participants that medicine is respected, especially within each of their own respective communities, but the associated benefits were for the sake of others rather than themselves. Non-MAPAS students also noted how their prestigious position may be used in a professional capacity to voice concerns of others. A student explained, “I think it is quite nice to know that because people regard you with prestige, you can do a lot with it. You can be a voice for people.” Another non-MAPAS student also noted:

“I think that I will have some prestige as a doctor, but I do not want this for personal benefit but more to use this as an avenue to make change or share my, or others, points of views, as people may listen because I am a doctor and they regard me with prestige.”

Both cohorts were extrinsically motivated acknowledging the notion of prestige. MAPAS students were influenced by prestigious role models and wanted to be role models for others. Similarly, non-MAPAS students liked the idea of being a voice for others. This highlights the importance of role models. Regular interactions with positive role models at home and in professional contexts provide students an example to work towards. In this study, role models provided the students with a sense of having a place of value and importance in the future.

C. Question Three: How Do Students’ Families Influence Their Decisions to Go to Medical School?

The theme that emerged within question three of this study was support.

Both MAPAS and non-MAPAS participants spoke of family influences on their decision to attend medical school because of positive role models and early exposure to the medical profession. One student stated, “My brother did 'med', he is the year ahead of me; seeing other people do it gave me the belief that I could do it”. As a result, participants had opportunities to view and be exposed to life within the medical profession. Such insights influenced students to pursue a career in medicine: “My dad is a ‘GP’ (general practitioner), and my brother is a paediatrician, my mum is a practice nurse... I saw what they did, and I liked it”.

Family members also played a supportive role in participants’ intentions to attend medical school. The majority of participants felt no pressure from family members to attend but were rather supportive after the fact: “My family is supportive of my choice to go into medicine but did not choose this path for me. Going to medical school is entirely my decision but my family has been behind me every step of the way”.

Non-MAPAS students also discussed family members in the medical profession. One student shared, “I’ve got three aunts that are midwives and nurses and I’ve got an uncle who’s a surgeon”. Students noted these family members’ involvement had an influence on their decision to attend medical school, but they did not pressure them: “My parents are both involved in the healthcare system. Both were happy with my choice but never pushed me”.

MAPAS students highlighted other forms of support offered by family that influenced and encouraged them to persevere:

“My family understood my desire to be a doctor from a young age. They nurtured this dream of mine and ensured my choices e.g. subject choices, extra-curricular activities and social commitments throughout life were well balanced and aligned with getting me closer towards my dream of being a doctor.”

“My parents play a huge role. They fund my fees and educational resources.”

MAPAS students not only appreciated the support family provided but wanted to be able to return the support after becoming a doctor. Students shared, “It was just my way of looking after the family”; “I wanted a career in which I could earn lots of money to support my own family”, and “It is my duty to gain skills to better look after, support, protect and help my family and friends”.

“From a young age I wanted to be a doctor and that had stemmed from me wanting to look after my grandparents, having been brought up by them a lot of the time.”

Students noted support from family influenced their attendance at medical school. Support came in many forms including positive role models who led by example, experiences that ignited curiosities, as well as financial support during their time at medical school. MAPAS students described having medical professionals within their families. These family members were positive role models, providing
opportunities to observe and experience life within the medical profession vicariously. Such insights ignited curiosities and influenced students to pursue a career in medicine.

Family members from both cohorts willingly supported students, nurturing their curiosities and encouraging them to pursue their aspirations. Medical professionals in MAPAS families modelled work ethic and commitment: in some instances, what will be expected in the future. Non-MAPAS families modelled career options, free from pressure and expectation. These findings highlight the underlying expectation of Māori and Pacific community members to care and provide for those around them, an added extrinsic motivator. In some instances, the family placed the expectation upon the student; for others, it was adopted by the students themselves.

IV. DISCUSSION

This study investigated factors that motivate and influence students to attend medical school. Identifying these factors is an important step in helping increase the number of indigenous and ethnic minority health professionals.

The first major finding of the study was both MAPAS and non-MAPAS students have intrinsic and extrinsic motivation to attend and continue medical school. However, the non-MAPAS students tended to be motivated by positive experiences at school, and the MAPAS students were motivated by family influences. In the context of Self Determination Theory (Deci & Ryan, 2000b), the non-MAPAS students in this study were intrinsically motivated, engaging in educational experiences out of enjoyment and interest (Deci & Ryan, 2000b). These educational experiences align with students’ interests in further developing, refining, and increasing their knowledge of science-related phenomena. Other literature has also suggested that students pursue medicine because of interest in learning (Salem et al., 2013), science and people (Lempp & Seale, 2006).

In contrast, many of the MAPAS students in this study were extrinsically motivated by their family to attend medical school. These students experienced integrated regulation; behaviour was self-determined and personally important because of the valued outcomes (Deci, Vallerand, Pelletier, & Ryan, 1991). Students wanted to be able to use their medical knowledge to help ill family members and to be financially secure and able to provide for their family in the future. These intentions are likely to relate to cultural values of communitarianism, reciprocity, respect, spirituality, and family (The Ministry of Pacific Island Affairs, 1998).

However, these intentions may also be influenced by other factors, including underlying sociodemographic influences (Korkmaz & Şenol, 2010; Pastor et al., 2009). In New Zealand, disparities in socioeconomic status between Māori and Pacific populations and other New Zealanders persist, and therefore, it is possible these differences may also be present in the medical student population (Marriott & Sim, 2014). Socio-economic factors are thus one pathway through which ethnic differences in motivation may potentially be mediated.

The next major finding of the study was the tension between individualism, collective service and cultural obligation. The non-MAPAS students were encouraged by family to be independent and given educational autonomy to pursue individual interests. The individualistic perspectives of the non-MAPAS students led them to have an independent view, seeing themselves separate from others and defined by their personal traits and characteristics (Hooper, 2015). In contrast, the MAPAS students came from backgrounds where individuals are considered part of a collective, who work together to support each other. This may have influenced these MAPAS students to take on a more collectivist approach in their motivation to pursue a career in medicine. These findings highlight and confirm differences in cultural influences and perspectives. Each perspective is a unique representation of the participants’ circumstances.

Finally, this study identified how familial influences have a significant impact on student motivation and career choice. Family members were alluded to as either role models who inspired students through their actions, examples to learn vicariously from, or authoritarians who specified the direction students must take. With regards to SDT, family members were a source of extrinsic motivation, by motivating students through their actions. However, the type of extrinsic regulation would vary depending on whether students perceived family influences as controlling or autonomy supportive.

The differences in student motivation have implications for recruiting students into medical school. Recruitment schemes must be tailored to suit the various motivational profiles of students. Understanding these motivations can help to customise support initiatives for students (Kusurkar, Croiset, Galindo-Garre, & Ten Cate, 2013). For Māori and Pacific recruitment, a collectivist approach could be used, incorporating their communities in this process, helping them to best support the individual throughout their study so they may remain
motivated, experience success, and return to their community with new knowledge and skills to share. It would also be beneficial to help families, in particular, Māori and Pacific, to understand the importance of their role and how it influences the careers, attitudes, actions, and learning for their children.

A. Future Research Directions
It would be valuable to gain insights on what motivates and influences students from a wider range of ethnicities or cultures to pursue medicine. Perspectives such as age, gender, number of years into medical degree, and relationship status should also be used when considering this data because it is clear from this study that class and culture can influence student perspectives and motivations.

B. Limitations
This study was conducted in a large multicultural university in New Zealand’s largest city. However, this study has limitations. It was conducted at one university using a small sample of students from two cohorts. The semi-structured focus group interviews used only a single set of questions to extract students’ ideas on what motivated and influenced them to attend medical school. The findings of this study may not represent the wider population; therefore, caution must be taken when trying to generalise the results. However, the findings do contribute to the wider conversation about student motivation and influences when pursuing health careers.

V. CONCLUSION
Medical students have intrinsic and extrinsic motivation for attending medical school which can be influenced by their culture and environment. Family and cultural values heavily influenced motivation among MAPAS students. MAPAS students and their families come from collectivist cultures committed to helping others. In contrast, non-MAPAS families helped students become immersed in education and engage in positive learning experiences, which non-MAPAS students found motivating. The common thread throughout this study was the role of family. Family plays a crucial role in motivating and influencing all students to pursue medicine.

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Ethical Approval
Ethics approval was granted by the University of Auckland Human Participants Ethics Committee (UAHEPC 9827).

Funding
No funding is involved for this paper.

Declaration of Interest
There is no conflict of interest.

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